DRAFT ENVIRONMENTAL IMPACT REPORT

Longwood Place

Boston, Massachusetts



SUBMITTED TO

The Executive Office of Energy and Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

PROPONENTS

SCD Pilgrim Road Master Planner LLC
c/o Skanska USA Commercial Development Inc.

PREPARED BY

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99 High Street, 13th Floor
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March 2026

SKANSKA

Skanska USA Commercial Development Inc.
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March 16, 2026

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: Alex Strysky, MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: Longwood Place, Boston – EEA No. 16948
Draft Environmental Impact Report

Dear Secretary Tepper:

On behalf of SCD Pilgrim Road Master Planner LLC, (the "Proponent"), we are pleased to submit this enclosed Draft Environmental Impact Report (DEIR) for the proposed phased re-development of an approximately 5.89-acre site located at 259, 275, 291, 305, 321 Brookline Avenue & 38, 46, 62 Pilgrim Road in the Fenway/Longwood Medical and Academic Area ("LMA") neighborhood of Boston (the "MEPA Project Site"), and is commonly known as the Simmons University Residence Campus ("Residence Campus"). This DEIR evaluates the full build-out of the MEPA Project Site, which includes up to approximately 1.65 million square feet of gross floor area across five buildings of new residential, laboratory/office, medical/clinic uses, community space, retail, below-grade parking and loading, and associated landscape and approximately 2.8 acres of landscape and public realm improvements (the "MEPA Project").

Consistent with the PDA Development Plan's vision, the MEPA Project offers an unprecedented opportunity to redevelop and reinvigorate a gated-off stretch of Brookline Avenue. It reimagines the MEPA Project Site as a vibrant mixed-use neighborhood with much needed housing, including affordable units, innovative workspaces, active retail and community amenities, publicly accessible open space and improved mobility in and through the site.

An Environmental Notification Form ("ENF") was filed with the MEPA Office on April 30, 2025 for the MEPA Project and a Certificate on the ENF was issued on June 13, 2025 by the EEA Secretary. This DEIR is being submitted in response to the comments and requests in the certificate. While the proposed development program has not changed since the ENF, the MEPA Project has advanced in the following ways:

- Increased the amount of green space and reduced the amount of hardscape;
- Refined the MEPA Project's Brookline Avenue frontage and the entrance to the C1 Building to create a more welcoming and accessible public realm;
- Further developed the Short Street multimodal connector and it's termination at Pilgrim Road based on abutter feedback;
- Refined building designs to create a cohesive district while celebrating architectural diversity;
- Progressed the open space design in response to feedback received during the City of Boston's Article 80B Process;
- Further developed the streetscape and intersection improvements associated with the MEPA Project; and
- Identified an additional Bluebikes station on-site for a total of two.

We respectfully request that you publish notice of availability of the DEIR for public review in the March 25, 2026 edition of *The Environmental Monitor*. We look forward to your review of this project. Requests for copies of the DEIR can be directed to Rucha Ragalwar at rragalwar@vhb.com.

Sincerely,

C. Russell DeMartino
Executive Vice President

SCD Pilgrim Road Master Planner LLC
c/o Skanska USA Commercial Development Inc.

Longwood Place

Boston, Massachusetts

SUBMITTED TO **Executive Office of Energy and Environmental Affairs**
100 Cambridge Street, Suite 900 (9th Floor)
Attn: MEPA Office
Boston, MA 02114

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March 16, 2026

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Project Description

SCD Pilgrim Road Master Planner LLC, c/o Skanska USA Commercial Development Inc. (the "Proponent"), is pleased to submit this Draft Environmental Impact Report ("DEIR"), in accordance with the Massachusetts Environmental Policy Act ("MEPA"), Massachusetts General Law ("MGL") Chapter 30, Section 61-62I and the regulations promulgated thereunder set forth at 301 CMR 11.00, for the proposed phased re-development of an approximately 5.89-acre site located at 259, 275, 291, 305, 321 Brookline Avenue & 38, 46, 62 Pilgrim Road in the Fenway/Longwood Medical and Academic Area ("LMA") neighborhood of Boston (the "MEPA Project Site"), and is commonly known as the Simmons University Residence Campus ("Residence Campus").

This DEIR evaluates the full build-out of the MEPA Project Site, which includes up to approximately 1.65 million square feet ("MSF") of gross floor area ("GFA") across five buildings of new residential, laboratory/office, medical/clinic uses, community space, retail, below-grade parking and loading, and associated landscape and public realm improvements (the "MEPA Project").

This chapter provides an overview of the existing and proposed MEPA Project Site conditions, describes the MEPA Project components and any changes made since the ENF, summarizes MEPA Project-related public benefits, and identifies the anticipated permits and approvals. Specifically, as requested in the EEA Secretary's Certificate on the ENF, this chapter provides the following documentation in response to the 'Project Description and Permitting' section of the DEIR Scope with references to specific DEIR sections in **bold**:

- Updated site plans for existing and post-development conditions at a legible scale. **(Figures 1.3 and 1.5)**
- A detailed description of all MEPA Project components. **(Section 1.4)**
- Plans showing existing and proposed site grades and ground-level elevations of all proposed structures at a legible scale while clearly identifying buildings, public areas, open space, impervious areas, pedestrian and bicycle accommodations, roadways, and stormwater and utility infrastructure. Site elevations are provided in relation to the NAVD 88 datum. **(Figures 1.5, 4.2, 5.1, 5.2, 6.1)**
- Description of changes since the filing of the ENF. **(Section 1.4.2)**
- Description of state, federal and local permitting and review requirements associated with the MEPA Project, with an update on the status of each of the pending actions, and a discussion of the MEPA Project's consistency with those standards. **(Section 1.6)**

1.1 Project Vision

The LMA is a 213-acre hub of innovation that is home to twenty-two prominent and prestigious medical, research, educational and cultural institutions that together employ nearly 73,000 workers and educate over 24,000 students.[1] This concentration has created what is considered to be one of the densest clusters of research activity in the nation.

At the same time, the LMA falls short in neighborhood amenities that match its institutional prestige. The sidewalks are narrow, food and beverage options are limited, and while the LMA is bordered in part by the Emerald Necklace, the majority of open space found within the LMA is located inside the fenced campuses of private institutions, all of which compromise the experiences for those living, visiting, working, and studying in the LMA.

The MEPA Project offers an unprecedented opportunity to redevelop and reinvigorate a gated-off stretch of Brookline Avenue to bring innovative workspaces, active community amenities and retail, much needed housing, including affordable housing units, and new publicly accessible exterior open spaces that will create a vibrant and inclusive heart for the LMA and benefit the broader community.

The MEPA Project will connect the LMA with the rest of the dynamic Fenway neighborhood and will improve the urban fabric by providing safe connections and engaging experiences for pedestrians, bicyclists, transit users, and vehicles through a reimagined streetscape and public realm.

The design is guided by the following urban design and transportation goals specific to the MEPA Project Site, the neighborhood, and Imagine Boston 2030, which include:

- Encourage dense, walkable, mixed-use development and public realm improvements within the "mixed-use core" identified by Boston's visionary Imagine 2030 planning document;
- Deliver critically needed housing options for the neighborhood, 20 percent of which will be affordable units currently anticipated to be on-site;
- Transform the MEPA Project's Brookline Avenue public realm with generous sidewalks, vibrant ground floors retail and community space, and new open spaces that activate the street and engage pedestrians;
- Knit stronger connections between two distinct Boston neighborhoods: the LMA and the Fenway; and
- Implement forward-thinking sustainability and resiliency measures.

1.2 Project History and Background

On January 19, 2023, the Boston Planning & Development Agency ("BPDA") approved the Planned Development Area ("PDA") Development Plan No. 134, establishing the development plan for the MEPA Project Site pursuant to Section 3-1A and Section 80C of the Boston Zoning Code (the "Zoning Code"). The PDA Development Plan sets the framework for allowable site uses, density, open space, dimensional restrictions, site access, operations, mitigations and community benefits. On March 29, 2023 the Boston Zoning Commission ("BZC") approved the associated map amendment that included the deletion of the designation "IMP," indicating an Institutional Master Plan Area overlay

1 Longwood Medical and Academic Area Fact Sheet 2024, Longwood Collective

district, from a portion of the area and adding the designation "D," indicating a PDA overlay district to the entire area.

Between March 2021 and January 2023, the Proponent held over 90 meetings with City staff, the City of Boston Impact Advisory Group ("IAG"), the Boston Civic Design Commission ("BCDC"), the public and key stakeholders within the LMA and Fenway neighborhoods to review the PDA Development Plan. As a result of these discussions, the design was substantially reconfigured multiple times during the review process to incorporate feedback from these meetings into the PDA Development Plan. The MEPA Project's design represents a response to feedback that appropriately balanced community priorities with the neighborhood and City's longer range goals and provides critical support to Simmons' continuation as a world-renowned institution.

On March 18, 2025, the Proponent submitted a Project Notification Form ("PNF") to the Boston Planning Department (the "Planning Department") for the initial project components, to initiate review under Article 80B of the Zoning Code. A Supplemental Information Document ("SID") was submitted on February 4, 2026, in response to the City's Request for Supplemental Information ("RSI").

An Environmental Notification Form ("ENF") was filed with the MEPA Office on April 30, 2025, for the MEPA Project and a Certificate on the ENF was issued on June 13, 2025, by the EEA Secretary. This DEIR is being submitted in response to the comments and requests in the certificate.

1.3 Site Context and Existing Conditions

1.3.1 Site Context

The MEPA Project Site is prominently located at the gateway to the LMA neighborhood of Boston along Brookline Avenue, sited a block from the Sears Rotary and the Emerald Necklace, 0.2 miles from the Longwood MBTA T-Stop and 0.4 miles from the heart of the Fenway. The MEPA Project Site is bounded by the Boston University Fenway Campus, residential buildings and Pilgrim Road to the north and west, Emmanuel College and the heavily trafficked Brookline Avenue to the east, and the Winsor School and Short Street to the south. Refer to **Figure 1.1** for the site location and **Figure 1.2** for the site context. Brookline Avenue is a critical corridor that connects the LMA, and Fenway with thousands of pedestrians, cyclists, transit users and drivers.

The existing LMA neighborhood is densely developed with life science and healthcare institutions, college and university campuses and private open spaces, with limited commercial, retail, residential and publicly accessible open spaces. The MEPA Project Site is surrounded on all sides by sidewalks, many of which are minimal in width and do not contribute to a positive pedestrian experience along a long stretch of Brookline Avenue. Public transit includes two existing MBTA/LMA shuttle bus stops adjacent to the MEPA Project Site on the west side of Brookline Avenue. Multiple MBTA Green Line stations along the D, C, and E branches are accessible within a 0.5-mile radius.

1.3.2 Existing Site Conditions

The MEPA Project Site consists of land owned by Simmons University that will be ground leased to the Proponent under a 99-year agreement. **Figure 1.3** illustrates the existing conditions for the MEPA Project Site and **Figure 1.4** presents photographs of the existing site conditions.

The existing MEPA Project site consists of 13 structures which contain approximately 334,200 SF of residential dormitories, dining, and athletic facilities. The facilities are generally in fair to poor conditions The MEPA Project Site is currently surrounded by a fence and is accessible through a series of gates located along Brookline Avenue and Pilgrim Road.

The existing MEPA Project Site includes two small surface parking lots with approximately 28 parking spaces for Simmons staff. The parking lots are accessed via two curb-cuts on Pilgrim Road.

1.4 Project Description

Consistent with the PDA Development Plan's vision, the MEPA Project reimagines the MEPA Project Site as a vibrant mixed-use neighborhood, which will reinvigorate the LMA by introducing active, diverse, pedestrian-friendly, and publicly accessible open spaces, along with programs and infrastructure that enhance safety, access, and mobility in and through the site. The MEPA Project will include approximately 2.8 acres of publicly accessible on-site open space and public realm, and up to 1.65 million SF of GFA, as defined by the Zoning Code, across five buildings of new residential, community space, retail, laboratory/office, medical/clinic uses, below-grade parking and loading, and associated landscape and public realm improvements. Refer to **Figure 1.5** for the proposed conditions plan for the MEPA Project.

Table 1-1 below summarizes the development program for the MEPA Project. (Note: all dimensions are approximate.)

Table 1-1 Project Development Program

Approved Project Uses		MEPA Project
MEPA Project Site Area		5.89 acres
Building Uses[1]		
Residential		340,000 SF
Office/Life Sciences		1,133,100 SF
Medical/Clinic		125,900 SF[2]
Retail		34,000 SF
Community Uses		15,000 SF
	Total GFA:	**1,648,000 SF**
Below-Grade Parking		520 Spaces
Open Space		2.8 Acres[3]

Note: GFA: gross floor area of building, as defined in Article 2A of the Zoning Code and the PDA Development Plan)

1 Represents advancement of the PDA Development Plan at the end of the Proponent's concept design process for the C1, C2 and R1 Buildings. Since the design for C3 and R2 has not been advanced, this DEIR assumes that the allowed uses and building area for those 2 buildings are consistent with the uses and building areas set forth in the PDA Development Plan.

2 In order to best position this MEPA Project to support future market/tenant needs, the Proponent is evaluating the inclusion and impacts of approximately 10 percent of total commercial GFA as medical/clinic space as part of the overall development program, as allowed under the PDA Development Plan. Both the C1 and C2 Buildings are being designed to accommodate potential medical/clinic uses. The exact distribution of that medical/clinic space between C1, C2, or in the C3 Buildings will be dependent on future tenant needs, but will not exceed 10 percent of commercial uses SF.

3 Includes publicly accessible open space and exterior public realm, which is equivalent to approximately 50 percent of the MEPA Project Site (excluding roadways).

1.4.1 Project Components and Uses

The MEPA Project will deliver approximately 1.65 MSF of commercial and residential uses across five buildings with activated ground floors that include a mixture of retail and/or community spaces. Consistent with the PDA Development Plan, parking, service and loading will be provided below grade except for the service and loading activities that must occur at grade pursuant to applicable building codes.

The MEPA Project's uses are envisioned as:

- **Commercial Building 1 ("C1 Building" or "C1")** – laboratory/research and development, office, medical/clinic, retail, accessory uses and/or community uses;
- **Commercial Building 2 ("C2 Building" or "C2")** – laboratory/research and development, office, medical/clinic, retail, accessory uses and/or community uses;
- **Commercial Building 3 ("C3 Building" or "C3")** – laboratory/research and development, office, medical/clinic, retail, accessory uses and/or community uses;
- **Residential Building 1 ("R1 Building" or "R1")** – residential, retail, accessory uses and/or community uses;
- **Residential Building 2 ("R2 Building" or "R2")** – residential, retail, accessory uses and/or community uses; and
- Parking, loading, and service uses.

1.4.1.1 Commercial Building 1

The C1 Building, located at the intersection of Brookline Avenue and the proposed Mid-Block Street, will include approximately 503,000 SF of GFA over 15 above grade floors. The ground floor of C1 is anticipated to accommodate retail, community space, lobby, back of house, and lab support uses. The upper floors are anticipated to include some or all of the following uses: laboratory/research and development, office, medical/clinic, and accessory uses.

1.4.1.2 Commercial Building 2

The C2 Building, located along the western edge of the MEPA Project Site at the intersection of Pilgrim Road and the proposed Mid-Block Street, will include approximately 335,000 SF of GFA over 13 above grade floors. The ground floor of C2 is anticipated to accommodate retail and/or community space, lobby, back of house, and lab support uses. The upper floors are anticipated to include some or all of the following uses: laboratory/research and development, office, medical/clinic, and accessory uses.

1.4.1.3 Commercial Building 3

The C3 Building, located along the eastern portion of the MEPA Project Site at the intersection of Brookline Avenue and the proposed Mid-Block Street will include approximately 460,000 SF of GFA over 17 above grade floors. The ground floor of C3 is anticipated to accommodate retail, community space, lobby, back of house and lab support uses. The upper floors are anticipated to include some or all of the following uses: laboratory/research and development, office, and accessory uses.

1.4.1.4 Residential Building 1

The R1 Building, located along the southwestern edge of the MEPA Project Site at the intersection of Pilgrim Road and Short Street, will include approximately 205,000 SF of GFA over 17 above grade floors containing approximately 227 units. The ground floor of R1 Building is anticipated to accommodate retail and/or community space, lobby, back of house, and residential support uses. The upper floors are anticipated to include residential and accessory uses.

1.4.1.5 Residential Building 2

The R2 Building, located along the southeastern edge of the MEPA Project Site at the intersection of Pilgrim Road and Brookline Ave. will include approximately 145,000 SF of GFA over 14 floors above grade. The ground floor of the R2 Building is anticipated to accommodate retail and/or community space, lobby, back of house and residential support uses. The upper floors are anticipated to include residential and accessory uses.

1.4.2 Changes Since the ENF

While the proposed development program has not changed since the ENF, the MEPA Project has advanced in the following ways:

- Increased the amount of green space and reduced the amount of hardscape within the Main Heart and added a smaller, intimate open space along Pilgrim Road between the R1 and C2 Buildings (the "Pocket Plaza");
- Refined the MEPA Project's Brookline Avenue frontage and the entrance to the C1 Building to create a more welcoming and accessible public realm;
- Further developed the Short Street multimodal connector and its termination at Pilgrim Road based on abutter feedback;
- Refined architectural design to create a cohesive district while celebrating diversity and progressed open space design in response to the city Urban Design staff feedback as part of the Article 80 review process;
- Further developed the streetscape and intersection improvements associated with the MEPA Project; and
- Identified an additional Bluebikes parking station on-site for a total of two.

1.4.3 Site Access and Circulation

Brookline Avenue is a critical corridor in the city of Boston that connects the vibrant and diverse neighborhoods of the LMA and the Fenway with thousands of pedestrians, cyclists, transit users and drivers that visit and pass through these neighborhoods daily. In an effort to improve existing conditions, the MEPA Project's site access and circulation strategy has focused on enhancing existing conditions for all users and fostering a welcoming and accessible "gateway" from the surrounding streets into the MEPA Project Site.

The MEPA Project will include the proposed Mid-Block Street, which will create a new vehicular and pedestrian street that will bisect the MEPA Project Site, connect Pilgrim Road and Brookline Avenue, and provide a safe and accessible pedestrian crossing. The Mid-Block Street will include the garage

access and egress for both passenger vehicles and loading and service vehicles, freeing up Brookline Avenue and Pilgrim Road from disruption of garage entry points. With the construction of the Mid-Block Street, the MEPA Project will deliver a new signalized intersection that will create a new safe pedestrian crossing at Brookline Avenue connecting the MEPA Project to the existing Colleges of the Fenway path. This new road will serve as a prominent entrance into the MEPA Project Site and a front door for the new buildings, creating an open, urban street to welcome building users and the broader community.

Although no new on-street parking is planned, new accessible short-term drop-off areas are proposed to be located along Brookline Avenue, Mid-Block Street and Pilgrim Road. These locations are intended to provide convenience and safety for residents, commercial tenants, and the general public. A new, hybrid lane along the MEPA Project's frontage on Pilgrim Road will also support and improve pick-up/drop-off operations for the Winsor School.

Subject to receipt of the necessary approvals, the MEPA Project will re-design and re-align the intersection of Brookline Avenue and Pilgrim Road by extending the curbs to reduce crossing distances for people walking and biking, reduce vehicle turning speeds, and add new landscaping at this important gateway location.

1.4.4 Parking, Loading, and Service

All on-site parking and all loading and servicing (as permitted by building code) for the MEPA Project will be constructed within a below-grade garage accessible only from the Mid-Block Street, intentionally removing the majority of these activities from the public realm. Only those service and loading activities that must occur at grade pursuant to applicable building codes will occur outside of the below-grade garage.

The MEPA Project will be supported by 520 below-grade parking spaces, to be accessible upon completion of the garage. The parking garage will accommodate Electric Vehicle ("EV") charging stations in accordance with City of Boston guidelines.

In order to reduce the potential for conflicts between passenger vehicles and service vehicles, the MEPA Project proposes two separate garage ramps off of the Mid-Block Street. Service vehicles will utilize a ramp within the C2 Building and passenger vehicles will utilize a ramp within the C3 Building. The majority of the below-grade garage structure is anticipated to be constructed in conjunction with the first building to be delivered in the MEPA Project.

1.4.5 Open Space and Public Realm

1.4.5.1 MEPA Project Open Space

The MEPA Project prioritizes the creation of approximately 2.8 acres of on-site publicly accessible open space and public realm (excluding roadways). The new, publicly accessible open space stretches throughout the MEPA Project and is adjacent to active ground floor uses such as retail, restaurants, cafes, and community space.

A key element of the MEPA Project is the delivery of the "Main Heart," the approximately 34,000 SF open space at the southern edge of the MEPA Project Site along Brookline Avenue envisioned for both active and passive uses. There is a notable absence of publicly accessible open space within the

LMA, and the MEPA Project endeavors to create a new, much-needed town square that will provide a public gathering space and a range of publicly accessible amenities. The Main Heart is envisioned to be bordered by retail and restaurant spaces within the C1 and R1, as well as the Forum, an inviting civic space in the C1 Building.

Between C1 and C2, an active corridor is proposed that will connect the northern and southern halves of the MEPA Project Site (the "Central Connector") and is anticipated to include a variety of design elements such as water features, public art, and/or lighting features, the edges of this space will be activated by the ground floor uses of the C1 and C2 Buildings and will accommodate a range of seating opportunities including flexible furniture zones as well as integrated landscape seating throughout.

At the southwestern edge of the MEPA Project Site between the Winsor School and the R1 Building, the MEPA Project proposes an open space plaza that will draw the character of the Emerald Necklace parks into the MEPA Project Site. The "Riverway Gateway" is designed to integrate with the Short Street to create a new landscaped pedestrian connection between Brookline Avenue and Pilgrim Road. The Riverway Gateway will provide new landscaping and lighting that is designed to be welcoming to the residents, workers and visitors to the MEPA Project Site and LMA.

Within the C1 Building, the MEPA Project proposes a new mid-block urban pass through (the "Vicolo"). The Vicolo will break up the liner frontage of the C1 Building along Brookline Avenue and connect Brookline Avenue with the Connector and the C2 Building, enhancing porosity through the MEPA Project.

Between R1 and C2, and between C3 and R2, the MEPA Project envisions landscaped and hardscaped plazas ("Pocket Plazas") that will provide an accessible place of respite and quiet, as well as seating spaces for interior retail where applicable. The Pocket Plaza between C2 and R1 opens to the more flexible open space near the C1 Forum Space and the Central Connector (the "Forum Hub"). The Forum Hub will allow for events from the Forum to spill out into the landscape during the summer months and create an active node at a critical intersection of the MEPA Project.

The C3 Building proposes an interior public space that will serve as an amenity and accessible passage between the Central Connector and the Passive Green (the "Winter Garden"). The Winter Garden could include landscaping and/or programming to engage the building occupants, residents and the community.

At the intersection of Pilgrim Road and Brookline Avenue the MEPA Project proposes a small, hardscape and landscaped plaza that will invite visitors traveling from The Fenway to experience the MEPA Project (the "Fenway Gateway"). Additionally, along Pilgrim Road the MEPA Project envisions a green space that is buffered from the noise of Brookline Avenue and is intended to support quiet, passive activities (the "Passive Green").

The various MEPA Project-related open spaces are depicted on **Figure 1.5**.

1.4.5.2 Public Realm Improvements

The MEPA Project focuses on creating pedestrian-oriented streets and sidewalks with improved circulation for all modes of movement in the neighborhood. Additionally, the MEPA Project will reinvigorate a long gated-off stretch of Brookline Avenue with retail, publicly accessible open space, indoor public amenities, and streetscape improvements.

The MEPA Project will provide a significantly upgraded streetscape along the MEPA Project's Brookline Avenue frontage, including but not limited to wider sidewalks, street trees, bio retention or planting areas within the furniture zone, lighting, up to two reconstructed bus stops and new shelters, and a separated bike lane. At the southernmost end of the MEPA Project, the MEPA Project will improve Short Street through the construction of a new two-way bicycle path and landscape buffer to create a multimodal corridor with the existing path on the Winsor school property, enhancing the connection between Brookline Avenue and Pilgrim Road (the "Short Street Connector"). The MEPA Project will also deliver multi-modal improvements that enhance pedestrian and bicycle connectivity at the existing signalized intersection at Brookline Avenue and the Beth Israel Deaconess Medical Center driveway. A new Mid-Block Street will be constructed which will create a new vehicular and pedestrian street that will bisect the MEPA Project Site, connecting Pilgrim Road and Brookline Avenue.

The MEPA Project will provide ground floor retail, restaurant and community space fronting public spaces (the Main Heart and the Central Connector) as well as Brookline Avenue. This will enhance pedestrian activities within and around the MEPA Project Site and provide amenities for local community that are currently only available outside of the LMA.

1.4.6 Project Schedule and Phasing

As shown in **Figure 1.5,** the MEPA Project is anticipated to be constructed in phases spanning an approximate 5 to 10 years from the start of construction. Construction of the MEPA Project can begin after the completion and occupancy of the new Simmons Living and Learning Center on the Simmons Academic Campus, which allows the existing uses on the MEPA Project Site to be relocated. The first quarter of 2027 is the earliest that the Proponent anticipates commencing construction of the MEPA Project.

The C1, C2, and R1 Buildings and the below-grade garage are currently undergoing Article 80B Large Project Review with the City of Boston. The C3 and R2 Buildings will be included in future Article 80B Large Project Reviews. Ultimately, the timing and order of the buildings constructed as part of the MEPA Project will be determined by market and financing conditions.

It is anticipated that each building or buildings will include portions of the exterior public realm to provide open space and community amenities for the neighborhood throughout the phased development of the MEPA Project. As each of the buildings are constructed, the MEPA Project will deliver both interim and final condition public realm and open space improvements, seeking to balance public activation with public safety.

1.5 Summary of Public Benefits

1.5.1 Public Benefits

The Proponent is committed to delivering the following public benefits for the surrounding neighborhood and the City as a whole.

Urban Design and Public Realm Benefits

- **New Publicly Accessible On-Site Open Space and Public Realm**: The MEPA Project will provide approximately 2.8 acres of publicly accessible open space and public realm consisting of, but not limited to:
  - The "Main Heart," a publicly accessible open space that breaks up the street frontage along Brookline Avenue and can accommodate both active and passive uses;
  - The "Central Connector," an active movement corridor between C1 and C2 that will also provide connections to the Mid-Block Street;
  - The "Riverway Gateway" between R1 and the Winsor School;
  - The "Front Porch," an exterior gathering space under R1 fronting the Main Heart, activated with a retail backdrop and sheltered by the R1 Building above;
  - The "Vicolo," a new mid-block urban pass through within the C1 Building;
  - The "Pocket Plaza"(s), smaller, intimate open space along Pilgrim Road between R1 and C2, and between R2 and C3; and
  - The "Passive Green," a publicly accessible open space along Pilgrim Road that will provide a place of respite for the public, residents, and workers.
- **Public Programming**: The MEPA Project will provide a mix of active and passive programming throughout the community spaces and open spaces and the Proponent will seek to collaborate with LMA institutions, industry groups, and the community to activate the publicly accessible interior and exterior spaces. The MEPA Project will also allocate spaces within the buildings to support public programming of the exterior spaces , including providing public bathroom access, space for storage, and the appropriate interior storage/infrastructure space. The Proponent will work with EverStreet to further evaluate potential programming opportunities during the design process. The MEPA Project will also include wireless internet for public use in publicly accessible exterior and interior spaces to increase the utility and connectivity of these spaces.

Streetscape and Transportation Improvements

The Proponent will continue to work with the community, Boston Planning Department ("Planning Department"), Boston Transportation Department ("BTD"), and the Massachusetts Bay Transportation Authority ("MBTA"), to reconfigure and improve existing infrastructure to provide safe, comfortable, accessible and engaging streetscapes along Brookline Avenue, Pilgrim Road, Mid-Block Street, and Short Street, which includes but is not limited to the following commitments.

- Pedestrians and Bicyclists:
  - Provide an upgraded streetscape along the MEPA Project's Brookline Avenue frontage, including new, wider sidewalks, lighting, visitor bicycle parking, landscaping, and other amenities.
  - Design and construct a grade-separated bicycle lane along the MEPA Project's Brookline Avenue frontage between Short Street and Pilgrim Road.
  - Construct a new protected, signalized pedestrian crosswalk across Brookline Avenue at Mid-Block Street that aligns with the Colleges of the Fenway pathway.

- Provide a new, hybrid lane along the MEPA Project's Pilgrim Road frontage that can accommodate vehicles that are queuing while waiting to drop-off and pick-up Winsor students, and a new, hybrid lane along the northwest side of Pilgrim Road to accommodate approximately two Winsor athletic buses.
- Re-design and re-align the intersection of Brookline Avenue and Pilgrim Road by extending the curbs to reduce crossing distances for pedestrians and bicyclists, reduce vehicular turning speeds, and add landscaping.
- Improve Short Street through the construction of a new two-way bicycle path and landscape buffer to create a multimodal corridor with the existing pedestrian path on the Winsor School property that connects Brookline Avenue and Pilgrim Road
- Provide improvements to existing signalized intersection at Brookline Avenue and the Beth Israel Deaconess Medical Center driveway including but not limited to an expanded accessible crosswalk and bicycle crossing (lining up directly with the Short Street improvements), and new or relocated traffic, pedestrian, and bicycle signal equipment.
- Locate parking, service and loading below grade, except for those service and loading activities that must occur at grade pursuant to applicable building codes.
- Sponsor and accommodate two on-site BlueBike station for year-round public use.
- At the request of the Boston Fire Department ("BFD"), the Proponent proposes to widen certain sections of Pilgrim Road between Brookline Avenue and Short Street Extension to accommodate a 20-foot clear travel lane (excluding parking and drop-off zones), in accordance with BFD standards. Any proposed modifications to public right of ways will be coordinated with appropriate City departments.

› Passenger and Service Vehicles:

- Construct Mid-Block Street to alleviate neighborhood traffic congestion and provide primary access and egress for passenger cars and service vehicles to and from the MEPA Project, and a connection between Pilgrim Road and Brookline Avenue.

› Public Transit:

- Work with the MBTA and the BTD to relocate and reconstruct up to two existing MBTA/LMA shuttle bus stops adjacent to the MEPA Project Site on the west side of Brookline Avenue with floating bus stops and new shelters.
- Join the Longwood Collective Transportation Management Association ("TMA") and seek to partner with the TMA to improve last mile connections between the MEPA Project Site and nearby MBTA Green Line, Orange Line, and commuter rail services.
- Contribute the greater of $5 per square foot of life science space or $4 million (in aggregate) to help implement area transportation recommendations developed through the Fenway-Kenmore Transportation Action Plan.

Sustainability and Greenhouse Gas Emissions

As a global leader in sustainable construction and development, the Proponent has integrated practices that promote sustainability, including measures to increase energy efficiency, with full electrification of all residential building systems and partial electrification of all lab building systems. Proposed sustainability goals include:

- LEED Certification: The MEPA Project will achieve LEED Gold certification at a minimum for each building for all the office, laboratory, and residential buildings.
- Energy Efficient Commercial Buildings: The commercial buildings will target a 90 percent reduction in building fossil fuel use compared to the Stretch Code baseline by using efficient heat pump technologies (minimum 25 percent heat pump capacity).
- All Electric Residential Buildings: The residential buildings will be all electric/fossil-fuel free for normal operations. Additionally, the R1 Building will be Passive House certifiable.
- Climate Resiliency: The MEPA Project will address climate change resiliency related to more extreme weather by creating publicly accessible open space and public realm, integrating greenery, trees, green infrastructure, shading structures, and materials with high solar reflectance, to the extent feasible, to reduce urban heat island impacts and improve stormwater management.
- Travel Demand Management ("TDM"): The MEPA Project will implement a robust program of TDM strategies to take full advantage of its multiple mobility options and its synergy with the surrounding neighborhood. The MEPA Project will comply with the City of Boston TDM Points System.
- Stormwater Management: The MEPA Project will improve the quality and quantity of site stormwater runoff compared to existing conditions, including consideration for groundwater recharge in accordance with provisions applicable to the City of Boston Groundwater Conservation Overlay District ("GCOD"). Additionally, the proposed stormwater management systems will comply with the Massachusetts Department of Environmental Protection ("MassDEP") Stormwater Management Policy and Standards.
- Tree Canopy: The MEPA Project is committed to meeting or exceeding the existing total caliper of existing trees on site, replacing unhealthy trees, and saving at least one existing mature tree for potential re-location/re-use.

Community and Public Benefits

In addition to the aforementioned urban design and public realm benefits, streetscape and transportation improvements, and sustainability and greenhouse gas emissions considerations, the Proponent also committed in the PDA Development Plan to provide the following Community and Public Benefits as part of the MEPA Project:

- Parks Mitigation: The Proponent will fund $7 million to create an endowment for use by the Boston Parks and Recreation Department to support the long term needs of the Emerald Necklace. This payment will be made in two installments.
  - In June 2023, the Proponent paid the first installment of $1 million to the BPDA.
  - The second installment of $6 million will be delivered within 30 days after the issuance of a building permit for above grade construction.
- Housing Creation: The MEPA Project is anticipated to deliver approximately 388 new rental units of various sizes to accommodate a diverse array of household types, including 20 percent affordable units currently anticipated to be on-site.

- Community Space and Workforce Development: The MEPA Project dedicates in total approximately 15,000 SF of interior community space within the MEPA Project. To the extent feasible, the community space will be located on the ground-floor of the proposed buildings.
- Employment and Job Creation: The MEPA Project is anticipated to create approximately 5,000 on-site jobs relating to office/R&D/lab, life sciences, residential, retail, and parking uses within the MEPA Project and create approximately 5,000 construction jobs during the build out of the MEPA Project.
- Retail and Small Businesses: Deliver much-needed diverse retail offerings to the LMA, including food and beverage options. The MEPA Project will explore opportunities to partner with local, MBE and WBE retailers.
- Public Arts Program: Sponsor and fund permanent and rotating/short-term art installations throughout the Site by a diverse range of artists. The Proponent will seek to collaborate with local organizations and institutions like the Massachusetts College of Art and Design and the Mayor's Office of Arts and Culture as well as other local institutions in the development and implementation of the installation of art on-site.
- Linkage Payments: The MEPA Project will contribute approximately $15.5 million dollars in housing linkage payments ($13.00/SF) and approximately $2.8 million in jobs linkage payments ($2.39/SF) to the City's Housing and Jobs Trusts respectively.
- Construction Mitigation: Commit to working with abutting property owners prior to commencing construction activities on-site to ensure that a construction management plan is put in place to help minimize disruption to the surrounding neighborhood.

1.6 Regulatory Context

This section lists the anticipated permits and approvals as well as the local planning and regulatory controls applicable to the MEPA Project.

Table 1-2 below presents a preliminary list of anticipated reviews and approvals of the MEPA Project by governmental agencies based on currently available information and their status. As noted by the asterisk, there is the possibility that some of the listed reviews and approvals will not be required, or that additional reviews or approvals that will be required are not listed.

Table 1-2 Anticipated Permits and Approvals

Agency	Permit/Approval
Federal	
Federal Aviation Administration	› Determination of No Hazard to Air Navigation
U.S. Environmental Protection Agency	› National Pollutant Discharge Elimination System Construction General Permit › National Pollutant Discharge Elimination System Dewatering and Remediation General Permit
Commonwealth of Massachusetts	
Executive Office of Energy and Environmental Affairs, MEPA Office	› Review under the Massachusetts Environmental Policy Act
Massachusetts Department of Environmental Protection	› Construction and Demolition Notices › Source Registration for Emergency Generator* › Asbestos Notices*
Massachusetts Historical Commission	› State Register Review, including Demonstration of No Adverse Effect or Memorandum of Agreement
Massachusetts Water Resources Authority	› Sewer Use Discharge Permit*
Massachusetts Department of Conservation and Recreation	› Limited Access Permit**
Architectural Access Board ("AAB")	› Variances from AAB regulations*
City of Boston	
Boston Civic Design Commission	› Review and approval pursuant to Article 28 of the Zoning Code
Boston Planning & Development Agency	› Approval of Planned Development Area under Article 80C of the Zoning Code (approval received January 19, 2023) › Large Project Review(s) under Article 80B of the Zoning Code › Transportation Access Plan Agreement(s)
Boston Zoning Commission	› Approval of Planned Development Area under Article 80C of the Zoning Code (approval received on March 29, 2023)
Boston Transportation Department	› Review and approval of Construction Management Plan(s)
Boston Water and Sewer Commission	› Sewer Extension/Connection Permit › Sewer Use Discharge Permit › Site Plan Approval › Consent to Construction or Easement* › Temporary Construction Dewatering Permit › Cross Connection/Backflow Prevention Approval
Interagency Green Building Committee	› Article 37 Compliance/Climate Resiliency Checklist
Boston Fire Department	› Fuel storage permit
Boston Inspectional Services Department	› Building Permit(s) (Long Form) › Demolition Permit(s) › Certificate of Occupancy
Boston Landmarks Commission	› Review pursuant to Article 85 of the Zoning Code for demolition of existing buildings that are over 50 years old

Agency	Permit/Approval
Boston Public Improvement Commission/Department of Public Works	› License for installation of groundwater monitoring wells › Specific Repair Approvals › Approvals for Projections over public right of way* › Street Layout (as required) › Tieback/Earth Excavation Approvals*
Boston Public Safety Commission, Committee on Licenses	› Parking Garage License › License for Storage of Inflammables
Boston Public Works Department	› Curb Cut Permits › Street Opening Permits › Street/Sidewalk Occupancy Permits
Boston Zoning Board of Appeal	› Building Code variance(s)*
Boston Public Health Commission	› Approval of Bio-safety Level 3 facilities*
Boston Departments & Agencies	› Comments during Article 80B Large Project Review › General operational permits and licenses*

* = If required
** = If required for medical/laboratory gas delivery by future tenant(s)

1.6.1 Federal

1.6.1.1 Federal Aviation Administration ('FAA")

The FAA Obstruction Analysis is conducted for any object that may affect national airspace, navigation facilities, or airport capacity. The Proponent will follow all rules and regulations necessary to remain consistent with this required approval.

1.6.1.2 U.S. Environmental Protection Agency ("U.S. EPA")

The MEPA Project will require coverage under the National Pollutant Discharge Elimination System ("NPDES") Construction General Permit ("CGP") and Dewatering and Remediation General Permit ("DRGP"). The NPDES permit program is intended to manage pollution to Waters of the United States by regulating discharge of pollutants during construction. The Proponent will submit an electronic Notice of Intent ("eNOI") seeking coverage under the CGP and DRGP one month prior to construction start. The EPA NPDES CGP Permit contains requirements related to EPA's Construction and Development Effluent Limitations Guideline and New Source Performance Standards. These standards include Erosion and Sediment Controls; Soil Stabilization; Dewatering; Pollution Prevention Measures; Prohibited Discharges; and Surface Outlets. To comply with these standards during the construction period, the MEPA Project will include installation of erosion and sedimentation controls to protect against discharge of any sediment material into on-site drainage systems. Erosion and sedimentation controls, which may include silt fence and hay bales will be installed along appropriate downgrade portions of the perimeter of the excavated areas to help prevent construction materials from contaminating the storm drainage system. Additionally, in accordance with EPA requirements, a construction phase Stormwater Pollution Prevention Plan ("SWPPP") will be developed to minimize impacts on nearby resource areas from the construction as well as the operation of the MEPA Project. Discharges off-Site associated with groundwater, stormwater and surface water related to site

dewatering, infrastructure dewatering/remediation and material dewatering would be managed under the DRGP.

1.6.2 Commonwealth of Massachusetts

1.6.2.1 Massachusetts Water Resources Authority ("MWRA")

The MEPA Project may require a Sewer Use Discharge Permit(s) from the MWRA to the extent it is required for specific waste discharges by future tenants/users. The specifics of these permits are dependent on the identification of end users for and more detailed design of the laboratory and/or medical spaces. If required, the MEPA Project will comply with all applicable permit conditions and performance standards, upon permit issuance.

1.6.2.2 Massachusetts Historical Commission

The Massachusetts Historical Commission ("MHC") was provided with a copy of the ENF, thereby initiating the Program's review under State Register Review (M.G. L. Chapter 9, Sections 27-27c, as amended by Chapter 254 of the Acts of 1988). Based on their ENF comment letter dated June 2, 2025 it was determined that the MEPA Project will result in an adverse effect to historic properties, consultation with the MHC will continue to identify ways to avoid, minimize, or mitigate these adverse effects. (A copy of this letter is provided in **Appendix G**.) On March 12, 2026, the Proponent responded with the requested alternatives analysis to the MHC and requested consulting parties, specifically: Boston Landmarks Commission (BLC), MWRA, Boston Preservation Alliance (BPA) and Emerald Necklace Conservancy (ENC). A copy of the MHC review correspondence is provided in **Appendix F.** Refer to **Chapter 7, Cultural Resources and Open Space**, for additional information.

1.6.3 City of Boston Development Review

1.6.3.1 Article 80C, Planned Development Area Review

The entire MEPA Project Site is included in Planned Development Area No. 134, and the applicable zoning requirements for the MEPA Project Site are set forth in the previously approved PDA Development Plan that was reviewed, in accordance with Article 80C of the Zoning Code, and approved by the BPDA Board in January 2023 and by the Boston Zoning Commission in March 2023.

The PDA Development Plan sets forth the permitted uses for the MEPA Project, which include all uses currently contemplated and discussed in the PNF. The PDA Development Plan also sets forth the maximum gross floor area, maximum floor area ratio, maximum building heights, parking and loading requirements, open space and public realm requirements, community space requirements, and other development regulations for the MEPA Project Site.

1.6.3.2 Article 80B, Large Project Review

Each building is required to undergo Article 80B, Large Project Review, which includes review of urban design (i.e., building design, landscape and open space design, public realm improvements), as well as study of potential development impacts on the community, taking into account any technical studies already performed for the PDA. The Proponent filed a Letter of Intent ("LOI") with the BPDA

on January 21, 2025, a PNF on March 18, 2025, and a Supplemental Information Document ("SID") on February 4, 2026 for 3 buildings of the MEPA Project (C1, C2, and R1) and the below-grade garage..

BCDC Design Review

The MEPA Project's delivery of over 100,000 SF of new development subjects the MEPA Project to a BCDC review under Article 28 of the Zoning Code. BCDC review is currently ongoing for C1, C2 and R1 Buildings and associated public realm as part of the current Article 80B review process.

1.7 Agency Outreach and Community Engagement

During the PDA Development Plan review process, the Proponent held over 90 meetings with the IAG, abutters, neighborhood groups, community leaders, business owners, elected officials, City and State regulatory agencies, and other stakeholders through an extensive public engagement process to seek input and feedback.

In addition, since the PDA Development Plan was approved, the Proponent has met with the Planning Department and other City staff on multiple occasions to confirm that the current Article 80B components are being developed in a manner that is consistent with the approved PDA Development Plan and City's goals, and that the filings are responsive to their comments. The Proponent is committed to delivering a project that enhances the surrounding community and provides significant benefit to the surrounding neighborhood and the City at large.

The Proponent is committed to ongoing robust community engagement efforts and will continue to meet with the IAG, City and State agencies, elected officials, abutting owners, neighborhood groups, community leaders, business owners, area residents and other stakeholders throughout the review process. In connection with the current Article 80 review process, meetings with the IAG are scheduled for March 9 and 16, 2026 and public meetings are scheduled for March 11 and 18, 2026.

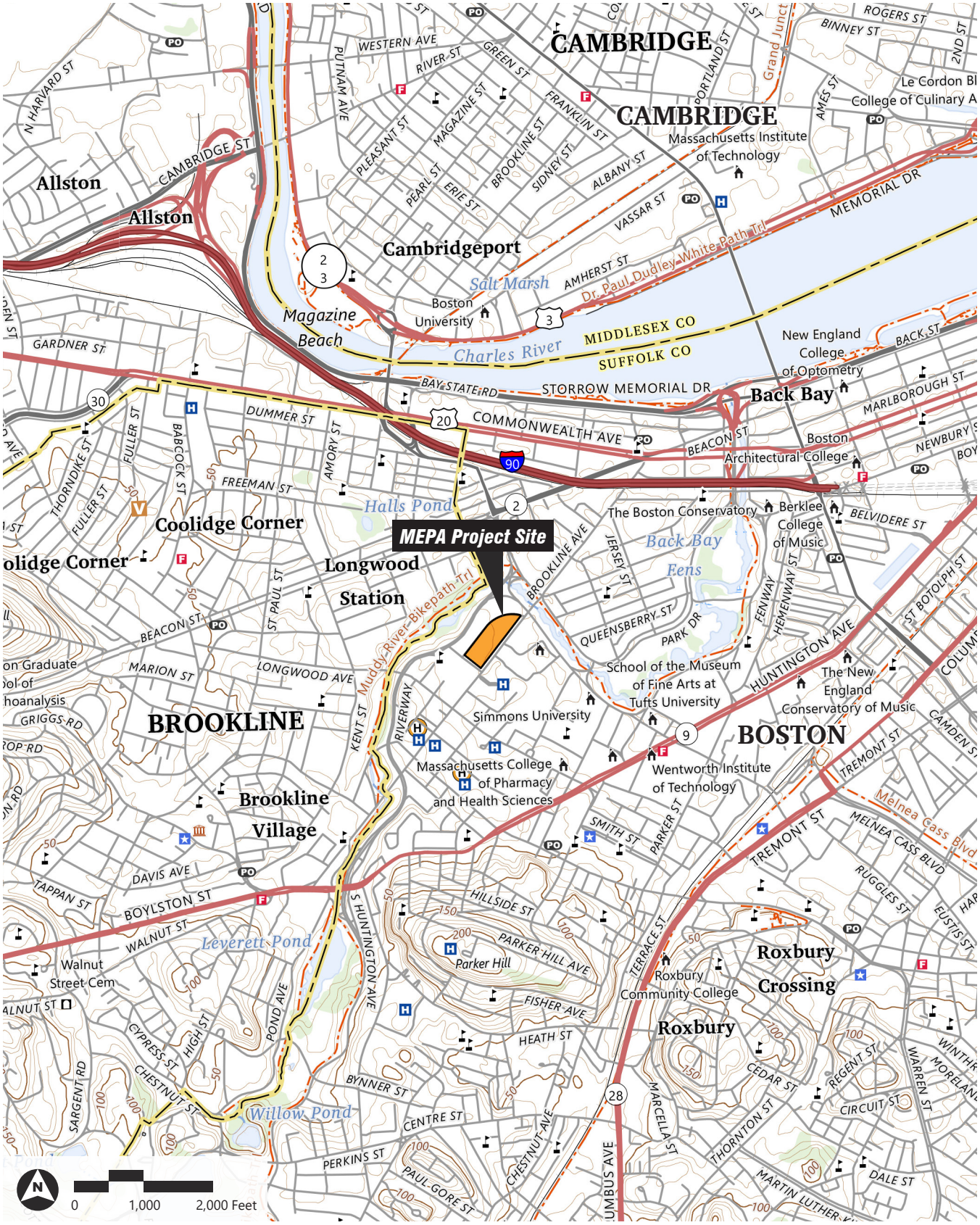
Prior to filing the ENF, the Proponent held an IAG meeting on April 28th 2025, and a Public Meeting on April 30th 2025. After the filing of the ENF, a remote site consultation session was held on May 22, 2025 to gather feedback during the public review period.

The Proponent has met with City of Boston transportation planning and Massachusetts Bay Transportation Authority (MBTA) staff regarding the MEPA Project's transportation analysis and relevant transportation components, to provide more detail on the requested transportation analysis. The project team also prepared a Transportation Impact Analysis (TIA) scope memorandum for the Department of Conservation & Recreation (DCR) to review and provide feedback. A pre-filing meeting was held with the Department of Energy Resources (DOER) to discuss the MEPA Project design and to review the modeling protocol requested by DOER in their ENF comment letter.

The Proponent will examine potential MEPA Project impacts and maintain outreach to community members in EJ areas throughout the MEPA review and development phases to support their participation. Further details on enhanced public engagement are described in **Chapter 3, Environmental Justice and Public Health.**

Figure 1.1: Site Location

Longwood Place | Boston, MA

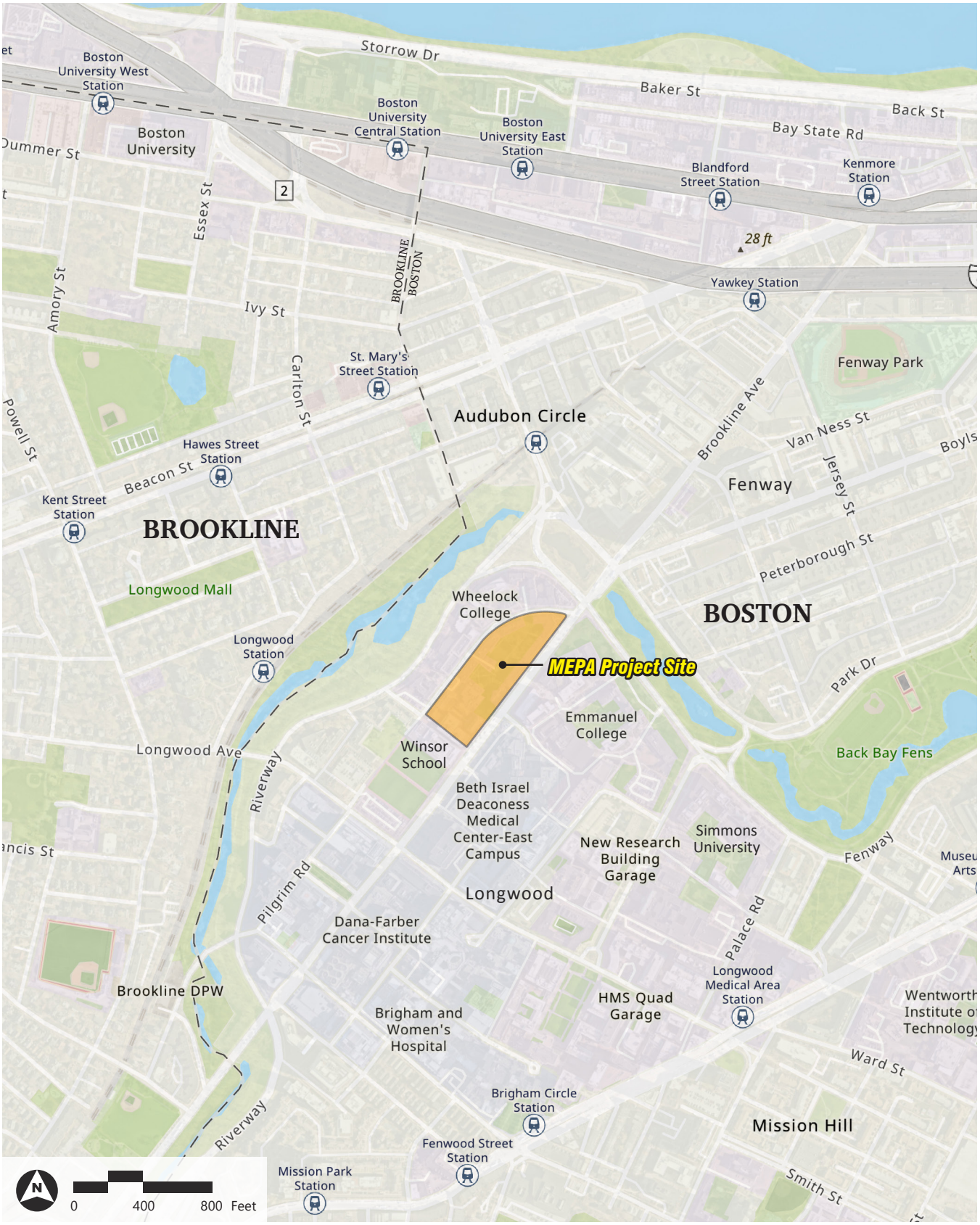


Source: USGS Topo - The National Map; Massachusetts; Newton Quadrangle 2024; Boston South Quadrangle 2024

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Figure 1.2: Project Site Context

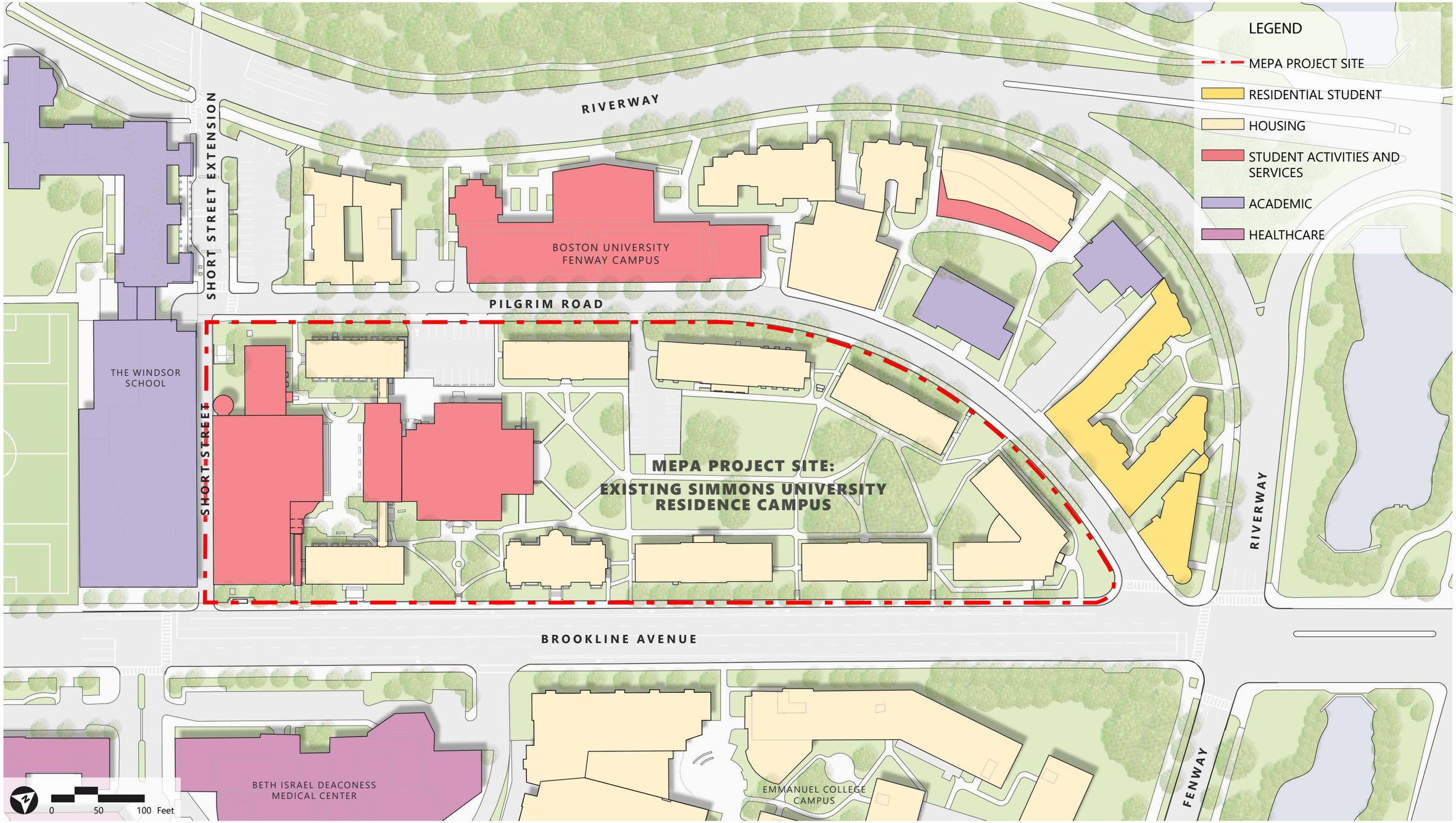
Longwood Place | Boston, MA



Source: World Topographic Map, Nearmap WMS Server

Figure 1.3: Existing Conditions Site Plan

Longwood Place | Boston, MA



Source: EMA

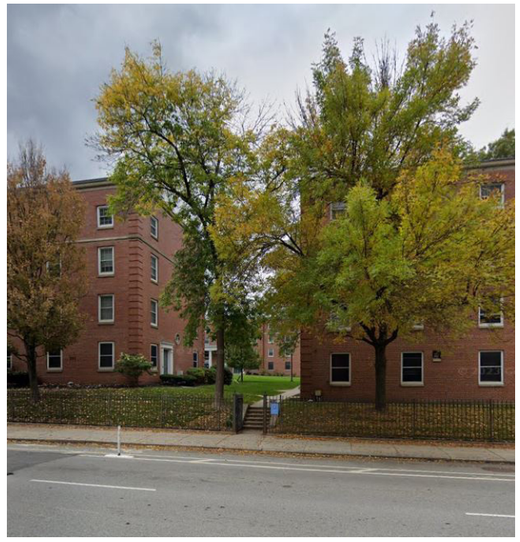
F:\23032\23032.010\Admin\Approvals\SID-Supplemental Info Document\SID_Supplemental-Info-Document_v3.indd p3 12/08/25

Figure 1.4: Existing Site Photos

Longwood Place | Boston, MA



View of Simmons University Sports Center from Brookline Avenue



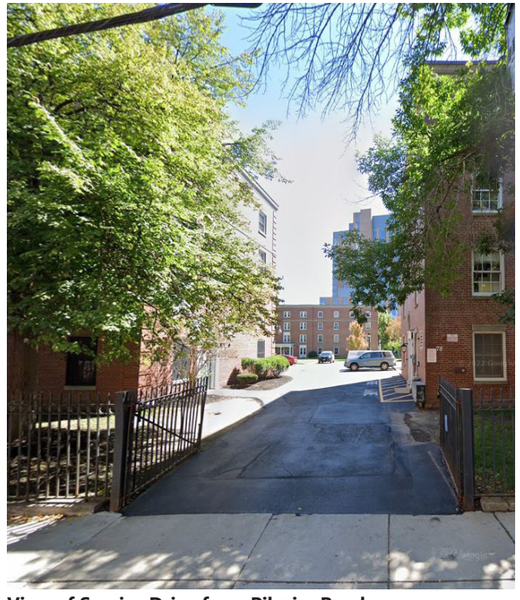
View of Morse and Mesick Halls from Brookline Avenue



View of Simmons Hall from Brookline Avenue at the Fenway



View of Simmons University Health Center from Short Street Extension



View of Service Drive from Pilgrim Road



View of Dix and Smith Halls from Pilgrim Road

Source: Google Maps

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Figure 1.5: Proposed Conditions Site Plan

Longwood Place | Boston, MA



Source: Google Earth

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2

Alternatives Analysis

As requested in the EEA Secretary's Certificate on the ENF, this chapter provides the following documentation in response to the 'Alternatives Analysis' section of the DEIR Scope with references to specific DEIR sections in **bold**:

- A general description of the Living and Learning Center and its potential impacts. **(Section 2.1)**
- A supplemental alternatives analysis that reviews development programs substantially different from the Preferred Alternative in size and/or use, and degree of environmental impact. **(Section 2.2.1)**
- An alternatives analysis considering the effect that changing the parameters and/or siting of a project, or components thereof, will have on the environment. **(Section 2.3)**
- Description of the alternatives analysis identifying the MEPA Project's purpose and criteria for selecting the Preferred Alternative. **(Section 2.4)**
- Description of the environmental impacts associated with each alternative, and proposed potential measures to minimize and mitigate environmental impacts and impacts to EJ populations in the DGA. **(Section 2.3 and Chapter 3, Section 3.4.1)**
- Description of consistency of each alternative with zoning. **(Section 2.3)**
- Evaluation of an alternative in which one or more of the existing buildings are reused. **(Section 2.2.1)**

2.1 Living and Learning Center

The Simmons Living and Learning Center project is separate and distinct from the MEPA Project; however, at the request of the MEPA Office, a general overview of the Living and Learning Center is included in this filing. Over a decade ago, Simmons University ("Simmons") began planning the future of its two campuses, and to plan the future of Simmons as a sustainable, responsible, and vital member of the Boston community. This plan included the combining of its bifurcated campus, which includes their current Residence Campus (the MEPA Project Site). The "One Simmons" plan aims to unify the existing two separate campuses, enhance the student experience by creating gathering and group study spaces, new classrooms, science labs, simulation spaces, and, ultimately, build a brand new "living and learning" center. In December 2020, following extensive public review the BPDA Board approved the Simmons University Institutional Master Plan ("IMP") under Article 80D of the

Boston Zoning Code.[1] The approved IMP regulates development associated with the Simmons University campus and enables the One Simmons vision.

The One Simmons plan is a generational project consisting of three project phases. Phases 1 and 2 of One Simmons are complete, and include the delivery of state-of-the-art, modern library and health science facilities. Phase 3, the final phase, includes the construction of the "Living and Learning Center" on the University's Academic Campus, which will provide an athletic and wellness center, a two-level dining hall, and approximately 1,100 dormitory beds to replace existing student housing and uses currently located on the MEPA Project Site. Following the completion of Living and Learning Center, Simmons will relocate all the uses from the current Residence Campus (the MEPA Project Site) into the new building and Skanska will assume control of the Residence Campus to begin construction of the Longwood Place (MEPA Project) under the 99-year ground lease.

The Living and Learning Center project was assessed for environmental and community impacts within the context of the larger campus planning process, in accordance with the requirements of the Article 80D IMP review and approval process. Specifically, the project impacts of the Living and Learning Center associated with urban design, public realm and open space, transportation, environmental sustainability, as well as community benefits, including workforce development, were evaluated at that time, and are not part of this MEPA Project review.

2.2 Supplemental Alternatives Analysis

This section describes the supplemental project alternatives considered for the MEPA Project Site. No alternative off-site locations were considered for the MEPA Project as that is not feasible.

The following project alternatives have been considered for this supplemental alternatives analysis:

- No-Build Alternative – would maintain the existing conditions at the MEPA Project Site, which are institutional uses associated with Simmons University Residence Campus, as described in **Section 1.3 of Chapter 1, Project Description**, and shown on **Figure 1.3**. This alternative is used as a baseline to compare future proposed conditions in order to identify impacts and mitigation/benefits associated with the build alternatives (described below).
- Substantially Different Alternative/Build Alternative 1[2] – represents a development program substantially different from the Preferred Alternative allowed as-of-right in which one or more of the existing buildings are reused, as required by the DEIR Scope. This build alternative would reuse the eight existing dorm buildings for residential use equating to approximately 376 housing units supported by a total of approximately 188 surface parking spaces (160 net new).
- Preferred Alternative – represents the MEPA Project, as described in **Section 1.4 of Chapter 1, Project Description**, and shown on **Figure 1.5**, which includes advancement of the PDA Development Plan for the C1, C2 and R1 Buildings (currently undergoing Article 80B, Large Project Review with the City of Boston) and the C3 and R2 Buildings consistent with the uses and building areas set forth in the PDA Development Plan.

1 Simmons University Institutional Master Plan, April 2020: file:///C:/Users/LDevoe/Downloads/2020-08-14_Institutional%20Master%20Plan%20(IMP)_Simmons%20University%20IMP%202020-2030.pdf [CLEAN UP THIS LINK SO IT WORKS]

2 In the ENF Alternatives Analysis (Chapter 2), the Build Alternative 1 represented the development program as approved in the PDA Development Plan by the BPDA on January 19, 2023 and Boston Zoning Commission on March 29, 2023.

Table 2-1 below provides a summary of the project alternatives.

Table 2-1 Project Alternatives

Element/Use	No-Build Alternative	Substantially Different Alternative	Preferred Alternative
MEPA Project Site Area	5.89 acres	5.89 acres	5.89 acres
Total Building Area	334,200 SF	334,200 SF	1,648,000 GFA
Athletic Center	53,100 SF	–	–
Health Center	5,400 SF	–	–
Cafeteria	25,400 SF	–	–
Function Space	7,600 SF	–	–
Dormitories	242,700 SF (1,036 Beds)	–	–
Residential	–	334,200 SF (376 units)	340,000 GFA (388 units)
Office/Life Science	–	–	1,133,100 GFA
Medical/Clinic	–	–	125,900 GFA
Retail	–	–	34,000 GFA
Civic/Cultural/Community	–	–	15,000 SF
Max Building Height	69.5 ft.	69.5 ft.	295 ft.
Parking Spaces	28 (existing)	188	520[1]
Open Space/Public Realm	±2.5 acres	±1.2 acres	±2.8 acres

1 The proposed parking supply of 520 parking spaces (492 net new) is consistent with the approved PDA Development Plan.

2.3 Comparison of Project Alternatives

This section compares the potential environmental impacts associated with the build alternatives as compared to the No-Build Alternative as the baseline. While the No-Build Alternative maintains the existing conditions at the MEPA Project Site and would not result in new potential environmental impacts, both the Substantially Different Alternative and Preferred Alternative deliver public benefits (e.g., new housing units). The Preferred Alternative is particularly beneficial, offering a diverse mix of uses with pronounced site enhancements in public accessibility and transportation infrastructure, all while adhering to the requirements of the PDA Development Plan that underwent extensive public review, and demonstrating a commitment to sustainable urban development.

Table 2-2 below provides an evaluation of the potential environmental impacts of the No-Build Alternative and build alternatives.

Table 2-2 Comparison of Project Alternatives Impacts

Impact Category	No-Build Alternative[1]	Substantially Different Alternative	Preferred Alternative
Land			
MEPA Project Site Area	5.89 acres	5.89 acres	5.89 acres
New Land Alteration	-0-	-0-	-0-
Net New Impervious Area	-0-	±1.3 acres	±1.5 acres
Water & Wastewater			
Net New Water Use[2]	-0-	(±65,330 GPD)[4]	±115,076 GPD
Net New Wastewater Generation[3]	-0-	(±60,209 GPD)[4]	±104,615 GPD[5]
Transportation & Parking			
Net New Daily Vehicle Trips (Unadjusted)	-0-[6]	±2,047	±19,727
Net New Daily Vehicle Trips (Adjusted)	-0-[6]	±308	±3,087[7]
Net New Parking Spaces	-0-	160	492

GDP Gallons Per Day

1 Represents existing conditions to remain.

2 Water use was determined by applying a factor of 1.1 to the wastewater generation rates.

3 MassDEP establishes sewer generation rates for various types of establishments in a section of the State Environmental Code Title 5 ("Title 5"), 310 CMR 15.203.

4 Represents a reduction because the existing water demand and wastewater generation is higher for dormitory use (122,200 GPD and 111,090 GPD, respectively).

5 The wastewater generation rate for life science/lab use is based on MEPA Project MEP Consultant recommendation.

6 Though the existing site is occupied, no trip credit was taken for existing University Housing or Athletic uses, which typically do not generate a high volume of vehicle trips.

7 The ENF assumed a higher vehicle mode share. At the direction of the City of Boston the DEIR assumes an adjusted mode share based on GoBoston 2030 guidelines.

Although the No-Build Alternative would not result in any new impacts, continuing the current use of the MEPA Project Site as the Simmons University Residence Campus does not align with the approved IMP, which enables the One Simmons Plan (as described in **Section 2.1** above). In addition, the No-Build Alternative includes outdated and obsolete building structures with poor thermal envelope performance, outdated/inefficient infrastructure reliant on fossil fuels, limited adaptability for sustainable upgrades, and resulting high resource intensity, which make them unsustainable by modern standards. One Simmons Plan is essential to allow Simmons to continue their mission as a world-renowned institution and to support their viability in the City of Boston and this neighborhood. Further, the No-Build Alternative would eliminate the Proponent's ability to create new residential units, including 20 percent affordable units, and new commercial space that could support essential medical research. The No-Build Alternative would not be able to provide much needed publicly accessible open spaces and public realm, active retail and ground floor uses, and infrastructure that enhances multi-modal accessibility.

The PDA Development Plan approved in 2023 established new zoning for the site, allowing up to 1.7 million square feet of mixed-use development (the Preferred Alternative). The Preferred Alternative mix is approximately 75% commercial and 20% residential with the remainder retail and community space. The Substantially Different Alternative significantly reduces the total square footage of development, therefore increasing the land basis and dramatically making this alternative

not financially feasible. Because commercial SF is more valuable than residential SF, this residential use only alternative further degrades the financial viability of the MEPA Project. Reusing the existing buildings would also present significant challenges and require substantial capital investment to achieve compliance with the City's net-zero carbon requirements and abate potential hazardous materials in the outdated buildings. In addition, impervious surface parking lots would be required, limiting opportunities for public open space and diminishing the quality of the public realm. While the number of residential units would be similar to the Preferred Alternative, it would require a substantial cost to renovate and still deliver housing that lacks modern amenities and complementary active uses to make it desirable.

Consistent with the current zoning for the MEPA Project Site, the Preferred Alternative best aligns with the MEPA Project's goals and objectives, community feedback, market expectations, and available sustainable practices, while also delivering transformational neighborhood-wide improvements to public space and the public realm. Refer to **Section 1.5 of Chapter 1, Project Description**, for a full list of public benefits of the Preferred Alternative.

2.4 Evaluation of Alternatives Against Project Goals

As presented in the ENF, redevelopment of the MEPA Project Site aims to meet the following development goals:

1. Deliver new, active, pedestrian-friendly and publicly accessible open space and public realm, designed to support safer access and mobility;
2. Deliver a significant number of public and community benefits;
3. Deliver critically needed housing options for the neighborhood, 20 percent of which will be affordable units currently anticipated to be on-site;
4. Demonstrate strong commitments to Diversity, Equity, and Inclusion throughout the MEPA Project life cycle; and
5. Implement forward-thinking sustainability and resiliency measures.

An evaluation of the project alternatives against these goals is provided in **Table 2-3** below.

Through the concept design phase, the Preferred Alternative has been refined to meet the MEPA Project goals to the maximum extent practicable, and therefore compares favorably to other alternatives.

Table 2-3 Evaluation of Alternatives Against MEPA Project Goals

MEPA Project Goal	No-Build Alternative	Substantially Different Alternative	Preferred Alternative
1. Public Realm	×	✓	✓✓✓
2. Community Benefits	×	✓	✓✓✓
3. Housing	✓	✓✓	✓✓✓
4. DEI	×	✓	✓✓✓
5. Sustainability	×	✓✓	✓✓✓

× = Does not meet MEPA Project Goal
✓ = Somewhat meets MEPA Project Goal
✓✓ = Significantly meets MEPA Project Goal

✓✓✓ = Fully meets MEPA Project Goal

The Preferred Alternative fully meets the MEPA Project Goals, as described below.

Goal 1. Open Space and Public Realm:

› The No-Build Alternative would maintain the existing conditions of the Simmons Residence Campus, which provides private open space that is gated and inaccessible to the broader community.

› The Substantially Different Alternative would introduce new surface parking to service the residential buildings, which will have a negative impact on the public realm and open space, as well as water quality from site runoff.

› The Preferred Alternative significantly improves on the existing conditions and provides approximately 2.8-acres of publicly accessible open space and exterior public realm adjacent to retail, restaurants, cafes, and active ground level uses, which is approximately 50 percent of the MEPA Project Site (excluding roadways).

› Compared to the Substantially Different Alternative, the Preferred Alternative will further improve public realm by creating pedestrian-oriented streets and accessible sidewalks with improved circulation for all modes of movement in the neighborhood.

Goal 2. Community Benefits:

› Under the No-Build Alternative, the perimeter of the MEPA Project Site is fully gated and the existing surrounding sidewalks are minimal in width and do not positively contribute to the pedestrian experience.

› As a residential development, the Substantially Different Alternative would provide the opportunity for community benefits by providing public access to and through the MEPA Project Site, as well as public open space and new housing (approximately 376 units); however, the Substantially Different Alternative would not provide community benefits to the extent of the Preferred Alternative, which would be a mixed-use development with more opportunities to attract the public with active ground floor uses (i.e., restaurants, retail).

› The Preferred Alternative would provide the highest amount of community benefits by greatly enhancing public access to, around, and through the MEPA Project Site, provide the most amount of new housing (388 units), including 20% of the total units as Inclusionary Development Policy ("IDP") units, in accordance with the approved PDA, which exceeds the IDP requirements applicable to the MEPA Project, provide a mix of active and passive programming throughout the buildings and open spaces, deliver much-needed diverse retail offerings to the LMA, including food and beverage option, and creation of approximately 5,000 on-site jobs relating to office/R&D/lab, life sciences, residential, retail, and parking uses and creation of approximately 5,000 construction jobs.

Goal 3. Housing:

› The No-Build alternative would eliminate the Proponent's ability to create new residential units, including 20 percent affordable units anticipated to be on-site.

- As a residential development, the Substantially Different Alternative creates new residential units, but does not provide the supporting amenities to meet market demand.
- The Preferred Alternative will deliver slightly more housing units than Substantially Different Alternative, will provide 20 percent affordable units currently anticipated to be on-site, and will provide amenities and services that are typically found in new residential apartment buildings. This increased housing will not only help the City to meet its housing production goals, but will also help bring 18-hour activation to the MEPA Project Site and to the LMA.

Goal 4. DEI:

- DEI initiatives are not applicable to the No-Build Alternative.
- The Proponent along with their DEI Advisor, InOrder Business, have developed a DEI Plan to incorporate impactful diversity objectives throughout the development of the Preferred Alternative, which as a mixed use development provides more opportunities compared to the residential-only development proposed under the Substantially Different Alternative (i.e., significantly less new jobs would be created).

Goal 5. Sustainability:

- Both the No-Build Alternative and Substantially Different Alternative include outdated and obsolete building structures with poor thermal envelope performance, outdated/inefficient infrastructure reliant on fossil fuels, limited adaptability for sustainable upgrades, and resulting high resource intensity, which make them unsustainable by modern standards. The buildings have reached the end of their useful lifespan, no longer positively contribute to the LMA, nor are they able to address the future growth needs of Simmons or the Proponent.
- The Preferred Alternative includes the commitment to deliver the residential buildings as Passive House certifiable, and the commercial buildings will target a 90 percent reduction in building fossil fuel use compared to the Stretch Code baseline through the use of efficient heat pump technologies (minimum 25 percent heat pump capacity). With the reuse of existing buildings this would not be possible under the Substantially Different Alternative.
- The Preferred Alternative will achieve LEED Gold certification at a minimum for each building using the LEED V4 rating system for all the office, laboratory, and residential buildings, and the residential buildings will be all electric/fossil-fuel free for normal operations. There is the opportunity to partially improve the energy efficiency of the existing buildings under the Substantially Different Alternative; however, reuse of existing outdated and inefficient buildings, would limit opportunities for sustainable design and green commitments. Furthermore, the added surface parking will have a negative impact on the overall heat island effect and stormwater runoff.
- The Preferred Alternative will improve the quality and quantity of site stormwater runoff compared to existing conditions, including consideration for groundwater recharge in accordance with provisions applicable to the City of Boston Groundwater Conservation Overlay District ("GCOD"). Additionally, the proposed stormwater management systems will comply with the Massachusetts Department of Environmental Protection ("MassDEP") Stormwater Management Policy and Standards.

By considering the various build alternatives, comparing their potential impacts and benefits, and evaluating each against the Proponent's goals, the Preferred Alternative best aligns with the MEPA

Project's goals and objectives, community feedback, market expectations, and available sustainable practices, while also delivering transformational neighborhood-wide improvements to public space and the public realm.

3

Environmental Justice and Public Health

This chapter supplements the initial assessment of the MEPA Project's potential impacts on surrounding Environmental Justice ("EJ") populations that was included in the ENF. Specifically, as requested in the EEA Secretary's Certificate on the ENF, this chapter provides the following documentation in response to the 'Environmental Justice' section of the DEIR Scope with references to specific DEIR sections in **bold**:

- A description of the public engagement conducted by the Proponent between the filing of the ENF and DEIR, including a summary of any public meetings or informational events held by the Proponent with overview of questions and comments posed by the public and responses provided by the Proponent. **(Section 3.1.1)**
- A discussion of how the public involvement activities in the Public Engagement Plan ("PEP") are consistent with best practices listed in the MEPA EJ Public Involvement Protocol, including a commitment to on-going engagement such as through a mechanism for response to comments received during public meetings. **(Section 3.1.2)**
- A revised PEP that identifies specific MEPA Project milestones at which the Proponent will seek public feedback and includes other revisions in response to public input. **(Appendix B)**
- An analysis of vulnerable EJ health criteria for any other census tract within the Designated Geographic Area ("DGA"), as required by the MEPA Interim Protocol for Analysis of EJ Impacts. **(Section 3.1.3)**
- A list of additional pollution sources in the DGA, including energy and transportation infrastructure and discussion on the addition of MEPA Project-generated emissions to existing sources. **(Section 3.1.3.1)**
- Identification of individual census block groups of any EJ Populations that exceed the 80th percentile of an environmental indicator within a one-mile radius of the MEPA Project Site. **(Section 3.1.3.2)**
- A survey of localized respiratory health conditions within the MEPA Project DGA, specifically, an analysis of asthma prevalence at a finer scale (by census block group) via asthma prevalence for kindergarten through 8th grade (K-8) schools. **(Section 3.1.3.3)**
- Further analysis of MEPA Project impacts, including an air quality assessment, routes of vehicular travel located adjacent to EJ populations, and whether those intersections will be impacted by the MEPA Project (as identified in the TIA) and mitigation. **(Section 3.1.4)**
- Quantification of increased air emissions (by percentage or volumetric increase) at any impacted intersections adjacent to EJ populations and discussion on whether the increase in emissions

from the MEPA Project would have material impacts on the adjacent EJ population, as well as a description of ways to reduce air emissions below the No Build condition. **(Section 3.1.4.1)**

- Identification of any impacted intersections within the traffic study area (where Level of Service degrades from No Build to Build conditions) and adjacent to EJ populations will be adequately mitigated. **(Section 3.1.4.1)**
- A description of proposed mitigation if air pollutants are documented to increase from Existing to future Build conditions for the study area, or if total MEPA Project-generated emissions will exceed 1 ton per year (tpy) for any pollutant. **(Section 3.1.4.2)**
- A description of mitigation measures to minimize heat island effect. **(Section 3.1.4.2)**
- An evaluation of the potential for off-site stormwater flooding and heat effects, including under future climate conditions. **(Section 3.1.4.3)**
- An analysis of GHG emissions associated with the MEPA Project. **(Chapter 9)**
- An analysis of any other relevant short-term environmental or public health impacts of the MEPA Project, including construction period activities. **(Section 3.1.4.4)**
- A description of project benefits, including key improvements to the MEPA Project Site, such as creation of public amenities, construction of new housing stock, funding for the Emerald Necklace, and other benefits including a description of how the proposed public benefits will offset impacts to EJ populations, specifically, with respect to air quality impacts from new traffic and urban heat effects from increased impervious cover. **(Section 3.1.5)**
- A discussion of any known or reasonably foreseeable public health consequences that may result from the environmental impacts of the MEPA Project that may materially exacerbate "vulnerable health EJ criteria," in accordance with the MEPA Interim Protocol for Analysis of EJ Impacts. **(Section 3.2.1)**
- An assessment of the public health conditions in the immediate vicinity of the MEPA Project Site and in the immediate vicinity of anticipated truck routes. **(Section 3.2.1)**
- A discussion on how the MEPA Project intends to meet or exceed standards to the extent any required Permits for the MEPA Project contain performance standards intended to protect public health, specifically to ensure that any wastewater discharges will meet public health standards since a Sewer Use Discharge Permit may be required from MWRA. **(Section 3.2.2)**

3.1 Environmental Justice

3.1.1 Public Engagement Since the ENF

As described in **Section 1.7 of Chapter 1, Project Description**, the Proponent has committed to a robust community engagement effort, and that effort will continue across the public review and planning phases of the MEPA Project. In summary, the public outreach measures implemented since the ENF fling included:

- Distributed electronic copies of the ENF (and hard copies, if requested) to the MEPA EJ Reference List;
- Made hard copies of the ENF available at public libraries located in the vicinity of the MEPA Project Site for public viewing, including the Coolidge Corner and Brookline Village branches of

the Brookline Public Library, and the Central Library (main branch), Parker Hill, and Roxbury Branches of the Boston Public Library;

- Published public notices of the ENF in English and Chinese languages in Boston Herald (Sampan is a biweekly publication and would have run after the MEPA publication date of May 7, 2025) and Spanish language in El Mundo on May 1, 2025, and Chinese language in Sampan on May 9, 2025; and
- Posted MEPA Project details, links to downloadable electronic copies of the ENF, and public presentation materials to the MEPA Project website (URL: www.longwoodplaceboston.com) for public access. The availability of the MEPA Project website was disseminated throughout the surrounding neighborhood with advertising on LMA shuttles, printed banners on-site and adjacent to a MBTA bus stop, and through social media ads.

Following the filing of the ENF, the Proponent held a remote site consultation session on May 22, 2025, to gather feedback from the MEPA Office, state agencies, EJ CBOs, including state, tribal and local community groups, residents, businesses and environmental organizations, and the general public during the public review period. Except for the MEPA Reviewer, no one from the public attended. The Proponent recorded the public presentation, which was posted to the MEPA Project website (link above) for public viewing.

The site consultation notice was distributed in English, Chinese and Spanish languages. The Proponent also offered Chinese and Spanish languages interpretation services on an as-requested basis during the site consultation session and will continue to offer these services for future MEPA public meetings.

The Proponent will continue outreach to EJ community members as the MEPA Project advances through the MEPA review process and development phases to support participation by the EJ community.

As previously described in the ENF, the Proponent is committed to advancing diversity, equity, and inclusion (DEI) throughout the MEPA Project by implementing a comprehensive DEI Plan developed in collaboration with a local DEI advisor. The plan promotes equitable participation and long-term impact through supplier diversity, workforce development, community partnerships, inclusive retail and placemaking strategies, and support for affordable housing. Together, these initiatives aim to expand economic opportunities, strengthen diverse workforce pipelines, and foster a more inclusive and equitable environment in the LMA.

3.1.1.1 Summary of Public Meetings

Prior to and post-filing of the ENF, the Proponent has held the following public meetings:

- April 28, 2025 – Article 80B IAG Meeting
- April 30, 2025 – Article 80B Public Meeting
- May 6, 2025 – Article 80B Boston Civic Design Commission (BCDC) Full Commission Meeting
- May 22, 2025 – MEPA Site Consultation Meeting
- June 17, 2025 – Article 80B BCDC Subcommittee Meeting #1
- August 19, 2025 – Article 80B BCDC Subcommittee Meeting #2
- March 9, 2026 – Supplemental Information Document Review IAG Meeting
- March 11, 2026 – Supplemental Information Document Review Public Meeting
- March 16, 2026 – Supplemental Information Document Review IAG Meeting

› March 18, 2026 – Supplemental Information Document Review Public Meeting

3.1.2 Updated Public Engagement Plan

The Proponent has developed the Public Engagement Plan ("PEP") based on public engagement principles encompassing *Education and Transparency*, *Inclusivity, Accessibility*, *Cultural Sensitivity*, and *Sustained Engagement*. These public engagement principles are consistent with and directly reflect the best practices set forth in the MEPA EJ Public Involvement Protocol in the following ways:

› **Education and Transparency:** The MEPA EJ Public Involvement Protocol emphasizes providing clear, understandable, and timely information to EJ populations so community members can meaningfully participate in the review process. Offering plain-language materials, explaining technical concepts in digestible formats, and maintaining open communication (for example, maintaining MEPA Project-related updates and/or filing documents on the MEPA Project website) on MEPA Project details, schedules, potential impacts, and decision-making milestones aligns with MEPA's guidance to reduce information barriers and promote informed participation.

› **Inclusivity:** MEPA best practices call for proactive and affirmative outreach to EJ populations, rather than relying solely on passive or traditional engagement methods. Encouraging participation from underrepresented groups is consistent with the Protocol's direction to ensure that EJ communities have equitable opportunities to contribute perspectives, raise concerns, and influence project outcomes.

› **Accessibility:** The Protocol stresses the importance of removing logistical, physical, and language barriers to participation. Offering virtual meeting options, ensuring ADA-compliant in-person venues, and providing language interpretation services (such as Chinese and Spanish) on an as-requested basis aligns with MEPA's guidance to accommodate diverse needs and expand access to the public review process for EJ populations.

› **Cultural Sensitivity:** MEPA EJ best practices encourage proponents to recognize and respect cultural differences and community-specific norms. Engaging community leaders and cultural liaisons and tailoring outreach approaches to reflect cultural preferences is consistent with the Protocol's emphasis on building trust, fostering respectful dialogue, and conducting engagement in a manner that resonates with affected communities.

› **Sustained Engagement:** The MEPA EJ Public Involvement Protocol underscores that engagement should be continuous and iterative throughout the MEPA process, rather than limited to a single milestone. Committing to ongoing communication, providing regular MEPA Project updates, addressing concerns as they arise, and seeking community input at key points in the MEPA Project lifecycle reflects MEPA's best practices for meaningful, long-term engagement with EJ populations.

The Proponent's strong track record of community engagement will continue during the public review and planning processes associated with both MEPA and City of Boston Article 80B review for the MEPA Project. An updated PEP, which is included in **Appendix B**, identifies specific MEPA Project milestones at which the Proponent will seek public feedback and include other revisions in response to public input.

3.1.3 Baseline Health Assessment

To understand potential health vulnerabilities faced by EJ populations within the DGA, Vulnerable Health EJ Criteria, as defined by the DPH EJ Tool[1] were identified. The DPH EJ Tool provides information at the community level (defined as municipalities). These criteria include four environmentally related health indicators to determine populations that may have higher-than-average rates of environmentally related health outcomes, including childhood asthma, heart attack, elevated blood lead, and low birth weight. The final two health outcomes are also provided at the census tract level.

According to the DPH EJ Tool, in the City of Boston, the rates of elevated blood lead prevalence, low birth weight and childhood asthma are statistically significantly higher than the statewide averages. The rate of heart attack, however, is significantly lower than the statewide average. The DPH EJ Tool was also used to evaluate health parameters for the communities located within the MEPA Project's DGA. The City of Cambridge and Town of Brookline do not meet the Vulnerable Health EJ criteria as shown in **Table 3-1** below.

Table 3-1 Vulnerable Health Criteria by Community within the DGA

Communities within the DGA	Meets Vulnerable Health EJ Criteria			
	Heart Attack	Elevated Blood Lead Prevalence	Low Birth Weight	Childhood Asthma
Boston	No	Yes	Yes	Yes
Cambridge	No	No	No	No
Brookline	No	No	No	No

At the census tract level, the census tract within which the MEPA Project Site and its surroundings are located, the rate of low birth weight is not statistically significantly different from the statewide average and the rate of elevated blood lead prevalence is not shown. The statistical significance of the data for elevated blood lead prevalence and low birth weight compared to statewide averages in the census tracts within the MEPA Project's DGA is presented in **Table 3-2** below. The DPH EJ Tool does not show data for other parameters in these census tracts.

3.1.3.1 DPH EJ Tool Data Additional Pollution Sources

A comprehensive list of potential sources of air pollution, including energy and transportation infrastructure, that may have impacted or may currently impacts EJ populations within the DGA, is listed as follows:

- Large Quantity Toxic Users – 1
- Large Quantity Generators – 25
- MassDEP Tier Classified 21E Sites – 14
- MA Tier II Facilities – 27
- MassDEP Sites with Activity and Use Limitations (AUL) – 31
- Wastewater Treatment Plants – 0
- Underground Storage Tanks – 32
- EPA Facilities – 1

1 Commonwealth of Massachusetts. 2021. *MA DPH Environmental Justice Tool.* https://matracking.ehs.state.ma.us/Environmental-Data/ej-vulnerable-health/environmental-justice.html

- MBTA Bus Stops – 135
- Commuter Rail Stations – 2
- Nuclear Power Plants – 0
- Power Plants - 2

Table 3-2 Vulnerable Health Criteria by Census Tract within the DGA

Census Tract	Elevated Blood Lead	Low Birth Weight
25021400800	Statistically significantly lower	Not statistically significantly different
25021400300	Not statistically different	Not Shown
25021400100	Statistically significantly lower	Not statistically significantly different
25025010404	Not statistically different	Not Shown
25025010204	Not statistically different	Not statistically significantly different
25025010802	Not statistically different	Not Shown
25025010103	Not statistically different	Not Shown
25025000803	Not statistically different	Not statistically significantly different
25025981501	Not statistically different	Statistically significantly lower
25025981800	Not statistically different	Not statistically significantly different
25025010203	Not statistically different	Not statistically significantly different
25025010701	Not statistically different	Not statistically significantly different
25025010408	Not statistically different	Not statistically significantly different
25025010500	Not statistically different	Not Shown
25025010300	Not statistically different	Not statistically significantly different
25025000802	Statistically significantly higher	Not statistically significantly different
25025081001	Not statistically different	Not statistically significantly different
25021400900	Not Shown	Not statistically significantly different
25021400400	Not Shown	Not statistically significantly different
25021400200	Not Shown	Not statistically significantly different
25025010405	Not Shown	Not Shown
25025010104	Not Shown	Not statistically significantly different
25025000703	Not Shown	Not Shown
25025080900	Not Shown	Not Shown
25025080801	Not Shown	Not Shown
25025010403	Not Shown	Not Shown
25017353400	Not Shown	Not Shown
25017353300	Not Shown	Not statistically significantly different
25017353200	Not Shown	Not Shown
25017353102	Not Shown	Not statistically significantly different
25017353101	Not Shown	Not statistically significantly different

MBTA bus routes, commuter rail lines, light rail and subway located within 1-mile of the MEPA Project Site, also add onto the potential sources of air pollution.

The MEPA Project is not expected to be a large source of air pollution, as discussed below in **Section 3.1.4.1**. The primary sources of pollutant emissions will be from trips generated by the MEPA Project and from stationary source combustion at the commercial buildings. As indicated below, MEPA Project-generated mobile source emissions are expected to be less than the existing mobile source pollutant burden in the study area. It is also likely that future emissions from other sources included in the list will be reduced as well. For instance, the 2 identified power plants will likely be incorporating renewable technology or emissions controls to meet increasingly stringent State mandates, and the Renewable Portfolio Standards. The nearby steam generating plant has plans to electrify their steam generation, which will reduce the emissions burden from existing sources. In conclusion, taking all existing sources withing the DGA into consideration, future emissions will also be less than existing conditions.

3.1.3.2 EJ Screen Data

The EJ Screening and Mapping Tool (Version 2.3), hosted by the Public Environmental Data Partners, was also reviewed to identify existing public health conditions surrounding the MEPA Project Site within a one-mile radius of the MEPA Project Site (the "MEPA Project Buffer Area").

The EJ Screen report provides a percentile ranking by census block group compared against statewide averages for 12 environmental indicators (listed below).[2] The report generated by this tool (included in **Appendix B**) indicates the following percentile rankings for the MEPA Project Buffer Area:

1. 56th percentile for $PM_{2.5}$
2. 40th percentile for Ozone
3. 95th percentile for NATA Diesel Particulate Matter (PM)
4. 96th percentile for Nitrogen Dioxide (NO_2)
5. 86th percentile for Toxic Releases to Air
6. 96th percentile for Traffic Proximity (count of vehicles per day at major roads divided by the distance)
7. 50th percentile for Lead Paint Indicator (percent of housing built before 1960)
8. 40th percentile for Superfund Proximity (count of National Priorities List/Superfund sites divided by the distance)
9. 71st percentile for Risk Management Plan Proximity (count of facilities with Risk Management Program divided by the distance)
10. 97th percentile for Hazardous Waste Proximity (count of transfer, storage, and disposal facilities (TSDFs) and Large Quantity Generators (LQGs) divided by the distance)

2 EJScreen Environmental Justice Screening and Mapping Tool (Version 2.3) is an unofficial copy of EJScreen hosted by Public Environmental Data Partners. EJScreen is not designed to take into account quantifiable cumulative or synergistic effects. https://pedp-ejscreen.azurewebsites.net/ Accessed 12/22/25.

11. 96th percentile for Underground Storage Tanks (USTs)
12. 76th percentile for Wastewater Discharge Indicator (toxicity-weighted concentration/meter)
13. 79th percentile for Drinking Water Non-Compliance

The Buffer Report (**Appendix B**) indicates that the indicators listed below were shown to be at or above the 80th percentile of the statewide average for EJ populations within the DGA. It is useful to note that the City of Boston and many of its bordering communities are at or above the 80th percentile for many of the pollution indicators above. Areas that are well-served by major roadways tend to exceed the threshold for diesel PM, NO_2 and traffic proximity. It is also important to note that Massachusetts has a history of enforcing its much stronger environmental regulations compared to the rest of the U.S. As a result, many indicators for the Commonwealth are low as compared to the U.S. as a whole. This is demonstrated by the PM2.5 indicator, where the MEPA Project's Buffer Zone is over the 56th percentile for the state, but is only in the 11th percentile for the country.

- **The National Air Toxics Assessment[3] Diesel PM** – While the Diesel Particulate Matter (PM) indicator in EJ Screen measures concentrations rather than cancer risk, the EPA's *Health Assessment Document for Diesel Engine Exhaust (Final 2002)* concludes that "long-term (i.e., chronic) inhalation exposure is likely to pose a lung cancer hazard to humans, as well as damage the lung in other ways depending on exposure. Short-term (i.e., acute) exposures can cause irritation and inflammatory symptoms of a transient nature, these being highly variable across the population…. [E]vidence for exacerbation of existing allergies and asthma symptoms is emerging."[4] It is important to remember that the air toxics data presented in the EJ Screen report provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations.

  The Diesel PM concentration in the MEPA Project Buffer Area (0.0 µg/m^3) is the same as both the average concentrations in the state (0.0 µg/m^3) and in the U.S. (0.0 µg/m^3).
- **Nitrogen Dioxide (NO_2)** – This indicator measures how much surface-level NO_2 human beings might be exposed to, calculated as the average annual levels expressed as parts per billion by volume. The burning of fuel, usually from emissions from cars, trucks, and buses, power plants, and off-road equipment, is the primary source of NO_2 in the air. NO_2 reacts with other chemicals in the air to form both particulate matter and ozone.

  Due to the MEPA Project Site's urban setting, the value for this indicator in the MEPA Project Buffer Area (18.0 ppbv) is higher than the state average (9.0 ppbv) and the U.S. average (8.0 ppbv).
- **Toxic Releases to Air** – This indicator measures the quantity and types of hazardous pollutants released into the atmosphere by industrial and other facilities within that region. Higher values indicate greater quantities of toxic emissions, which can have significant implications for the health and well-being of local residents.

3 The National Air Toxics Assessment (NATA) has been replaced with AirToxScreen. AirToxScreen calculates concentration and risk estimates from a single year's emissions data using meteorological data for that same year. The risk estimates assume a person breathes these emissions each year over a lifetime (or approximately 70 years). The EPA cautions that AirToxScreen results are best applied to larger areas – counties, states and the nation. Results for smaller areas, such as a census tract, are best used to guide follow-up local studies. AirToxScreen assessments should not be used: to pinpoint specific risk values in small areas such a census tract; to characterize or compare risks at local levels (such as between neighborhoods); to characterize or compare risks between states; to examine trends from one assessment year to another; as the sole basis for risk reduction plans or regulations; to control specific sources or pollutants; or to quantify benefits of reduced air toxics emissions. https://www.epa.gov/AirToxScreen/airtoxscreen-overview. Accessed 12/22/25.

4 https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=29060. Accessed 12/22/25.

The Toxic Releases to Air value for the MEPA Project Buffer Area is 4,393, less than the national average of 4,612.

- **Traffic Proximity** – This indicator measures the count of vehicles (AADT, average annual daily traffic) at major roads within 10 kilometers, divided by distance in kilometers. Proximity to roads can provide access to jobs, health care, food, recreational opportunities, and other benefits. However, proximity to motor vehicle traffic is associated with increased exposures to ambient noise, toxic gases, and particulate matter including diesel particulates. Any indicator of residential proximity addresses exposures relevant to the residences within a block group and would not capture most exposures that occur away from the home, such as at work, at school, or during a commute.

  The value for this indicator in the MEPA Project Buffer Area is 18,550,290, while the state average is 6,068,428, and the U.S. average is just 1,687,230.

- **Hazardous Waste Proximity** – This indicator identifies the presence of facilities that are permitted as hazardous waste management facilities (TSDFs and LQGs). As with all proximity-based indicators, proximity alone may not represent any actual risk or exposure.

  Due to the density of the MEPA Project Site's urban location and intensive medical and research activities in the vicinity, there are more proximate TSDFs and LQGs (approximately 56/km distance) than the state average (approximately 11/km distance).

- **Underground Storage Tanks –** Due to the highly urbanized nature of the surrounding area characterized by medical and institutional uses, this indicator is within the 96th percentile; which indicates there are more nearby USTs (13/km^2 distance) than both the state (3/km^2 distance) and national (4/km^2 distance) averages. Please note that proximity alone may not represent any actual risk or exposure.

Individual census block groups of EJ Populations that exceed the 80th percentile of an environmental indicator within the DGA were also identified using the EJ Screening and Mapping Tool (Version 2.3). 76 census block groups within the DGA exceed the 80th percentile for five environmental indicators (NO2, diesel particulate matter, toxic releases to air, traffic proximity, and hazardous waste proximity). Not all but majority of the 76 census block groups exceed the 80th percentile for USTs and drinking water non-compliance. A breakdown of the census block groups with associated percentile of statewide average for each environmental indicator discussed above, is included in **Appendix B**.

3.1.3.3 Pediatric Asthma Assessment

At the request of the Secretary, the Proponent reviewed pediatric asthma rates following the methodology established under MassDEP's Cumulative Impact Analysis[5] framework for establishing existing community conditions.

Asthma rates for all schools within the 1-mile DGA were identified as a proxy for community-wide asthma rates. Pediatric asthma is measured as the asthma prevalence in schools per 100 students for each individual school (K-8), both public and private, averaged for the most recent three school years available.

Asthma rates were determined using MassDEP Cumulative Impact Assessment Data and are presented in **Table 3-3**. The table lists thirty-five schools that serve students in grades K-8 who live in census tracts within one mile of the MEPA Project Site, which includes communities in Boston,

5 MassDEP requires a comprehensive cumulative impact analysis for process equipment that emits ten tons or more per year of an air contaminant under 310 CMR 7.00 and is located near EJ populations to help characterize existing pollution sources, health vulnerabilities, and other stressors that could be worsened by increased air emissions from such projects. Please note that the MEPA Project is not proposing process equipment and is not subject to MassDEP's requirements.

Brookline, and Cambridge. Asthma prevalence in 13 of the 34 schools (for which data is shown) is lower than the state rate, while prevalence in 21 schools is the same or higher.[6]

Table 3-3 Pediatric Asthma Rates

School Name	Address	Community	Average Enrollment	Prevalence (% of Students)	Percent of State Rate (MA Rate = 12.2%)
Carter Developmental Center	396 Northampton Street	Boston	NS	NS	NS
Horace Mann School for the Deaf	40 Armington Street	Boston	55.7	75.4	616%
Nathan Hale	51 Cedar Street	Boston	155	24.9	204%
John F Kennedy	7 Bolster Street	Boston	370	24.5	200%
William McKinley	90 Warren Avenue	Boston	286.7	24.2	198%
James P Timilty Middle	205 Roxbury Street	Boston	429.7	23.4	191%
Curley K-8 School	493 Centre St.	Boston	818.7	22.0	180%
Maurice J Tobin	40 Smith St	Boston	437.7	21.8	178%
ELC - West Zone	200 Heath Street	Boston	69.3	21.6	177%
Lyon K-8	50 Beechcroft Street	Boston	138.3	21.4	175%
Gardner Pilot Academy	30 Athol Street	Boston	369.3	20.8	170%
James W Hennigan	200 Heath Street	Boston	627.3	20.8	170%
Joseph J Hurley	70 Worcester Street	Boston	318.7	20.7	169%
Jackson Mann	40 Armington Street	Boston	714.3	18.9	154%
Blackstone	380 Shawmut Avenue	Boston	517.7	16.7	137%
O'Bryant School Math/Science	55 Malcolm X Blvd	Boston	296	16.2	132%
Boston Latin	78 Avenue Louis Pasteur	Boston	794	13.6	111%
Baldwin Early Learning Center	121 Corey Road	Boston	77.7	13.3	109%
Roxbury Preparatory Charter School	120 Fisher Avenue	Boston	942	9.0	74%
MATCH Charter Public School	1001 Commonwealth Avenue	Boston	670	8.7	71%
Michael Driscoll	64 Westbourne Terrace	Brookline	584.7	11.7	96%
Pierce	50 School Street	Brookline	831	11.5	94%
Edward Devotion	30 Webster St.	Brookline	821	9.7	79%
Lawrence	27 Francis Street	Brookline	689.3	8.7	71%
Vassal Lane Upper School	197 Vassal Lane	Cambridge	274.7	16.7	137%
Kennedy-Longfellow	158 Spring Street	Cambridge	223.7	13.9	114%
Community Charter School of Cambridge	245 Bent Street	Cambridge	159	13.4	110%
Putnam Avenue Upper School	100 Putnam Avenue	Cambridge	245.7	12.6	103%
Martin Luther King Jr.	102 Putnam Avenue	Cambridge	259	11.7	96%
Fletcher/Maynard Academy	225 Windsor Street	Cambridge	209	11.3	92%
Morse	40 Granite Street	Cambridge	255.7	10.2	83%
Prospect Hill Academy Charter School	50 Essex Street	Cambridge	829	10.2	83%
Amigos School	15 Upton Street	Cambridge	340.3	10.1	83%

6 A variety of factors can impact asthma rates (e.g., socioeconomic factors). Therefore, when comparing rates across geographic areas, information such as access to medical care should also be considered.

School Name	Address	Community	Average Enrollment	Prevalence (% of Students)	Percent of State Rate (MA Rate = 12.2%)
King Open	359 Broadway	Cambridge	292	9.2	75%
Cambridgeport	89 Elm Street	Cambridge	247	8.9	73%

Source: MassDEP Cumulative Impact Assessment Guidelines and the MA 2020 EJ Block Groups

As shown on **Figure 3.1**, all census tracts within 1-mile of the MEPA Project Site are identified as EJ populations. Therefore, all schools listed in the **Table 3.3** serve EJ populations. A discussion on census block groups exceeding the 80th percentile of the statewide average for an environmental indicator is included in **Section 3.1.3.2** above.

3.1.4 Project Impacts and Mitigation

3.1.4.1 Air Quality & Traffic

A mesoscale analysis of emissions, in accordance with MassDEP guidelines, was performed and is presented in **Section 9.2 of Chapter 9, Greenhouse Gas Analysis and Air Quality.** The analysis shows emissions from No-Build to Build scenarios within the traffic study area (roughly two-thirds of a mile from the MEPA Project Site). The mesoscale analysis presents emissions of NOx, VOC, CO_2, as well as PM_{10}, $PM_{2.5}$, and DPM.

As requested in the Secretary's Certificate on the ENF filing, the Proponent has reviewed the potential for MEPA Project-generated trips to impact intersections adjacent to EJ populations, as documented in the TIA. **Table 3-4** presents the level of service (LOS) results for the signalized intersections in the TIA that are adjacent to EJ Census Tracts. As shown in the table, nearly all intersections would operate with similar LOS as the No Build condition. Only one intersection would have a LOS worsen to D, E, or F, Riverway at Fenway, which shows a worsened LOS in the morning peak hour. Turning movements at unsignalized intersections were estimated to have the same LOS across No Build and Build Conditions in the TIA.

Despite the change in LOS, Riverway at Fenway only sees a 3 percent volume increase during the morning peak period from the No Build to the Build Condition. Changes in volume are directly correlated to changes in emissions. Generally, volume increases of less than 5 to 10 percent are not considered an impact from an air quality perspective.[7] The percentage change in total approach delay at this intersection is a 6 percent increase. Delay-related emissions at this intersection are expected to increase by a similar percentage for all pollutants.

Mitigation at this intersection is challenging because it is part of a series of coordinated intersections, and optimizing its timing may result in increased delays at other intersections. Additionally, modifications to this intersection are expected as part of other ongoing area efforts, such as the Boylston TIP Project, Fenway Transportation Action Plan (FTAP), and/or the MBTA's Longwood Access

7 The Federal Highway Administration uses a screening value of volume increases at least 5-10 percent for inclusion in a mobile source air toxics (MSAT) analysis (including diesel particulate matter). The City of Boston uses a screening threshold of 10 percent for carbon monoxide analysis.

Study. Nonetheless, the MEPA Project is committed to providing mitigation for this census tract as described in the mitigation section below.

Table 3-4 Signalized Intersection LOS Near EJ Census Tracts

Intersection	EJ Census Tract	No Build LOS (AM/PM)	Build LOS (AM/PM)	Build Mitigated LOS (AM/PM)
Riverway/Riverway Ext at Park Dr and Fenway	Block Group 3, Census Tract 102.04; Block Group 2, Census Tract 102.04	F/F	F/F	F/F
Riverway at Fenway	Block Group 2, Census Tract 103	E/C	F/C	F/C
Brookline Ave at Fenway	Block Group 2, Census Tract 103	C/C	C/C	C/C
Brookline Ave at Park Dr and Boylston St	Block Group 3, Census Tract 102.04; Block Group 3, Census Tract 102.05	C/D	C/D	C/D
Park Dr and Landmark Center South Drive	Block Group 3, Census Tract 102.04;	C/B	C/B	C/B
Riverway Ext/Landmark Cetner North Drive and Park Dr	Block Group 3, Census Tract 102.04;	B/B	B/B	B/B
Brookline Ave and BIDMC East Campus Entrance	Block Group 2, Census Tract 103	B/C	B/C	B/C
Brookline Ave at Longwood Ave	Block Group 2, Census Tract 103; Block Group 5, Census Tract 810.01	F/D	F/D	F/D
Brookline Ave and Deaconess Rd and Jimmy Fund Way	Block Group 5, Census Tract 810.01	C/C	C/C	C/C
Brookline Ave and Francis St	Block Group 5, Census Tract 810.01	D/D	D/D	D/D
Brookline Ave at Riverway	Block Group 5, Census Tract 810.01; Block Group 4, Census Tract 810.01	F/F	F/F	F/F
Riverway & Netherlands Rd/Pilgrim Rd	Block Group 5, Census Tract 810.01	D/B	D/B	D/B
Riverway and Longwood Ave	Block Group 2, Census Tract 103; Block Group 5, Census Tract 810.01	D/D	D/D	D/D
Riverway and Short St Ext	Block Group 2, Census Tract 103	A/B	B/B	B/B
Brookline Ave and Mid-Block St	Block Group 2, Census Tract 103	Unsignalized	Unsignalized	B/A

Mobile Source Air Quality Mitigation Measures

As described in **Section 9.2 of Chapter 9, Greenhouse Gas Analysis and Air Quality**, the MEPA Project is not expected to be a substantial source of mobile air pollutant emissions. MEPA Project emissions of air pollutants will increase by less than one ton from the No Build emissions. Additionally, Build Condition emissions will be less than existing emissions. As a result, the air quality burden in the study area will be less than current conditions.

As noted above, one intersection located in Block Group 2, Census Tract 103 is expected to experience a change in LOS due to the MEPA Project. This is the same census tract that the MEPA Project is located in. As indicated, mitigation at this specific intersection is challenging since the intersection is part of a series of coordinated signals, and changes to this signal could be detrimental to other signals. The Proponent has instead opted to provide mitigation in other forms for this census tract, as listed below.

- The Proponent will provide mitigation to reduce the MEPA Project's mobile source emissions in the form of increased commitments to EV charging infrastructure. The Proponent is proposing that 25% of spaces be equipped with EV charging equipment and the remaining 75% of spaces be made EV-ready in accordance with the City of Boston Policy. This represents a large commitment to the installation of EV infrastructure, likely to satisfy electrical charging demands well into the future.
- The Proponent is committed to an expanded TDM program focused on encouraging transit, bicycle, and pedestrian mode shares and unbundling parking from the buildings.
- The Proponent will also provide bicycle storage on-site for both employees and visitors in accordance with City of Boston Guidelines and install two Bluebikes stations as described in **Chapter 4, Transportation**.
- The Proponent will provide off-site improvements, including Brookline Avenue corridor improvements, signalization of the Mid-Block Street intersection, and improvements along Pilgrim Road, as described in **Chapter 4, Transportation**. All of these improvements are located in Block Group 2, Census Tract 103, and aim to improve traffic operations and safety, which can reduce delays and emissions. They have been accounted for in the Build with Mitigation scenario analyzed in the mesoscale study.
- The Proponent will improve Short Street through the construction of a new two-way bicycle path and landscape buffer to create a multimodal corridor with the existing pedestrian path on the Winsor School property that connects Brookline Avenue and Pilgrim Road. These enhancements will improve safety and the pedestrian/cycling experience and encourage decreased use of motor vehicles, reducing emissions. These improvements would also occur in Block Group 2, Census Tract 103.
- The Proponent is also committed to improving transit infrastructure in Block Group 2, Census Tract 103. The improvements to signals on Brookline Avenue will include signal transit priority for improved bus operations. The MEPA Project is also reconstructing the bus stop(s) along Brookline on the site side as floating bus stops with shelters and other amenities. The project team will work with the City to make sure its plan accommodates the recommendations of the Fenway-Kenmore Transportation Action Plan when it is released in the future.

3.1.4.2 Heat Island Effect

The MEPA Project will reduce the urban heat island effect through a combination of strategies, including using landscaping, the use of hardscape materials with a low solar reflectance and high-albedo roofing materials where feasible. The MEPA Project incorporates strategies to mitigate heat and stormwater impacts by allocating approximately 15 percent of the MEPA Project Site to softscape, integrating new tree canopy and understory vegetation, and using native plantings where feasible to improve air quality, support biodiversity and reduce heat island effect. The MEPA Project Site contains a mix of existing trees over a 6-inch caliper that are largely mid-size urban-tolerant species, with a combination of native and non-native varieties and varying health and ecological value. Building on existing conditions, the proposed tree strategy focuses on enhancing long-term canopy continuity, improving ecological resilience, and providing public-realm comfort through a layered planting strategy. The MEPA Project is committed to meeting or exceeding existing total caliper inches, replacing unhealthy or lower-value trees, and preserving at least one mature specimen

for potential relocation or reuse on-site. Refer to **Chapter 8, Climate Change Adaptation and Resiliency**, for further details on heat island effect mitigation.

3.1.4.3 Flooding

The MEPA Project Site has no known history of flooding. Stormwater runoff will be collected and treated, as necessary, on-site, and will be routed to infiltration systems to reduce the impact on the surrounding drainage system. As a result of the reduction in peak rates that will be provided during all design storm events, there is no anticipated flooding impacts to the MEPA Project Site, downstream to the municipal infrastructure, or to off-site adjacent EJ communities. Refer to **Section 5.2 of Chapter 5, Stormwater**, for further details on the proposed stormwater management system and proposed low impact design (LID) and green infrastructure strategies that will benefit the surrounding EJ communities.

3.1.4.4 Temporary Construction-related Impacts

Potential impacts associated with construction activities at the MEPA Project Site are related to air quality, noise, stormwater runoff, and transportation. All construction impacts will be temporary and will be mitigated through a Construction Management Plan (CMP) to be developed in close coordination with the applicable city and state agencies. Please see Chapter 10, *Construction Period,* for further details on impacts and associated proposed mitigation.

3.1.5 Project Benefits to EJ Populations

As described in the ENF, the MEPA Project aims to enhance the overall experience for visitors, residents, the workforce of the LMA and surrounding neighborhoods and nearby EJ populations through the inclusion of new active community amenities, restaurants and retail, much needed housing, approximately 2.8 acres of publicly accessible exterior open space and significant public realm improvements. Further details on the proposed open spaces and public realm improvements are described in **Section 1.4.5 of Chapter 1, Project Description**.

The Proponent will fund $7 million to create an endowment for use by the Boston Parks and Recreation Department to support the long-term needs of the Emerald Necklace parks. This payment will be made in two installments as described in further detail in **Section 1.5.1 of Chapter 1, Project Description**. The MEPA Project is anticipated to deliver approximately 388 new rental units of various sizes to accommodate a diverse array of household types, including 20 percent affordable units currently anticipated to be on-site.

The MEPA Project will achieve LEED Gold certification at a minimum for each building for all the office, laboratory, and residential buildings. The commercial buildings will target a 90 percent reduction in building fossil fuel use compared to the Stretch Code baseline by using efficient heat pump technologies (minimum 25 percent heat pump capacity). The residential buildings will be all electric/fossil-fuel free for normal operations. Additionally, the R1 Building will be Passive House certifiable. The MEPA Project will address climate change resiliency related to more extreme weather by creating publicly accessible open space and public realm, integrating greenery, trees, green infrastructure, shading structures, and materials with high solar reflectance, to the extent feasible, to reduce urban heat island impacts and improve stormwater management.

Section 1.5.1 of Chapter 1, Project Description, provides a more complete description of the public open spaces, public realm improvements, sustainability and public benefits delivered with the MEPA Project.

3.2 Public Health

3.2.1 Analysis of EJ Impacts

All census block groups within one mile of the MEPA Project Site are identified as EJ Communities. Therefore, the information in **Section 3.1** is applicable to the entire DGA.

Taken together, the communities within the DGA are ranked above the 80th percentile as compared to the statewide average for six environmental indicators. Four of these are related to air quality (National Air Toxics Assessment Diesel PM,[8] NO_2, Toxic Releases to Air, and Traffic Proximity) and two are related to proximity to harmful/hazardous substances (Hazardous Waste Proximity and USTs). Please note that proximity alone may not result in any actual risk or exposure.

As indicated in **Table 3-1**, in the City of Boston, the rates of elevated blood lead prevalence, low birth weight and childhood asthma are statistically significantly higher than the statewide averages (although within the DGA only one census tract has a statistically significantly higher rate of elevated blood lead levels, and none have a higher rate of low birth weight). Exposure to air pollution, among other environmental factors, contributes substantially to both childhood asthma and low birth weight. Proximity to harmful/hazardous substances does not typically contribute to these health conditions. Massachusetts children are most often harmed by lead from existing lead-based paint.

The MEPA Project is anticipated to result in up to approximately 3,087 net-new vehicular trips on roadways per day as compared to the Existing Condition. As described in **Chapter 4, Transportation**, the MEPA Project will exemplify transit-oriented development as residential, commercial, and retail uses adjacent to multiple public transportation service options, including MBTA Green Line, Commuter Rail, and local bus routes, as well as private bus routes, which will result in a higher proportion of transit trips rather than vehicle trips. Further, implementation of the TDM program is expected to improve air quality in the study area by promoting the use of alternative forms of transportation over the use of single-occupant motor vehicle trips to the MEPA Project Site. This modal shift results in lower MEPA Project-related Vehicle Miles Traveled (VMT), which consequently reduces indirect MEPA Project emissions. As described in **Section 9.2.4 of Chapter 9, Greenhouse Gas and Air Quality**, while the MEPA Project will result in some transportation-related greenhouse gas emissions, in the Full Build Condition, study area emissions are projected to be lower than they are under the Existing Condition.

The Proponent recognizes that construction traffic is a concern to area residents and institutions. As described in **Chapter 4, Transportation,** trucks will be routed to avoid nearby residential areas and the intersections along Longwood Avenue west of Brookline Avenue. Truck access is restricted on the Riverway, and as such, construction vehicles will avoid using the Riverway to access or egress the

8 AirToxScreen (formerly NATA) assessments should not be used to pinpoint specific risk values in small areas such as a census tract. The air toxics data presented in the EJ Screen report provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. https://www.epa.gov/AirToxScreen/airtoxscreen-frequent-questions#background4

MEPA Project Site. Therefore, anticipated truck routes are not anticipated to cause adverse impacts on health conditions in their immediate vicinity.

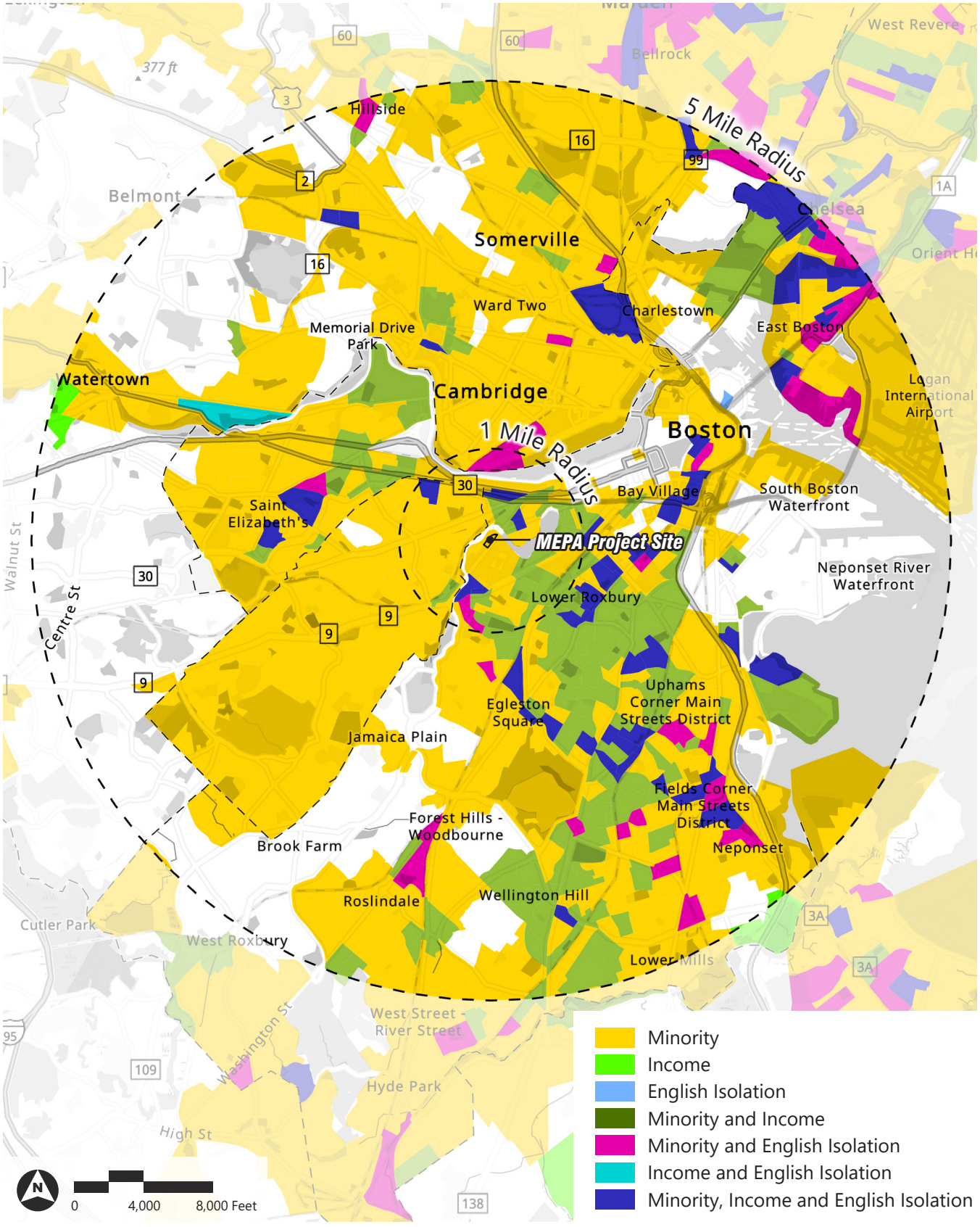
Overall, it can be concluded that the MEPA Project will not exacerbate the existing environmental burden and/or public health conditions.

3.2.2 Permit Performance Standards

An MWRA Sewer Use Discharge Permit may be required for the MEPA Project to the extent it may be required for specific waste discharges by future tenants/users. As per 360 CMR 10.051(1), "no Person shall discharge or cause or allow to be discharged, directly or indirectly, into the Authority Sewerage System, any Industrial Wastewater or other Industrial Waste, unless such discharge complies with a Sewer Use Discharge Permit or other written authorization or permit issued to the Person under 360 CMR 10.000, unless exempted by 360 CMR 10.000." Should a tenant/user require such a discharge, they will obtain a permit from the MWRA's Toxic Reduction and Control (TRAC) Department as per 360 CMR 10.052. At this time, the appropriate permit category is unknown as a specific tenant/user has not been identified. It is assumed that issuance of and adherence to the requirements of a permit, including monitoring and sampling if required, would confirm that the MEPA Project is sufficiently protective of public health.

Figure 3.1: Environmental Justice Populations in Vicinity of Project

Longwood Place | Boston, MA



Source: MassGIS 2020 EJ Populations Updated Nov 2022
https://www.mass.gov/info-details/massgis-data-2020-environmental-justice-populations

4

Transportation

This chapter presents an evaluation and summary of existing and future transportation infrastructure and operations for the MEPA Project. **Figure 4.1** illustrates the MEPA Project location and its context to the Longwood Medical Area (LMA) neighborhood. The transportation analysis has been developed to understand the potential transportation impacts of the MEPA Project and to develop appropriate transportation infrastructure improvements that support safe and efficient transportation access for the users of the MEPA Project Site, as well as the LMA as a whole.

The purpose of this study is to:

- Define and quantify existing transportation conditions in the study area as defined by the Massachusetts Department of Transportation ("MassDOT") and the Boston Transportation Department ("BTD");
- Estimate the transportation impacts that will be generated under future conditions with completion of the MEPA Project; and
- Develop a set of strategies and measures which will help to mitigate the transportation effects of the MEPA Project and provide improvements to the transportation infrastructure in the LMA.

The sections below provide an overview of the MEPA Project and a summary of findings of the transportation analyses, including anticipated impacts, proposed mitigation and transportation improvement actions, a discussion of the study methodology, and a description of the study area. Subsequent sections provide detailed discussions of existing and future conditions expected both with and without the MEPA Project. The final section of the chapter presents a detailed summary of the Transportation Demand Management ("TDM") actions that the Proponent is committed to implementing in connection with the MEPA Project.

As specifically requested in the EEA Secretary's Certificate on the ENF, this chapter provides the following documentation in response to the 'Traffic/Transportation' section of the DEIR Scope with references to specific DEIR sections in **bold:**

- The MEPA Project's peak hour trip generation estimates. **(Section 4.5.1)**
- An explanation of how the adjusted trip generation estimates were calculated. **(Section 4.5.1, with adjusted trip estimates in Section 4.5.1.5)**
- A traffic study prepared consistent with the March 2014 EEA/MassDOT Transportation Impact Assessment ("TIA") Guidelines, the DEIR Scope, and DCR's comment letter that documents the study area, trip generation estimates, mode share assumptions and any adjustments for internal capture or pass-by trips and a multimodal assessment of the transportation impacts of the MEPA Project. **(Full Chapter; refer to Section 4.2 for Methodology and Study Area)**

- A description of DCR consultation prior to completing the TIA. **(Section 4.2)**
- A description of if the study area includes intersections and roadways identified in consultation with DCR and, consistent with TIA Guidelines, as well as intersections and roadways where site traffic exceeds 100 vehicle trips per hour or 5% of existing volume, per the DEIR Scope. **(Sections 4.2 and 4.2.1. See Figures 4.19 and 4.20 for MEPA Project-generated trips)**
- A description of if the study area includes roadways and other transportation facilities that reflect conditions at key intersections, public transportation stations, and major pedestrian and bicycle facilities adjacent to EJ populations. **(Section 4.2 and Chapter 3)**
- A network map with the percentages of traffic assigned to each roadway link and each intersection for the anticipated trip generation. **(Figures 4.19 and 4.20)**
- A capacity analyses for the existing conditions, future No-Build and Build conditions (including trips generated by other nearby planned and/or approved projects and planned transportation projects, including roadway improvement projects, and transit service changes by the MBTA) conducted for the weekday morning and evening peak hours, and the Saturday peak hour for both existing and future conditions within the study area. **(Section 4.8; refer to Section 4.2 for Methodology)**
- A description of coordination with the MBTA and City regarding the appropriate data needed for analysis and about ongoing and planned transportation improvements in the vicinity of the MEPA Project Site, and with DCR regarding mitigation at DCR roadways and intersections. **(Sections 4.2 and 4.4.1.2)**
- A proposed traffic mitigation package at the MEPA Project Site intersections (including signalization of the Mid-Block Street and Brookline Avenue intersection) and at any locations where MEPA Project-generated traffic will impact roadway operations to reduce vehicular travel while supporting increased use of carpooling, walking, bicycling, and transit by residents, employees, and visitors. **(Sections 4.6 and 4.9)**
- A description of the transit ridership that will be generated by the MEPA Project, and provide an analysis of the impacts of MEPA Project-generated ridership on the MBTA's system. **(Section 4.5.1; refer to Section 4.2 for Methodology and 4.4.1.2 for a discussion of future public transit)**
- A description of potential proposed public transit mitigation measures. **(Sections 4.6.1 and 4.6.3)**
- A summary of the recommendations of the Fenway-Kenmore Transportation Action Plan, identification of potential measures that may be funded by the Proponent, and description of consistency of the potential mitigation measures with those recommended by the MBTA. **(Section 4.4.1.2)**
- Clarification of whether mitigation requested by MBTA will be funded through the $4 million contribution to the City or directly by the Proponent. **(Section 4.1)**
- An inventory of all on-site and off-site existing, planned, and proposed pedestrian and bicycle services, facilities, and routes for accessing the MEPA Project Site. **(Sections 4.3, 4.4.1, 4.6, and 4.7.4, as well as Figures 4.13 and 4.14)**
- An evaluation of the pedestrian network, including pavement conditions, sidewalk widths, crosswalks, compliance with current accessibility standards, and existing pedestrian volumes and movements. **(Figures 4.8 and 4.9)**
- An inventory of the bicycle network, including bikeway types, bikeway widths, and bicycle numbers and speeds, and identification of the likely travel routes for bicyclists within the study

area, assess the degree to which these routes can safely support bicycle travel. **(Section 4.3.4 and Figures 4.10, 4.11, 4.13, and 4.14)**

- The Proponent should work with DCR to ensure that a seamless connection between the existing and planned pedestrian facilities that span across multiple jurisdictions is available to accommodate demand generated by the MEPA Project. **(Sections 4.1 and 4.6)**
- A description of the proposed parking supply in relation to the City's parking ratio for the site, ITE parking ratios, and the parking supply at other locations within walking distance of the MEPA Project Site, as well as the proposed parking pricing and shared parking approach. **(Sections 4.7.1 and 4.9, and Figure 4.12)**
- Identification of any on-street parking or drop-off areas to be constructed along Brookline Avenue and Pilgrim Road. **(Section 4.7.2)**
- An evaluation of additional TDM measures. **(Section 4.9)**

4.1 Project Overview

The MEPA Project includes the construction of a mixed-use redevelopment totaling approximately 1.65 million square feet across five buildings, including approximately 340,000 square feet of residential space (totaling approximately 388 units), approximately 1,133,100 square feet of office, research and development, life sciences and/or potentially academic uses (referred to as office/life sciences), approximately 34,000 square feet of ground floor retail space, approximately 125,900 square feet of medical/clinical space, and approximately 15,000 square feet of community uses. The MEPA Project will be supported by 520 vehicle parking spaces and approximately 1,098 bicycle parking spaces located within buildings for residential and commercial tenants and visitors.

The breakdown of the MEPA Project program is summarized in **Table 4-1** and described in detail in **Chapter 1, *Project Description***. **Figures 4.2 and 4.3** present the proposed MEPA Project Site plan, including pedestrian and bicycle connections, vehicular access, and other key transportation elements.

Table 4-1 MEPA Project Program Summary

MEPA Project Use / Element	MEPA Project Size	
Total Building Area	**1,648,000**	**SF GFA**
Residential	340,000	SF
Office/Life Sciences	1,133,100	SF
Medical/Clinic	125,900	SF
Retail	34,000	SF
Community Uses	15,000	SF
Parking Spaces	**520**	

SF Square Feet
GFA Gross Floor Area
Source: Skanska USA, Inc. Development program (January, 2025).
Note: The 2025 development program is aligned with the program listed in BPDA Document No. 8030, Board Approval for PDA No. 134, Longwood Place (January 19, 2023).

The mix of residential, commercial, retail and medical uses within the MEPA Project Site are expected to benefit from excellent transit accessibility within the LMA, resulting in a high proportion of transit trips rather than vehicle trips.

The MEPA Project is proposing a new Mid-Block Street connecting Brookline Avenue to Pilgrim Road. The proposed roadway will serve as the primary vehicular access point to the MEPA Project Site, with access to the proposed underground 520-space garage and off-street loading facilities, which will also be located below-grade. Accessing the parking and off-street loading facilities from the Mid-Block Street eliminates the need for additional curb cuts along Brookline Avenue and helps minimize interruptions to public realm. Drop-off/pick-up zones will also be introduced along the Mid-Block Street to serve the MEPA Project. The Mid-Block Street will establish a stronger pedestrian connection between the existing pathway connecting the Colleges of the Fenway and the MEPA Project, as well as the Emerald Necklace. The Mid-Block Street will be signalized at Brookline Avenue to support safe and efficient access and egress from the MEPA Project Site to the surrounding transportation network. This location will also be fitted with a pedestrian crosswalk across Brookline Avenue, which will interlink the MEPA Project Site to the rest of the LMA and the Colleges of the Fenway. This improvement has been discussed and studied by the City and LMA institutions for many years and will be put in place in connection with the MEPA Project.

Along Brookline Avenue, the MEPA Project will provide a dedicated drop-off/pick-up zone with the intent of building upon BTD's current initiatives to manage curbside activity. Along Pilgrim Road, a hybrid lane will be provided along the MEPA Project Site frontage south of Mid-Block Street to accommodate vehicles that are queuing while waiting to drop off and pick up Winsor students, and an additional hybrid lane will be provided along the northwest side of Pilgrim Road to accommodate approximately two Winsor athletic buses. A drop-off zone for the R2 residential building will also be provided along Pilgrim Road.

The MEPA Project will rely on transit, walking, and bicycling as the primary modes of transportation to and from the MEPA Project Site. During the PDA Development Plan review, the Proponent worked closely with the BPDA and BTD to determine a parking program that could support the MEPA Project's land uses while also helping to reduce auto dependency, in alignment with the City's goals to reduce auto mode shares.

As described further in this chapter, the Proponent is also proposing various mitigation measures to enhance the pedestrian and bicyclist experience in the vicinity of the MEPA Project, including:

- Enhanced streetscape along the MEPA Project Site's Brookline Avenue frontage, including new, wider sidewalks, lighting, visitor bicycle parking, landscaping, and a grade-separated bicycle lane. The enhanced Brookline Avenue streetscape will tie into the existing streetscape north of Pilgrim Road.
- Modified curb geometry at the intersection of Brookline Avenue at Pilgrim Road to physically restrict left turns and improve pedestrian safety by shortening the crosswalk length.
- New protected, signalized accessible pedestrian crosswalks across Brookline Avenue that align with the existing Colleges of the Fenway pathway at the proposed Mid-Block Street.
- Construction of a new two-way bicycle path and landscape buffer to create a multimodal corridor with the existing pedestrian path on the Winsor School property that connects Brookline Avenue and Pilgrim Road.

- Intersection improvements at the intersection of Brookline Avenue and the Beth Israel Deaconess Medical Center ("BIDMC") driveway, including an expanded accessible crosswalk, two-way bicycle crossing, and new or relocated traffic, pedestrian, and bicycle signal equipment.
- Working with the MBTA and the BTD to relocate and reconstruct up to two existing MBTA/LMA shuttle bus stops adjacent to the MEPA Project Site on the west side of Brookline Avenue with floating bus stops and new shelters, pending coordination with The City and MBTA. The design and construction of the new bus stop(s) will be funded through the 4 million dollars Transportation Infrastructure Contribution committed in the approved PDA Development Plan.[1]
- Sponsor and accommodate two (2) on-site bikeshare (Bluebikes) stations for year-round public use.

Additionally, the MEPA Project will include a robust program of TDM strategies to take full advantage of its multiple mobility options and its synergy with the surrounding neighborhood. The primary objective of the TDM plan is to reduce single occupant vehicle ("SOV") travel by minimizing reliance on auto travel and enhancing mobility by alternative modes. The TDM plan will incorporate the planned bicycle accommodations and facilities within the MEPA Project Site, which will comply with current BTD guidelines to encourage bicycling, as well as walking, as a strong transportation mode. It will also include parking management strategies that will encourage shared parking use and reduce future parking demand of the MEPA Project.

Finally, the Proponent will collaborate with the community and local and State agencies regarding ongoing local and area-wide transportation infrastructure initiatives. Ongoing initiatives include the City's design of Brookline Avenue following the design objectives of BTD's Complete Streets Guidelines, as well as the Fenway-Kenmore Transportation Action Plan ("FTAP"). As stated in the BPDA Board Memorandum approval of the PDA Development Plan, the Proponent is committed to helping implement area transportation recommendations developed as part of the FTAP. The Proponent is also committed to partnering with the TMA to seek to improve last-mile connections between the MEPA Project Site and nearby MBTA Green Line, Orange Line, and commuter rail services.

4.2 Methodology

The transportation analysis presented in this chapter conforms to MassDOT and BTD Guidelines and uses standard methodologies such as the Institute of Transportation Engineers ("ITE") *Trip Generation Manual* (11th Edition) and local travel characteristics as defined in *Access Boston 2000-2010* and *GoBoston 2030*.

The study was conducted in two stages. The first stage is the 2025 Existing Conditions, which involved a survey and compilation of existing transportation conditions within the study area (defined below) including:

- An inventory of the transportation infrastructure within the defined MEPA Project study area;
- Geometric and operational characteristics of study area roadways and intersections;
- Existing traffic control at study area intersections (i.e., traffic signalization, stop signs, one-way streets, etc.);
- Area off-street and on-street parking supply;

1 BPDA Document No. 8030, Board Approval for PDA No. 134, Longwood Place (January 19, 2023).

- Pedestrian activity along study area roadways and at study area intersections and,
- Bicycle activity and accommodations; and
- Public transportation options within the study area.

In the second stage of the study (Evaluation of Long-Term Transportation Impacts), future transportation conditions were projected within the study area. The future No-Build Condition includes an assessment of future transportation, including planned transportation infrastructure improvements and growth related to other proposed projects within the study area (without consideration of the MEPA Project). The Future Build Condition assesses the No-Build Condition plus the MEPA Project.

Roadway capacity for morning and evening peak commuter periods were studied and are summarized for the following conditions:

- 2025 Existing Condition;
- 2032 No-Build Condition; and
- 2032 Build Condition.

During development of the DEIR, the Proponent shared information to coordinate with both DCR and the MBTA, including a description of the proposed MEPA Project study area, analysis methodology, trip generation, site plan, etc. The MBTA requested a follow-on meeting, which was held in October of 2025.

Within the DEIR scope, it was requested that the study analyze a Saturday peak hour in addition to weekday commuter peak hours. However, based on a review of the proposed mix of land uses and their anticipated travel demand characteristics, it was found that the MEPA Project would generate a significantly lower amount of trip activity during a Saturday period. Furthermore, weekend travel patterns within the LMA generally result in less strain upon the existing transportation network than weekday commuter periods. Therefore, the Saturday peak hour was excluded from this analysis.

Specific travel demand forecasts for the MEPA Project were assessed along with future transportation demands due to traffic growth from other planned or approved projects within the study area. The year 2032 was selected as the horizon year for the purposes of quantifying and assessing future transportation impacts generated by the MEPA Project.

This chapter also quantifies the proposed mitigation and improvement actions (as described above) to address MEPA Project-related pedestrian, parking, traffic, and public transportation impacts that have been identified. The proposed improvement actions serve as the basis for the forthcoming preparation of a Transportation Access Plan Agreement ("TAPA") to be developed and executed with the Boston Streets Cabinet and the Planning Department for each stage of Article 80B review.

4.2.1 Study Area

The traffic study area is depicted in **Figure 4.4** and includes the following key intersections:

1. Park Drive at Riverway
2. Park Drive at Riverway Eastbound
3. Brookline Avenue at Riverway/Fenway
4. Brookline Avenue at Boylston Street/Park Drive

5. Park Drive at Landmark Center South Drive
6. Park Drive at Landmark Center Entrance North Drive
7. Brookline Avenue at Pilgrim Road
8. Brookline Avenue at BIDMC Main Entrance/Short Street
9. Brookline Avenue at Longwood Avenue
10. Brookline Avenue at Deaconess Road/Jimmy Fund Way
11. Brookline Avenue at Francis Street
12. Brookline Avenue at Riverway
13. Riverway at Pilgrim Road/Netherlands Road
14. Riverway at Longwood Avenue
15. Riverway at Short Street Extension
16. Brookline Avenue at Mid-Block Street (*Build Condition Only*)
17. Pilgrim Road at Short Street
18. Longwood Avenue at Nessel Way/Autumn Street
19. Riverway at Nessel Way
20. Pilgrim Road at Mid-Block Street (*Build Condition Only*)

The majority of the roadways within the study area are under City of Boston jurisdiction. Exceptions to this include the Riverway, Fenway, and the Sears Rotary (i.e., the system of intersections connecting Fenway and Park Drive to the north of the MEPA Project Site), which are under the jurisdiction of the Department of Conservation and Recreation ("DCR"). Additionally, the Longwood Avenue Bridge and the Brookline Avenue/Sears Rotary culvert over the Muddy River are under MassDOT jurisdiction. A summary of roadway jurisdiction in the LMA is provided in **Figure 4.5**.

The above study area intersections were selected to include locations meeting MassDOT thresholds for intersections and roadways where site traffic exceeds 100 vehicle trips per hour or 5% of existing traffic volume. All signalized intersections under DCR jurisdiction along the Riverway and within the Sears Rotary are also included in the study area. These intersections were evaluated in detail using standard traffic engineering analysis techniques following MassDOT and BTD guidelines to identify incremental impacts of future traffic growth and MEPA Project-generated traffic.

4.3 Existing Transportation Conditions

Existing transportation conditions in the study area, including roadway geometry, traffic control at study area intersections, peak hour traffic and pedestrian flows, bicycle facilities, and transit availability, are described within this section.

4.3.1 Data Collection

As part of this transportation impact study, morning and evening peak hour turning movement counts ("TMCs") were collected from 6:00 to 9:00 a.m. and from 3:00 to 6:00 p.m. at all 18 existing study area intersections. Intersections 1 through 7 (i.e., the Sears Rotary) and 15 (Riverway at Short Street Extension) were observed in May 2024; Intersections 8 through 14 were collected in December 2023 (intersections along Brookline Avenue and further south along the Riverway); Intersections 18

and 19 were collected in June 2025 (intersections along Nessel Way). Intersection TMCs were used to establish baseline traffic volume networks for the 2025 Existing Condition for the morning and evening weekday peak hours. Comparisons between data from adjacent intersections and of counts conducted on different days have been used to balance the networks and to adjust for any noted day-to-day and/or seasonal variations between different counts.

The 2025 Existing Condition morning and evening weekday peak hour traffic volumes are shown in **Figures 4.6 and 4.7**. Pedestrian and bicycle volumes were gathered concurrently with vehicle turning movement volumes, and those summaries are illustrated in **Figures 4.8 and 4.9** for pedestrians, and **Figures 4.10 and 4.11** for bicycles.

Detailed traffic count data sheets are provided in **Appendix C**.

4.3.2 Crash Data Inventory

A detailed crash inventory was conducted to identify vehicle crash trends and potential roadway deficiencies in the intersections surrounding the MEPA Project. Both Registry of Motor Vehicle ("RMV") data and City of Boston Police data are compiled, reviewed, and presented herein. The MassDOT roadway crash database is comprised of crash data from the Massachusetts RMV Division primarily for use in traffic studies and safety evaluations. Data files are provided for entire calendar years, though it is certain that some crash records are omitted either due to individual crashes not being reported, or the city crash records not being provided in a compatible format for RMV use. The vehicle crash data for the MEPA Project study area intersections were obtained from MassDOT for the most recent available five-year period from 2018 to 2022. A summary of vehicle crash history at each intersection based on the available RMV data is included in **Table 4-2**. Detailed crash data are presented in **Appendix C**.

Crash rates are calculated based on the number of crashes at an intersection and the volume of traffic travelling though that intersection daily. Rates that exceed MassDOT's average for crashes, at intersections in the district in which the town or city is located, could indicate safety or geometric issues for an intersection. As Boston is located within MassDOT's District 6, the calculated crash rates were compared to those of MassDOT District 6, which are 0.71 for signalized intersections and 0.52 for unsignalized intersections. These rates imply that, on average, 0.71 crashes occurred per million vehicles entering signalized intersections throughout District 6, and 0.52 crashes occurred per million vehicles entering unsignalized intersections.

A review of the crash data indicates that all study area intersections are below the MassDOT District 6 crash rate averages. Over the five-year period, a total of 155 crashes were recorded among 18 existing study area intersections. The highest number of intersection crashes were recorded at Brookline Avenue at Riverway: 39 crashes, two of which involved vulnerable roadway users (i.e., pedestrians and/or bicyclists).

Table 4-2 2018-2022 MassDOT Crash Data Summary

Intersection	MassDOT Average Crash Rate	Calculated Crash Rate	Exceeds Average?
Park Drive at Riverway	0.71	0.08	No
Park Drive at Riverway Eastbound	0.71	0.05	No
Brookline Avenue at Riverway/Fenway	0.71	0.28	No
Brookline Avenue at Boylston Street/Park Drive	0.71	0.46	No
Park Drive at Landmark Center South Drive	0.71	0.68	No
Park Drive at Landmark Center Entrance North Drive	0.71	0.00	No
Brookline Avenue at Pilgrim Road	0.52	0.03	No
Brookline Avenue at BIDMC Main Entrance/Short Street	0.71	0.03	No
Brookline Avenue at Longwood Avenue	0.71	0.16	No
Brookline Avenue at Deaconess Road/Jimmy Fund Way	0.71	0.06	No
Brookline Avenue at Francis Street	0.71	0.11	No
Brookline Avenue at Riverway	0.71	0.58	No
Riverway at Pilgrim Road/Netherlands Road	0.52	0.17	No
Riverway at Longwood Avenue	0.71	0.46	No
Riverway at Short Street Extension	0.71	0.05	No
Pilgrim Road at Short Street	0.52	0.00	No
Longwood Avenue at Nessel Way/Autumn Street	0.52	0.00	No
Riverway at Nessel Way	0.52	0.03	No

Source(s): Massachusetts RMV data, crash years 2018 to 2022.
Traffic volume data was obtained from the TMCs described in this report.

The most frequent crash type observed within the study area were angled collisions, which totaled 38 percent of all crashes. A majority of crashes resulted in property damage only (57 percent), with 35 percent resulting in non-fatal injuries. One crash did result in a fatality, which occurred in 2019 at the intersection of Brookline Avenue at Boylston Street/Park Drive and involved a bicyclist. This intersection was reconfigured in 2019 to add new bicycle infrastructure on Brookline Avenue and again in 2022 to add bicycle infrastructure and daylighting on Boylston Street.

Based on the crash inventory, 19 percent of reported crashes occurred during weekday commuter peak hours (i.e., 7:00-9:00 a.m. and 4:00-6:00 p.m.), while 81 percent occurred during other times. A total of 79 percent of reported incidents occurred on dry pavement conditions; 17 percent occurred with wet or snowy pavement conditions. Nine of the total reported crashes involved a pedestrian or bicyclist.

According to the MassDOT Top Crash Locations interactive map, two study area intersections were identified as Highway Safety Improvement Program ("HSIP")-eligible intersections:

1. Brookline Avenue at Riverway – Top 5% Intersection Crash Clusters 2019-2021
2. Brookline Avenue at Boylston Street/Park Drive – Top 5% Intersection Crash Clusters 2019-2021

A Roadway Safety Audit ("RSA") was submitted to MassDOT in 2020 for the intersection of Boylston Street at Brookline Avenue/Park Drive and the Sears Rotary intersections. The RSA calls for various pedestrian and bicycle accommodations to enhance safety and access around the Sears Rotary.

4.3.3 Area-wide Parking

The overall supply of off-street parking in the area is reduced by the number of spaces reserved for specific institutions or specific users within those institutions. Most of the hospital-controlled spaces are reserved for each institution's employees, patients and visitors. Many LMA institutions maintain long waiting lists of employees seeking reserved off-street parking.

Off-street public parking areas within one-half mile of the MEPA Project Site are shown in **Figure 4.12**. In total, there are approximately 3,650 spaces provided in these facilities. Midday, there is generally little available parking at these facilities.

4.3.4 Existing Bicycle Facilities

Bicycle facilities are provided on various roadway segments in and around the LMA. On-street buffered bicycle lanes are provided on Brookline Avenue and are heavily used by daily commuters. On-street buffered bicycle lanes are also provided along portions of Beacon Street north of the MEPA Project Site, as well as Boylston Avenue to the east. On Longwood Avenue, sharrow markings are provided along the street which transition to on-street bicycle lanes west of the MEPA Project Site. In addition, the Emerald Necklace Park provides public recreational space, including paths for bicyclists and pedestrians. A map of existing bicycle facilities in the vicinity of the MEPA Project is shown in **Figure 4.13**.

Short-term visitor bicycle parking is provided in various locations around the LMA by the Longwood Collective and others in the area. There are three Bluebikes stations located within a 0.25-mile radius of The MEPA Project Site, as well as several other stations just outside 0.25 miles:

1. Landmark Center – Brookline Avenue at Park Drive – 15 Docks
2. Pilgrim Road at Brookline Avenue – 19 Docks
3. Colleges of the Fenway – Fenway at Avenue Lous Pasteur – 15 Docks
4. Longwood Avenue at Binney Street – Valet Service
5. HMS/HSPH – Avenue Louis Pasteur at Longwood Avenue – 23 Docks

Existing nearby Bluebikes locations are presented in **Figure 4.14**.

4.3.5 Existing Transit Services

The LMA is served by both MBTA rail lines and the MBTA bus system. The MBTA rail system does not enter the neighborhood directly; the Green Line D branch and E branch border the LMA to the north and south, respectively. MBTA bus service in the LMA is primarily concentrated along Brookline Avenue. The MBTA bus system is proposed to be reconfigured as part of the ongoing Bus Network Redesign, which is discussed in a subsequent section of this report.

4.3.5.1 MBTA Rail Service

The MEPA Project Site and larger LMA neighborhood is located between the Heath Street (E) Branch and the Riverside (D) Branch of the MBTA Green Line; the area is also served by the Orange Line and several branches of the MBTA's Commuter Rail system, as described below in **Table 4-3**.

Table 4-3 Existing Public Transportation: MBTA Rail

Service Line	Origin-Destination	Peak Headway (minutes)	Nearest Station	Proximity to MEPA Project Site
Subway				
Green Line D Branch	Riverside Station – "Union Square	Weekday: 6-8 Saturday: 5-15 Sunday: 8-20	St. Mary's	0.5-mi walk (~13 minute walk)
Green Line E Branch	Heath Street – "Medford/Tufts Station	Weekday: 6-8 Saturday: 5-15 Sunday: 8-20	Longwood Medical Area	0.7-mi walk (~16 minute walk)
Orange Line	Forest Hills – "Oak Grove	Weekday: 4-5 Saturday: 7-8 Sunday: 8-10	Ruggles	1-mi walk (~24 minute walk)
Commuter Rail		Varies	Ruggles	1-mi walk (~24 minute walk)
Framingham/Worcester Line	Framingham/Worcester – South Station			
Needham Line	Needham – South Station			
Franklin Line	Franklin – South Station			
Providence/Stoughton Line	Providence/Stoughton – South Station			

MBTA December 2025, Winter Schedule

4.3.5.2 MBTA Bus Service

In the LMA, seven bus routes provide service on Brookline Avenue, including routes 8, 19, 47, 60, 65, CT2, and CT3, all of which pass by the MEPA Project Site and utilize stops adjacent or nearby. Bus route 39 borders the LMA to the south along Huntington Avenue. These MBTA bus routes are presented in **Table 4-4** and **Figure 4.15**.

Table 4-4 Existing Public Transportation: MBTA Bus

MBTA Bus Route	Origin-Destination	Peak Headway (minutes)	Nearest Stop	Proximity to MEPA Project Site
Crosstown 2 (CT2)	Sullivan Square Station – Ruggles Station	20- to 25-	› Brookline Avenue at Short St	0-mi walk (~0 minute walk)
Crosstown 3 (CT3)	Beth Israel Deaconess Hospital – Andrew Square Station	20-	› Ave Louis Pasteur at Longwood Ave	0.5-mi walk (~12 minute walk)
Route 8	Kenmore Square – Harbor Point/UMass Boston in Dorchester	15- to 20-	› Brookline Ave at Pilgrim Rd › Brookline Avenue at Short St	0-mi walk (~0 minute walk)
Route 19	Kenmore Square – Fields Corner in Dorchester	15- to 25-	› Brookline Ave at Pilgrim Rd › Brookline Avenue at Short St	0-mi walk (~0 minute walk)
Route 39	Forest Hills Station – Back Bay Station	6- to 8-	› Huntington Ave at Louis Prang St	0.7-mi walk (~16 minute walk)
Route 47	Central Square Station – Broadway Station	15- to 20-	› Brookline Ave at Pilgrim Rd › Brookline Avenue at Short St	0-mi walk (~0 minute walk)
Route 60	Chestnut Hill in Newton – Kenmore Square	25-	› Brookline Ave at Pilgrim Rd › Brookline Avenue at Short St	0-mi walk (~0 minute walk)
Route 65	Brighton Center – Kenmore Square	8- to 15-	› Brookline Ave at Pilgrim Rd › Brookline Avenue at Short St	0-mi walk (~0 minute walk)
Route 66	Harvard Square – Nubian	8- to 12-	› Brookline Ave at Pilgrim Rd › Brookline Avenue at Short St	0-mi walk (~0 minute walk)

MBTA December 2025, Winter Schedule

4.3.5.3 Longwood Collective Shuttle Services

In addition to MBTA bus routes, Longwood Collective operates shuttle routes that provide service within one-half mile of the Project. Their routes are described below in Table 4-5.

Table 4-5 Existing Public Transportation: Longwood Collective Shuttle

Shuttle Route	Origin-Destination	Peak Headway (minutes)	Nearest Stop	Proximity to MEPA Project Site
Fenway (AM/Mid/PM)	LMA – Fenway Area	6- to 8-	Brookline Avenue at Short Street	0-mi walk (~0 minute walk)
JFK (AM/Combo/PM)	LMA – JFK/UMass Station	5- to 15-	Longwood Ave at Binney St	0.2-mi walk (~5 minute walk)
Ruggles (AM/PM BIDMC)	LMA – Ruggles Station	5- to 10-	Brookline Avenue at Short Street	0-mi walk (~0 minute walk)
Renaissance (AM/PM)	LMA – Renaissance Garage	10- to 15-	Longwood Ave at Binney St	0.2-mi walk (~5 minute walk)
M2	LMA – Harvard University	10-	Brookline Ave at Park Dr	0.2-mi walk (~5 minute walk)

Longwood Collective, December 2025

4.4 2032 No-Build Condition

The 2032 No-Build Condition was developed and analyzed to evaluate future transportation conditions in the study area, such as development project traffic growth, without taking into consideration the MEPA Project. This future analysis year represents a seven-year horizon from the 2025 Existing Condition.

4.4.1 Area Developments and Transportation Improvements

The LMA continues to evolve with new developments proposed by both academic and healthcare institutions, as well as other private developments. As such, there are many supporting transportation infrastructure initiatives that are currently being put in place by these proponents in connection with their respective development projects. There are also specific transportation initiatives and improvements being led by the City of Boston, Commonwealth of Massachusetts, the MBTA, and/or the Longwood Collective.

4.4.1.1 Area Developments

There are currently ten approved or planned development projects that are expected to have an influence on future year peak hour traffic volumes on study area roadways and intersections. Except where specifically noted, their anticipated transportation impacts have been included within the analyses of the 2032 No-Build and Build Conditions. A description of each approved or planned project is provided below.

- **Landmark Center** is a phased transformation of the Landmark Center with Phases 1 and 2 previously completed. Phase 3 introduces a new building with approximately 550,000 square feet (sf) of office/life sciences space and an approximately 50,000 sf grocery store at the ground floor (representing approximately 490,000 sf of net-new building area, taking into account the demolition of an existing building addition). Phase 3 is currently under construction.
- **Fenway Corners** is a 5.32-acre redevelopment project comprising 13 parcels located in the Fenway neighborhood. Fenway Corners consists of 1,623,475 square feet, and it encompasses office/research, residential, and retail uses. This project includes the extension of Richard B. Ross Way from Van Ness Street to Brookline Avenue, contributing to improved connectivity and accessibility. Fenway Corners (North) has been approved by the BPDA Board, and a Notice of Project Change for Fenway Corners (West) was also approved in 2024.
- **Fenway Center** is a 4.5-acre development which consists of land and air rights parcels totaling approximately 1.3 million sf of mixed-use development. Phase 1 calls for redevelopment of an existing surface parking lot into Buildings 1 & 2, while Phase 2 calls for constructing Buildings 3 and 4 which are on air-rights parcels above the Turnpike. Fenway Center Phase 1 is complete, and Phase 2 is currently under construction. The Fenway Center project includes various improvements to public realm including open spaces, roadway upgrades and pedestrian connections.
- **1400 Boylston Street** comprises the redevelopment of the 2.4-acre site at 1380-1420 Boylston Street in the Fenway neighborhood and includes an approximately 548,000 sf project, featuring 531,000 sf dedicated to office/research and development, along with 17,000 sf designated for retail/restaurant/service establishments. This project also incorporates over half an acre of

landscaped green space and includes underground parking to support the building's programming. This project has been approved by the BPDA Board.

- **819 Beacon Street** is a board-approved project consisting of 280,900 sf of mixed-use development, including 393 residential housing units and 53 units of institutional patient-family housing, as well as 1,600 sf of retail spaces. As part of this project, the proponent is proposing various transportation and public improvements such as two-way cycle tracks and providing easements for a planned multi-use path and pocket park on site.
- **Future Cancer Hospital (1 Joslin Place)** calls for the demolition of the existing Joslin Diabetes Center Building and the reconstruction of approximately 450,000 sf of primarily hospital use supporting 300 inpatient beds and 20 observations beds. This project was board approved in 2024. This project is proposing various improvements to the public realm including construction of one-way cycle tracks on both sides of Brookline Avenue running between Francis Street and the Beth-Israel East Campus, reconfiguration of the Joslin Place and Deaconess Road intersections as well as reconstruction of the Joslin Park. The following outline various mitigation items that have been included in the future No-Build and Build Conditions for the MEPA Project:
  - The intersection of Riverway at Pilgrim Road/Netherlands Road will be signalized.
  - The intersection of Brookline Avenue at Longwood Avenue will be modified as part of the Future Cancer Hospital to eliminate the exclusive northbound left-turn lane onto Longwood Avenue.
  - The realignment of Joslin Place and the retiming/optimization of the new Brookline Avenue at Joslin Place/Deaconess Road/Jimmy Fund Way intersection.
- **80-100 Smith Street** is slated for redevelopment, with plans to replace the current buildings on site. The proposed project entails the construction of new residential buildings totaling approximately 202,000 sf with 218 rental units and maintaining an existing 41,000 sf of office use. This project was board approved in 2024. Traffic generated as part of this project was not added to the 2032 No-Build Conditions due to its minor trip impact on study area intersections.
- **775 Huntington Avenue** is a mixed-use, residential development providing 2,000 sf of retail space on the ground floor, as well as 129,100 sf of residential use (with approximately 112 units). This project will provide various public benefits including mixed-income housing units as well as improved site infrastructure. This project has received BPDA board approval. Traffic generated as part of this project was not added to the 2032 No-Build Conditions due to its minor trip impact at study area intersections.
- **45 Worthington Street** proposes replacing the current above-grade parking garage that serves the residential building at 75 St. Alphonsus Street. The proposed project includes the construction of a new six-story multifamily residential rental building which is approximately 112,500 sf, offering a total of 141 units. This project is currently under review. Traffic generated as part of this project was not added to the 2032 No-Build Conditions due to its minor trip impact at study area intersections.
- **142-146 St. Mary's Street** proposes replacing an existing commercial parking structure with a six-story, approximately 84,520 sf residential building containing 85 units. As part of this project, a new pedestrian path will connect the MBTA Green Line Fenway Station to Medfield Street. This project has received BPDA board approval. Traffic generated as part of this project was not added to the 2032 No-Build Conditions due to its minor trip impact at study area intersections.

4.4.1.2 Area Transportation Initiatives

Fenway-Kenmore Transportation Action Plan

The FTAP, a joint effort between the BPDA and BTD, will guide changes to roadways and the public realm within the Fenway, Kenmore, and LMA neighborhoods. The work will include planning, analysis, and design and is aligned with three broad goals: expanding walking, biking, and transit networks; maintaining a welcoming urban neighborhood for all people; and implementing resilience measures. The plan will identify and advance projects for implementation and will prepare preferred redesign concepts for Kenmore Square, Van Ness Street/Ipswich Street, and Brookline Avenue. Final design and implementation will occur in a follow-up process. As the FTAP is still under development, no changes are planned to be incorporated into the future conditions of this analysis, per ongoing coordination with the City of Boston.

Bicycle Infrastructure Improvements

The City of Boston is currently working on the design and construction of proposed improvements to the bicycle facilities along Boylston Street, extending to the Sears Rotary. Bicycle lanes are proposed along the majority of both directions of Boylston Street to provide dedicated facilities to the growing number of bicyclists in the area.

Longwood Avenue/Riverway Improvements

MassDOT is proposing to repave and restripe Longwood Avenue, along the portion of the bridge over the Muddy River. This will include installing bicycle facilities and potentially modifying the land assignment/signal phasing at the Riverway intersection. As an alternative has not yet been selected, no changes were included at the intersection of the Riverway at Longwood Avenue in the future conditions of this analysis.

MBTA Bus Network Redesign

Additionally, the MBTA is proposing to modify the bus service and routing in the area. The Bus Network Redesign ("BNR") aims to update the MBTA's bus network to reflect shifting demographics, emerging employment districts, increasing traffic congestion, and changing travel patterns in Greater Boston and create a better experience for current and future bus riders. The Bus Network Redesign final report was released in February 2023 and updated with a revised Network Map in Fall 2025. The proposed routing plan for the LMA is shown in **Figure 4.16**; the final routing plan will be developed via recommendations from the LMA Circulation Study in Winter 2026. Phase 1 of the Bus Network Redesign was implemented from Fall 2024 through Winter 2024. Near The MEPA Project, the following MBTA bus routes will be modified in future phases of the BNR:

- **Routes CT2 and CT3** will be eliminated as part of the network redesign and replaced by extended service on other bus routes.
- **Route 12** will connect Brookline Village to the Seaport via the LMA and Nubian Square. This route is planned to operate with headways of 15 minutes or better.
- **Route 22** will connect Ashmont to the LMA via Jackson Square. This route is planned to operate with headways of 15 minutes or better.

- **Route 28** will connect Mattapan to Kenmore to Nubian Square via Roxbury crossing and the LMA. This route is planned to operate with headways of 15 minutes or better.
- **Route 39** will continue to connect Forest Hills to Copley/ Back Bay. This route will operate with headways of 15 minutes or better.
- **Route 47** will connect Union Square to Ruggles via the LMA. This route is planned to operate with headways of 15 minutes or better.
- **Route 60** will continue to connect Chestnut Hill to Kenmore Station via Brookline Village and the LMA. The route is expected to operate with headways of 45 minutes or less.
- **Route 65** will connect Brighton to Ruggles via the LMA, as opposed to Brighton Center to Kenmore Station in the current bus network. The route is expected to operate with headways of 45 minutes or less.
- **Route 66** will continue to connect Harvard Square to Nubian Square but will be rerouted to connect via the LMA. The route is expected to operate on headways of 15 minutes or less.
- **Route 85** will connect Assembly Square to Ruggles via the LMA with headways of 30 minutes or better during peak commuter hours, and 90-minute headways during off-peak hours. This route will operate on weekdays only.

4.4.2 2032 No-Build Peak Hour Traffic Volumes

Traffic generation estimates for peak hours were formulated for specific developments that are either currently under construction, are approved, or are planned projects that have formally initiated the City of Boston Article 80 Development Review process. The weekday morning and evening peak hour traffic volumes for the 2032 No-Build Condition were determined by incorporating the traffic volumes associated with the individual projects into the 2025 Existing Conditions, as previously detailed. Additionally, the modifications to the roadway network, as discussed in **Sections 4.4.1.1 and 4.4.1.2**, were included within this analysis condition. **Figures 4.17 and 4.18** depict the morning and evening peak hour traffic volume networks for the 2032 No-Build Condition.

4.5 2032 Build Condition

This section provides a summary of future transportation characteristics of the MEPA Project, including trip generation estimates. The trip generation estimates described in this section are the basis for the traffic capacity analysis described in a subsequent section of the report.

4.5.1 MEPA Project Trip Generation

Estimating the demand for movement associated with the MEPA Project is a complex exercise considering many factors such as the variety of land uses in the MEPA Project program, the availability of transit service in the area, and other mobility characteristics. The analysis involves the following four steps:

1. Total trips by all travel modes based on trip rates for each planned land use, unadjusted for various mode shares;
2. Converting unadjusted vehicle trips into total person trips using an average vehicle occupancy;
3. Shared trips between land uses, referred to herein as “Internal Capture”; and

4. Calculation of trips by each mode of travel, including vehicle occupancy (adjusted trips).

Accordingly, trip generation for each of the major proposed uses are discussed below in separate sections. The effect of shared trips, transit amenities, pedestrian/bicycle travel, and other factors are also noted and incorporated into the overall analysis where appropriate. Unadjusted trip generation estimates for the MEPA Project are based on standard Institute of Transportation Engineers' (ITE) data paired with empirical trip rates.

4.5.1.1 Unadjusted Trip Generation

As shown in **Table 4-1**, the MEPA Project will consist of approximately 1,648,000 square feet of Gross Floor Area (GFA), with a mix of residential, office/life sciences, medical/clinic, and retail space. Currently the MEPA Project Site contains Simmons University's Residence Campus. Though the existing site is occupied, no trip credit was taken for existing University Housing or Athletic uses, which typically do not generate a high volume of vehicle trips and will be relocated back to the Simmons Academic Campus in connection with this development.

The ITE *Trip Generation Manual* categorizes various land uses and provides weekday daily, weekday morning peak hour, and weekday evening peak hour unadjusted vehicle trip generation estimates for each use. Consistent with the PDA Development Plan supporting analysis, trip generation estimates for the proposed residential and retail uses were projected using data published in the 10th Edition of the ITE *Trip Generation Manual* for land use code 221 (Mid-Rise Residential) and 820 (Shopping Center), respectively. Trip generation estimates for the proposed Medical / Clinic space were projected using data published in the 11th Edition of the ITE *Trip Generation Manual* for land use code 720 (Medical-Dental Office Building – Stand Alone). Because the proposed medical/clinic space was not broken out as a separate use in the PDA Development Plan analysis, the Project trip generation estimates for that use have been updated based on the most recent 11th edition.

Also, consistent with the PDA Development Plan methodology, ITE rates were paired with empirical trip rates collected from local, available transportation monitoring reports for the office/life sciences land use for AM and PM peak hours[2] (daily trips for this use were estimated from the ITE *Trip Generation Manual)*.

The ITE manual yields "unadjusted" vehicle trips, which do not reflect non-auto modes of transportation typical of an urban environment, such as public transportation, cycling and walking. **Table 4-6** represents the unadjusted trips generated by the MEPA Project.

2 Based on 2017 and 2018 PTDM and Planning Board Special Permit transportation monitoring reports from 14 projects in Cambridge, MA (F2, F4, F8, F9, F11, F14, F15, F27, F43, F47, F51, PB65, PB125, PB150).

Table 4-6 Unadjusted Trip Generation

Land Use	Residential	Medical/Clinic	Office/ Life Sciences	Retail	Total Vehicle Trips
Daily	**2,113**	**4,534**	**11,796**[1]	**1,284**	**20,689**
Weekday Morning					
Enter	34	234	674	105	1,046
Exit	96	62	25	64	247
Total	**129**	**296**	**699**	**169**	**1,294**
Weekday Evening					
Enter	99	153	59	117	429
Exit	63	356	641	127	1,188
Total	**163**	**509**	**700**	**245**	**1,617**

Source(s): Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition and 11th Edition
Empirical data in transportation monitoring reports from several projects in Cambridge, MA in 2017 and 2018
1 Office/Life Sciences Daily Unadjusted Trip Generation was obtained from ITE 11th Edition.

As shown in **Table 4-6**, the MEPA Project is expected to generate a total of 20,689 unadjusted weekday daily trips for the MEPA Project Site, with 1,294 trips occurring during the morning peak hour and 1,617 trips occurring during the evening peak hour.

4.5.1.2 Vehicle Occupancy Assumptions

Vehicle occupancy (the number of persons in a vehicle) are based on the Federal Highway Administration (FHWA) *Summary of Travel Trends: 2017 National Household Travel Survey,* [3] which provides a national Average Vehicle Occupancy (AVO) typically used to convert unadjusted ITE trips into person trips. Consistent with the PDA Development Plan methodology, an AVO of 1.18 persons/vehicle for peak hour work-based trips (office/life sciences and residential trips), 1.67 persons/vehicle for the medical/clinic land use, and 1.82 persons/vehicle for retail trips was used. **Table 4-7** provides a summary of estimated person trips for the weekday daily and peak-hour (AM and PM) periods.

3 Note: While a more recent version of the National Household Travel Survey has been released in 2022, the 2017 rates were used to maintain consistency with the methodology in the PDA Development Plan.

Table 4-7 Estimated Person Trip Generation

Period	Person Trips
Daily	**27,456**
Weekday Morning	
Enter	1,417
Exit	336
Total	**1,780**
Weekday Evening	
Enter	656
Exit	1,658
Total	**2,314**

A similar methodology will be used later in the trip estimating process to convert adjusted vehicle person trips (the number of persons traveling in vehicles) to vehicle trips by applying local AVO characteristics to derive adjusted MEPA Project trips.

4.5.1.3 Internal Trip Capture

As described in the ITE *Trip Generation Handbook*:[4]

"*because of the complementary nature of these land uses, some trips are made among the on-site uses. This capture of trips internal to the Development Site has the net effect of reducing vehicle trip generation between the overall Development Site and the external street system (compared to the total number of trips generated by comparable land uses developed individually on stand-alone sites) an internal capture rate can generally be defined as the percentage of total person trips generated by a site that are made entirely within the Development Site. The trip origin, destination, and travel path are all within the site.*"

As the MEPA Project proposes a mixture of uses, the trip generation characteristics of the MEPA Project will be different from a single-use project. Some of the trip activity generated by the MEPA Project will be contained on-site as "internal" or "shared vehicle" trips. This concept means that some patrons could visit more than one of the uses on the MEPA Project Site. For example, workers at the office/life sciences space on-site may patronize the retail shops after work, or residents who live in the development may also work in an office on-site. While these shared trips represent new trips to the individual land uses, they would not necessarily register as new trips on the surrounding roadway or transportation network.

Based on the methodology outlined in the ITE *Trip Generation Handbook*, internal capture rates were applied to the gross person trips, resulting in adjusted person trips. Trip generation calculations, including the internal capture worksheet, are included in **Appendix C**.

4 *Trip Generation Handbook*, 3rd Edition, Institute of Transportation Engineers, Washington, D.C., 2017.

Table 4-8 Internal Person Trip-Capture and External Person Trips

Time Period	Total Person Trips	Estimated Internal Trips	External Person Trips
AM Peak Hour	1,780	88	1,692
PM Peak Hour	2,314	210	2,104

As shown in **Table 4-8**, the MEPA Project is expected to generate about 1,692 external person trips during the morning peak hour and 2,104 external person trips during the evening peak hour.

4.5.1.4 Mode Share and Vehicle Occupancy Assumptions

The future mode shares for the MEPA Project were developed based on the mode share goals defined in GoBoston 2030[5] for all land uses. The GoBoston goals for reducing auto mode shares and increasing transit, walking, and biking mode shares were applied to existing travel characteristics for the area to obtain future MEPA Project mode shares. The mode shares presented in **Table 4-9** were developed in consultation with the BPDA and BTD following a review of nearby transportation studies, the U.S. Census Bureau's Journey to Work data for the LMA area, and BTD's mode share guidelines for individual city zones. These mode shares were developed after the filing of the ENF based on updated guidance from the BPDA.

Table 4-9 MEPA Project Mode Shares

Use	Vehicle	Transit	Walk/Bicycle/Other
Office/Life Sciences	15%	75%	10%
Retail	17%	21%	62%
Medical/Clinic	19%	55%	26%
Residential	15%	53%	32%

4.5.1.5 Adjusted Trip Generation

To distribute trips among all the available modes of transportation, mode shares, outlined in **Table 4-9**, were applied to the external person trips in **Table 4-8**. The projected peak hour MEPA Project trips by mode are summarized in **Table 4-10**, which reflects the MEPA Project's mixed-use characteristics in an urban environment with proximate access to multiple transit options. As mentioned previously, the AVOs outlined in **Section 4.5.1.2** were used to convert person trips by vehicle into vehicle trips.

As noted above, the MEPA Project mode shares were adjusted after the ENF filing to reflect GoBoston 2030 goals, based on updated guidance from the BPDA. Therefore, the number of adjusted vehicle trips in **Table 4-10** is lower than what was previously presented in the ENF, due to the use of a lower vehicle mode share.

5 Go Boston 2030: Goals and Targets (City of Boston). (Published in March 2017).

Table 4-10 Adjusted Trip Generation by Mode

Land Use	Vehicle Trips	Transit Trips	Walk/Bicycle/Other
Daily	**3,087**	**16,117**	**5,312**
Weekday Morning			
Enter	180	844	302
Exit	37	149	116
Total	**217**	**993**	**418**
Weekday Evening			
Enter	61	255	200
Exit	200	941	351
Total	**261**	**1,196**	**551**

Adjusted vehicle trips for the MEPA Project were assigned to the local roadway network to create the 2032 Build Condition. The directional distribution of MEPA Project vehicular trips is a function of several variables: the relative locations and densities of population, competing uses, existing travel patterns, and the operational efficiency of the roadways leading to the site. Consistent with the PDA Development Plan supporting analysis, the directional distribution of the vehicular traffic approaching and departing the MEPA Project is based on the U.S Census Bureau's Journey to Work data (2012-2016) for the Census Tract representing the PDA Site.

Figures 4.19 and 4.20 depict the morning and evening peak hour MEPA Project-generated trips, and **Figures 4.21 and 4.22** depict the morning and evening peak hour traffic volume networks for the 2032 Build Condition.

4.6 Proposed Area Improvements

4.6.1 Brookline Avenue Corridor Improvements

The Proponent will make significant transportation improvements to the Brookline Avenue corridor adjacent to the MEPA Project. Between the BIDMC Main Entrance/Short Street and Pilgrim Road, a grade-separated southbound bicycle lane will be constructed on the MEPA Project Site frontage, which will transition back to existing streetscape conditions at the intersection of Brookline Avenue at Fenway. A widened pedestrian sidewalk and landscaping/furnishing zone will also be provided along this segment of Brookline Avenue. One floating bus stop will be constructed on the southern end of the MEPA Project Site near the intersection of Brookline Avenue and the BIDMC Driveway/Short Street; pending coordination with involved stakeholders, a second floating bus stop will be constructed on the northern end of the MEPA Project Site between the Mid-Block Street and Fenway. The number, location, and design of those bus stop facilities will be refined via continued collaboration with the City's Planning Department, BTD and the MBTA. An on-street drop-off lane will be constructed on Brookline Avenue in front of the proposed C1 Building to accommodate short-term drop-off and pick-up in a dedicated loading/unloading zone. The curb-to-curb width of the roadway would be 42 feet along the MEPA Project frontage, accommodating two 10-foot travel lanes and two 11-foot curbside lanes, which is consistent with the Brookline Avenue cross section proposed as part of the 1 Joslin Place development and would be sufficient to support dedicated bus facilities in the future if

recommended as part of the FTAP. To accommodate these improvements, the Proponent will be setting the proposed buildings back from the property line.

The MEPA Project will also reconfigure the existing intersection between Brookline Avenue and the BIDMC Main Entrance/Short Street to include dedicated bicycle crossings, improving access to the MEPA Project Site and new Short Street bicycle pathway. Bicycle and pedestrian facilities will be designed to minimize conflicts and prioritize mobility via these modes of transportation. The intersection improvements will include new traffic signal equipment. See **Figure 4.23** and **Figure 4.24** for concept plans depicting intersection geometry and signal timing.

The MEPA project will modify the curb geometry at the intersection of Brookline Avenue and Pilgrim Road to physically restrict left turns and improve pedestrian safety by shortening the crosswalk length. See **Figure 4.25** for a concept plan depicting intersection geometry.

Conceptual design and signal timing plans for the Brookline Avenue corridor, Short Street path, and intersections including Brookline Avenue at the BIDMC Main Entrance/Short Street, Brookline Avenue at Pilgrim Road, Pilgrim Road at Short Street, Brookline Avenue at new Mid-Block Street, and Pilgrim Road at new Mid-Block Street are presented in **Figure 4.23, Figure 4.24, Figure 4.25, Figure 4.26, Figure 4.27**, **Figure 4.28, and Figure 4.29**.

4.6.2 Short Street Multi-use Path

To support pedestrian and bicycle connectivity in the LMA, the Proponent is proposing various improvements to Short Street, which is located along the southwest edge of the MEPA Project Site between Pilgrim Road and Brookline Avenue. Short Street in its current form is a single pathway that supports pedestrian and bicycle traffic. The west end of the pathway is used to access Pilgrim Road and the Short Street Extension adjacent to the Winsor School and to continue west towards the Riverway and Emerald Necklace. The east end of the path provides access to Brookline Avenue. As part of the MEPA Project, a new two-way bicycle path and landscape buffer will be constructed within the MEPA Project Site to create a multimodal corridor with the existing pedestrian path on the Winsor School property that connects Brookline Avenue and Pilgrim Road.

On the two-way bicycle path, in response to concerns raised by abutters, various design elements are proposed to enhance users' awareness and minimize conflicts approaching the ends of the pathway, including chicane treatments at both Brookline Avenue and Pilgrim Road. Additional elements include warning signage and textured speed pavers to encourage bicyclists to decrease their speed as they approach intersections. At the Pilgrim Road side, the pathway design includes a lane splitter island separating northbound and southbound traffic on the path, as well as a widened accessible pedestrian ramp and realigned crosswalk to support pathway users crossing Pilgrim Road (see **Figure 4.26** depicting a concept plan for this location). On the Brookline Avenue side, various design elements were implemented to connect the pathway to the existing and planned bicycle and pedestrian facilities via dedicated bicycle and pedestrian crossings (refer to **Figures 4.23 and 4.24**). Until such time as there is a dedicated bicycle lane on Short Street Extension, the Proponent will create an interim condition where the Short Street bicycle path will terminate within the MEPA Project Site at the R1 Building, prior to meeting Pilgrim Road.

4.6.3 Construction and Signalization of Mid-Block Street at Brookline Avenue

The MEPA Project proposes the construction of Mid-Block Street which connects between Brookline Avenue and Pilgrim Road. The proposed roadway will act as the main connection to the MEPA Project's underground loading and service facility, as well as all vehicle parking (which is also below-grade). The roadway will also provide dedicated short-term drop-off zones to support drop-off/pick-up and ride-sharing services such as Uber and Lyft (Transportation Network Company, or "TNC") for proposed buildings on site.

As part of the construction of the new roadway, the Proponent proposes the signalization of the new intersection with Brookline Avenue. The intersection design will prioritize mobility for pedestrians and bicycles, providing accessible pedestrian crossings at a stretch of Brookline Avenue where there are no crossings today. In the proposed condition, Brookline Avenue will have a shared thru/left lane and a thru only lane in the northbound direction, as well as a shared thru/right lane and a thru-only lane in the southbound direction. On the Mid-Block Street approach, a left-turn only lane and a right-turn bay are proposed.

The signalization of the intersection will create an accessible pedestrian connection across Brookline Avenue, aligning with the existing Colleges of the Fenway Path. The connection and the Mid-Block Street will enhance accessibility between the LMA and the Emerald Necklace via the MEPA Project Site.

A conceptual intersection geometry and signal timing plan is presented in **Figure 4.27 and Figure 4.28**. The Proponent will continue working with the City of Boston to refine the design and signalization of this intersection.

4.6.4 Pilgrim Road Improvements

Currently, Pilgrim Road has approximately 40 feet of public right-of-way with parking on the west side of the street, a single vehicle travel lane, and 8-foot sidewalks on both sides. The Proponent is proposing widening the roadway to 53 feet (including 34 feet from curb to curb) to accommodate a 20-foot clear zone for Boston Fire Department Access, and an expanded pedestrian zone along the MEPA Project frontage including a five-foot sidewalk and four-foot furnishing zone, while maintaining on-street resident parking. The Proponent plans to re-align the geometry of Pilgrim Road as it intersects with Brookline Avenue to restrict left turns and shorten the length of the crosswalk.

Improvements along Pilgrim Road enabled by widening of Pilgrim Road also include the installation of a hybrid pick-up/drop-off lane on the east side of the roadway south of the Mid-Block Street, which would provide additional space for Winsor School drop-off and pick-up needs. A dedicated bus storage area would also be provided on the west side of the roadway at the southern end of Pilgrim Road. Another dedicated drop-off area would be provided along the east side of the roadway next to the R2 residential building. The Proponent has set back the buildings along Pilgrim Road from the property line to accommodate these changes.

For a concept plan depicting intersection geometry between Pilgrim Road and the new Mid-Block Street, refer to **Figure 4.29**.

4.7 Parking and Loading

Vehicular access to the MEPA Project Site and its proposed underground parking garage and loading facilities will be provided via the proposed Mid-Block Street. Drop-off/pick-up areas are proposed along roadways adjacent to the MEPA Project Site and on Mid-block Street to provide front-door access to the buildings and minimize interference with the public roadways.

4.7.1 Vehicle Parking Summary

As the MEPA Project is a transit-oriented development, parking supply will be constrained to minimize dependence on auto travel and encourage the use of alternative means of accessing the MEPA Project Site. The Proponent coordinated with BPDA and BTD to determine final parking ratios for the MEPA Project that are aligned with the City's guidelines and goals.

The parking supply currently envisioned for the MEPA Project is summarized in **Table 4-11**. The total parking supply currently envisioned is approximately 520 parking spaces, which would be constructed during the first phase and would serve the entirety of the MEPA Project when the second phase of construction is complete. As shown in **Table 4-11**, this is equivalent to a net increase of 492 parking spaces compared to the existing total of 28 spaces on the MEPA Project Site.

Table 4-11 Vehicle Parking Program

Location	Parking Spaces
Existing Site	28
MEPA Project Proposed	+520
Net Change	**+492**

The overall parking ratio for the MEPA Project is approximately 0.32 spaces per 1,000 SF of development. The 520 proposed parking spaces is well below the approximately 984 spaces calculated based on BTD maximum parking ratios. The MEPA Project's parking supply is also well below the approximately 3,050 parking spaces calculated based on ITE average parking ratios for the respective MEPA Project land uses (as published in ITE's *Parking Generation Manual*, 6th Edition).

Along Pilgrim Road north of the dedicated Winsor School bus storage area, the west curbline will support resident permit parking as it does today, with a total of approximately 36 spaces.

4.7.1.1 Electric Vehicle (EV) Parking

Per the City of Boston *EV Readiness Policy for New Development (2020)*, 25% of the proposed vehicle spaces totaling 130 spaces will be EV equipped upon construction, and the remaining 75% totaling 390 spaces will be EV-ready for future installation.

4.7.2 Short-Term Drop-off and Pick-up

Along the MEPA Project Site frontage, curbside area will be allocated to accommodate short-term drop-off/pick-up needs, building upon BTD's current initiatives to manage TNC activity and reduce its impact on traffic flow and other curbside needs. A dedicated on-street drop-off zone for TNCs and other short-term users is proposed in front of the C1 Building along Brookline Avenue. The MEPA Project will also provide a hybrid drop-off/pick-up lane along Pilgrim Road designed to

accommodate vehicles associated with student drop-off and pick-up at the Winsor School, as well as a separate area on the opposite side of Pilgrim Road to accommodate approximately two Winsor School athletic buses. A drop-off/pick-up area will be provided north of Pilgrim Road in front of the R2 building. Dedicated drop-off/pick-up areas will also be provided along the Mid-Block Street serving the C2 and C3 buildings.

4.7.3 Building Loading and Service

Loading for each of the buildings will be provided below-grade (as permitted by building code) and within a consolidated loading dock area with dedicated connections to individual buildings. Depending on individual building tenancy, it is expected that some service and delivery trips will serve multiple buildings and therefore reduce the number of total MEPA Project-generated truck trips. The proposed buildings will likely have a delivery manager that will help reduce the impact of loading and service traffic by consolidating deliveries and scheduling them outside of commuting peak hours.

All service vehicles will enter and exit the below grade loading dock area from the new Mid-Block Street. Additionally, some small-scale delivery activities, such as food delivery or TNC activities, may occur at the designated building drop-off/pick-up areas along Brookline Avenue, Pilgrim Road, or the Mid-Block Street. All other trucks making deliveries will be directed to the below-grade loading facility.

Service and delivery trucks will be directed to access the MEPA Project Site using only designated truck routes as directed by MassDOT. Regionally, trucks will use I-90, Massachusetts Avenue, and Route 9, while avoiding Storrow Drive. Locally, trucks will use Brookline Avenue and Boylston Street to access the MEPA Project Site and are prohibited from making use of nearby parkways such as the Fenway and the Riverway.

4.7.4 Bicycle Parking

The Proponent will provide bicycle storage on-site for both employees and visitors in accordance with City of Boston Guidelines. Secure bicycle storage will be provided within proposed buildings to encourage cycling as a healthy and environmentally friendly means to commute. The Proponent will work with BTD to satisfy bicycle parking demand at the for the MEPA Project. As required in the City of Boston's *Bike Parking Guidelines, Version 2.0 (January 2021),* at least 904 secure indoor bicycle spaces will be available for employees and residents. In addition, on-site shower and locker facilities will be provided for employees. At least 194 publicly accessible short-term bicycle storage spaces will be highly visible and convenient for visitors arriving on bicycle. The total number of bicycle parking spaces to be provided for the MEPA Project is 1,098 spaces.

4.7.4.1 Bikeshare Stations

The proposed MEPA Project Site plan includes two Bluebikes stations: one 23-dock station along Brookline Avenue, and one 15-dock station along the Short Street pathway at the intersection with Brookline Avenue. These Bluebikes stations are shown in **Figure 4.3**.

4.8 Traffic Operations Analysis

This section presents the transportation analysis for vehicular operations at study area intersections. The analysis herein provides a summary of transportation capacity and overall intersection operations as they relate to vehicular delay and congestion. The traffic operations analysis indicates that the Level of Service ("LOS") at most of the studied intersections studied are not reduced as a result of the MEPA Project and in some cases, the LOS is improved.

4.8.1 Methodology

Vehicle LOS is a qualitative measure of control delay at an intersection providing an index to the operational qualities of a roadway or intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS A through D are generally considered acceptable. LOS E indicates that vehicles endure greater levels of delay and LOS F suggests significant delay for the average vehicle. While LOS E and F are considered less acceptable in a non-urban environment, these conditions are typical during commuter peak hours within a dense urban environment such as the LMA. LOS thresholds differ for signalized and unsignalized intersections, with longer delays at signalized intersections perceived as acceptable.

Table 4-12 below presents the LOS delay threshold criteria as defined in the *Highway Capacity Manual* ("HCM"). A LOS D is typically considered acceptable in an urban environment, however, it is common for intersections to operate at LOS E or F during the busiest times of day.

Table 4-12 Level-of-Service Criteria

Level of Service	Unsignalized Intersection Control Delay (sec/veh)	Signalized Intersection Control Delay (sec/veh)
A	< 10	<10
B	> 10 - < 15	> 10 - < 20
C	> 15 - < 25	> 20 - < 35
D	> 25 - < 35	> 35 - < 55
E	> 35 - < 50	> 55 - < 80
F	> 50	> 80

Source: 2000 HCM and HCM 6th Edition

Consistent with MassDOT and BTD's guidelines, Synchro software was used to model LOS operations at the study area intersections. Adjustments were made to the Synchro model to include characteristics of each intersection, such as geometry, signal timings, heavy vehicles, bus operations, parking activity, and pedestrian crossings. Due to signal timing and phasing, signalized intersections were analyzed using the 2000 *HCM*, while unsignalized intersection (both two-way and all-way stop) were analyzed using the *HCM* 6th Edition.

The 2032 No Build Conditions analysis incorporates the area developments and area transportation initiatives identified in **Section 4.4.1**. The 2032 Build Conditions analysis incorporates the proposed area improvements identified in **Section 4.6.** The mitigation identified for the project, including signal timing adjustments and the construction/signalization of the new Mid-Block Street, are incorporated in the 2032 Build Condition. A separate Build without Mitigation condition was not

included in this analysis, because the transportation improvements being implemented along Brookline Avenue, Short Street, Pilgrim Road, and the Mid-Block Street are required to support the MEPA Project. A summary of the results for the signalized and unsignalized intersections, broken down by each analysis scenario, are presented in **Tables 4-13 and 4-14**.

4.8.2 Signalized Intersection Capacity Analysis Results

Detailed results including delay by movement, queuing, and volume-to-capacity ratios are summarized in **Table 4-13** and the detailed Synchro reports are provided in **Appendix C**.

Table 4-13 Signalized Intersection Capacity Analysis

		2025 Existing Conditions					2032 No-Build Conditions					2032 Build Conditions				
Location / Movement		v/c [a]	Del [b]	LOS [c]	50 Q [d]	95 Q [e]	v/c	Del	LOS	50 Q	95 Q	v/c	Del	LOS	50 Q	95 Q
Park Drive at Riverway																
Weekday Morning																
Park Dr	EB T/R	1.04	91	F	~220	#322	>1.20	>120	F	~280	#385	>1.20	>120	F	~292	#398
	EB R	>1.20	>120	F	~268	#437	>1.20	>120	F	~279	#448	>1.20	>120	F	~279	#448
Riverway	NB T	0.63	36	D	141	152	0.77	40	D	178	185	0.78	41	D	181	188
Park Dr	SWL2	0.52	26	C	161	219	0.54	28	C	171	227	0.54	28	C	170	226
	SWL	0.49	24	C	162	191	0.50	26	C	165	195	0.50	25	C	165	195
	Overall	**0.67**	**66**	**E**			**0.73**	**89**	**F**			**0.73**	**93**	**F**		
Weekday Evening																
Park Dr	EB T/R	1.06	96	F	~209	#321	>1.20	>120	F	~305	#425	>1.20	>120	F	~308	#429
	EB R	>1.20	>120	F	~317	#508	>1.20	>120	F	~387	#587	>1.20	>120	F	~387	#587
Riverway	NB T	0.69	38	D	159	217	0.74	39	D	173	234	0.76	40	D	178	241
Park Dr	SW L2	0.29	15	B	72	126	0.36	20	C	94	157	0.36	20	C	94	157
	SW L	0.58	18	B	168	224	0.63	24	C	191	251	0.63	24	C	191	251
	Overall	**0.74**	**75**	**E**			**0.82**	**118**	**F**			**0.82**	**119**	**F**		
Park Drive at Riverway Eastbound																
Weekday Morning																
Park Dr	SE T	0.33	20	C	233	m222	0.38	22	C	266	m231	0.38	22	C	273	m232
Riverway EB	NE R	1.14	112	F	~376	#482	1.15	115	F	~380	#487	1.20	>120	F	~410	#518
	Overall	**0.60**	**73**	**E**			**0.64**	**73**	**E**			**0.66**	**85**	**F**		
Weekday Evening																
Park Dr	SE T	0.27	21	C	183	m191	0.34	23	C	237	m213	0.34	23	C	239	m213
Riverway EB	NE R	0.71	36	D	175	243	0.72	36	D	177	246	0.80	40	D	203	#281
	Overall	**0.42**	**29**	**C**			**0.47**	**29**	**C**			**0.50**	**31**	**C**		
Brookline Avenue at Riverway/Fenway																
Weekday Morning																
Fenway	EB L	0.64	16	B	70	m118	0.71	20	B	118	m181	0.71	20	B	119	m172
	EB L/T	0.71	15	B	91	m135	0.75	18	B	141	m185	0.76	18	B	147	m181
	EB R	0.23	11	B	11	m24	0.24	13	B	18	m31	0.32	14	B	27	m44
Brookline Ave	NB T/R	0.63	24	C	200	266	0.66	24	C	214	283	0.68	25	C	222	294
Brookline Ave	SB T	0.75	22	C	240	293	0.77	23	C	253	305	0.87	25	C	285	m#386
	Overall	**0.73**	**19**	**B**			**0.76**	**21**	**C**			**0.81**	**22**	**C**		
Weekday Evening																
Fenway	EB L	0.57	36	D	192	294	0.60	37	D	204	310	0.60	37	D	204	310
	EB L/T	0.65	35	D	230	300	0.77	40	D	289	371	0.82	43	D	318	408
	EB R	0.20	28	C	38	89	0.24	28	C	49	103	0.27	29	C	60	118
Brookline Ave	NB T/R	0.51	7	A	103	90	0.53	8	A	103	90	0.59	5	A	42	94
Brookline Ave	SB T	0.70	20	C	380	343	0.73	20	B	378	343	0.76	21	C	415	378

Table 4-13 Signalized Intersection Capacity Analysis

		2025 Existing Conditions					2032 No-Build Conditions					2032 Build Conditions				
Location / Movement		v/c [a]	Del [b]	LOS [c]	50 Q [d]	95 Q [e]	v/c	Del	LOS	50 Q	95 Q	v/c	Del	LOS	50 Q	95 Q
	Overall	**0.68**	**22**	**C**			**0.74**	**23**	**C**			**0.79**	**23**	**C**		
Brookline Avenue at Boylston Street/Park Drive																
Weekday Morning																
Park Dr	WB L/T	0.80	38	D	205	257	0.82	39	D	213	266	0.87	42	D	231	#292
	WB R/R2	0.22	29	C	17	75	0.24	29	C	23	84	0.24	29	C	23	84
Brookline Ave	NB L	0.63	50	D	43	m#69	0.74	60	E	49	m#84	0.74	61	E	49	m#81
	NB T	0.59	27	C	144	m227	0.77	33	C	188	m#341	0.78	33	C	192	m#364
	NB R	0.68	14	B	251	330	0.68	14	B	243	338	0.69	14	B	246	345
Brookline Ave	SB T/R	0.65	37	D	105	160	0.69	38	D	120	178	0.71	39	D	125	184
Boylston St	SW L2/L/L/R/R2	0.66	39	D	117	179	0.67	40	D	117	179	0.74	43	D	137	#205
	Overall	**0.77**	**30**	**C**			**0.81**	**31**	**C**			**0.84**	**33**	**C**		
Weekday Evening																
Park Dr	WB L/T	0.89	55	D	242	#313	0.90	56	E	246	#320	0.91	57	E	254	#334
	WB R/R2	0.23	38	D	26	92	0.25	39	D	30	98	0.25	38	D	30	98
Brookline Ave	NB L	0.67	70	E	90	m#175	0.75	77	E	95	m#179	0.75	71	E	88	m#173
	NB T	0.52	32	C	174	263	0.61	34	C	213	m320	0.63	31	C	165	m260
	NB R	0.52	8	A	141	163	0.52	8	A	142	159	0.56	10	A	161	194
Brookline Ave	SB T/R	0.69	49	D	108	172	0.78	53	D	137	#210	0.81	55	E	144	#228
Boylston St	SW L2/L/L/R/R2	0.99	71	E	275	#399	0.99	72	E	275	#399	1.01	76	E	~290	#411
	Overall	**0.87**	**44**	**D**			**0.90**	**45**	**D**			**0.92**	**47**	**D**		
Park Drive at Landmark Center South Drive																
Weekday Morning																
Park Dr	WB L	0.43	23	C	174	232	0.44	24	C	173	m228	0.44	24	C	176	m217
	WB L/T/R	0.23	21	C	87	m119	0.27	23	C	93	m126	0.27	23	C	95	m119
Landmark Center	SB T	0.10	30	C	13	15	0.30	32	C	41	34	0.30	32	C	41	34
South Drive	SB R	0.02	30	C	0	0	0.03	30	C	0	0	0.03	30	C	0	0
	Overall	**0.33**	**23**	**C**			**0.38**	**24**	**C**			**0.38**	**25**	**C**		
Weekday Evening																
Park Dr	WB L	0.45	13	B	143	191	0.45	13	B	143	191	0.45	13	B	143	191
	WB L/T/R	0.32	11	B	89	124	0.34	12	B	92	129	0.34	12	B	92	129
Landmark Center	SB T	0.06	30	C	11	23	0.37	33	C	68	88	0.37	33	C	68	88
South Drive	SB R	0.01	30	C	0	0	0.02	30	C	0	0	0.02	30	C	0	0
	Overall	**0.33**	**13**	**B**			**0.41**	**14**	**B**			**0.41**	**14**	**B**		
Park Drive at Landmark Center Entrance North Drive																
Weekday Morning																
Park Dr	WB T/R	0.20	6	A	23	24	0.20	7	A	25	26	0.20	6	A	24	26
Riverway Ext (to	NB L	0.76	13	B	134	125	0.85	18	B	148	118	0.87	19	B	151	123
Landmark	NB L/T	0.09	0	A	0	m0	0.16	0	A	0	m0	0.16	0	A	0	m0
Center)	**Overall**	0.46	9	A			0.50	12	B			0.51	12	B		
Weekday Evening																
Park Dr	WB T/R	0.25	3	A	11	14	0.25	3	A	12	15	0.25	3	A	12	15
Riverway Ext (to	NB L	0.88	23	C	178	#510	0.92	26	C	180	#538	0.94	31	C	183	#563
Landmark	NB L/T	0.10	0	A	0	m0	0.13	0	A	0	m0	0.14	0	A	0	m0
Center)	**Overall**	0.55	12	B			0.57	14	B			0.58	16	B		

Table 4-13 Signalized Intersection Capacity Analysis

Location / Movement		2025 Existing Conditions					2032 No-Build Conditions					2032 Build Conditions				
		v/c [a]	Del [b]	LOS [c]	50 Q [d]	95 Q [e]	v/c	Del	LOS	50 Q	95 Q	v/c	Del	LOS	50 Q	95 Q
Brookline Avenue at BIDMC Main Entrance/Short Street																
Weekday Morning																
BIDMC Main	WB L	0.80	71	E	86	112	0.80	71	E	86	112	0.74	62	E	84	109
Entrance	WB R	0.07	45	D	0	22	0.07	45	D	0	22	0.07	44	D	0	22
Brookline Ave	NB T/R	0.67	9	A	141	160	0.70	9	A	164	m128	0.70	12	B	152	m120
Brookline Ave	SB L	0.25	13	B	22	44	0.26	14	B	22	44	0.30	13	B	17	m31
	SB T	0.62	17	B	230	297	0.63	17	B	240	310	0.65	15	B	126	179
	Overall	**0.56**	**18**	**B**			**0.58**	**18**	**B**			**0.58**	**17**	**B**		
Weekday Evening																
BIDMC Main	WB L	0.72	65	E	96	137	0.72	65	E	96	137	0.69	61	E	96	134
Entrance	WB R	0.09	47	D	0	34	0.09	47	D	0	34	0.09	47	D	0	34
Brookline Ave	NB T/R	0.63	19	B	201	255	0.65	24	C	245	271	0.62	14	B	137	144
Brookline Ave	SB L	0.19	14	B	32	m43	0.20	13	B	31	m39	0.22	21	C	31	m50
	SB T	0.53	22	C	347	410	0.56	22	C	366	427	0.59	25	C	255	282
	Overall	**0.53**	**24**	**C**			**0.55**	**26**	**C**			**0.53**	**23**	**C**		
Brookline Avenue at Longwood Avenue																
Weekday Morning																
Longwood Ave	EB L	0.70	53	D	60	#139	0.56	40	D	57	112	0.60	42	D	61	#127
	EB T/R	0.95	79	E	208	#371	0.83	55	E	201	#339	0.83	55	E	201	#339
Longwood Ave	WB L	>1.20	>120	F	~133	#252	>1.20	>120	F	~130	#252	>1.20	>120	F	~130	#252
	WB T	0.78	53	D	163	#280	0.69	43	D	157	244	0.69	43	D	157	244
	WB R	0.82	48	D	187	#309	0.85	52	D	190	#327	0.86	54	D	194	#345
Brookline Ave	NB L	0.57	31	C	16	m24										
	NB T/R	0.83	23	C	216	#228										
	NB L/T/R						>1.20	>120	F	~373	#482	>1.20	>120	F	~372	#493
Brookline Ave	SB L	0.90	60	E	87	m#192	>1.20	>120	F	~138	m#261	>1.20	>120	F	~145	#274
	SB T/R	0.75	19	B	107	146	0.83	23	C	121	157	0.83	39	D	253	258
	Overall	0.86	54	D			0.98	91	F			0.99	100	F		
Weekday Evening																
Longwood Ave	EB L	0.39	60	E	67	m89	0.38	59	E	67	m87	0.38	59	E	67	m87
	EB T/R	0.62	65	E	191	m237	0.61	64	E	191	m234	0.61	64	E	191	m234
Longwood Ave	WB L	0.99	110	F	130	#276	0.97	103	F	134	#281	0.97	103	F	134	#281
	WB T	0.48	39	D	125	201	0.47	38	D	124	198	0.47	38	D	124	198
	WB R	0.61	36	D	143	227	0.60	35	C	142	225	0.60	35	C	142	225
Brookline Ave	NB L	0.19	36	D	16	m34										
	NB T/R	0.71	42	D	188	232										
	NB L/T/R						0.92	56	E	222	#375	0.94	61	E	224	#387
Brookline Ave	SB L	0.89	44	D	37	#157	1.01	82	F	43	#197	1.04	110	F	~101	#233
	SB T/R	0.57	11	B	97	91	0.63	12	B	111	102	0.66	26	C	117	227
	Overall	**0.71**	**41**	**D**			**0.77**	**47**	**D**			**0.78**	**54**	**D**		
Brookline Avenue at Deaconess Road/Jimmy Fund Way																
Weekday Morning																
Deaconess Rd	EB L	0.38	44	D	44	69	0.46	45	D	54	82	0.46	45	D	54	82
	EB T/R	0.22	43	D	13	39	0.23	44	D	13	40	0.23	44	D	13	40
Jimmy Fund Way	WB L	0.82	83	F	61	#137	0.88	100	F	62	#153	0.88	100	F	62	#153
	WB R	0.72	60	E	71	#131	0.74	62	E	71	#149	0.74	62	E	71	#149
Brookline Ave	NB T/R	0.71	32	C	244	330	0.70	30	C	251	327	0.71	31	C	263	342
Brookline Ave	SB L/T	0.75	20	B	120	m142	0.78	17	B	104	m137	0.79	9	A	55	m101
	Overall	**0.56**	**32**	**C**			**0.59**	**31**	**C**			**0.60**	**28**	**C**		

Table 4-13 Signalized Intersection Capacity Analysis

		2025 Existing Conditions					2032 No-Build Conditions					2032 Build Conditions				
Location / Movement		**v/c** [a]	**Del** [b]	**LOS** [c]	**50 Q** [d]	**95 Q** [e]	**v/c**	**Del**	**LOS**	**50 Q**	**95 Q**	**v/c**	**Del**	**LOS**	**50 Q**	**95 Q**
Weekday Evening																
Deaconess Rd	EB L	0.30	43	D	52	89	0.39	43	D	66	118	0.39	43	D	66	118
	EB T/R	0.21	42	D	18	70	0.22	42	D	17	77	0.22	42	D	17	77
Jimmy Fund Way	WB L	0.87	83	F	109	166	0.92	95	F	108	#201	0.92	95	F	108	#201
	WB R	0.65	51	D	104	154	0.65	51	D	102	163	0.65	51	D	102	163
Brookline Ave	NB T/R	0.48	18	B	99	125	0.48	18	B	97	114	0.48	18	B	97	114
Brookline Ave	SB L/T	0.66	13	B	105	m271	0.70	19	B	291	m327	0.73	17	B	248	m325
	Overall	**0.55**	**26**	**C**			**0.58**	**30**	**C**			**0.60**	**29**	**C**		
Brookline Avenue at Francis Street																
Weekday Morning																
Francis St	EB L/T/R	0.61	51	D	122	174	0.61	51	D	122	174	0.61	51	D	122	174
Francis St	WB L	>1.20	>120	F	~166	#306	>1.20	>120	F	~166	#306	>1.20	>120	F	~166	#306
	WB T/R	0.62	53	D	97	#180	0.65	54	D	104	#200	0.65	54	D	104	#200
Brookline Ave	NB L/T	0.75	16	B	152	m118	0.79	16	B	151	m108	0.82	16	B	157	m111
	NB R	0.29	12	B	58	m45	0.29	11	B	55	m40	0.29	12	B	55	m39
Brookline Ave	SB L	0.76	37	D	88	#179	0.80	41	D	88	#179	0.83	45	D	88	#194
	SB T/R	0.45	19	B	170	221	0.46	20	B	177	228	0.46	20	B	178	231
	Overall	**0.74**	**42**	**D**			**0.76**	**42**	**D**			**0.77**	**42**	**D**		
Weekday Evening																
Francis St	EB L/T/R	0.53	42	D	126	171	0.54	42	D	131	176	0.54	42	D	131	176
Francis St	WB L	>1.20	>120	F	~234	#398	>1.20	>120	F	~237	#402	>1.20	>120	F	~237	#402
	WB T/R	0.46	41	D	98	177	0.46	41	D	98	177	0.46	41	D	98	177
Brookline Ave	NB L/T	0.51	40	D	137	m112	0.55	42	D	147	m110	0.57	43	D	150	m110
	NB R	0.17	32	C	48	m41	0.17	32	C	47	m37	0.17	32	C	47	m36
Brookline Ave	SB L	0.47	11	B	30	m70	0.48	15	B	32	m79	0.49	16	B	36	m77
	SB T/R	0.59	11	B	75	166	0.63	16	B	116	212	0.65	17	B	131	222
	Overall	**0.65**	**44**	**D**			**0.68**	**47**	**D**			**0.69**	**47**	**D**		
Brookline Avenue at Riverway																
Weekday Morning																
Riverway	EB T/R	0.71	12	B	231	46	0.73	29	C	198	308	0.73	30	C	202	310
Riverway	WB T/R	1.07	80	F	~593	#734	1.13	106	F	~668	#810	1.16	118	F	~701	#842
Brookline Ave	NB L	>1.20	>120	F	~369	#459	>1.20	>120	F	~369	#459	>1.20	>120	F	~369	#459
	NB T/R	>1.20	>120	F	~326	#363	>1.20	>120	F	~371	#405	>1.20	>120	F	~383	#414
Brookline Ave	SB L	>1.20	>120	F	~319	m#447	>1.20	>120	F	~319	m#450	>1.20	>120	F	~329	m#459
	SB T/R	0.70	31	C	121	m144	0.73	32	C	131	m153	0.73	31	C	128	m152
	Overall	**>1.20**	**>120**	**F**			**>1.20**	**>120**	**F**			**>1.20**	**>120**	**F**		
Weekday Evening																
Riverway	EB T/R	1.08	63	E	~594	m#697	1.15	113	F	~644	#783	1.16	119	F	~658	#797
Riverway	WB T/R	>1.20	88	F	~663	#799	>1.20	>120	F	~745	#882	>1.20	>120	F	~763	#900
Brookline Ave	NB L	>1.20	>120	F	~164	#288	>1.20	>120	F	~164	#288	>1.20	>120	F	~164	#288
	NB T/R	0.78	66	E	~138	#233	0.84	72	E	~158	#255	0.86	74	E	~163	#260
Brookline Ave	SB L	>1.20	>120	F	~661	m#774	>1.20	>120	F	~694	m#771	>1.20	>120	F	~736	m#803
	SB T/R	0.57	23	C	144	m182	0.63	27	C	186	m197	0.64	27	C	197	m200
	Overall	**1.16**	**>120**	**F**			**>1.20**	**>120**	**F**			**>1.20**	**>120**	**F**		
Riverway at Pilgrim Road/Netherlands Road																
Weekday Morning																
Netherlands Rd	EB L/T/R	This intersection is unsignalized in the Existing Condition					>1.20	>120	F	~191	#189	>1.20	>120	F	~191	#189
Pilgrim Rd	WB T/R						0.13	45	D	8	57	0.13	45	D	8	57
Riverway	NB L/T/R						0.66	11	B	116	m292	0.67	11	B	116	m291
Riverway	SB L/T/R						0.84	33	C	379	m#660	0.85	34	C	382	m#663
	Overall						**0.88**	**38**	**D**			**0.89**	**38**	**D**		

Table 4-13 Signalized Intersection Capacity Analysis

		2025 Existing Conditions					2032 No-Build Conditions					2032 Build Conditions				
Location / Movement		**v/c** [a]	**Del** [b]	**LOS** [c]	**50 Q** [d]	**95 Q** [e]	**v/c**	**Del**	**LOS**	**50 Q**	**95 Q**	**v/c**	**Del**	**LOS**	**50 Q**	**95 Q**
Weekday Evening																
Netherlands Rd	EB L/T/R	This intersection is unsignalized in the Existing Condition					0.58	72	E	21	#56	0.58	72	E	21	#56
Pilgrim Rd	WB T/R						0.35	56	E	17	#101	0.35	56	E	17	#101
Riverway	NB L/T/R						0.54	8	A	68	m27	0.55	8	A	69	m26
Riverway	SB L/T/R						0.81	19	B	498	m#705	0.82	19	B	507	m#707
	Overall						**0.71**	**18**	**B**			**0.72**	**18**	**B**		
Riverway at Longwood Avenue																
Weekday Morning																
Longwood Ave	EB L	0.83	77	E	67	#159	0.83	77	E	67	#159	0.83	77	E	67	#159
	EB T	0.74	45	D	229	323	0.76	46	D	234	329	0.77	47	D	238	335
	EB R	0.10	13	B	21	38	0.10	13	B	21	38	0.10	13	B	21	38
Longwood Ave	WB L	0.45	36	D	42	85	0.46	36	D	42	86	0.47	37	D	42	86
	WB T/R	0.89	60	E	282	388	0.89	60	E	282	388	0.89	60	E	282	388
Riverway	NB L	0.72	24	C	105	m73	0.72	27	C	113	m144	0.72	28	C	115	m145
	NB T/R	0.90	37	D	435	m#394	0.97	49	D	476	m#701	0.99	54	D	488	m#725
Riverway	SB T	0.86	43	D	369	#535	0.87	44	D	376	#544	0.88	45	D	379	#548
	SB R	0.17	26	C	46	90	0.17	26	C	46	90	0.17	26	C	46	90
	Overall	**0.85**	**41**	**D**			**0.88**	**46**	**D**			**0.89**	**48**	**D**		
Weekday Evening																
Longwood Ave	EB L	0.86	83	F	75	#178	0.88	89	F	75	#180	0.88	89	F	75	#180
	EB T	0.90	64	E	286	#449	0.91	65	E	290	#457	0.91	65	E	290	#457
	EB R	0.24	15	B	66	97	0.23	15	B	66	97	0.23	15	B	66	97
Longwood Ave	WB L	0.90	96	F	64	#163	0.93	106	F	65	m#159	0.93	105	F	65	m#155
	WB T/R	0.84	47	D	234	#388	0.85	48	D	265	m#390	0.85	47	D	265	m#389
Riverway	NB L	0.73	20	B	109	m23	0.75	29	C	124	m164	0.75	29	C	125	m166
	NB T/R	0.64	30	C	305	m139	0.67	32	C	333	421	0.68	32	C	337	427
Riverway	SB T	0.90	45	D	421	#643	0.96	54	D	464	#704	0.98	57	E	474	#717
	SB R	0.15	24	C	41	86	0.15	24	C	41	86	0.16	25	C	43	91
	Overall	**0.86**	**42**	**D**			**0.90**	**47**	**D**			**0.90**	**48**	**D**		
Riverway at Short Street Extension																
Weekday Morning																
Short St Ext	WB L	0.63	38	D	85	68	0.63	38	D	85	68	0.62	37	D	89	71
	WB R	0.15	32	C	0	0	0.15	32	C	0	0	0.17	31	C	0	0
Riverway	NB T	0.38	6	A	84	118	0.41	6	A	93	130	0.43	6	A	101	138
Riverway	SB T	0.31	5	A	62	93	0.31	5	A	63	94	0.32	6	A	66	97
	Overall	**0.45**	**10**	**A**			**0.48**	**10**	**A**			**0.49**	**11**	**B**		
Weekday Evening																
Short St Ext	WB L	0.45	39	D	35	44	0.45	39	D	35	44	0.65	46	D	55	62
	WB R	0.10	37	D	0	4	0.10	37	D	0	4	0.19	37	D	0	0
Riverway	NB T	0.38	8	A	46	172	0.39	8	A	49	180	0.40	9	A	58	182
Riverway	SB T	0.43	8	A	54	200	0.45	9	A	59	216	0.46	9	A	70	216
	Overall	**0.38**	**11**	**B**			**0.40**	**11**	**B**			**0.43**	**13**	**B**		

Table 4-13 Signalized Intersection Capacity Analysis

Location / Movement		2025 Existing Conditions v/c [a]	Del [b]	LOS [c]	50 Q [d]	95 Q [e]	2032 No-Build Conditions v/c	Del	LOS	50 Q	95 Q	2032 Build Conditions v/c	Del	LOS	50 Q	95 Q
Brookline Avenue at Mid-Block Street																
Weekday Morning																
Mid-Block St	EB L	This intersection does not exist in this condition					This intersection does not exist in this condition					0.06	41	D	10	31
	EB R											0.01	40	D	0	17
Brookline Ave	NB L/T											0.52	3	A	15	30
Brookline Ave	SB L/T											0.61	17	B	273	339
	Overall											**0.41**	**12**	**B**		
Weekday Evening																
Mid-Block St	EB L	This intersection does not exist in this condition					This intersection does not exist in this condition					0.29	47	D	60	m110
	EB R											0.03	42	D	1	m32
Brookline Ave	NB L/T											0.46	4	A	18	35
Brookline Ave	SB L/T											0.57	6	A	63	121
	Overall											**0.42**	**8**	**A**		

a Volume-to-capacity ratio.
b Average total delay, in seconds per vehicle.
c Level-of-service.
d 50th percentile queue, in feet.
e 95th percentile queue, in feet.
~ Volume exceeds capacity, queue is theoretically infinite.
# 95th percentile volume exceeds capacity, queue may be longer.
m Volume for 95th percentile queue is metered by upstream signal.

At a majority of study area intersections, intersection operations are expected to remain at a LOS D or better during all analysis scenarios. The addition of the MEPA Project is expected to result in minimal additional vehicle delay in the 2032 Build Conditions, beyond what was estimated in the 2032 No-Build Conditions.

- Under Existing Conditions, the intersection of Park Drive at Riverway Eastbound operates at LOS E in the AM morning peak hour and LOS C in the evening peak hour. Both peak-hour LOS designations are expected to remain the same as Existing in the 2032 No-Build peak hour, indicating minimal impact from additional traffic from local developments. In the 2032 Build Conditions, MEPA Project-related trips are anticipated to minimally reduce operations to a LOS F in the morning peak hour and slightly increase delays that remain within a LOS C in the evening peak hour. Although a change in LOS, no additional mitigation is proposed as part of the MEPA Project. Modifications to this intersection are expected as part of other on-going area efforts, such as Boylston TIP Project, FTAP, and/or the MBTA's Longwood Access Study.
- The intersection of Brookline Avenue at BIDMC Main Entrance/Short Street is expected to operate at LOS C or better in the morning and evening peak hours under all analysis conditions. The MEPA Project proposes signal timing improvements at this location, which are incorporated in the 2032 Build Conditions. A conceptual signal timing plan is provided in **Figure 4.23.**
- Under Existing Conditions, the intersection of Brookline Avenue at Longwood Avenue operates at LOS D in both the morning and evening peak hours. The 1 Joslin Place development proposed improvements for this intersection, including the installation of sidewalk-level bicycle lanes along the southwest leg of Brookline Avenue, to improve multi-modal access along the corridor. As part of the installation of bicycle lanes, a lane utilization update, namely the removal of the Brookline Avenue northeast-bound left-turn lane, has been proposed at this location, which was incorporated into the 2032 No-Build condition. In the 2032 No-Build conditions, the LOS declines to LOS F in the morning peak hour with this change; the intersection remains at LOS D in the evening peak hour. In the Build Conditions, the LOS remains at LOS F in the morning peak hour

and LOS D in the evening peak hour with minimal additional delay from MEPA Project-generated trips.

- The intersection of Brookline Avenue at Riverway is currently over capacity, operating at LOS F during both morning and evening peak hours. Delays are estimated to exceed 120 seconds per vehicle and the vehicle to capacity ratio is approximately 1.20 during peak periods. Under the 2032 No-Build Conditions, additional delays are expected, particularly in the Riverway eastbound and westbound directions. In the Build Conditions, the LOS remains a LOS F during both peak hours with minimal additional delay from MEPA Project-generated trips.
- The 1 Joslin Place project also proposes the signalization of the intersection of Riverway at Pilgrim Road/Netherlands Road that will be implemented by the 2032 No-Build condition. Currently, this stop-controlled intersection sees excessive delays for the minor street movements. Once signalized, this intersection is expected to operate at LOS D during the morning peak hour and LOS B during the evening peak hour and remain at the same LOS in the 2032 Build conditions.
- The intersection of Riverway at Short Street Extension is expected to remain at LOS B or better in the morning and evening peak hours, and the MEPA Project does not result in any changes to LOS at this intersection.
- The MEPA Project proposes the addition of a new signalized intersection at Brookline Avenue with a new Mid-Block Street. This intersection is expected to operate at LOS B or better in both the morning and evening peak hours. A conceptual signal timing plan is provided in **Figure 4.27**.

In summary, the MEPA Project promises significant infrastructure upgrades for various modes of travel with limited disruption to traffic operations in the area. Furthermore, impacts to vehicle flow are balanced by a significant enhancement to bicycle and pedestrian accommodations around the MEPA Project Site.

4.8.3 Unsignalized Intersection Capacity Analysis Results

The LOS results of the unsignalized capacity analyses are summarized in **Table 4-14** for the 2025 Existing, 2032 No-Build, and 2032 Build Condition peak hours. The results in this section are determined by the critical approach only and not the overall intersection. The detailed Synchro reports are provided in **Appendix C**.

Table 4-14 Unsignalized Intersection Capacity Analysis

Location / Movement		2025 Existing Conditions v/c [b]	Del [c]	LOS [d]	2032 No-Build Conditions v/c	Del	LOS	2032 Build Conditions v/c	Del	LOS
Brookline Avenue at Pilgrim Road										
Weekday Morning										
Brookline Ave	SB T/R	0.42	0.00	A	0.43	0.00	A	0.50	0.00	A
Weekday Evening										
Brookline Ave	SB T/R	0.40	0.00	A	0.42	0.00	A	0.44	0.00	A
Riverway at Pilgrim Road/Netherlands Road										
Weekday Morning										
Netherlands Rd	EB L/T/R	>1.20	>120	F	This intersection becomes signalized in the No Build condition			This intersection becomes signalized in the No Build condition		
Weekday Evening										
Netherlands Rd	EB L/T/R	>1.20	>120	F						
Pilgrim Road at Short Street										
Weekday Morning										
Pilgrim Rd	SB T/R	0.36	10	B	0.36	10	B	0.39	11	B
Weekday Evening										
Pilgrim Rd	SB T/R	0.19	10	A	0.19	10	A	0.34	11	B
Longwood Avenue at Nessel Way/Autumn Street										
Weekday Morning										
Autumn St	NB L/T/R	0.40	23	C	0.41	24	C	0.41	24	C
Weekday Evening										
Autumn St	NB L/T/R	0.20	18	C	0.20	18	C	0.20	18	C
Riverway at Nessel Way										
Weekday Morning										
Nessel Way	WB L/R	0.21	22	C	0.23	24	C	0.24	25	D
Weekday Evening										
Nessel Way	WB L/R	0.32	24	C	0.34	26	D	0.35	27	D
Pilgrim Road at Mid-Block Street										
Weekday Morning										
Mid-Block St	WB L	This intersection is created in the Build condition			This intersection is created in the Build condition			0.02	10	A
Weekday Evening										
Mid-Block RD	WB L							0.10	9	A

a Volume-to-capacity ratio.
b Average total delay, in seconds per vehicle.
c Level-of-service.
d 50th percentile queue, in feet.
e 95th percentile queue, in feet.
~ Volume exceeds capacity, queue is theoretically infinite.
# 95th percentile volume exceeds capacity, queue may be longer.
m Volume for 95th percentile queue is metered by upstream signal.

- **Table 4-14** illustrates that the southbound approach at the intersection of Brookline Avenue and Pilgrim Road operate at LOS A during the morning and evening peak hours in all conditions.
- As discussed above, the eastbound movement at Riverway at Pilgrim Road/Netherlands Road sees excessive delays for the minor street movements. Once signalized, this intersection is expected to operate at LOS D during the morning peak hour and LOS B during the evening peak hour and remain at the same LOS in the 2032 Build condition.
- The Pilgrim Road at Short Street southbound approach remains at an LOS B or better in the morning and evening peak hours in all conditions.
- The northbound approach at the intersection of Longwood Avenue at Nessel Way/Autumn Street remains at LOS C in the morning and evening peak hours in all conditions.
- The westbound approach at the intersection of Riverway at Nessel Way remains at LOS D or better in the morning and evening peak hours in all conditions.
- The MEPA Project proposes the creation of a STOP-controlled intersection of Pilgrim Road at Mid-Block Street, which is expected to operate at an LOS A at the westbound approach in both the morning and evening peak hours.

4.9 Transportation Demand Management

Consistent with the City's goals to reduce auto dependency, the MEPA Project will include a robust set of TDM strategies to encourage alternative modes of transportation and enhance mobility by non-auto uses. This TDM program has been developed and based upon the latest BTD TDM Point System Model targeting a mobility score of 71-90 (based on the City's mobility score map for the MEPA Project location) which requires a minimum of 90 points.

Table 4-15 Transportation Demand Management Strategies

Category	Strategy
Baseline Programming	TMA Membership: Join a Transportation Management Association, if available, at the time of MEPA Project approval.
Baseline Programming	On-Site TDM Coordinator: Designate an on-site Transportation Coordinator to be responsible for overseeing move-in/move-out operations; oversee parking; serve as the point person for managing, communicating, and promoting the use of alternative transportation measures with building employees and staff; and develop transportation alternatives orientation materials for residents, visitors, and retail employees.
Baseline Programming	Marketing: Develop and disseminate welcome packets to residents with tailored marketing information about nearby transportation options.
Baseline Programming	Annual Events: Conduct two annual events promoting multimodal travel.
Baseline Programming	Real-Time Transit Information: Provide real-time transit information displayed on-screen in the entry of building lobbies (Transit Screen).
Baseline Programming	Emergency Ride Home: Provide ride services, such as reimbursement of taxi or rideshare trips, outside of peak travel

Table 4-15 Transportation Demand Management Strategies

Category	Strategy
	periods for tenants/employees who use sustainable transportation options.
Transit Baseline	Perq Program: Property owners or employers will participate in MBTA's Perq Program to facilitate pre-tax transit pass purchases.
Vehicle Baseline	Unbundled, Market-Rate Parking: The property owner will provide the option of tenants to lease or purchase building space without the inclusion of parking spaces at market-rate pricing. Parking spaces may be leased or purchased separately at a market rate.
Bicycling Baseline	The MEPA Project is working to include a sufficient amount of bicycle storage on-site for both employees and visitors. Currently, 904 long-term bicycle parking spaces and 194 short-term bicycle parking spaces are provided to support the MEPA Project, in compliance with BTD's Bike Parking Guidelines.
Bicycling Baseline	The MEPA Project includes the provision of space for one 23-dock Bluebike station and a second 15-dock Bluebike station.
Bicycling Baseline	The MEPA Project includes a monetary contribution to the bikeshare system.
Bicycling Baseline	The MEPA Project includes provision of showers and lockers for on-site employees (may be substituted with access to showers and lockers at an on-site health club or gym).
Bicycling Baseline	Provide on-site "Fix-it" bicycle repair kit or station. At minimum, tools should include a tire pump, wrenches, chain tool, lubricants, tire levers, hex keys/allen wrenches, torx keys, screwdrivers, and spoke wrenches;
Vehicle Impact	Provide on-site parking at a rate below 75% of the maximum allowed by BTD's Parking Ratio Guidelines.
Bicycling Elective	Provide Bikeshare membership subsidy to residents and employees at Bronze-Level
Bicycling Elective	Property owner provides on-site e-bikes and/or e-cargo bikes for use by MEPA Project tenants
Vehicle Elective	Provide carpool matching services with preferential and discounted parking close to building entrances
Vehicle Elective	Provide a minimum of one car share vehicle that is accessible 24 hours a day, seven days a week (the vehicle is neither EV nor publicly-accessible)
Transit Elective	Property owner provides improvements to nearby bus stop, with provision of a shelter
Development	The development is a mixed-use development with secondary land uses which can offset trips elsewhere (the development includes a fitness center component)
Development	The development incorporates a centralized parcel drop-off/receiving station

4.9.1 Transportation Access Plan Agreement

The Proponent will enter into a final TAPA with the Boston Streets Cabinet and the Planning Department for Article 80B review of each phase of the MEPA Project. TAPAs will be finalized and executed after BPDA Board approval and Public Improvement Commission ("PIC") review, which will formalize and document all transportation mitigation and TDM commitments. The TAPA will assign TDM implementation to the appropriate responsible entity, be that the building owner, an employer, or tenant.

Mitigation commitments are the result of the detailed transportation analyses and identification of MEPA Project-related impacts, as documented in the above chapter, and specific agreements made between the Proponent and the City of Boston. Upon the City's review of the forthcoming transportation analysis and assessment of impacts, TDM commitments will be discussed and agreed to by the Proponent. The initial terms of the TAPA will be drafted prior to and included as part of BPDA Board approval. A TAPA will be executed for each phase of development undergoing Article 80B review in advance of its building permit issuance.

4.9.2 Construction

The Proponent will develop a detailed evaluation of potential short-term construction-related transportation impacts during the course of the MEPA Project, including construction vehicle traffic, parking supply and demand, and pedestrian and bicycle access to the campuses. A detailed Construction Management Plan ("CMP") will be developed and submitted to BTD for its approval.

4.9.2.1 Construction Vehicle Traffic

Construction vehicles will be necessary to move construction materials to and from the MEPA Project Site. The Proponent recognizes that construction traffic is a concern to area residents and institutions. Every effort will be made to reduce the noise, control fugitive dust, and minimize other disturbances associated with construction traffic. It is anticipated that Brookline Avenue, Huntington Avenue, Longwood Avenue, and Pilgrim Road will serve as the principal construction traffic routes to the MEPA Project Site, and that trucks will be routed to avoid nearby residential areas and the intersections along Longwood Avenue west of Brookline Avenue. Truck access is restricted on the Riverway, and as such, construction vehicles will avoid using the Riverway to access or egress the MEPA Project Site. Truck staging and lay-down areas for the MEPA Project will be carefully planned. The need for street occupancy along roadways adjacent to the MEPA Project Site is not known at this time.

4.9.2.2 Construction Parking

Contractors will be encouraged to devise access plans for their personnel that de-emphasize auto use (such as seeking off-site parking, providing transit subsidies, etc.). Construction workers will also be encouraged to use public transportation to access the MEPA Project Site because no new parking will be provided for them. The Proponents will work with BTD and Boston Police Department to ensure that parking regulations in the area and in designated residential parking areas are enforced. It is expected, as has been the case in past construction projects, that this will be a considerable disincentive.

4.9.2.3 Pedestrian and Bicycle Access During Construction

During the construction period, pedestrian and bicyclists' activity adjacent to the MEPA Project Site may be impacted by sidewalk closures. A variety of measures will be considered and implemented to protect the safety of pedestrians and bicyclists traversing those portions of the MEPA Project Site who are affected by construction. Where necessary, protective barriers around the construction site, replacement of walkways, overhead protection, appropriate lighting, and new directional and informational signage to direct pedestrians and bicyclists around the construction site will be provided.

After construction is complete, finished pedestrian sidewalks and bicycle infrastructure will be permanently reconfigured around the MEPA Project Site to connect to the rest of the neighborhood. This reconfiguration of pedestrian and bicycle paths will be carefully considered as the design of the MEPA Project proceeds.

Figure 4.1: Site Context Map

Longwood Place | Boston, MA



Legend:

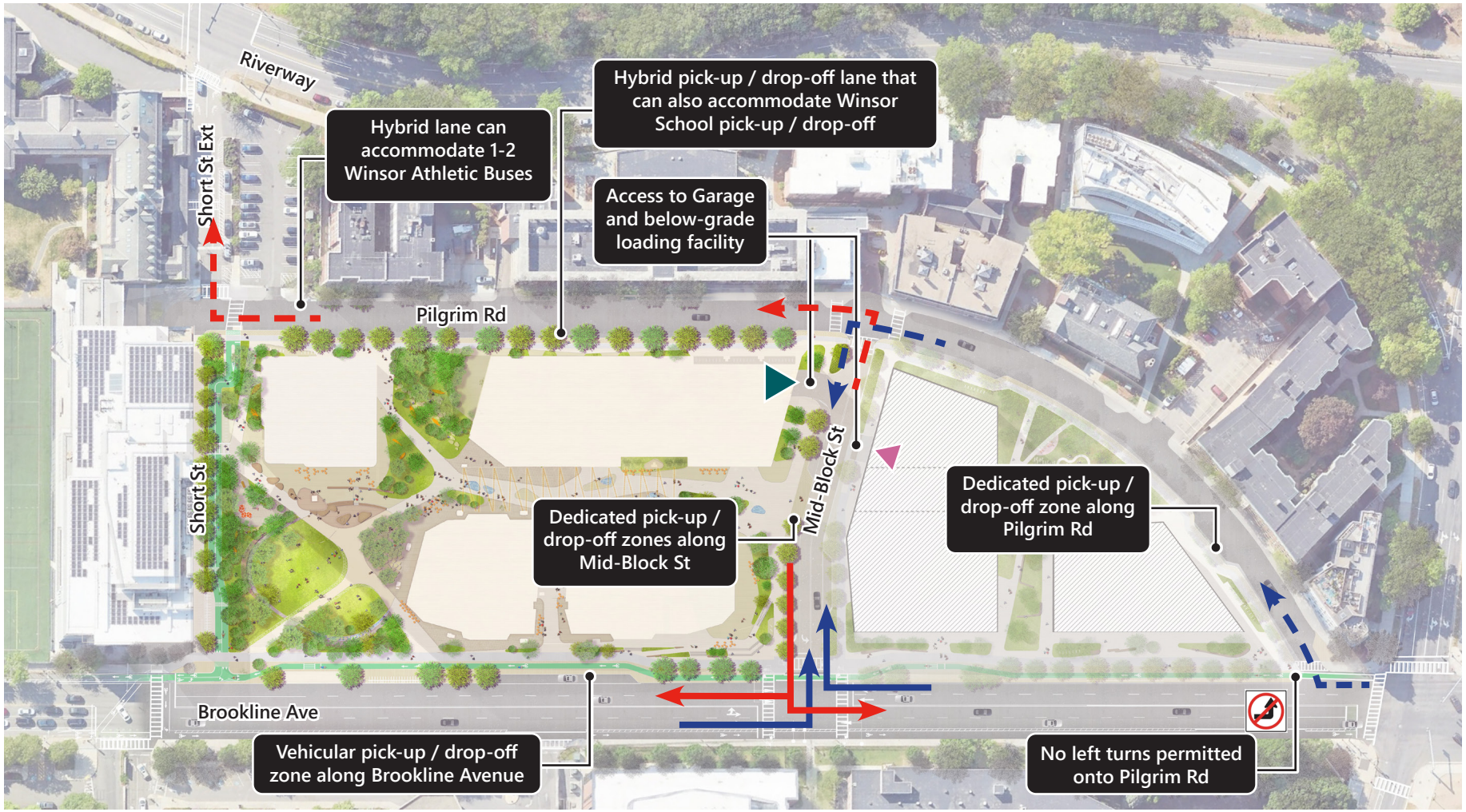
MEPA Project Site

Source: Nearmap Aerial, April 2025

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Figure 4.2: Proposed Site Plan - Vehicular Focus

Longwood Place | Boston, MA



Legend:

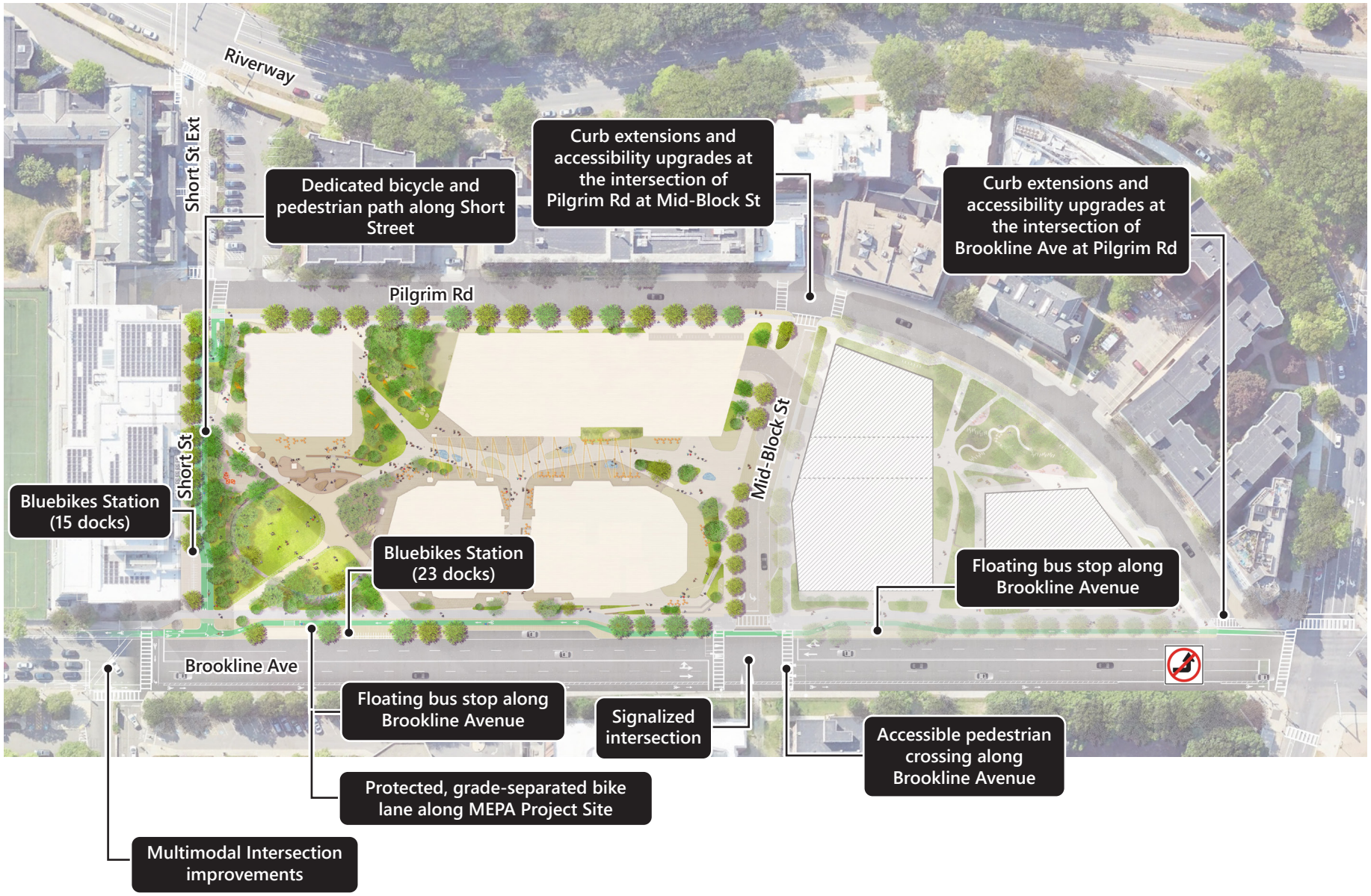
- Primary Vehicle Access
- Secondary Vehicle Access
- Primary Vehicle Egress
- Secondary Vehicle Egress
- Parking Entrance
- Shared Loading Entrance

Source: Sasaki (January 2026).

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Figure 4.3: Proposed Site Plan - Pedestrian and Bicycle Focus

Longwood Place | Boston, MA

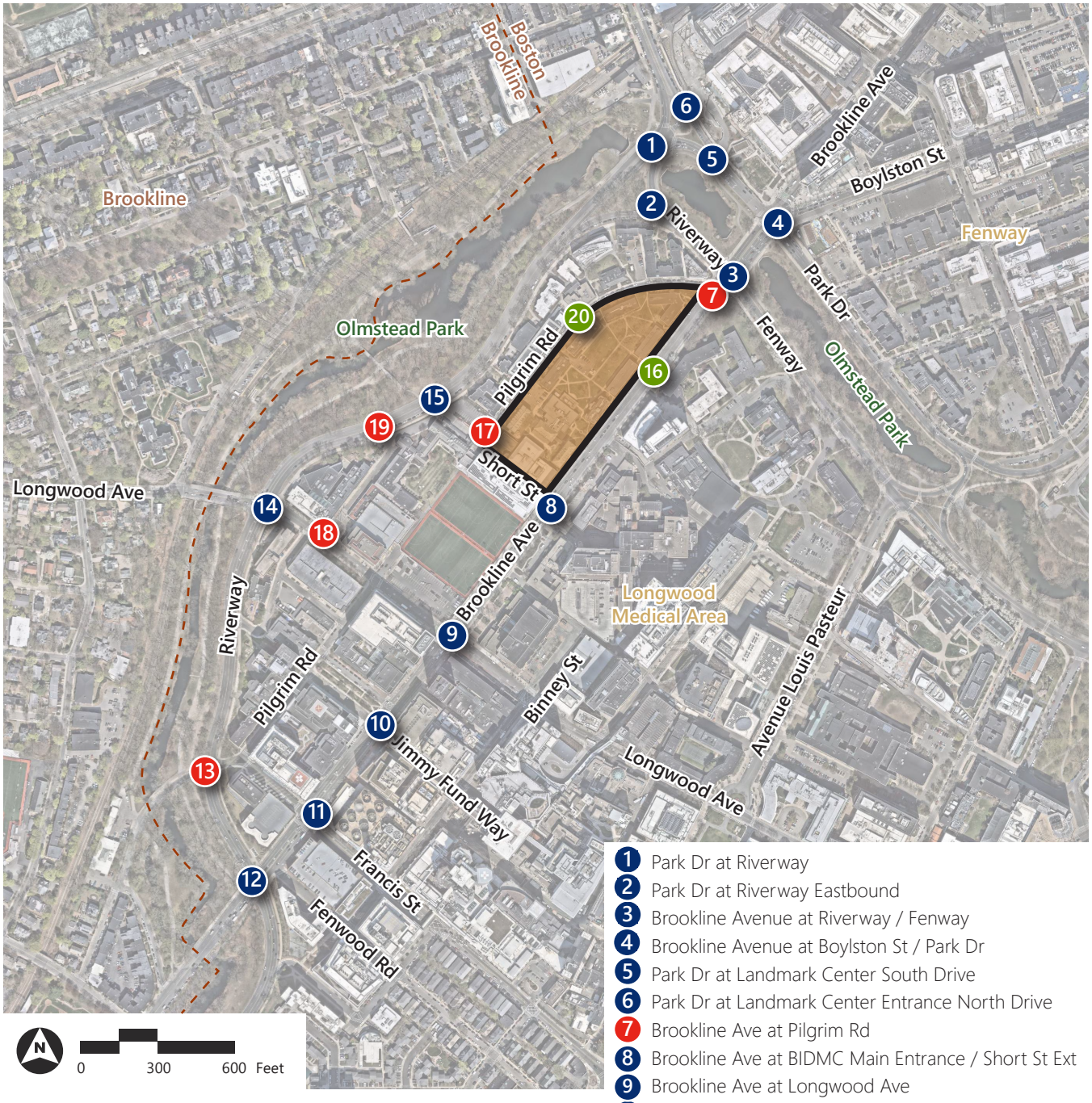


Source: Sasaki (January 2026).

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Figure 4.4: Study Area Intersections

Longwood Place | Boston, MA



Legend:

MEPA Project Site

- # Signalized Intersection
- # Unsignalized Intersection
- # Future Intersection

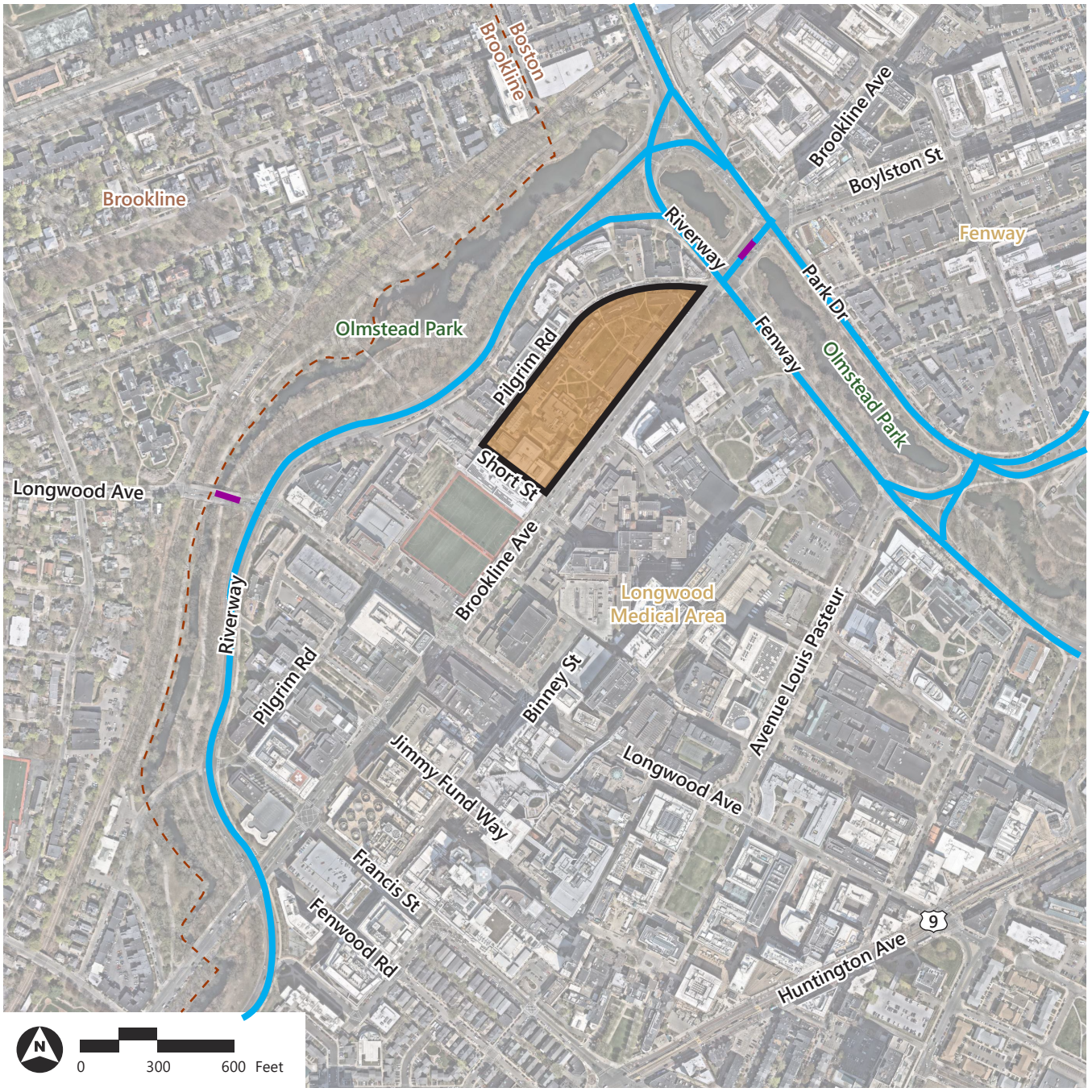
1. Park Dr at Riverway
2. Park Dr at Riverway Eastbound
3. Brookline Avenue at Riverway / Fenway
4. Brookline Avenue at Boylston St / Park Dr
5. Park Dr at Landmark Center South Drive
6. Park Dr at Landmark Center Entrance North Drive
7. Brookline Ave at Pilgrim Rd
8. Brookline Ave at BIDMC Main Entrance / Short St Ext
9. Brookline Ave at Longwood Ave
10. Brookline Ave at Deaconess Rd / Jimmy Fund Way
11. Brookline Ave at Francis St
12. Brookline Ave at Riverway
13. Riverway at Pilgrim Rd / Netherlands Rd
14. Riverway at Longwood Ave
15. Riverway at Short St
16. Brookline Avenue at Mid-Block Road
17. Pilgrim Road at Short Street
18. Longwood Avenue at Nessel Way/Autumn Street
19. Riverway at Nessel Way
20. Pilgrim Road at Mid-Block Road

Source: Nearmap Aerial, April 2025.

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Figure 4.5: State Roadway Jurisdiction Map

Longwood Place | Boston, MA



Legend:

MEPA Project Site

Roadway Jurisdiction:

Department of Conservation and Recreation

Massachusetts Department of Transportation

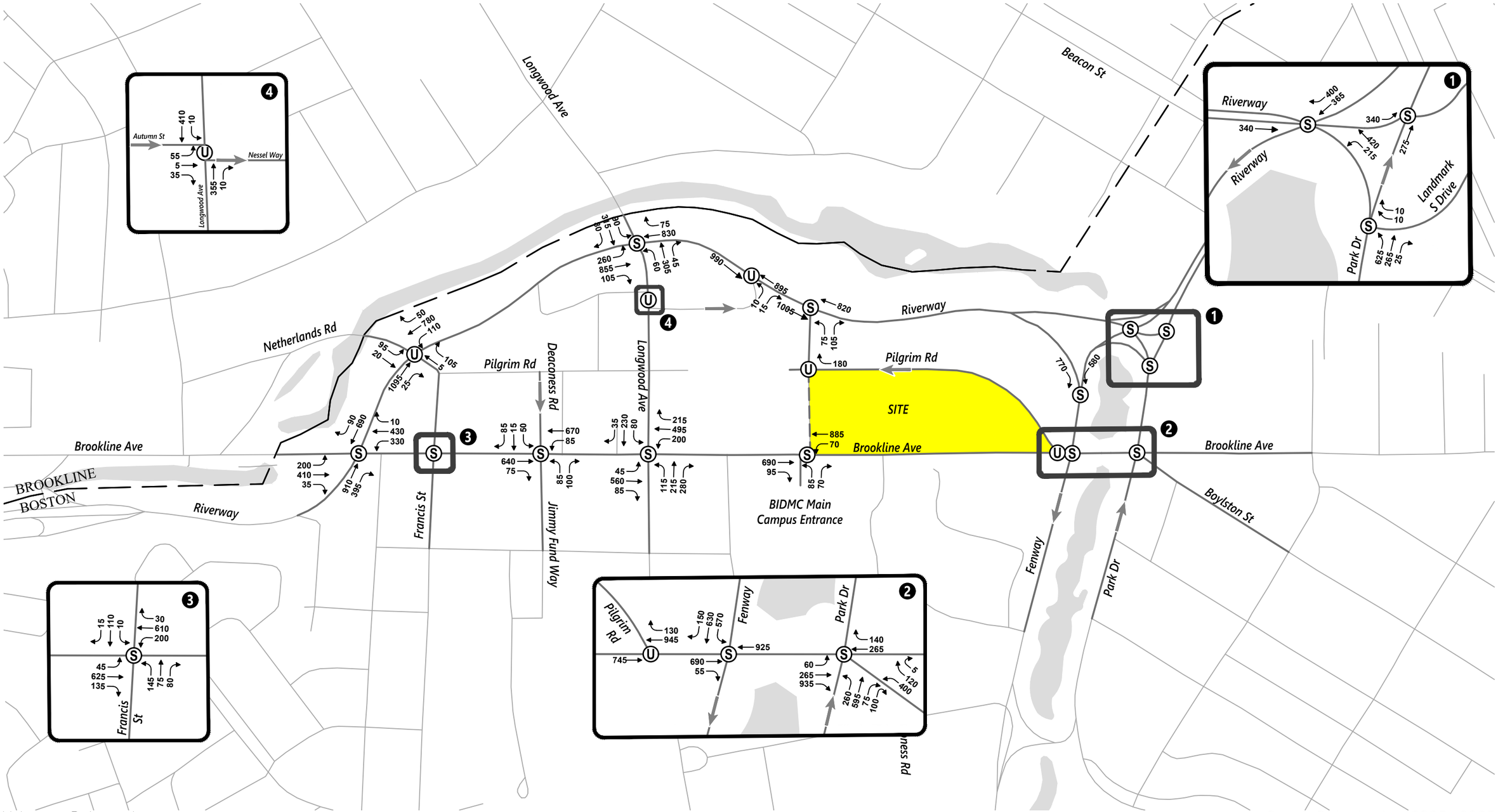
Other roadways under City of Boston jurisdiction

Source: Nearmap Aerial, April 2025, MassDOT Roadway Inventory Map.

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Figure 4.6: 2025 Existing Conditions - AM Peak Hour Vehicle Volumes

Longwood Place | Boston, MA



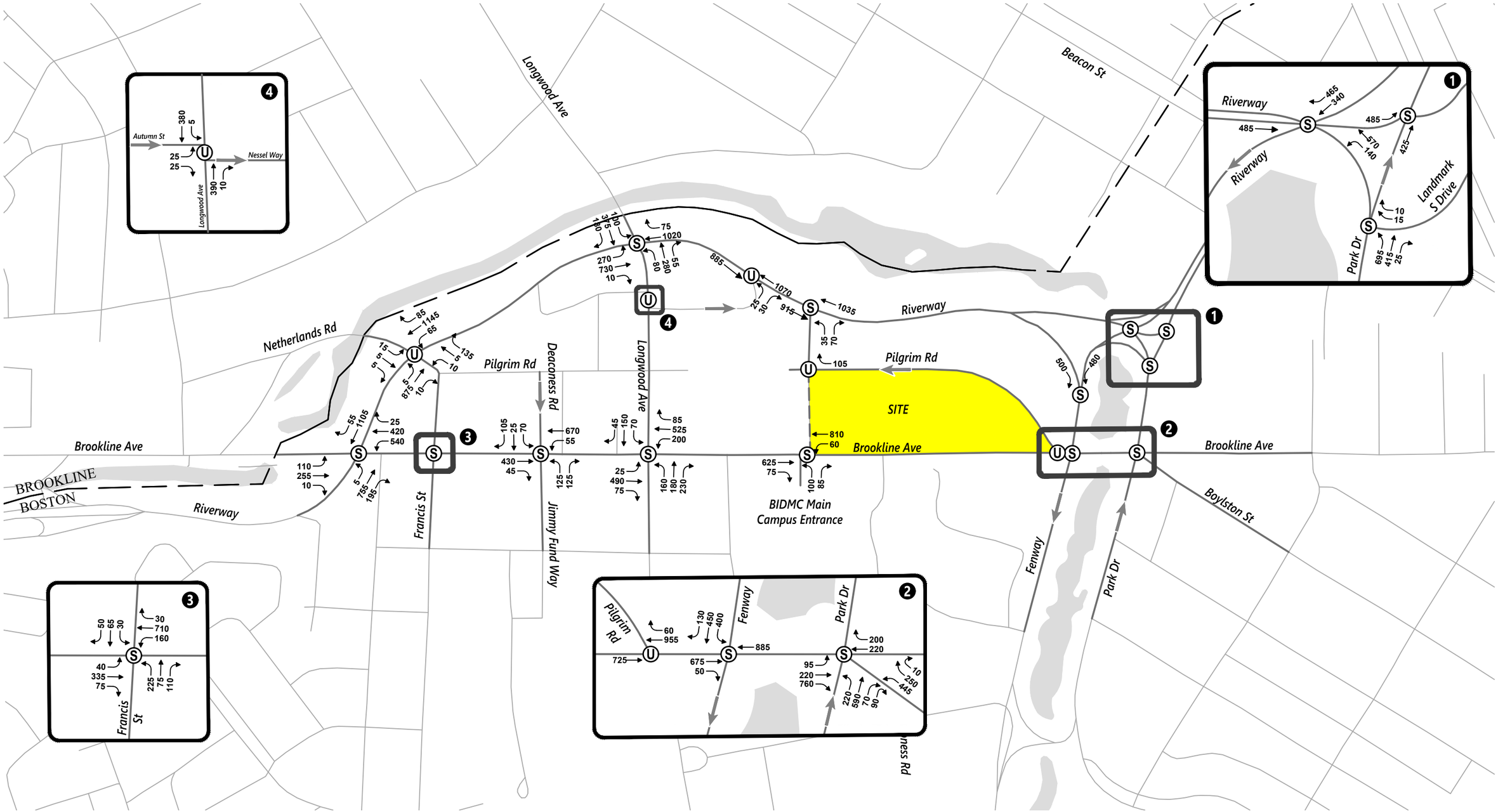
Volumes Balanced

Count Date Varies 2023–2025

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Figure 4.7: 2025 Existing Conditions - PM Peak Hour Vehicle Volumes

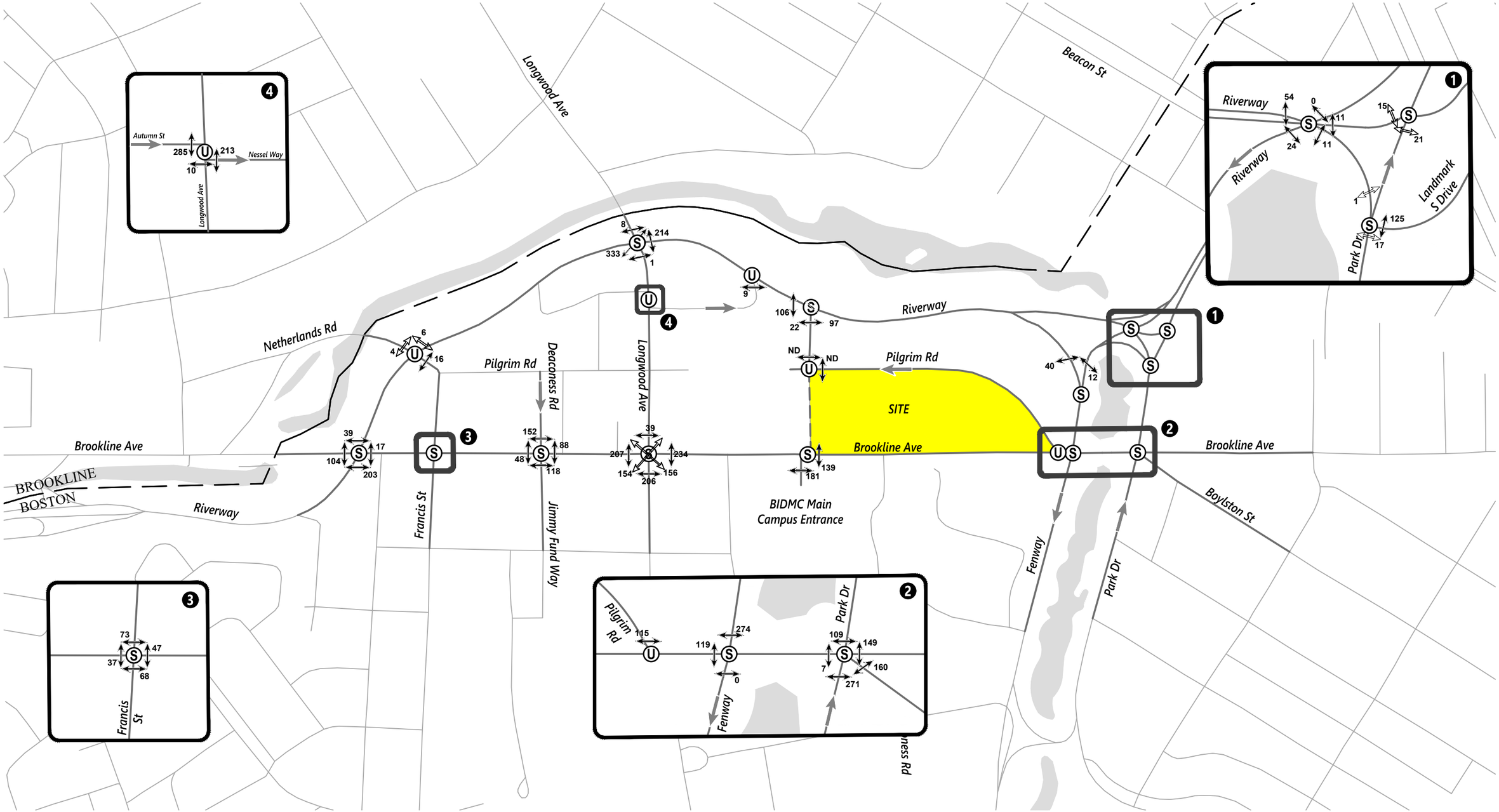
Longwood Place | Boston, MA



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Figure 4.8: 2025 Existing Conditions - AM Peak Hour Pedestrian Volumes

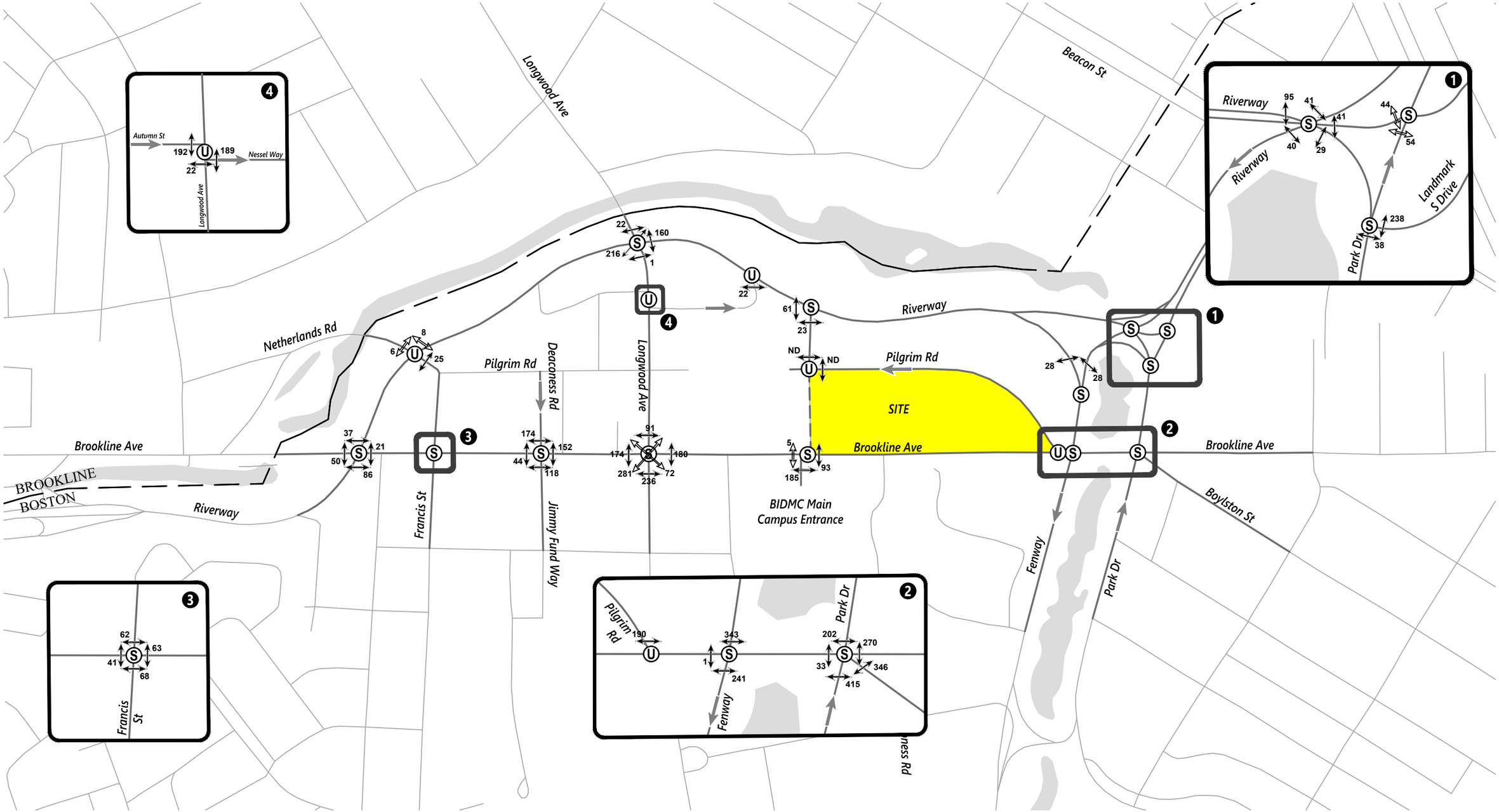
Longwood Place | Boston, MA



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Figure 4.9: 2025 Existing Conditions - PM Peak Hour Pedestrian Volumes

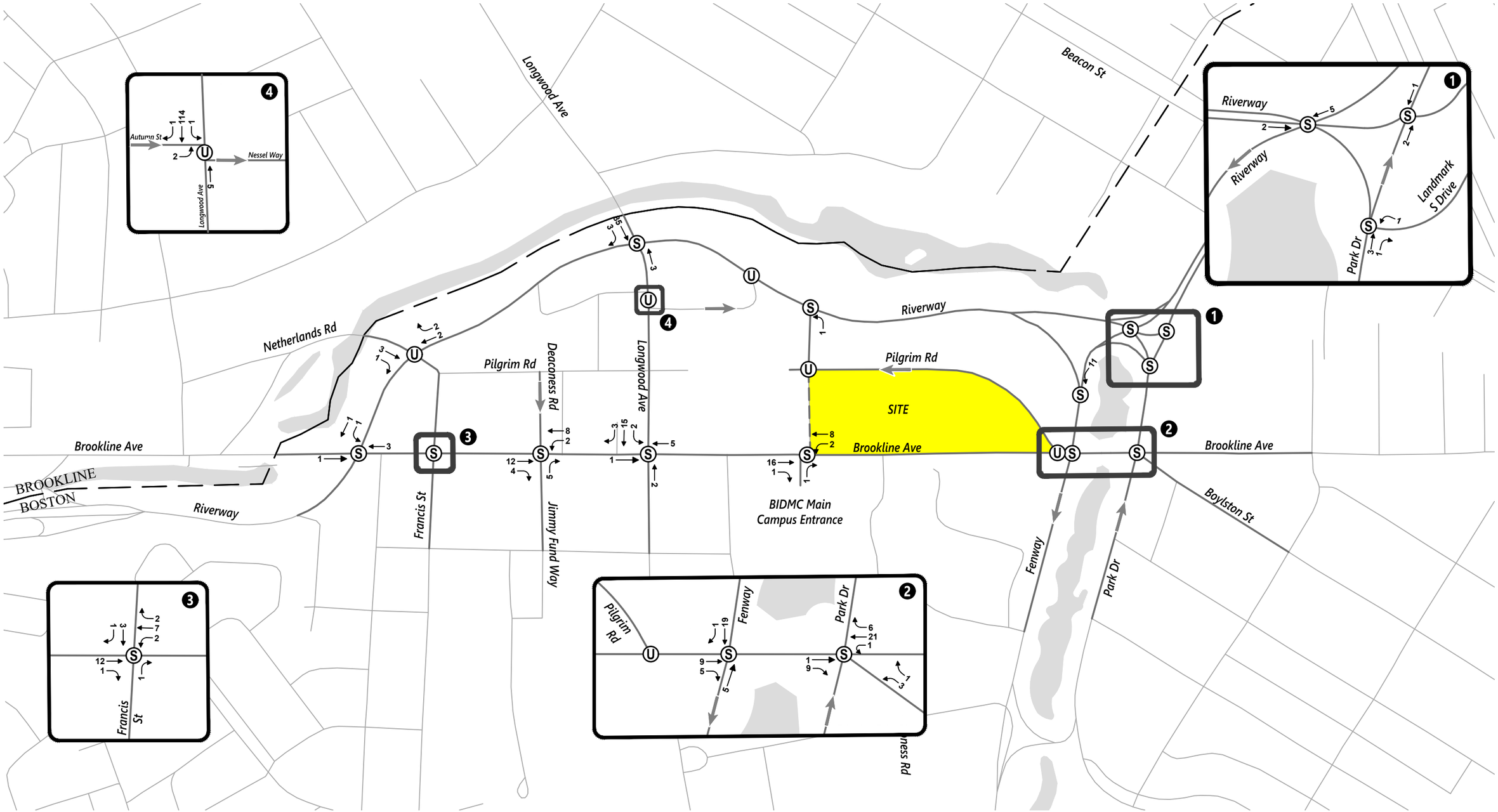
Longwood Place | Boston, MA



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Figure 4.10: 2025 Existing Conditions - AM Peak Hour Bicycle Volumes

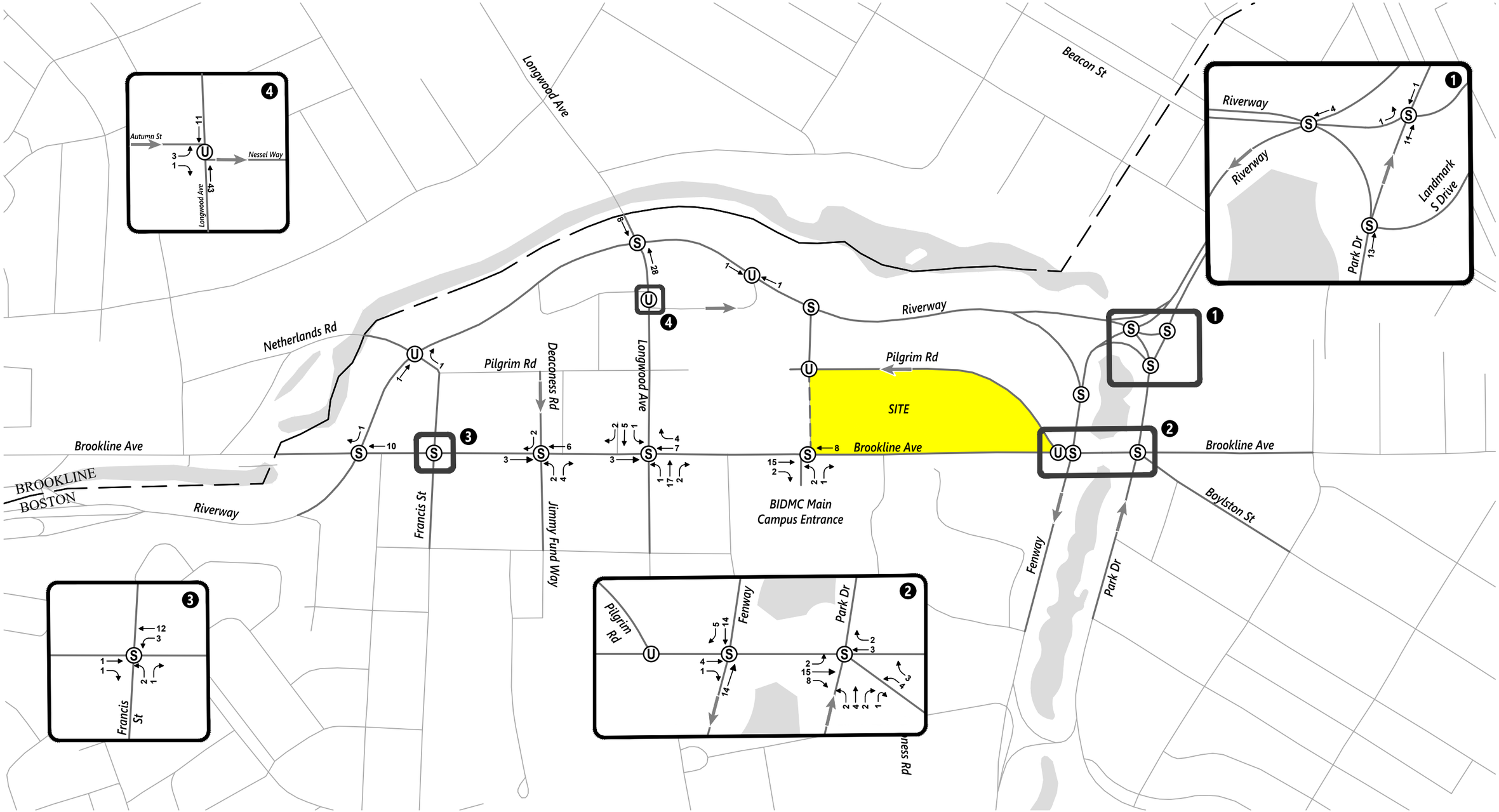
Longwood Place | Boston, MA



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Figure 4.11: 2025 Existing Conditions -PM Peak Hour Bicycle Volumes

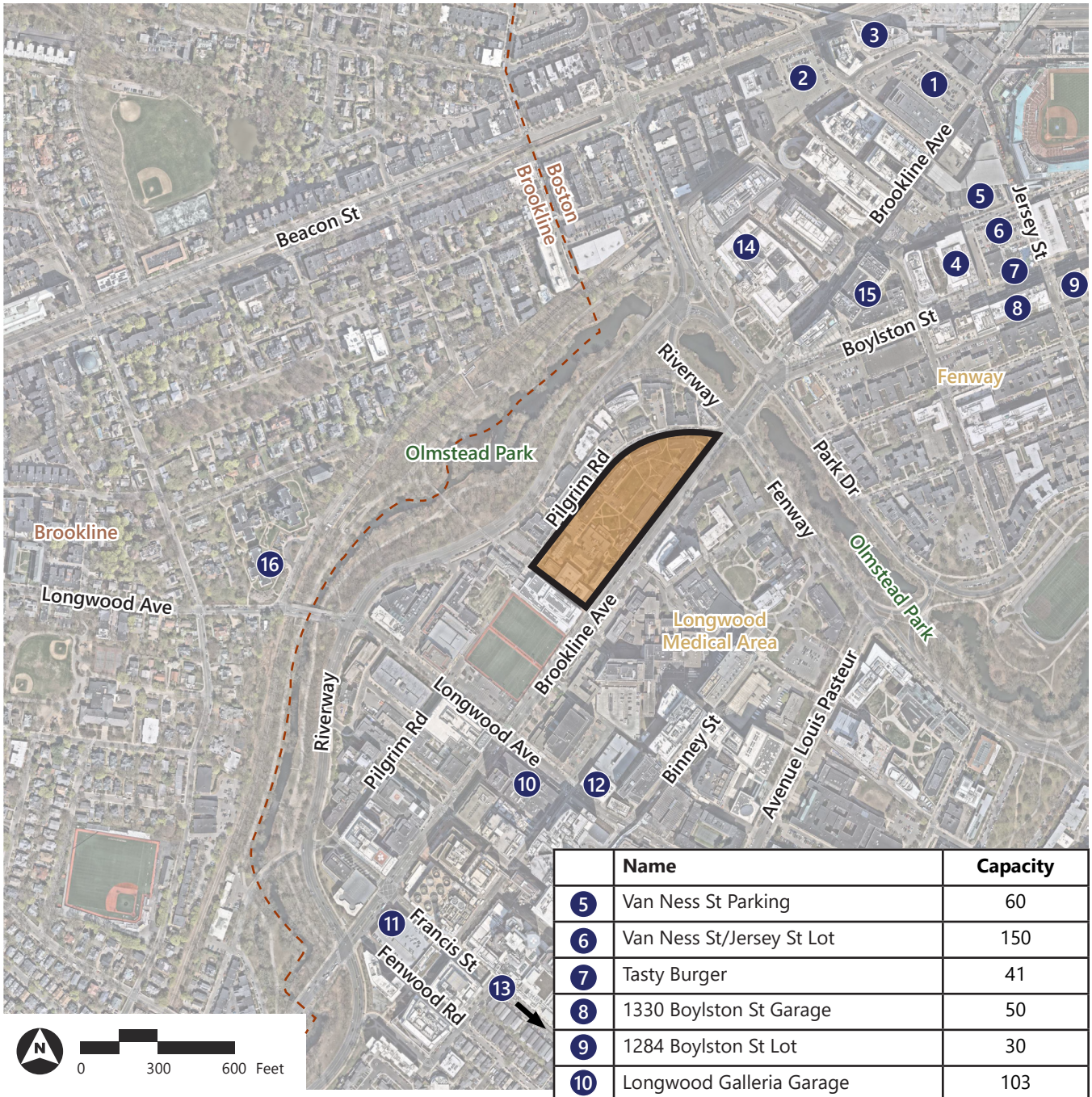
Longwood Place | Boston, MA



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Figure 4.12: Area-Wide Public Parking

Longwood Place | Boston, MA



Legend:

MEPA Project Site

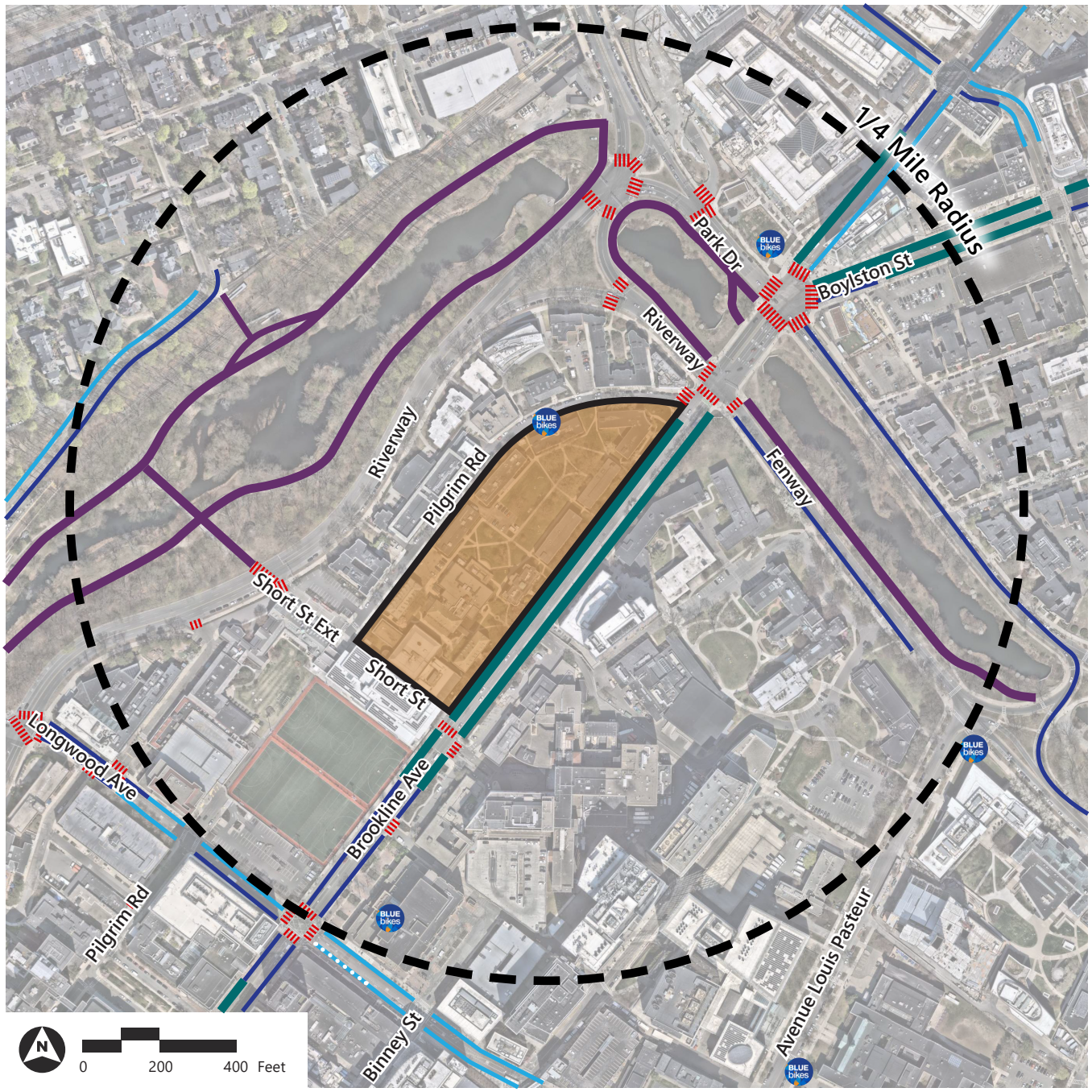
	Name	Capacity
1	73 Brookline Ave Lot	150
2	Beacon St/Maitland St Parking	249
3	Fenway Center Bower Garage	100
4	Target	200
5	Van Ness St Parking	60
6	Van Ness St/Jersey St Lot	150
7	Tasty Burger	41
8	1330 Boylston St Garage	50
9	1284 Boylston St Lot	30
10	Longwood Galleria Garage	103
11	80 Francis Street Garage	648
12	333 Longwood Garage	490
13	ASB II Garage	242
14	Landmark Center	335
15	Fenway Triangle Trilogy Garage	580
16	Longwood Towers	225
	Total:	**3,653**

Source: Nearmap Aerial, April 2025, Boston Red Sox Parking information.

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Figure 4.13: Existing Bicycle Facilities

Longwood Place | Boston, MA



Legend:

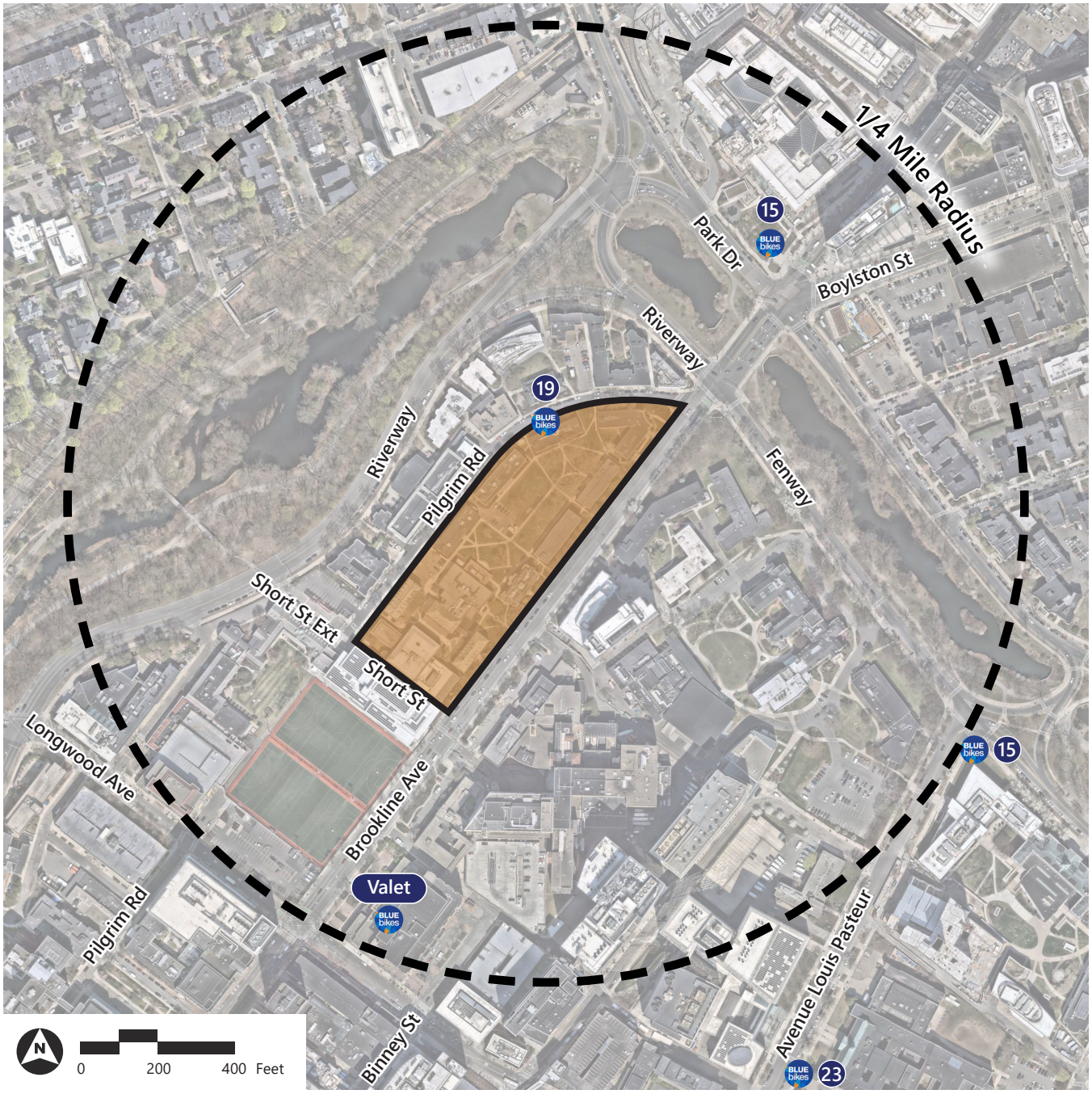
- MEPA Project Site
- Study Area Intersection Crosswalk Configuration
- Shared Use Path / Trail
- Buffered Bike Lane, On-Street
- Bike Lane, On-Street
- Shared Lane, On-Street
- Shared Bus/Bike Lane

Source: Nearmap Aerial, April 2025, Bluebike System Map, January 2025.

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Figure 4.14: Existing Bicycle Share Locations

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Legend:

MEPA Project Site

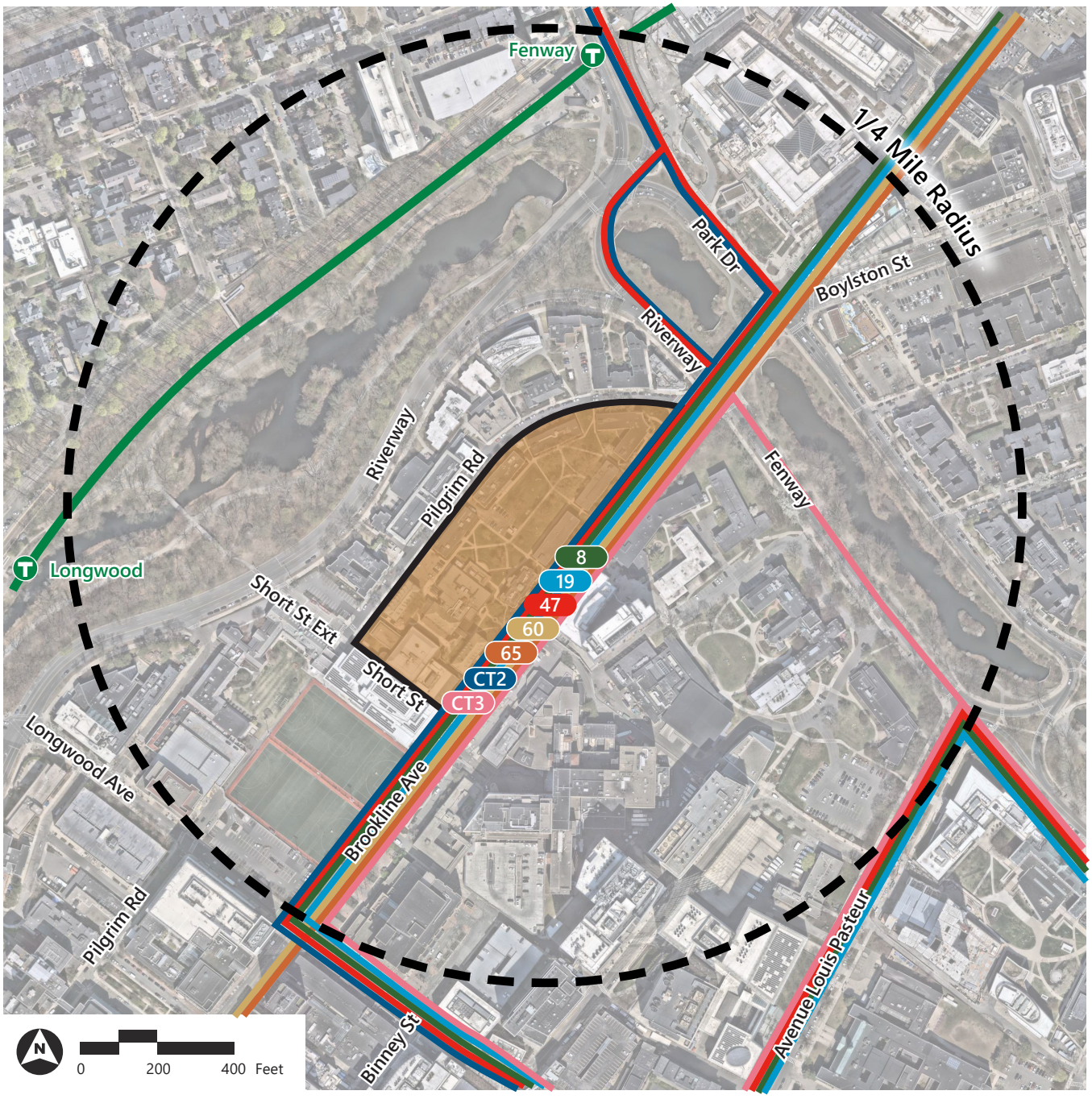
Bluebikes Station

Source: Nearmap Aerial, April 2024, Bluebike System Map, January 2025.

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Figure 4.15: Existing Public Transportation

Longwood Place | Boston, MA



Legend:

MEPA Project Site

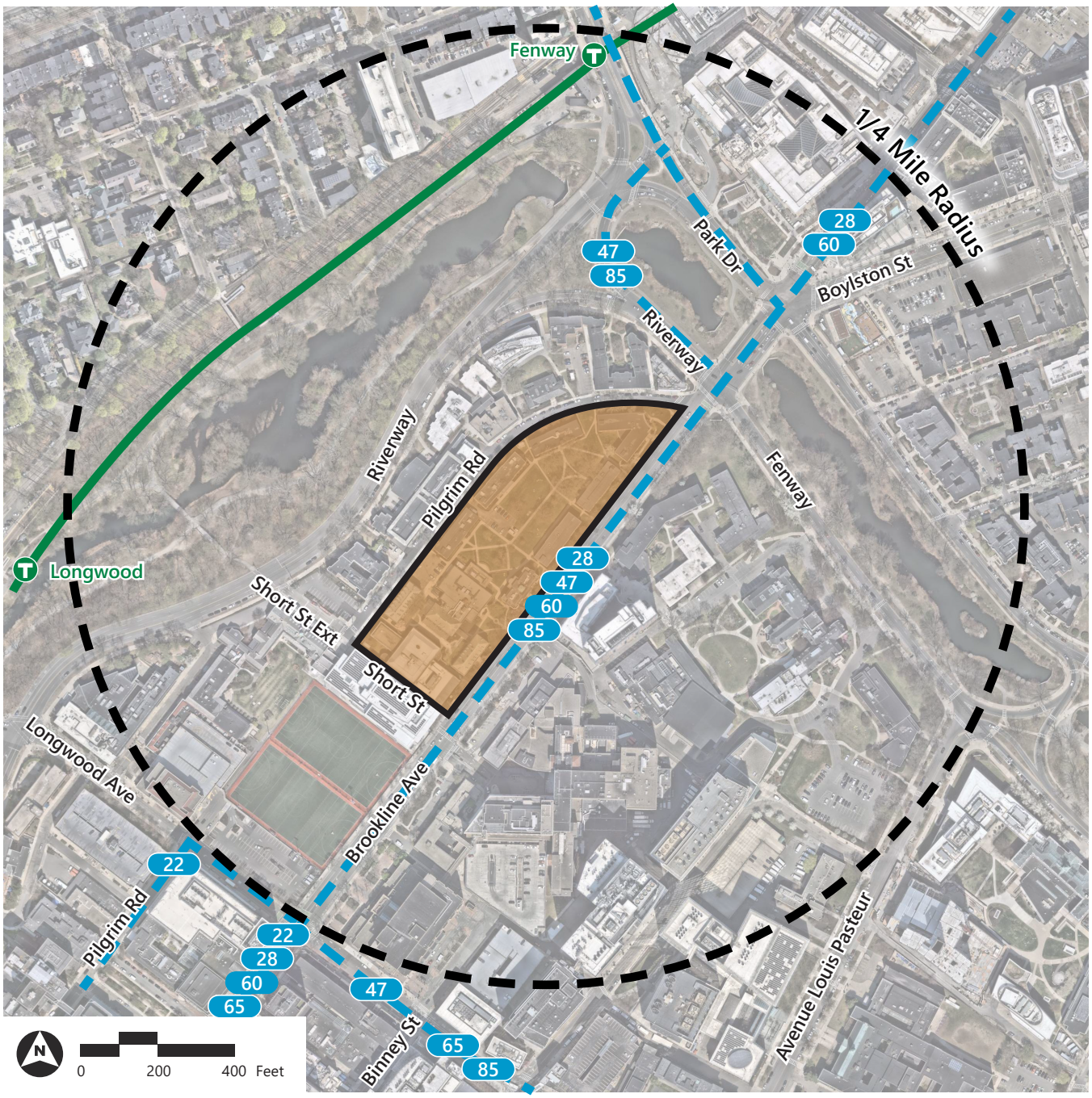
MBTA Green Line
8 Route 8 - Harbor Pt. - Kenmore Station
19 Route 19 - Fields Corner - Kenmore Station/ Ruggles
47 Route 47 - Central Square - Broadway Station
60 Route 60 - Chestnut Hill Mall - Kenmore Station
65 Route 65 - Brighton Center - Kenmore Station
CT2 Route CT2 - Sullivan Station - Ruggles Station
CT3 Route CT3 - Beth Israel Deaconess - Andrew Station

Source: Nearmap Aerial, April 2025, MBTA System Map 2025.

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Figure 4.16: Future Public Transportation (with Bus Network Redesign)

Longwood Place | Boston, MA



Legend:

MEPA Project Site

Note: Exact bus routing through the LMA to be determined via LMA Circulation Study recommendations in Winter 2026.

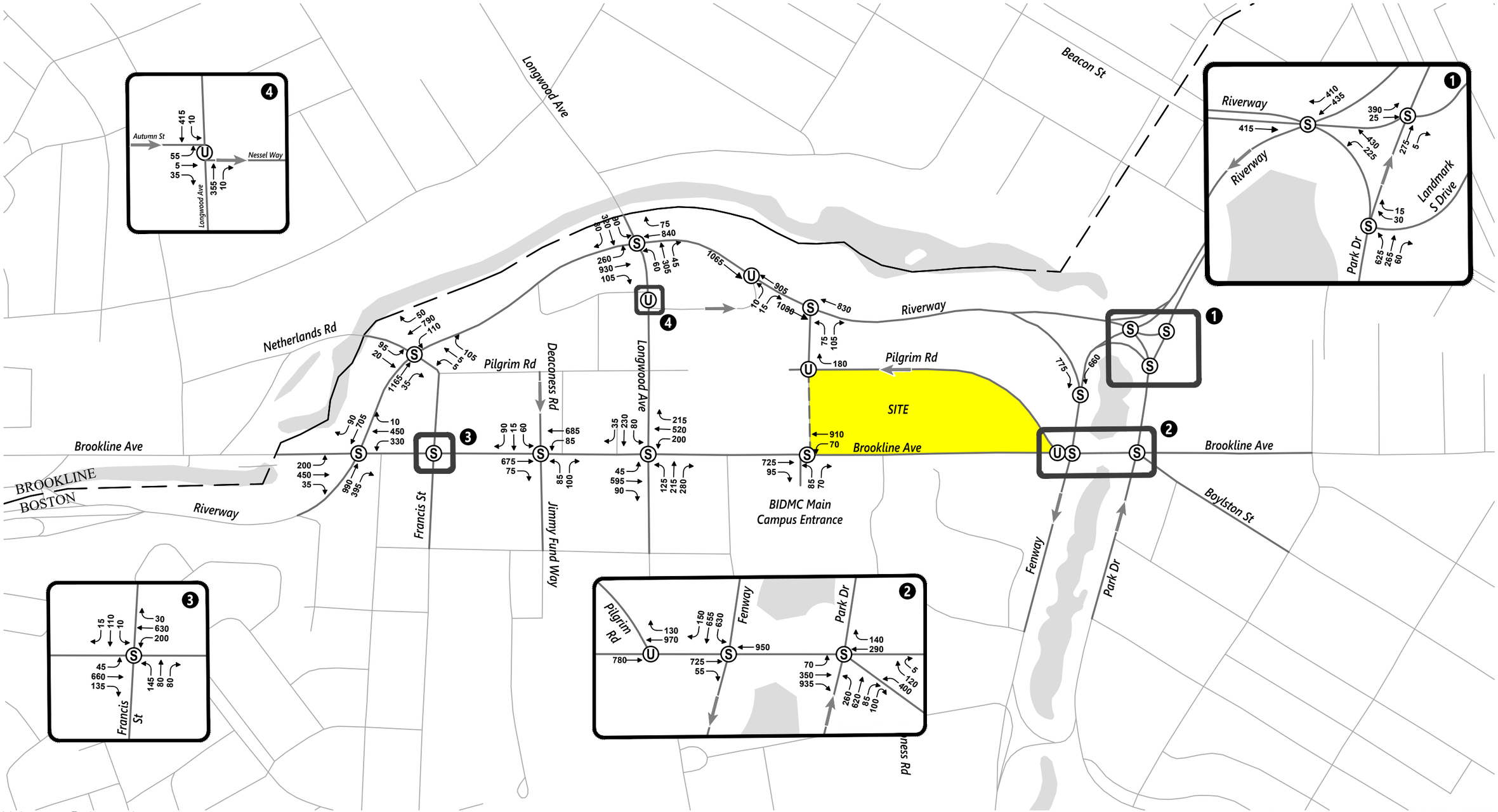
- MBTA Green Line
- 22 Route 22 - Ashmont - LMA
- 28 Route 28 - Mattapan - Kenmore Station
- 47 Route 47 - Union Square - Ruggles Station
- 60 Route 60 - Chestnut Hill Mall - Kenmore Station
- 65 Route 65 - Brighton Center - Ruggles Station
- 85 Route 85 - Assembly Square - Ruggles Station

Source: Nearmap Aerial, April 2025, MBTA Bus Network Redesign - Network Map Fall 2025.

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Figure 4.17: 2032 No Build Conditions - AM Peak Hour Vehicle Volumes

Longwood Place | Boston, MA



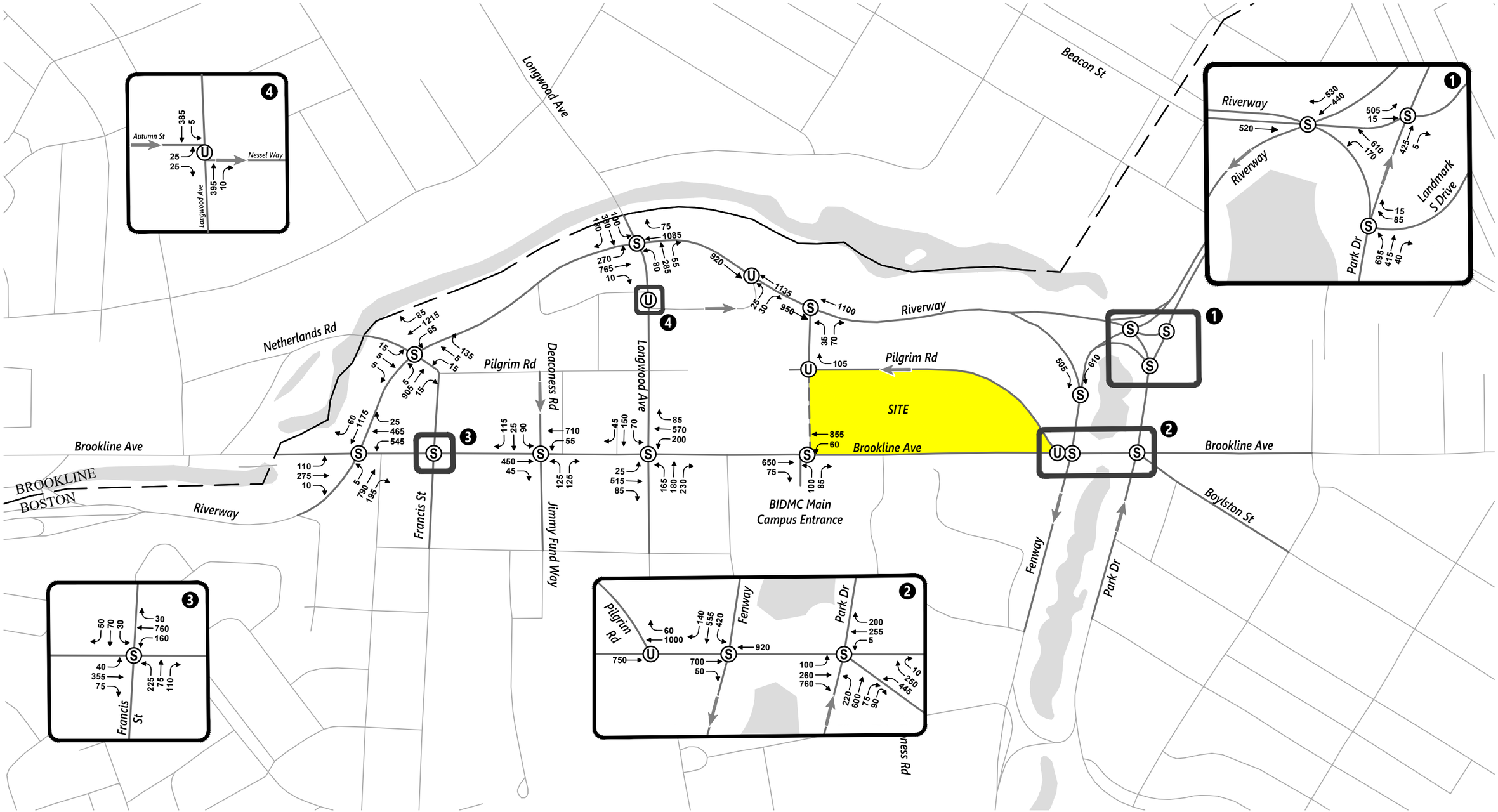
Volumes Balanced

Count Date Varies 2023–2025

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Figure 4.18: 2032 No Build Conditions - PM Peak Hour Vehicle Volumes

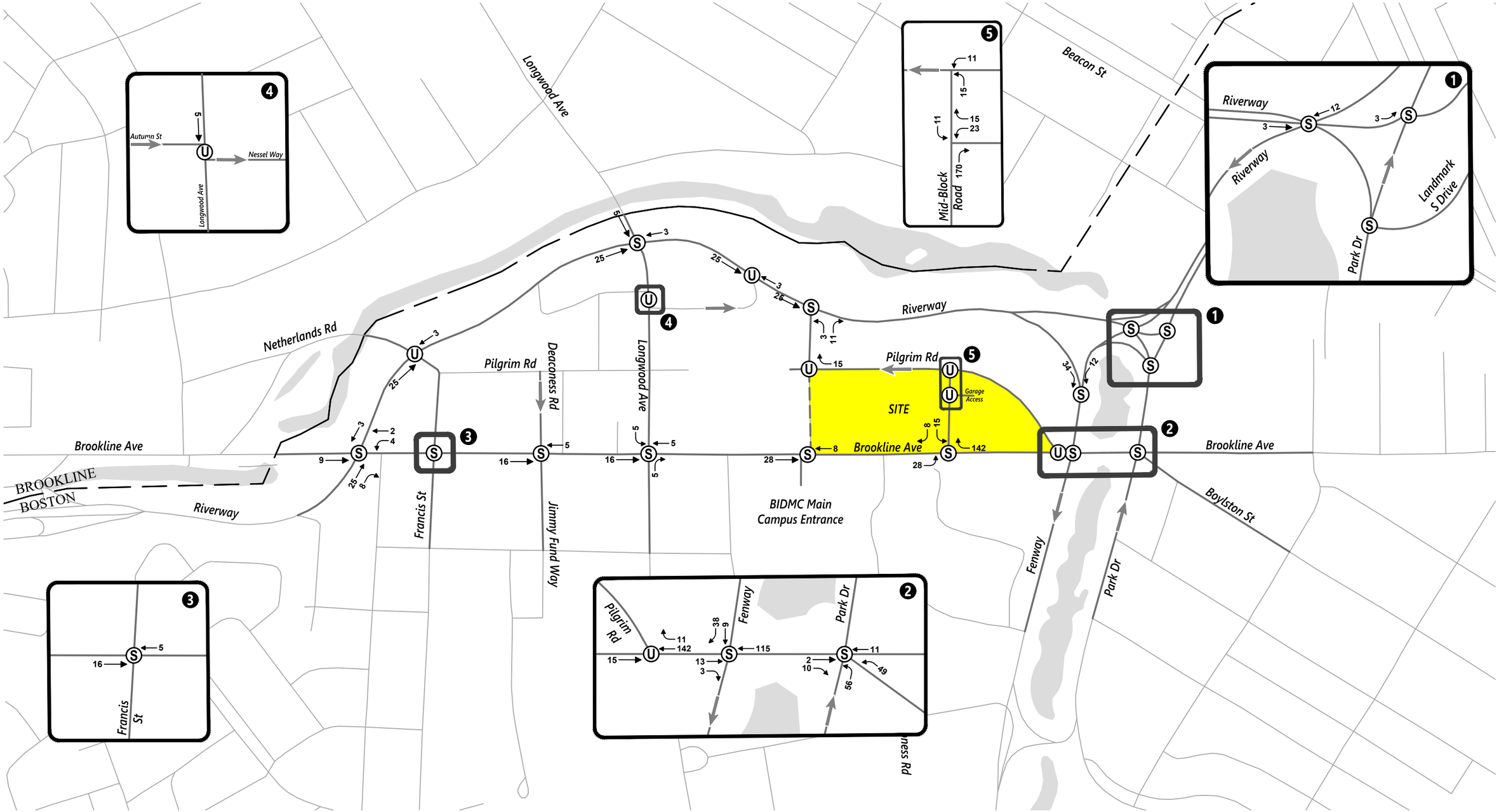
Longwood Place | Boston, MA



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Figure 4.19: 2032 Net-New Project Generated Trips - AM Peak Hour

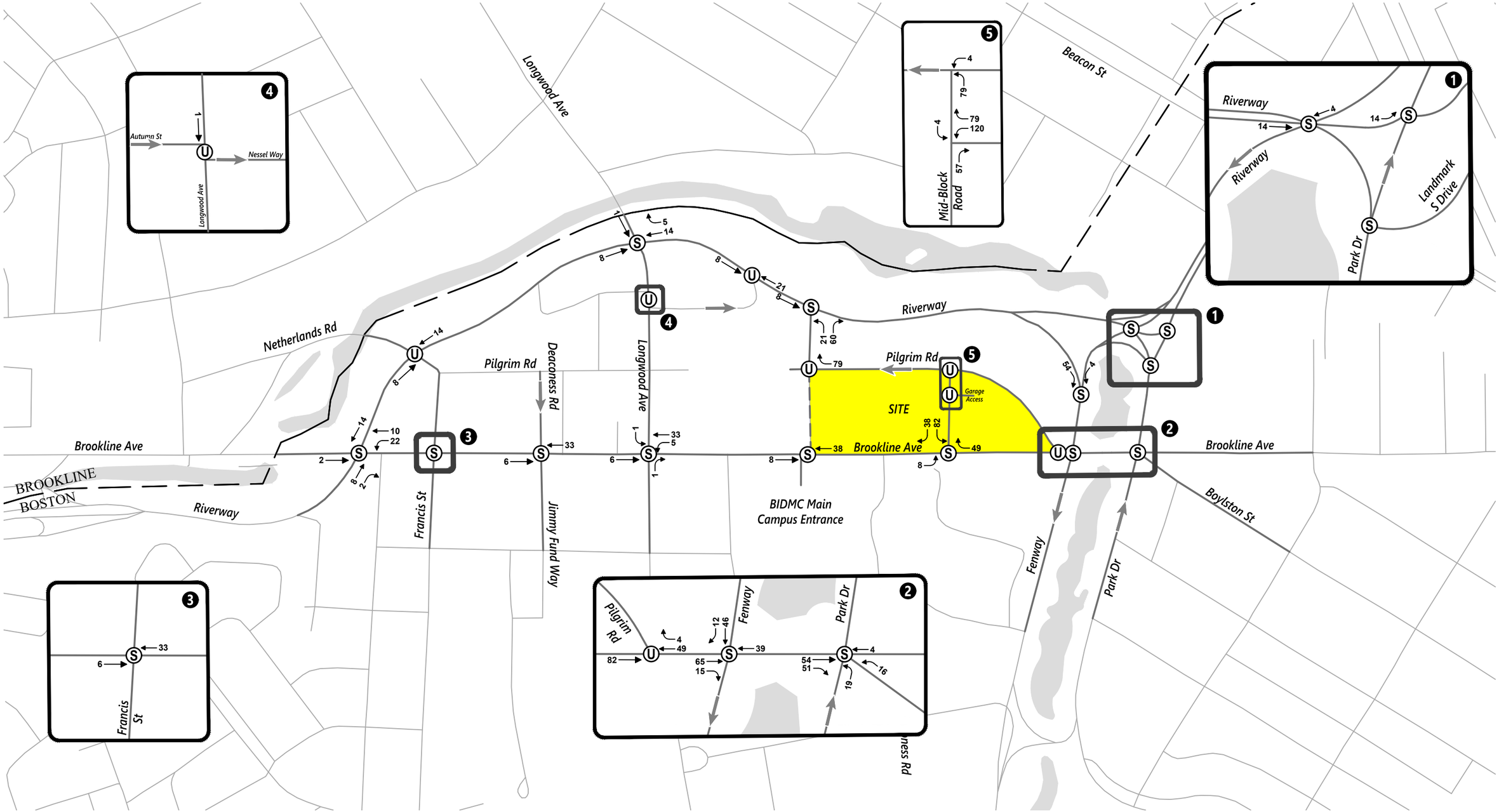
Longwood Place | Boston, MA



\\vhb\gbl\proj\Boston\14481.02 Longwood Place\Graphics\FIGURES\Transportation\Stick Network\2025-7-25 - Longwood Place Veh Network.dwg

Figure 4.20: 2032 Net-New Project Generated Trips - PM Peak Hour

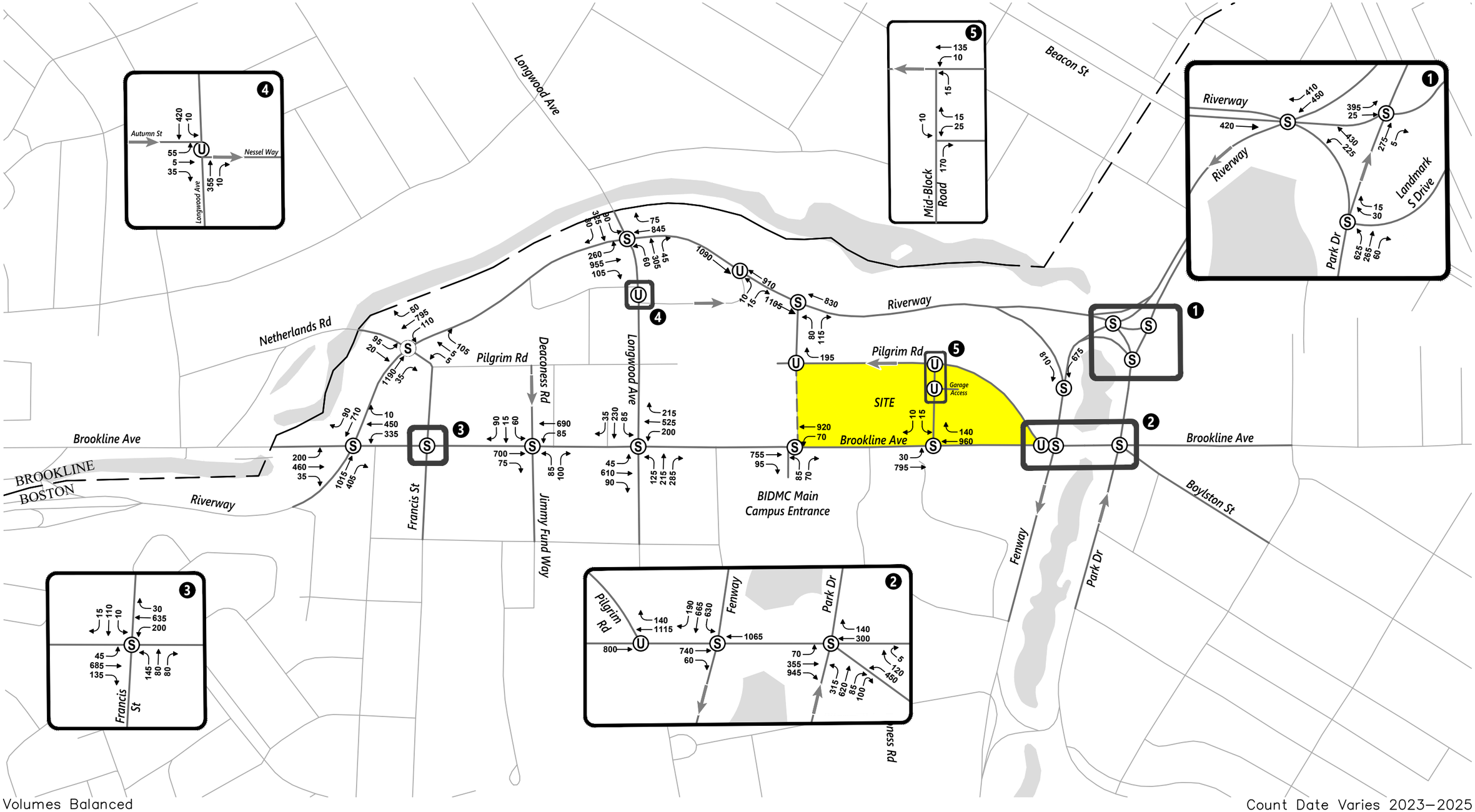
Longwood Place | Boston, MA



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Figure 4.21: 2032 Build Conditions - AM Peak Hour Vehicle Volumes

Longwood Place | Boston, MA



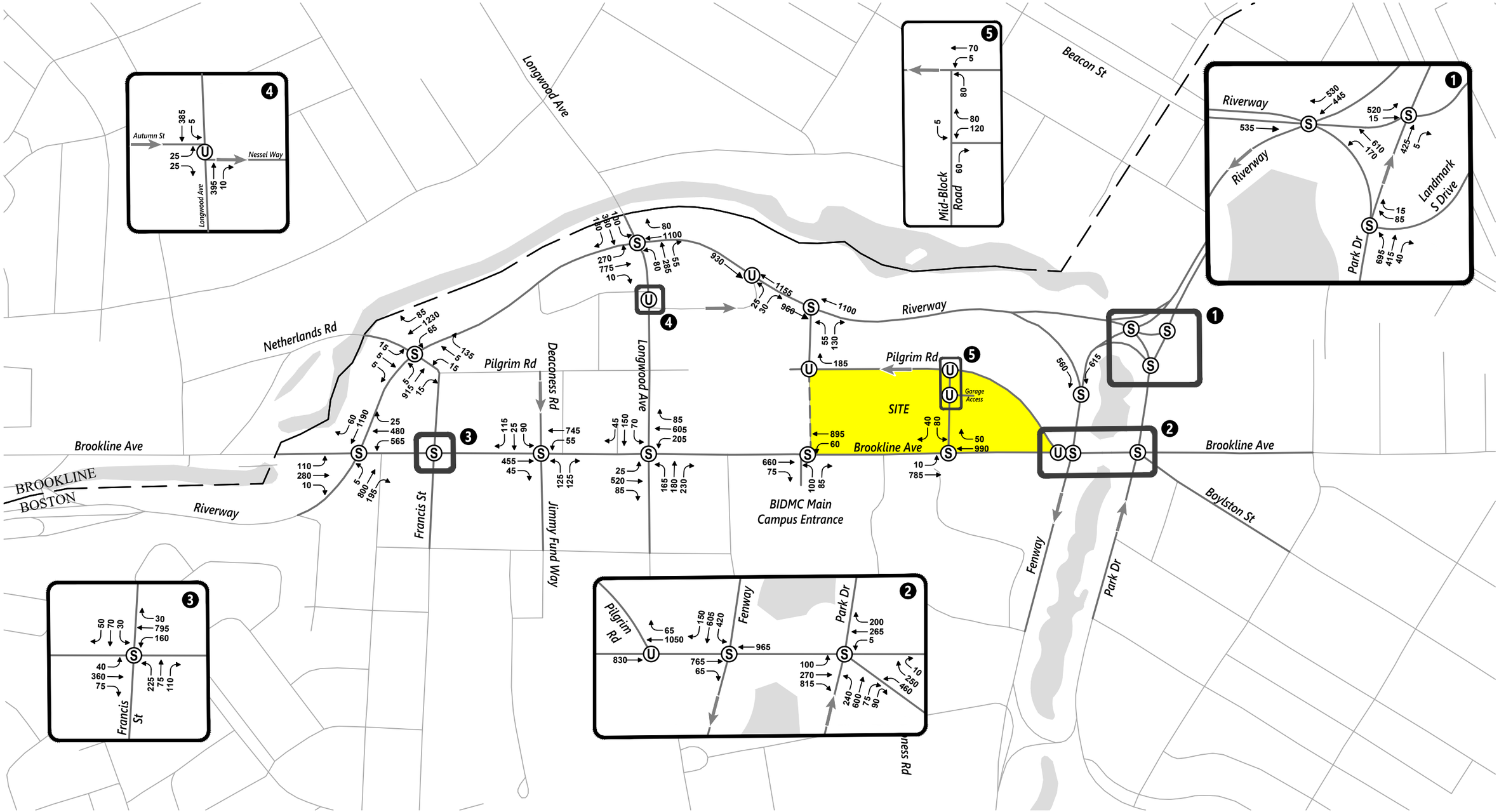
Volumes Balanced

Count Date Varies 2023–2025

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Figure 4.22: 2032 Build Conditions - PM Peak Hour Vehicle Volumes

Longwood Place | Boston, MA



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Figure 4.23: Proposed Brookline Avenue at BIDMC Main Entrance / Short Street

Longwood Place | Boston, MA

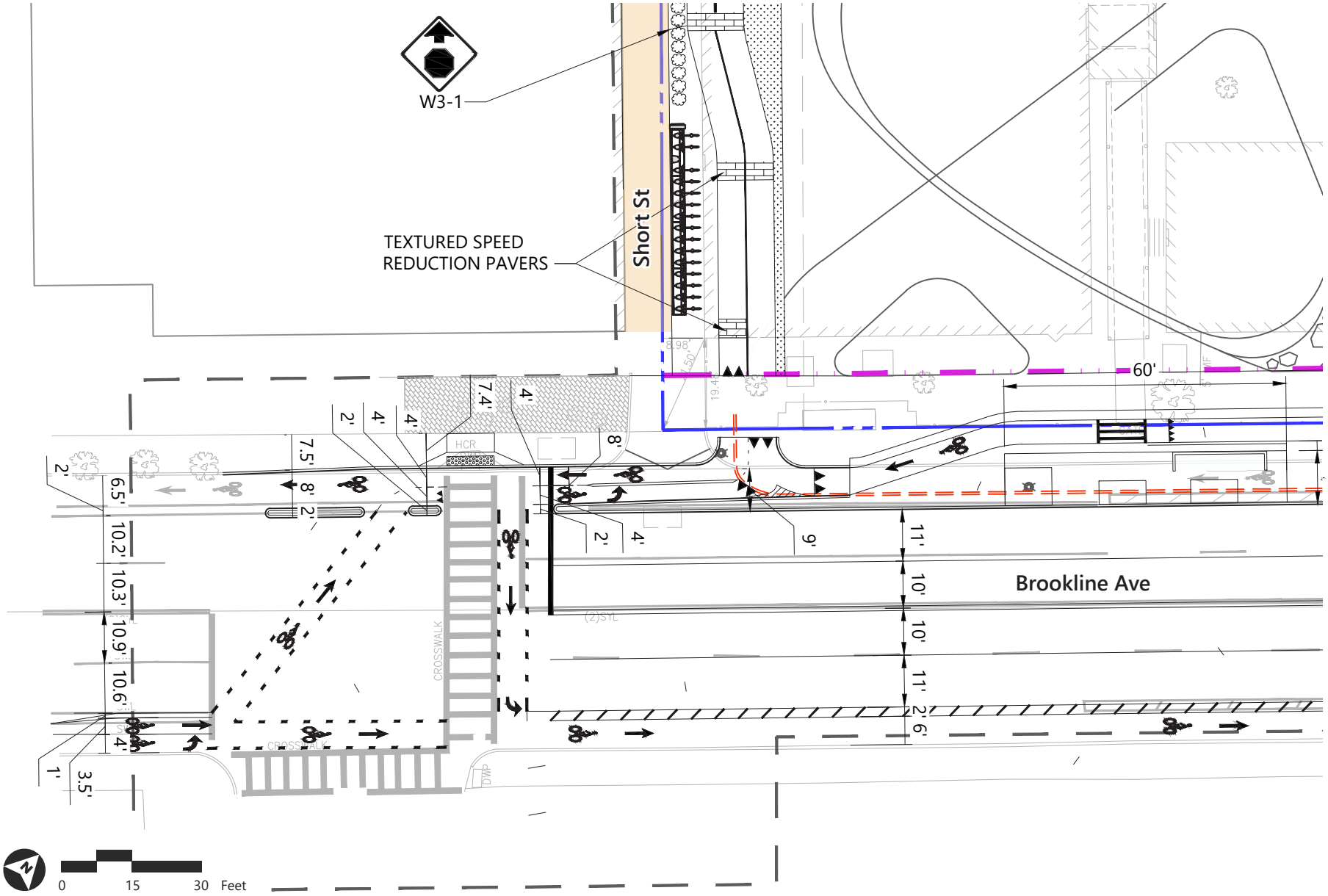
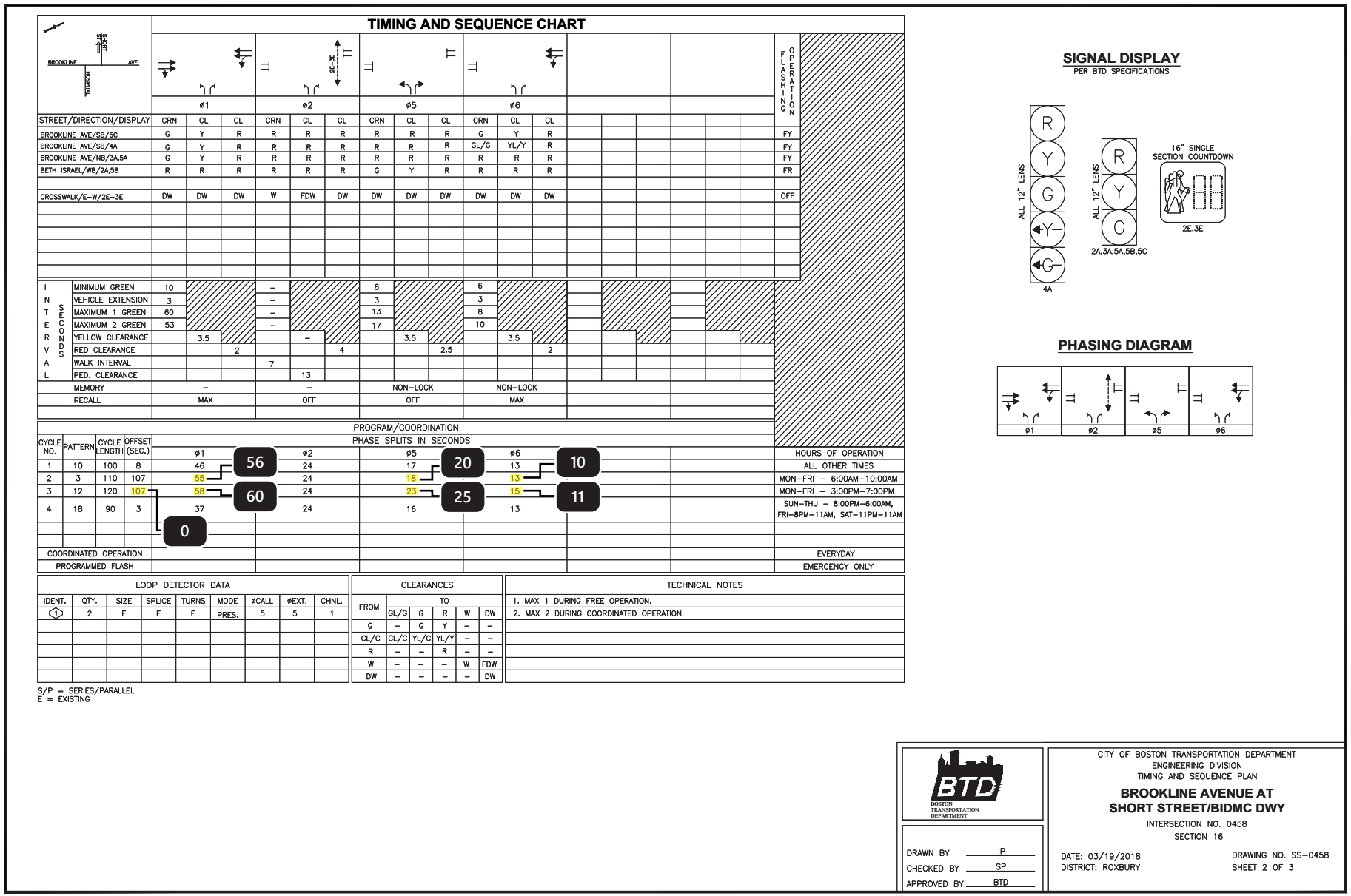


Figure 4.24: Conceptual Signal Timing Plan - Brookline Avenue at BIDMC Main Entrance / Short Street

Longwood Place | Boston, MA



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Figure 4.25: Proposed Brookline Avenue at Pilgrim Road

Longwood Place | Boston, MA

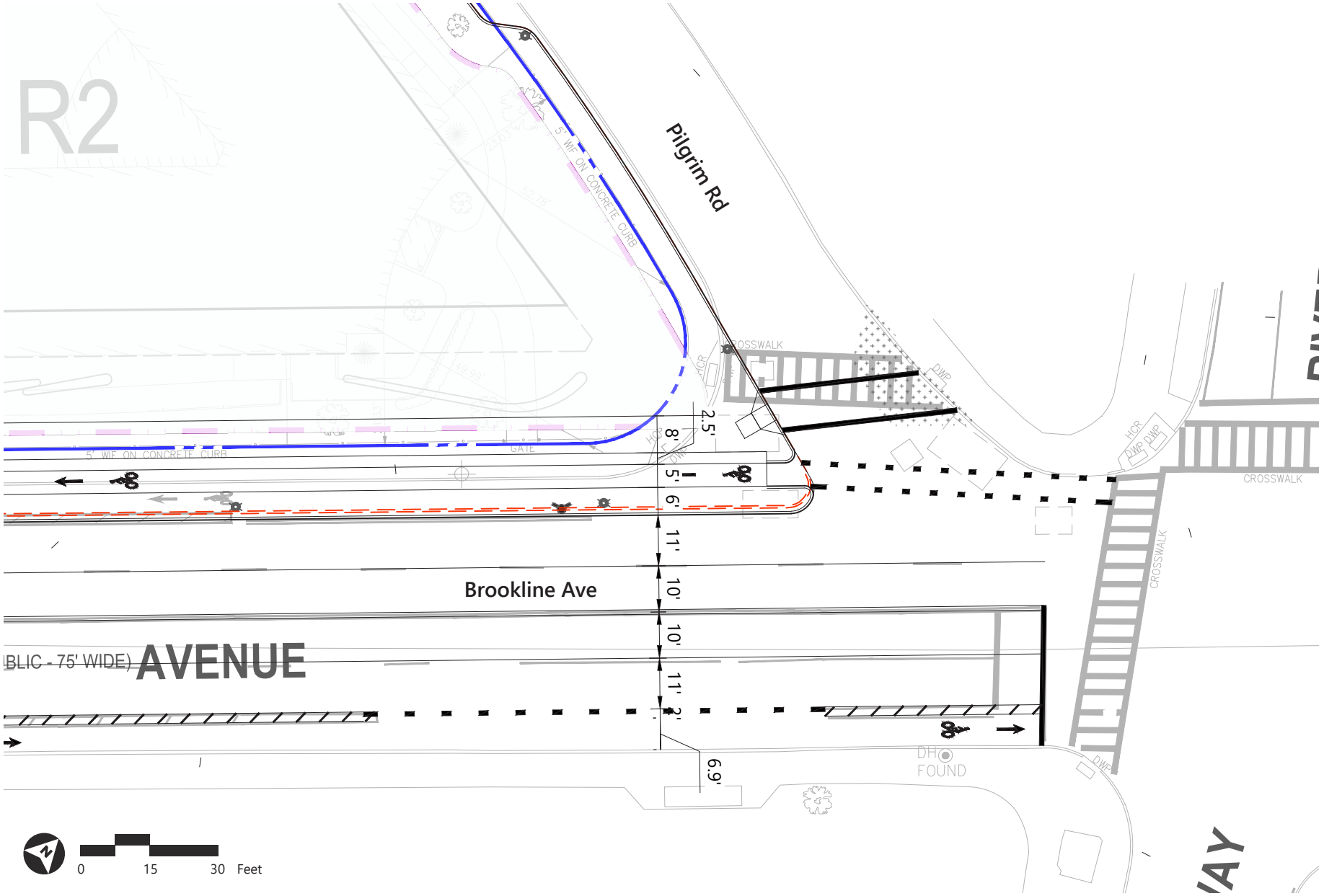


Figure 4.26: Proposed Pilgrim Road at Short Street

Longwood Place | Boston, MA

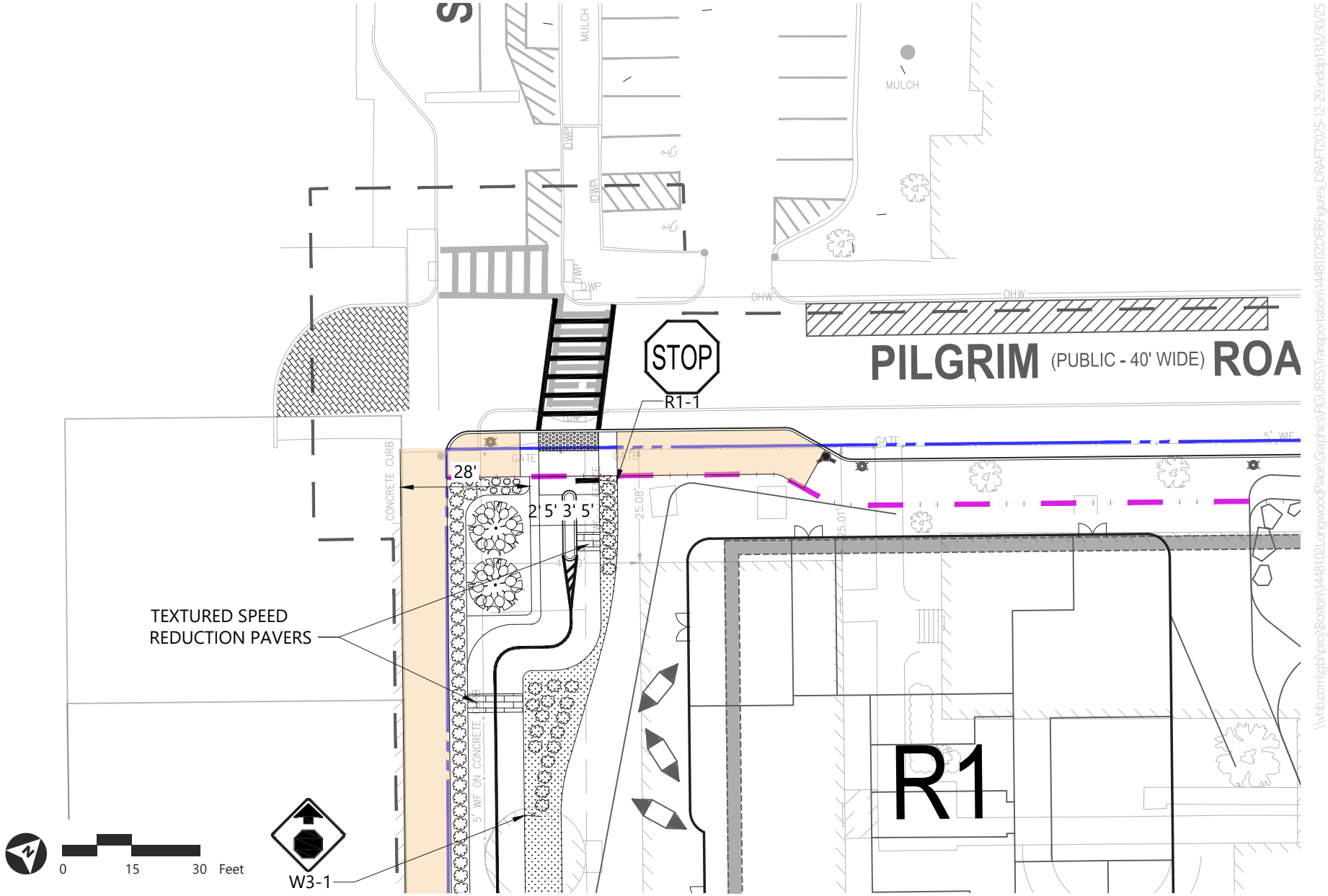


Figure 4.27: Proposed Brookline Avenue at Mid-Block Street

Longwood Place | Boston, MA

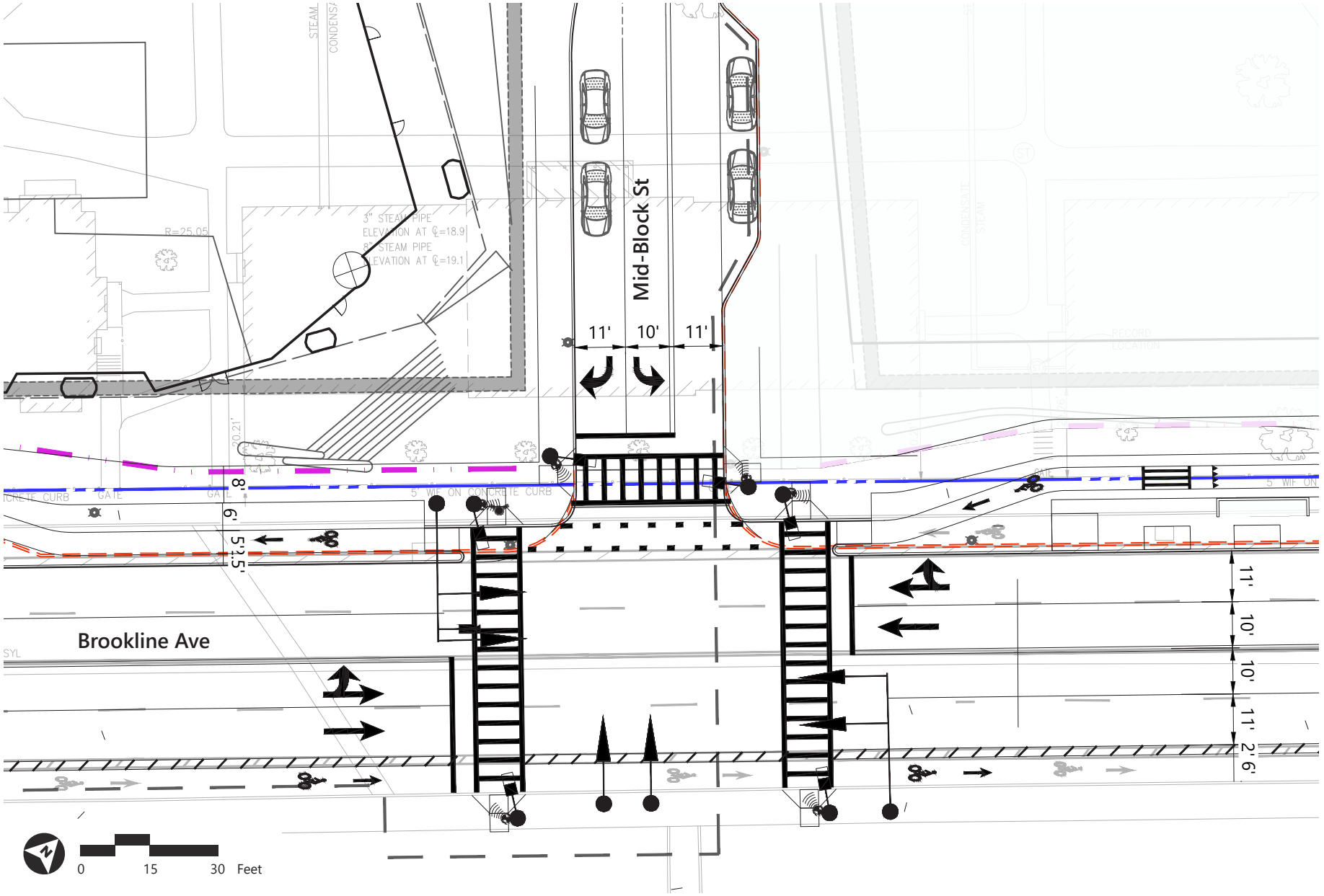
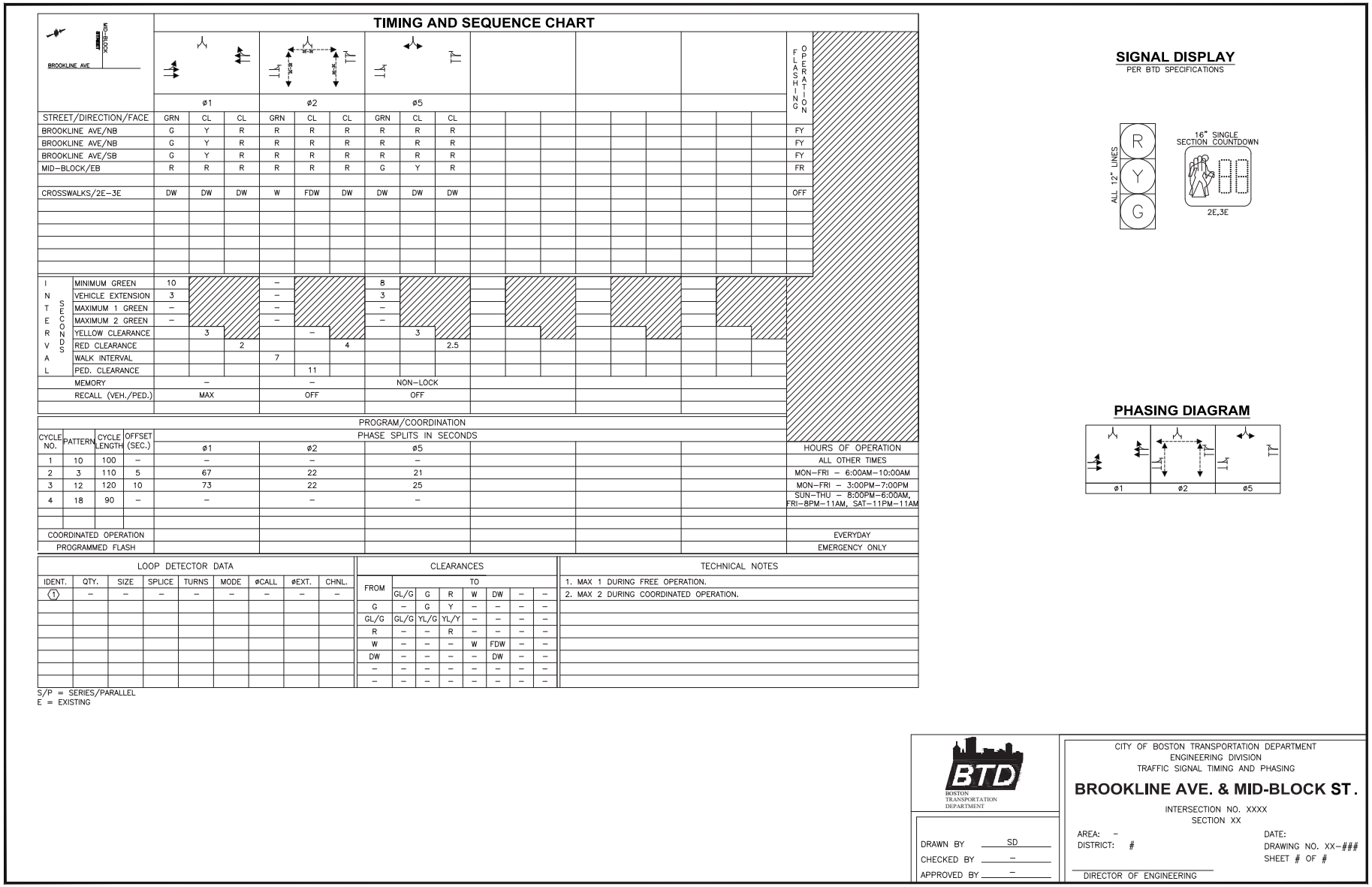


Figure 4.28: Conceptual Signal Timing Plan - Brookline Avenue at Mid-Block Street

Longwood Place | Boston, MA



SIGNAL DISPLAY

PER BTD SPECIFICATIONS

PHASING DIAGRAM

BTD
BOSTON TRANSPORTATION DEPARTMENT

DRAWN BY SD
CHECKED BY –
APPROVED BY –

CITY OF BOSTON TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
TRAFFIC SIGNAL TIMING AND PHASING

BROOKLINE AVE. & MID-BLOCK ST.

INTERSECTION NO. XXXX
SECTION XX

AREA: –
DISTRICT: #

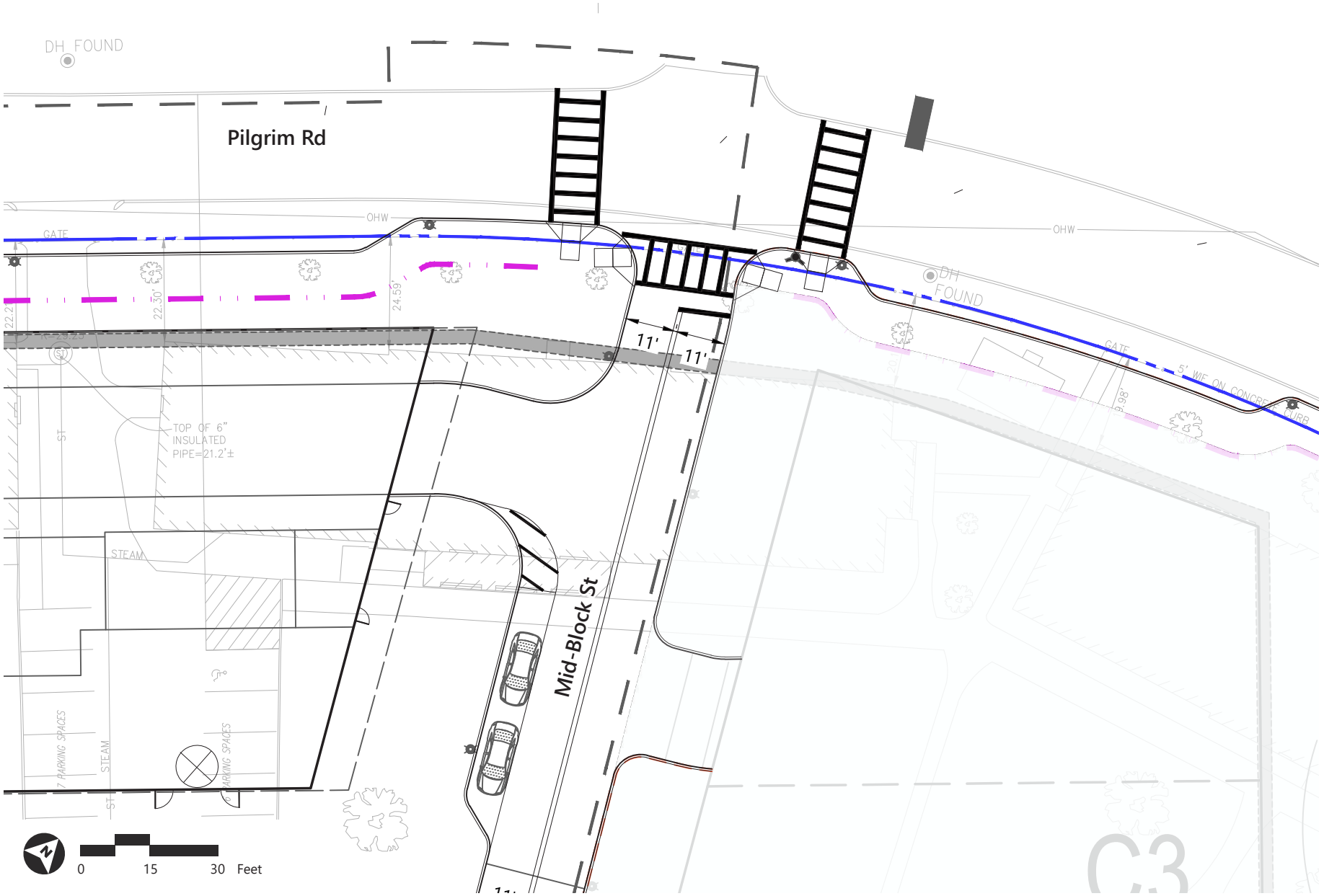
DATE:
DRAWING NO. XX-###
SHEET # OF #

DIRECTOR OF ENGINEERING

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Figure 4.29: Proposed Pilgrim Road at Mid-Block Street

Longwood Place | Boston, MA



5

Stormwater

As specifically requested in the EEA Secretary's Certificate on the ENF, this chapter provides the following documentation in response to the 'Stormwater' section of the DEIR Scope with references to specific DEIR sections in **bold**:

- Detailed plans at a readable scale of the proposed drainage system and calculations of water quality volume, infiltration volume, total suspended solids removal, and peak rates of runoff for predevelopment and post-development site. **(Section 5.2 and Figure 5.2)**
- Discussion as to whether the design of the stormwater management system may cause or contribute to flooding risks for adjacent areas, including to EJ populations. **(Section 5.2)**
- Discussion as to whether the MEPA Project has considered all feasible measures to improve conditions, even in excess of SMS standards in case the MEPA Project Site currently experiences flooding. **(Section 5.1 and Section 5.2.1)**
- An evaluation of the use of low impact design (LID) strategies and green infrastructure wherever practicable. **(Section 5.2.3)**
- Analysis of the capacity of the stormwater management system under future climate conditions. **(Section 5.2.2)**

5.1 Existing Drainage Conditions

As described in **Section 1.3.2 of Chapter 1, Project Description,** the MEPA Project Site currently consists of residential dormitories, dining and athletic facilities. Stormwater runoff from the MEPA Project Site is collected in the BWSC-owned 15"/18" storm drain in Pilgrim Avenue and the BWSC-owned 24"/45" storm drain in Brookline Avenue via hard-piped connections or overland flow. The Pilgrim Avenue and Brookline Avenue storm drains combine in Brookline Avenue east of the site and ultimately discharge directly to a BWSC-owned outfall to the Muddy River in close proximity to the MEPA Project Site. Additionally, a small portion of the site area drains to existing leaching catch basins and/or dry-wells that have no connection to the existing municipal systems in the surrounding roadways. There are no additional known modern Best Management Practices ("BMPs") present on the existing site. The existing site drainage conditions are depicted in **Figure 5.1**.

The MEPA Project Site has no known history of flooding.

5.2 Proposed Drainage Conditions

Based on preliminary conversations with BWSC, the proposed stormwater management system for the MEPA Project will connect to the BWSC drainage system and will be designed to comply with MassDEP Stormwater Standards and BWSC requirements. A preliminary proposed site drainage condition, at a readable scale, is depicted in **Figure 5.2**.

BWSC requires a new project greater than 100,000 GSF to provide an infiltration system with a volume equal to 1.25-inches of rainfall over the total impervious area and in general conformance with MassDEP Stormwater Standards. In addition, the MEPA Project Site is located within the Groundwater Conservation Overlay District (GCOD) which was established to prevent the deterioration of groundwater and actively promote the restoration of groundwater levels throughout the city. GCOD also requires 1.25-inches of groundwater recharge (infiltration) over the total impervious area. As such, stormwater runoff will be collected and treated, as necessary, on-site, and will be routed to infiltration systems to reduce the impact on the surrounding drainage system. Overflow from the underground infiltration areas due to larger, less frequent storm events will be routed to the BWSC drainage system. The MEPA Project will provide a reduction in peak rates up to the current 100-Year Storm event as well as up to the 2070 50-Year Storm event as recommended by the "ResilientMass Action Tracker" ("RMAT") tool (refer to **Section 5.2.1** below).

With the addition of modern stormwater BMPs, removal of direct drainage connections to the existing municipal drainage system, and the reduction of peak rates up to future storm events, there are no anticipated flooding impacts to the MEPA Project Site, downstream to the municipal infrastructure, or to off-site adjacent areas or EJ communities. Furthermore, green infrastructure components will be included in the MEPA Project to further improve the quality of stormwater runoff discharged and promote infiltration to groundwater.

5.2.1 MassDEP Stormwater Management Standards

A Drainage Report detailing the design of the proposed stormwater management system will be prepared as part of the local permitting process with BWSC. The proposed stormwater system will meet BWSC and DEP stormwater management standards, as demonstrated below.

- **Standard #1: No New Untreated Discharges:** The MEPA Project has been designed so that proposed impervious areas (including the building roof and paved driveway areas) shall be collected and passed through the proposed drainage system for treatment and attenuation prior to discharge.
- **Standard #2: Peak Rate Attenuation:** As outlined in **Table 5-1** below, the development of the MEPA Project Site and proposed stormwater management system have been designed so that post-development peak rates of runoff are below pre-development conditions for the 2-, 10- and 100-year storm event as well as the RMAT projected 2070 50-year storm event at the MEPA Project's single design point. **Table 5-1** below demonstrates the overall reduction in peak rates across all the storm events; however, the final peak rate reductions are subject to change as the design progresses and the MEPA Project navigates the BWSC review process.

Table 5-1 Design Point Preliminary Peak Runoff Rate Summary

	2-Year Storm			10-Year Storm			100-Year Storm			2070 50-Year Storm		
Point of Analysis	**Pre**	**Post**	**Δ**	**Pre**	**Post**	**Δ**	**Pre**	**Post**	**Δ**	**Pre**	**Post**	**Δ**
DP-1	12.9	6.0	-6.9	23.7	21.9	-1.8	40.1	39.5	-0.6	49.4	47.1	-2.3

* Flows are represented in cubic feet per second (cfs) and subject to change based on final stormwater design approved by BWSC.

- **Standard #3: Recharge:** Generally, stormwater runoff from the MEPA Project Site will be collected and diverted to subsurface infiltration systems sized to infiltrate a volume equal to 1.25-inches of rainfall across the total impervious area. The MEPA Project will create approximately 1.5 acres of net new impervious area (excludes the future ROW of Mid-Block Street) for a total of 4.8 acres of impervious area and is required to infiltrate 21,800± cubic feet of stormwater as per BWSC standards. The proposed subsurface infiltration systems will provide at least 21,800 cubic feet of volume below the lowest outlet for groundwater recharge. Overflow from the underground infiltration areas due to larger, less frequent storm events will be routed to the BWSC drain system.

  The proposed subsurface infiltration basin(s) will drain completely within 72 hours of the end of the storm event.
- **Standard #4: Water Quality:** Water quality pre-treatment is provided via a minimum of one of the following to achieve a minimum of 80% TSS removal: deep-sump, hooded catch basins, water quality units, or sediment isolation chambers (within the infiltration systems as needed). Per the Stormwater Handbook, roof runoff does not require pre-treatment prior to discharge to an infiltration BMP. Therefore, the proposed building's roof drains will tie directly to the subsurface infiltration systems. Water quality treatment is provided via one of the following: deep-sump and hooded catch basins, water quality units, subsurface infiltration system(s) and/or water quality swale/bio-retention area. The proposed water quality units will be selected as the design is finalized with BWSC and will be sized to treat a water quality flow rate equivalent to the water quality volume routed to each individual unit utilizing MassDEP methodology.
- **Standard #5: Land Use with Higher Potential Pollutant Loads:** Not applicable for the MEPA Project.
- **Standard #6: Critical Areas:** Not applicable for the MEPA Project.
- **Standard #7: Redevelopment:** Not applicable for the MEPA Project.
- **Standard #8: Construction Period Pollution Prevention and Erosion and Sedimentation Control:** The MEPA Project will provide construction period erosion and sedimentation controls in accordance with EPA NPDES CGP and local BWSC requirements. This will include appropriately sized construction entrance/exits, installation of temporary diversion swales and/or basins, protection for existing and newly installed stormwater inlets, sediment and erosion control barriers at the limit of disturbance, protection around temporary material stockpiles, dust control measures and appropriate dewatering techniques. The MEPA Project is required to file a Notice of Intent ("NOI") with the US EPA and implement a Stormwater Pollution Prevention Plan ("SWPPP") during the construction period. The SWPPP will be prepared prior to the start of construction and will be implemented by the site contractor under the guidance and responsibility of the Proponent. The SWPPP will be submitted prior to the commencement of construction.
- **Standard #9: Operation and Maintenance Plan:** An Operation and Maintenance ("O&M") Plan for the MEPA Project Site will be prepared prior to submission of final design to BWSC. The O&M

Plan will outline procedures and timetables for the long-term operation and maintenance of the proposed site stormwater management system, including initial inspections upon completion of construction, and periodic monitoring of the system components, in accordance with established practices and the manufacturer's recommendations. The O&M Plan will list of responsible parties and an estimated budget for inspections and maintenance.

- **Standard #10: Prohibition of Illicit Discharges:** The proposed stormwater system will only convey allowable non-stormwater discharges (firefighting waters, irrigation, air conditioning condensates, etc.) and will not contain any illicit discharges from prohibited sources. An Illicit Discharge Statement will be included in the Drainage Report submitted to BWSC for approval.

5.2.2 Projected Rainfall Intensities and Flooding

The RMAT was utilized to determine a resilient return period and design storm. As noted above, the MEPA Project will be designed to adequately manage post-development stormwater runoff up to the current 100-year, 24-hour design storm and projected 2070 50-year storm event. The RMAT tool provided the 2070, 50-year, 24-hour as the recommended return period (design storm) for a projected rainfall depth of 9.8 inches. The current 100-year, 24-hour rainfall depth is slightly less extreme than the projected 2070, 50-year, 24-hour storm, which was utilized to design the proposed stormwater management system for the MEPA Project Site. The proposed stormwater management system is expected to accommodate future increased precipitation within the projected lifetime of the system.

Table 5-2 NOAA Rainfall Data*

Frequency	2-year	10-year**	100-year
Rainfall (inches)*	3.26	5.25	8.16

* Values derived from NOAA Atlas 14, Volume 10 Point Precipitation Frequency Estimates for Boston, MA
** Value derived from BPDA Climate Resiliency Checklist which exceeds the 5.16" value from NOAA.

Table 5-3 Projected Rainfall Intensities

Planning Horizon	Recommended Return Period (Design Storm)	Projected 24-hr Total Precipitation Depth (in.)
2070	50-year	9.8

5.2.3 Proposed LID Measures

The MEPA Project is committed to providing green infrastructure features throughout the MEPA Project Site (**Figure 5.2**). The use of permeable pavers, landscaping and trees are proposed within the Main Heart and along the city street frontages. Bioswales are proposed along the new bike lane within the site to capture and redirect runoff into proposed subsurface infiltration system, which is designed to provide the required volume of 1.25 inches over the proposed impervious area per BWSC standards. The proposed subsurface infiltration system has also been coordinated with the proposed landscape design to avoid the areas with larger trees to allow for deeper root system for those trees. Additionally, a tree box filter is being explored on the southeast section of Mid-Block Street to treat and capture roadway runoff. The MEPA Project is also evaluating opportunities for the following Green Infrastructure: Green roofs, tree box filter systems, stormwater re-use system, and rain gardens.

As the MEPA Project is proposing permeable pavers, infiltration tree pits and potential bioretention areas within the public right of way, the Proponent will coordinate details of with the appropriate agencies as noted. A License, Maintenance and Indemnification Agreement for the final non-standard City of Boston elements will be coordinated with the Boston Public Improvement Commission.

Figure 5.1: Existing Site Drainage

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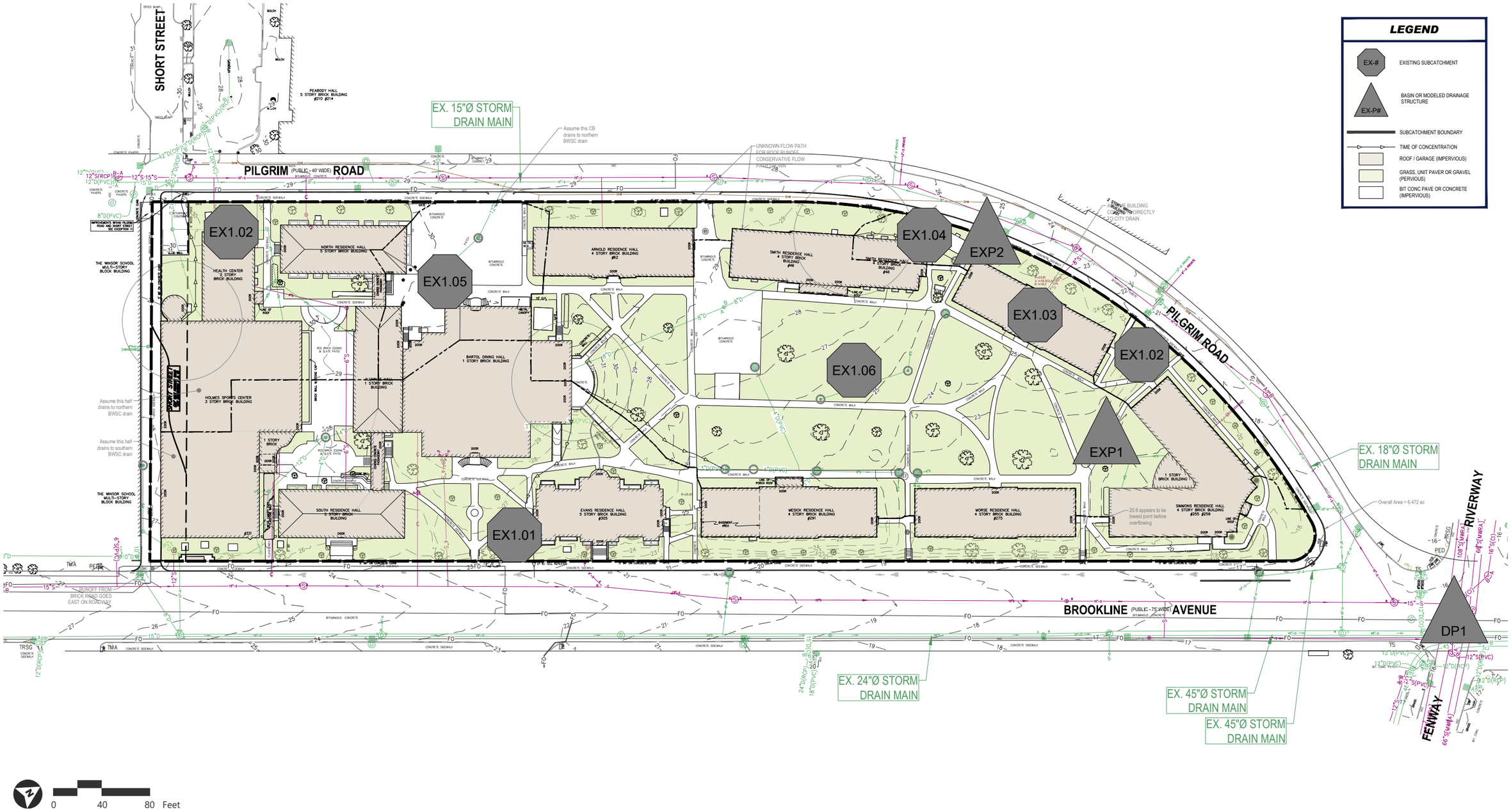
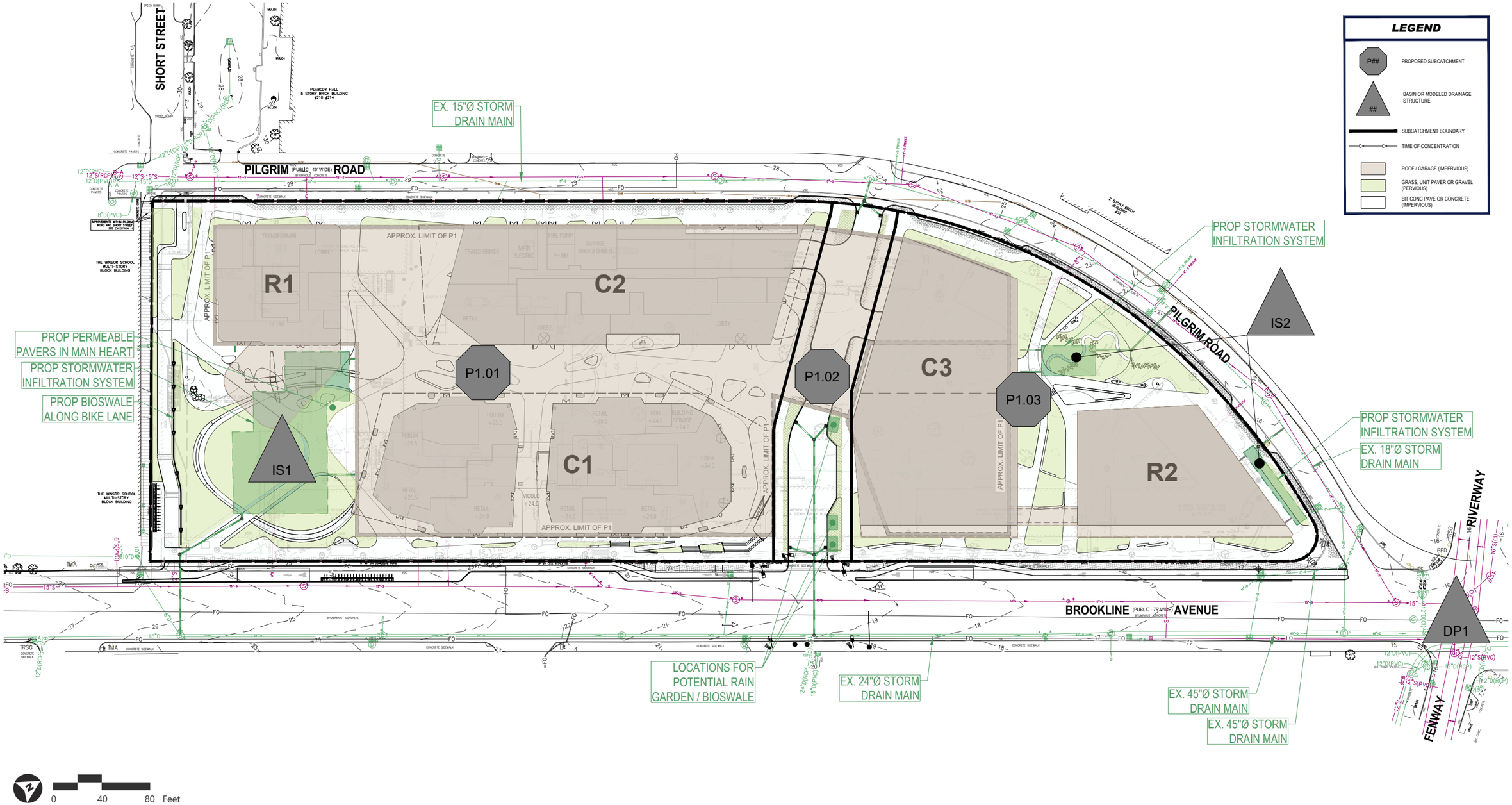


Figure 5.2: Proposed Drainage Area Map

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6

Water and Wastewater

As specifically requested in the EEA Secretary's Certificate on the ENF, this chapter provides the following documentation in response to the 'Water/Wastewater' section of the DEIR Scope with references to specific DEIR sections in **bold**:

- Description and plans of proposed water and sewer service to the MEPA Project Site. **(Sections 6.1 and 6.2, and Figure 6.1)**
- Review of the capacity of the BWSC system to provide water and sewer service, and description of any on-site or off-site improvements that the Proponent will be required to construct. **(Sections 6.1 and 6.2)**
- Review of additional water conservation measures that can be incorporated into the MEPA Project design, including reuse of rainwater and gray water and measures to eliminate or minimize water needed for irrigation. **(Section 6.1.2)**
- Confirmation on the volume of wastewater that will be mitigated by the MEPA Project. **(Section 6.2.2)**
- Identification of specific projects that would offset the MEPA Project-generated wastewater, and a commitment from the Proponent to implement the projects before wastewater is discharged from the MEPA Project. **(Section 6.2.2)**
- Identification of potential increased Combined Sewer Overflow (CSO) discharges affecting surface water quality in EJ populations and proposed mitigation of these impacts. **(Section 6.2.1)**
- Review of the potential need for a Sewer Use Discharge Permit and relevant standards if any on-site uses will discharge industrial process, manufacturing, power generating, or laboratory wastewater. **(Section 6.2)**
- Provide a commitment to use oil/gas separators in the parking garage drainage systems. **(Section 6.2.2)**

6.1 Water

The Residence Campus uses approximately 122,200 gallons per day (GPD) of water. Based on the conceptual development program, as discussed further below in **Section 6.2**, the MEPA Project is estimated to generate a total of approximately 215,705 GPD of sanitary sewage and will require a total of approximately 237,275 GPD of water (115,075 GPD net new) after applying a factor of 1.1 to the proposed sanitary sewage demand. Based on preliminary calculations and discussions with BWSC, it is anticipated that there is sufficient water capacity in the adjacent water mains to serve the MEPA Project.

6.1.1 Proposed Water Infrastructure

Refer to **Figure 6.1** for the proposed water and sewer connections. It is anticipated that the domestic and fire protection services required for the MEPA Project will connect to the existing 12-inch mains in Pilgrim Road and Brookline Avenue (**Figure 6.1**).

Additionally, based on initial discussions with BWSC a new 12" main is proposed on the west of the site adjacent to Short Street to provide a looped connection between BWSC's mains in Pilgrim Road and Brookline Avenue (**Figure 6.1**). The additional interconnection between the existing mains not only will provide additional redundancy and resiliency for the MEPA Project Site but to the water service to the immediate neighborhood as well. The looped connection was initially explored within the Mid-Block Street future city right of way; however, based on feedback from BWSC the proposed location adjacent to Short Street provides better resiliency to the system. As such, an easement for this main connection and its final location and size will be finalized with BWSC during the Site Plan Review process. Final service locations for domestic and fire will be coordinated with BWSC.

6.1.2 Proposed Water Conservation Measures

Various water conservation measures, such as low-flow toilets and urinals, restricted flow faucets, and sensor operated sinks, toilets, and urinals may be incorporated as water conservation measures. These measures will also reduce the overall MEPA Project's sewer generation usage projections established by the DEP Title 5 flow analysis. Additionally, the MEPA Project aims to introduce long-term canopy continuity through a layered composition of overstory and understory trees, shrubs and groundcovers, prioritizing New England native species. Through the use of native and adaptive plants, the MEPA Project seeks to reduce the outdoor water usage for irrigation by at least 50 percent compared to the EPA Water Budget Baseline. The MEPA Project also intends to conduct a one-time potable water analysis and optimize cooling tower cycles of concentration based on the findings, reducing the associated water usage. Collectively, these measures are expected to result in a further decrease in water demand.

6.2 Wastewater

As shown in **Table 6-1** below, based on the current development program, the MEPA Project is estimated to generate approximately 104,615 GPD of net new sanitary sewage when accounting for the existing sanitary sewage flow of the Residence Campus. Final sewer generation flows will be calculated and coordinated with BWSC when a final tenant mix is established. The Proponent will coordinate final, proposed sewer flows and available capacity with BWSC as design progresses to ensure the infrastructure needs are met without disruption of service to the surrounding area.

Table 6-1 Future Sewer Generation

Use	Program	Generation Rate[1]	Estimated Sewer Generation
Residential	486 Bedrooms	110 GPD/Bedroom	53,460 GPD
Office	453,240 SF	75 GPD/1,000 SF	33,993 GPD
Lab[2]	679,860 SF	110 GPD/1,000 SF	74,785 GPD
Medical/Clinic	125,900 SF	125 GPD/1,000 SF	15,738 GPD
Civic/Community[3]	15,000 SF (600 Seats)	15 GPD/Seat	9,000 GPD
Retail	6,120 SF	50 GPD/1000 SF	306
Food & Beverage Full Service[4]	10,200 SF (408 Seats)	35 GPD/Seat	14,280
Food & Beverage Fast Food[4]	17,680 SF (707 Seats)	20 GPD/Seat	14,144
Total, Proposed	—	—	*215,705 GPD*
Existing (Dormitory)			*111,090 GPD*
Total, Net New	—	—	**104,615 GPD**

GPD Gallons Per Day
1 Generation rates based on Title 5, 310 CMR 15.203 guidelines.
2 No flow specified in Title 5. Assumes 110 GPD for factor of safety, which exceeds the "Office" flow at 75 GPD.
3 Assumes "Function Hall" use with 1 seat per 25-sf.
4 Assumes 100% Restaurant use with 1 seat per 25-sf.

A MWRA Sewer Use Discharge Permit may be required for the MEPA Project to the extent it may be required for specific waste discharges by future tenants/users not yet identified. If required for a tenant/user of a building, an application will be submitted to the MWRA.

6.2.1 Proposed Wastewater Connections

Refer to **Figure 6.1** for the proposed water and sewer connections. It is anticipated that the proposed sanitary connections required for the MEPA Project will connect to the existing 15-inch main(s) in Pilgrim Road, Brookline Avenue, and the proposed main in Short Street (**Figure 6.1**). Final service locations will be coordinated with BWSC.

No connections to CSOs are proposed and, therefore, the MEPA Project is not expected to have an impact on off-site adjacent EJ populations.

6.2.2 Proposed Wastewater Mitigation

Per additional correspondence with BWSC after receipt of the EEA Secretary's Certificate of the ENF, the inflow and infiltration ("I/I") mitigation fee has been accepted by BWSC in lieu of construction of off-site projects to offset wastewater flows. The Proponent will reduce the amount of I/I from going into the BWSC sewer system, and ultimately the MWRA regional wastewater system, at a rate of 4 gallons for every 1 gallon of new sewer flow. The BWSC calculates the monetary amount required to fulfill this mitigation requirement by multiplying the estimated wastewater flow by four and then by $2.41. The Proponent will continue to work with BWSC as the construction sequencing is determined and the building program is finalized to identify the I/I payment to be made to mitigate impacts to the municipal system.

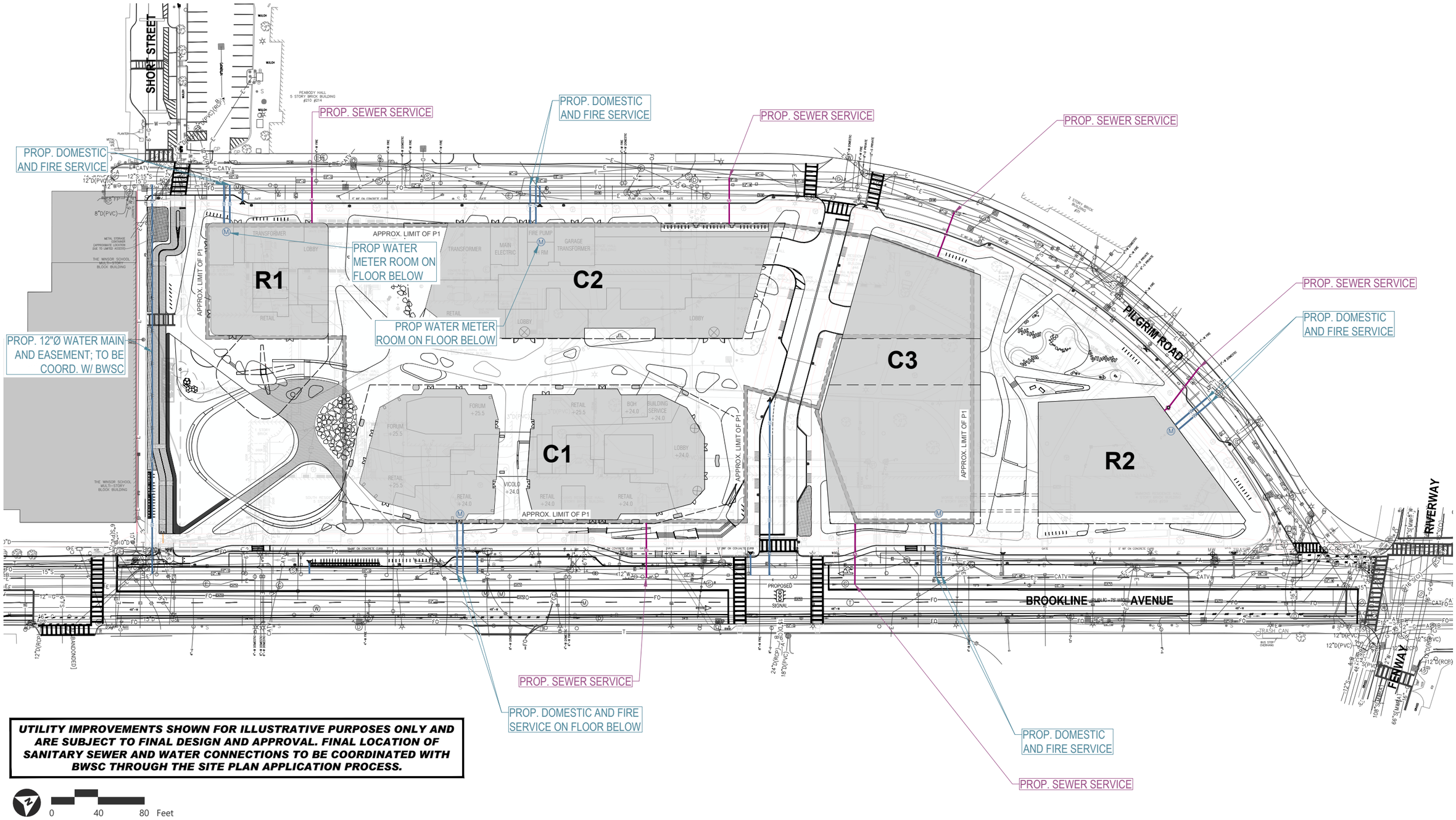
Per the March 4, 2021 letter from BWSC, the existing flows from the Simmons dormitory buildings to be razed, which total approximately 111,090 GPD, will be credited against the required mitigation.

The Proponent will also work with BWSC during the Site Plan Review approval process to determine how this credit will be allocated to the MEPA Project.

Approved oil/water separators will be provided as part of the MEPA Project, as needed, prior to discharge from covered parking and loading areas to the sanitary sewer system. Details for the separators will be included in future BWSC Site Plan Review application(s) for each development phase or building.

Figure 6.1: Proposed Water and Wastewater Infrastructure

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UTILITY IMPROVEMENTS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND ARE SUBJECT TO FINAL DESIGN AND APPROVAL. FINAL LOCATION OF SANITARY SEWER AND WATER CONNECTIONS TO BE COORDINATED WITH BWSC THROUGH THE SITE PLAN APPLICATION PROCESS.

0 40 80 Feet

7

Cultural Resources and Open Space

As specifically requested in the EEA Secretary's Certificate on the ENF, this chapter provides the following documentation in response to the 'Cultural Resources and Open Space' section of the DEIR Scope with references to specific DEIR sections in **bold**:

- A review of the historical resources that will be affected at the MEPA Project Site. **(Sections 7.1)**
- A description of the Proponent's consultation with MHC and any additional analyses requested by MHC or prepared for the City (including studies of off-site shadow impacts), and describe proposed mitigation measures. **(Section 7.2)**
- A description and plans of the proposed on-site open space identifying potential connections to off-site public parkland, including nearby components of the Emerald Necklace. **(Section 7.3)**

7.1 On-Site Historical Resources

The Residence Campus ("Simmons College Residence Campus," BOS.AEM) comprises 13 buildings that were constructed between 1905 and 1989 as the Simmons College (now University) was developed on two noncontiguous campuses, the academic campus (BOS.7409 and BOS.17834) and the Residence Campus, which are located approximately 0.25 miles apart.

The Residence Campus is situated on an irregular block bounded by Brookline Avenue, Pilgrim Road, and a pedestrian path that was formerly Short Street. The Back Bay Fens (BOS.JD/ part of BOS.IO), which curves around the Longwood neighborhood, is situated about 200 feet to the north and west of the Residence Campus. As noted in the 2017 inventory form, the Residence Campus has two characteristically distinct areas. The north portion consists of long, narrow residence halls arranged around the perimeter of a large, landscaped quad. The buildings line along Brookline Avenue and Pilgrim Road, the main entrances to the buildings face inward and many lack access on the street facades entirely. This is reinforced by a metal picket fence that encloses most of the Residence Campus. The south portion of the Residence Campus is more densely developed, reflecting a wider variety of time periods and later amenities. The three earliest buildings on the Residence Campus, the Refectory/Alumnae Hall (1905, BOS.7581), North Hall (1906-1907, BOS.7580), and South Hall (1905, BOS.7358) are arranged in a U-shape around a courtyard that initially faced on to Short Street. Later buildings, including the Health Center, Sports Center, and Bartol Dining Hall, closed off and jutted into the former open space. Although this changed the footprint of the courtyard, the later campus additions align with the grid established by the first three buildings.

The campus was developed in four distinct time periods: 1905-1907, 1938, 1950s-1960s, and 1989. All the campus buildings are similar in height and with brick façade, making the campus visually

cohesive. The 2017 inventory form states that although the buildings reflect the architectural style preferences of periods throughout the 20th century, the use of Classical-inspired details, regular fenestration, and symmetry are prevalent throughout the campus.

There has not been appreciable change since the 2017 inventory form; the history and description are summarized here. When Simmons Female College opened in 1902, its students were boarded in nearby single-family houses owned and leased by the college. Land was soon acquired for the separate Residence Campus and the college commissioned architect Guy Lowell (1870-1927), a Simmons charter corporation member, to design the initial buildings. Lowell's portfolio would include several institutional commissions, including buildings at the Phillips Academy in Andover, and his works include other Longwood/Fenway area examples such as the Museum of Fine Arts (BOS.7493). He designed the initial three buildings of the Residence Campus, Refectory/Alumnae Hall (1905, BOS.7581), North Hall (1906-1907, BOS.7580), and South Hall (1905, BOS.7358). The Refectory (now Alumnae Hall) is a one-story brick building with a hipped, slate-clad roof and Georgian Revival detailing. The two early dormitories, North Hall and South Hall face one another and are similar in height, massing, materials, and design details. Each of these buildings are five stories in height and constructed of brick with slate tile hipped roofs. As with the Rectory building, architectural details are executed in cast stone and include watercourse, belt courses, with a decorative cornice and splayed window lintels. While both buildings have an entrance on the south elevations, South Hall (BOS.7358) has a central entrance on the east façade facing Brookline Avenue with a decorative surrounding featuring a pediment, heavy scroll brackets, and quoins that extend upward to surround the windows above as well. The dormitory buildings are connected to the central Refectory via covered brick porticos.

Enrollment continued to increase and in the 1930s, a building campaign of six new dormitories was planned; however, only one was completed prior to WWII (1939-1945). Evans Hall (1938, BOS.17885) was constructed along Brookline Avenue and is attributed to Boston firm Ames and Dodge, who designed campus buildings throughout New England. It continues many of the characteristics of the earlier buildings. The Colonial Revival style brick building is four stories tall (a partial fifth story capped by a cupola may have been a later addition), with a flat roof and projecting center and corner bays. The entrance on the street façade has a pedimented decorative wood surround while the entrance on the quad-facing façade is contained in a curved center bay.

The intended building campaign was picked up again after WWII, with six dormitories, a dining hall, and a health center constructed 1951-1966. The dormitories constructed in this phase, which record Cleveland-based The Austin Co. as the engineers, are similar in design and carry the Classical-influenced design influences of the earlier buildings, though in much simplified form. Arnold Hall (1951, BOS.17890), Dix Hall (1952, BOS.17888), Morse Hall (1952, BOS.17882), Simmons Hall (1956, BOS.17883), Mesick Hall (1960, BOS.17884), Smith Hall (1963, BOS.17889) are each four stories tall with brick exteriors and flat roofs, slightly projecting center bays, brick corner quoins, and cast stone Classical Revival-style detailing. The designs are mainly differentiated by the entrances facing into the campus quad, which have varying treatments including projecting porticos, rectangular or semicircle porticos, recessed entrances, pediments of multiple shapes, sidelights, frieze bands, and pilasters. Simmons Hall is the exception, facing the junction of Brookline Avenue, Pilgrim Road, the Riverway, and the Fens. It is designed with a V-shaped footprint to reflect the angled intersection, formed by a corner entrance flanked by two wings that extend down the adjacent roadways. The concave entrance bays feature Ionic columns with a portico, decorative limestone and cast stone window surrounds, and a wide cornice frieze capped by a balustrade. The Austin Co. was also responsible for

the one-story Bartol Dining Hall (1952; BOS.17886), which was added to the rear of the Refectory. It has a brick exterior, flat roof, and arched window openings reflecting the arched windows that characterize the older Refectory building. A 1973 addition on the front of the building juts into the main quad. Also sited adjacent to the initial building quadrangle is the one-story, brick-clad Health Center (1966, BOS.17887) by The Austin Co.

Most recently, the Holmes Sports Center (1986-1989, no MHC Inventory No.) designed by Goody, Clancy, and Associates continued the pattern of adding new amenity facilities to the south end of the campus near the initial 1905-1907 grouping. This building, larger and taller than the other campus buildings, picks up the use of brick and contrasting details common to the whole Residence Campus. It eliminated the Short Street roadway and now occupies the former courtyard of the Refectory, North Hall, and South Hall.

7.2 Consultation with MHC

The MHC replied to the ENF via a letter dated June 2, 2025. In the letter, the MHC noted that the MEPA Project will have an adverse effect to the MHC inventoried property, "Simmons College Residence Campus" (BOS.AEM) through demolition of the contributing buildings and redevelopment of the property. The letter also refers to the three Georgian Revival style buildings designed by Guy Lowell as particularly noteworthy, the Refectory (BOS.7581), North Hall (BOS.7580), and South Hall (BOS.7358), and notes the proximity to the Emerald Necklace (BOS.JE).

Per the MHC letter, the Proponent developed an alternatives analysis, which was distributed on March 12, 2026 (**Appendix F**). The analysis explored plans that will avoid or minimize the adverse effect on the Residence Campus (BOS.AEM), per the MHC comment letter. Evaluated alternatives include keeping all or a majority of Simmons College Residence Campus buildings, or retaining the core 1905-1906 Georgian Revival buildings designed by Guy Lowell and mentioned specifically in the MHC comment letter (North Hall, BOS.7580; South Hall, BOS.7358; Refectory, BOS.7581). Evaluation factors include financial feasibility, site plan implications, construction phasing, and the marketability of the MEPA Project. Copies of the analysis were provided to BLC, ENC, MWRA, and BPA.

7.2.1 Off-Site Shadow Impacts

As requested in the EEA Secretary's Certificate, this section includes a summary of the shadow analysis prepared as requested by the City of Boston as part of the ongoing Article 80B, Large Project Review. The shadow analysis submitted with the Supplemental Information Document is included in **Appendix D**, which was filed on February 4, 2026. The shadow analysis includes three distinct studies, which are described below.

The first analysis studied alternative massing options that sought to shift mass from the top of buildings to the base or middle to reduce net new shadow on the Emerald Necklace Parks. The second studied alternative massing options that minimized mechanical screen walls and relocated or consolidated mechanical equipment. Finally, the last analysis calculated the net new shadow area generated by the proposed project components progressed as part of Article 80B on the Emerald Necklace Parks, and compared against the net new shadow generated by the PDA Development Plan shadow massings at 15-minute intervals from sunrise to sunset on March 21, June 21, September 21, and December 21.

The shadow studies document that through intentional analysis and massing decisions, the project team was successful in reducing net new shadows on the Emerald Necklace Parks, as compared to the PDA Development Plan. As noted in the EEA Secretary's Certificate, as part of the Article 80C PDA process, the Proponent agreed to provide $7 million as mitigation for project impacts to create an endowment for use by the Boston Parks and Recreation Department to support the long-term needs of the Emerald Necklace.

7.2.2 Alternatives Analysis

As noted above, the MHC alternatives analysis was distributed on March 12, 2026. The two alternatives under evaluation are: (1) retaining all or a majority of Residence Campus buildings, and (2) retaining the core 1905-1906 Georgian Revival buildings designed by Guy Lowell, which were mentioned specifically in the MHC comment letter (North Hall, BOS.7580; South Hall, BOS.7358; Refectory, BOS.7581). See **Appendix F** for additional information and the full submission package.

7.2.3 Proposed Mitigation Measures

If the MHC alternatives analysis demonstrates that adverse effects to the Residence Campus cannot be avoided or minimized, the Proponent will work with the MHC, BLC, ENC, MWRA, BPA, and other identified consulting parties to develop mitigation measures appropriate to the adverse effect, to be documented in a Memorandum of Agreement (MOA) in compliance with M.G.L. Chapter 9, sections 26-27C (950 CMR 71.00).

7.3 Proposed On-Site Open Space

The MEPA Project will provide 2.8 acres of much needed publicly accessible open space for the larger LMA neighborhood. It is envisioned to provide a welcoming, all-season public realm that offers a variety of generously sized and flexible public green spaces that are supported by enhanced by retail and community spaces in the ground floors of the surrounding buildings. This unique combination creates a versatile landscape capable of supporting a wide range of activities for both building users and the broader community. Planting that strengthens the physical and visual connectivity to adjacent open spaces such as the Emerald Necklace, the Riverway and Back Bay Fens Park are used throughout the MEPA Project.

Existing conditions within the MEPA Project Site include a mix of mid-sized, urban-tolerant trees such as White Ash and Little leaf located entirely within the MEPA Project boundary, with mature canopy trees along Brookline Avenue and several specimens along Pilgrim Road. No street trees currently exist within the public right-of-way. The MEPA Project is committed to meeting or exceeding the existing total tree caliper through the proposed tree strategy, and is committed to retaining or reusing at least one mature tree onsite.

New street trees are introduced along Brookline Avenue and Short Street, to enhance pedestrian and cyclist comfort and strengthen connections to nearby open spaces, including the Riverway Park and Back Bay Fens Park. Near the Mid-Block Street intersection, trees are located within expanded planting and furnishing zones to establish a consistent shaded streetscape and vertical buffer. Along Brookline Avenue adjacent to the Main Heart, the canopy is intentionally opened to accommodate

multimodal circulation and transit functions, maintaining clear sightlines while creating a visual and experiential connection between the streetscape and the larger interior canopy of the site.

A layered planting approach—favoring New England native species—organizes the open space network and responds to the distinct character of each area. Large deciduous canopy trees are concentrated around the Main Heart to provide seasonal shade, fall color, and winter light permeability, while smaller trees, shrubs, and evergreens define more intimate spaces, provide wind protection, and establish visual buffering along site edges and circulation corridors.

Stormwater management is integrated into the open space design through a subsurface stormwater infiltration system located beneath planted and lawn areas within the Main Heart and adjacent landscapes. This system is designed to capture and infiltrate on-site runoff while supporting healthy soil moisture regimes for trees and planting areas. Permeable paving strategies, including the potential use of grass pavers and reduced hardscape extents, further enhance site permeability and contribute to stormwater performance. Final design and sizing of infiltration and green infrastructure systems will be refined in later phases to meet regulatory requirements and optimize long-term function and maintenance.

8

Climate Change Adaptation and Resiliency

As specifically requested in the EEA Secretary's Certificate on the ENF, this chapter provides the following documentation in response to the 'Climate Change Adaptation and Resiliency' section of the DEIR Scope with references to specific DEIR sections in **bold**:

- A description that addresses the design recommendations for each climate parameter provided by the MA Resilience Design Tool and describe how the MEPA Project is anticipated to meet the design recommendations. **(Section 8.1)**
- A description of whether the MEPA Project has considered adaptive management strategies. **(Section 8.2)**
- A description that addresses specific impacts to EJ populations, consistent with MEPA EJ protocols, as well as impacts on other vulnerable populations. **(Section 8.2.1)**
- A description that addresses capacity and performance of the proposed stormwater management system to accommodate the 2070 50-year storm event (24-hour precipitation depth of 9.8 inches), as recommended by the Tool. **(Section 8.2.1)**
- A plan showing all proposed structures (including critical infrastructure) and building first floor elevations (NAVD 88) in relation to the 2070 200-year storm flood elevation (12.5 ft NAVD 88). **(Figure 8.3)**
- A description of all flood resiliency measures that will be incorporated into the design of the MEPA Project. **(Section 8.2.1)**
- A description of any local requirements for building elevation, including whether the MEPA Project is subject to elevation to the City of Boston's recommended design flood elevations for sites subject to future sea level rise. **(Section 8.2.1)**
- A description of measures the MEPA Project will take to mitigate urban heat island effect through cooling and shading measures. **(Section 8.2.2)**
- A description of off-site mitigation to benefit surrounding EJ communities, such as tree planting. **(Section 8.2.2)**

8.1 MA Resilience Design Tool

The project team has considered anticipated impacts related to sea level rise and storm surge, precipitation, and extreme heat. The Proponent reviewed the Commonwealth of Massachusetts's RMAT Climate Resilience Design Standards and Guidelines and has aligned the climate projections, time horizons, and design storms to the guidance provided in that documentation. The RMAT Tool identified that the MEPA Project Site has moderate exposure to sea level rise/storm surge and high

risk exposure to extreme precipitation-urban flooding and extreme heat. The MEPA Project design criteria follows the Commonwealth's guidance for projects that are not considered a critical use. The buildings are anticipated to have a useful life of approximately 50 years. This is based on the estimated number of years before the assets may need substantial improvements or renovations.

8.2 Climate Change Adaptation and Resiliency Measures

8.2.1 Flooding and Extreme Precipitation

As shown in **Figure 8.1**, the MEPA Project Site is located outside of the Federal Emergency Management Agency ("FEMA") Zone AE (100-year/1 percent annual chance) floodplain (elevation 10.2 NAVD88 (approximately elevation 16.7 Boston City Base). Based on current Boston Sea Level Rise ("SLR") Base Flood Elevation Mapping, shown in **Figure 8.2**, the MEPA Project Site is also located outside the base flood elevation for the adjacent Muddy River (elevation 13 BCB).

As shown on **Figure 8.3**, the 0.5% (200-Year) exposure to sea level rise/storm surge for the recommended planning horizon is anticipated up to elevation 12.5 NAVD88 (approximately elevation 19.0 Boston City Base), which impacts a small portion of the western part of the MEPA Project Site, specifically R2 Building, which may have the small portion of the ground floor along Brookline Avenue at elevation 18.5 Boston City Base. The construction of R2 Building is not anticipated to have an impact on the floodplain flow paths as it is generally being constructed in a similar location to the existing 259 Brookline Avenue building. In addition, there is no record of the MEPA Project Site ever having experienced flooding. As such, the construction of the MEPA Project is not expected to negatively impact the neighboring community including local EJ populations. Further, the MEPA Project is being designed to address current and future potential flooding risks.

Figure 8.3 indicates the planned Finished Floor Elevations ("FFEs") of each building on the first floor all of which provide multiple feet of freeboard above the current 100-year and BPDA SLR-DFE. In addition, critical equipment for each building such as transformers and switchgear will be located at or above the minimum FFE for each building.

As noted in **Section 5.2 of Chapter 5, Stormwater**, the proposed stormwater management system has been designed so that post-development peak rates of runoff are below pre-development conditions for the 2-, 10-,100-year storm event as well as the RMAT projected 2070 50-year storm event. As a result, no adverse effect on flooding of the surrounding areas including those inhabited by EJ populations as a result of the construction of the MEPA Project are expected when compared to the existing condition.

8.2.2 Heat Island Effect

The MEPA Project has been designed to reduce heat island effect through various strategies, including:

- Providing on-site green space, landscaping and softscape while prioritizing native plantings throughout,
- Creating robust new tree canopies with the commitment of meeting or exceeding the existing total caliper of existing trees on site,

- Adding street trees along Brookline Ave and Mid-Block Street to improve comfort for pedestrians and cyclists,
- Utilizing hardscape materials with a low solar reflectance, and
- Installing high-albedo roofing materials where feasible.

In addition to the on-site green space, Proponent will fund $7 million to create an endowment for use by the Boston Parks and Recreation Department to support the long-term needs of the Emerald Necklace, a park system that helps to reduce heat island effect in the city, which will benefit surrounding EJ communities. In addition, the project team is evaluating the inclusion of cool wall strategies into the building façades as an additional strategy for heat island reduction and for potential compliance with the Leadership for Energy and Environmental Design ("LEED") Pilot Credit recommended performance metrics of the Green Building Rating System version 4.1.[1] The intent of the Cool Wall strategy under LEEDv4.1 Pilot Credit is to reduce the urban heat island effect and cooling energy demand by increasing the solar reflectance and thermal emittance of exterior wall surfaces. This strategy extends the principles of "cool roofs" to vertical surfaces, encouraging the use of materials and coatings that reflect more sunlight and absorb less heat, thereby lowering façade surface temperatures and contributing to more comfortable urban microclimates.

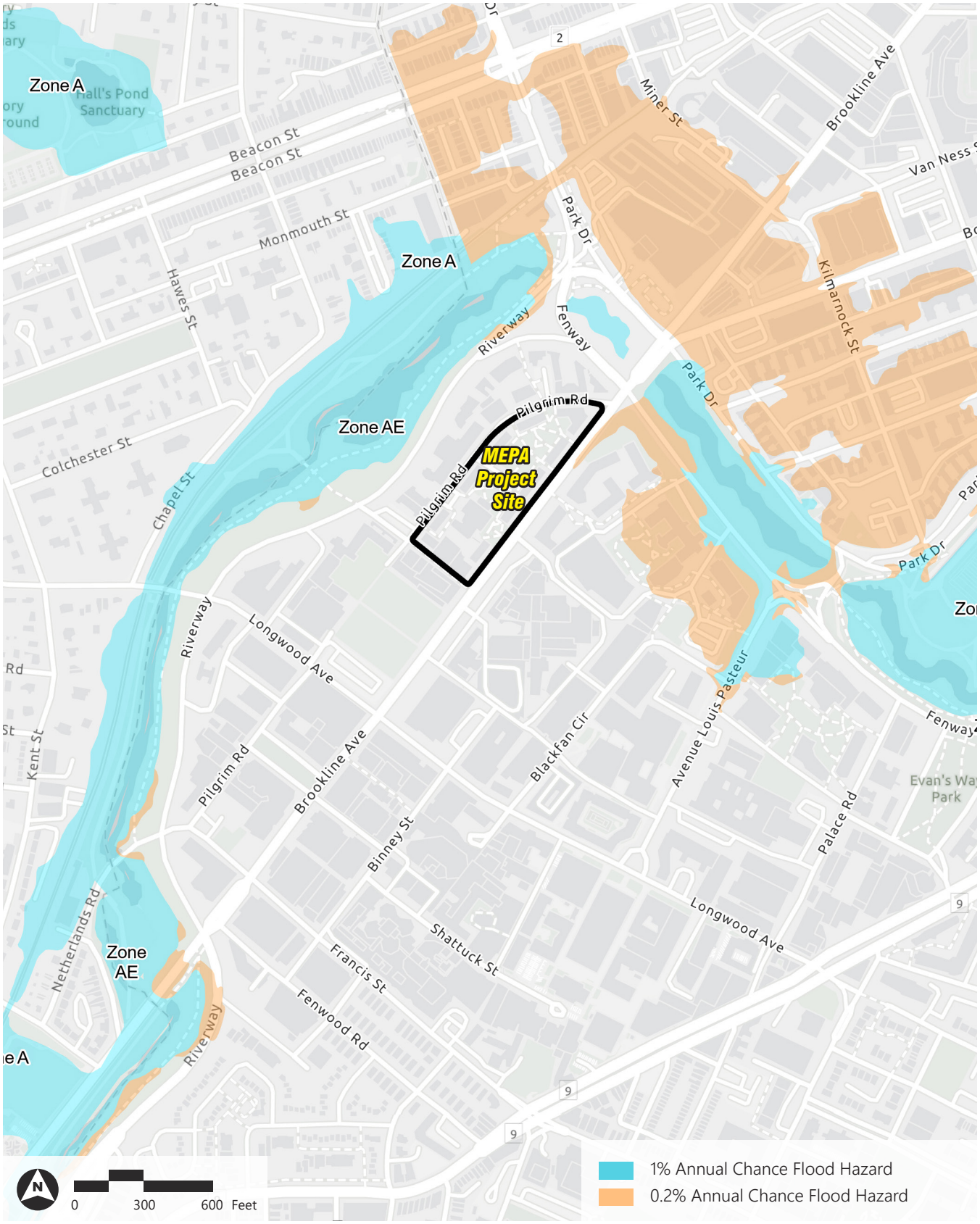
For the R1 Building, final exterior materials have not yet been selected; however, the proposed building design incorporates punched windows and a significant percentage of opaque wall area. As the facade design progresses, the project team will evaluate the feasibility of applying high-reflectance materials or selecting cladding systems that meet the Cool Wall criteria. Given the proportion of opaque surfaces, the R1 Building type is well-suited to achieve the intent of the credit, and the project team will conduct an area-weighted analysis once materials are identified to evaluate compliance potential.

In contrast, the C1 and C2 Buildings primarily utilize curtainwall systems and feature higher window-to-wall ratios consistent with market demands. Because transparent and translucent glazing do not qualify as opaque wall surfaces, these façades provide minimal area eligible for the Cool Wall credit. Nevertheless, the project team will consider spandrel panels, column covers, or other opaque elements for potential treatment with high-reflectance finishes.

1 The credit requires that at least 60% of the building's gross exterior wall area (including vertical fenestration) be finished with a "cool wall material" which should be opaque to sunlight and should have an initial solar reflectance (SR) of ≥ 0.60 and a thermal emittance of ≥0.75 (or an aged SRI equivalent). Qualifying materials can include high-albedo coatings, reflective cladding, or other approved products listed under the Cool Roof Rating Council Wall Product Directory or equivalent documentation. Glazed or transparent surfaces are excluded from the calculation area, as the credit applies solely to opaque wall assemblies.

Figure 8.1: FEMA Flood Map

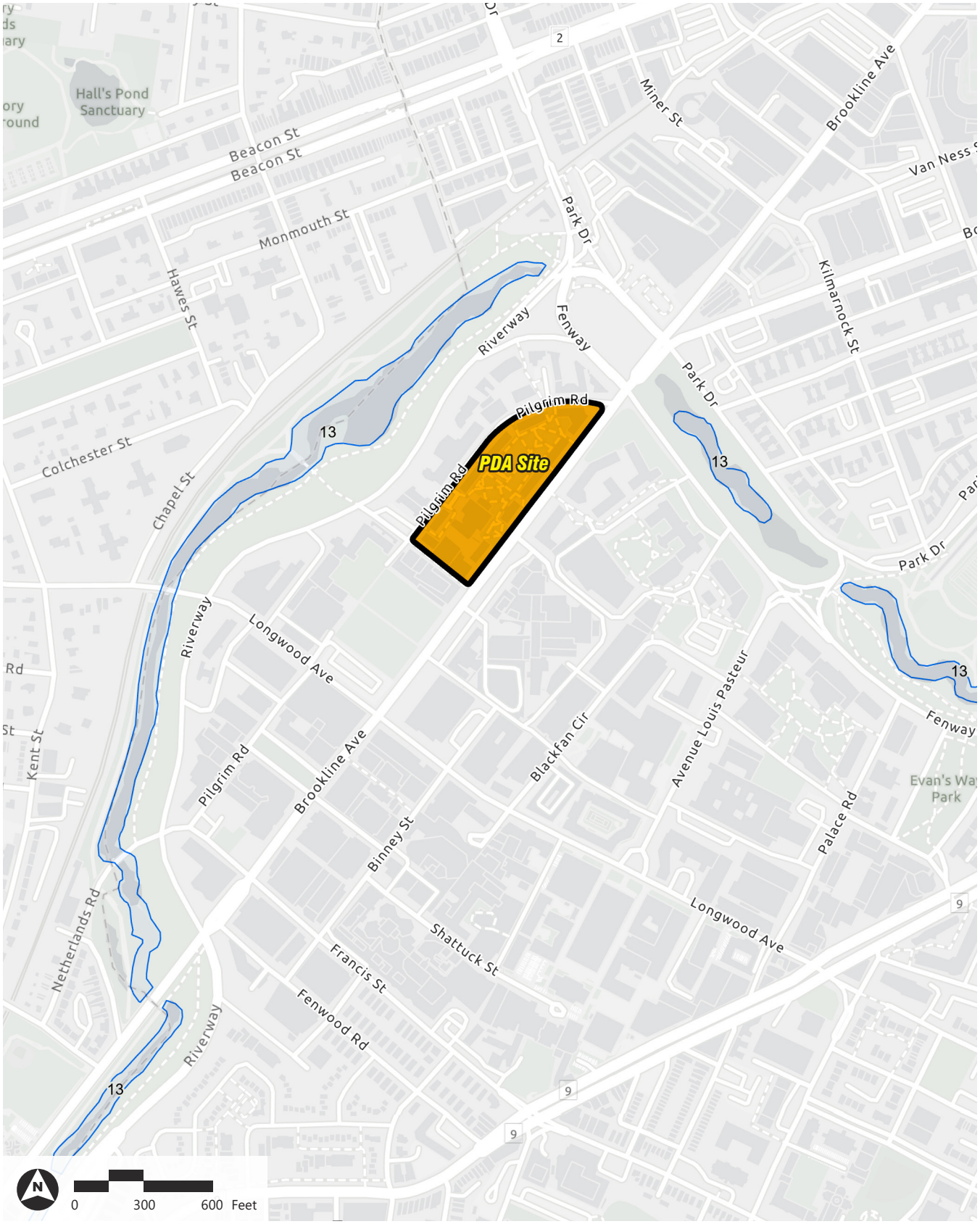
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Source: ESRI Light Gray Base; FEMA National Flood Hazard Layer 25025C0076H eff. 7/3/2024

Figure 8.2: BPDA Sea Level Rise Flood Hazard Area Map

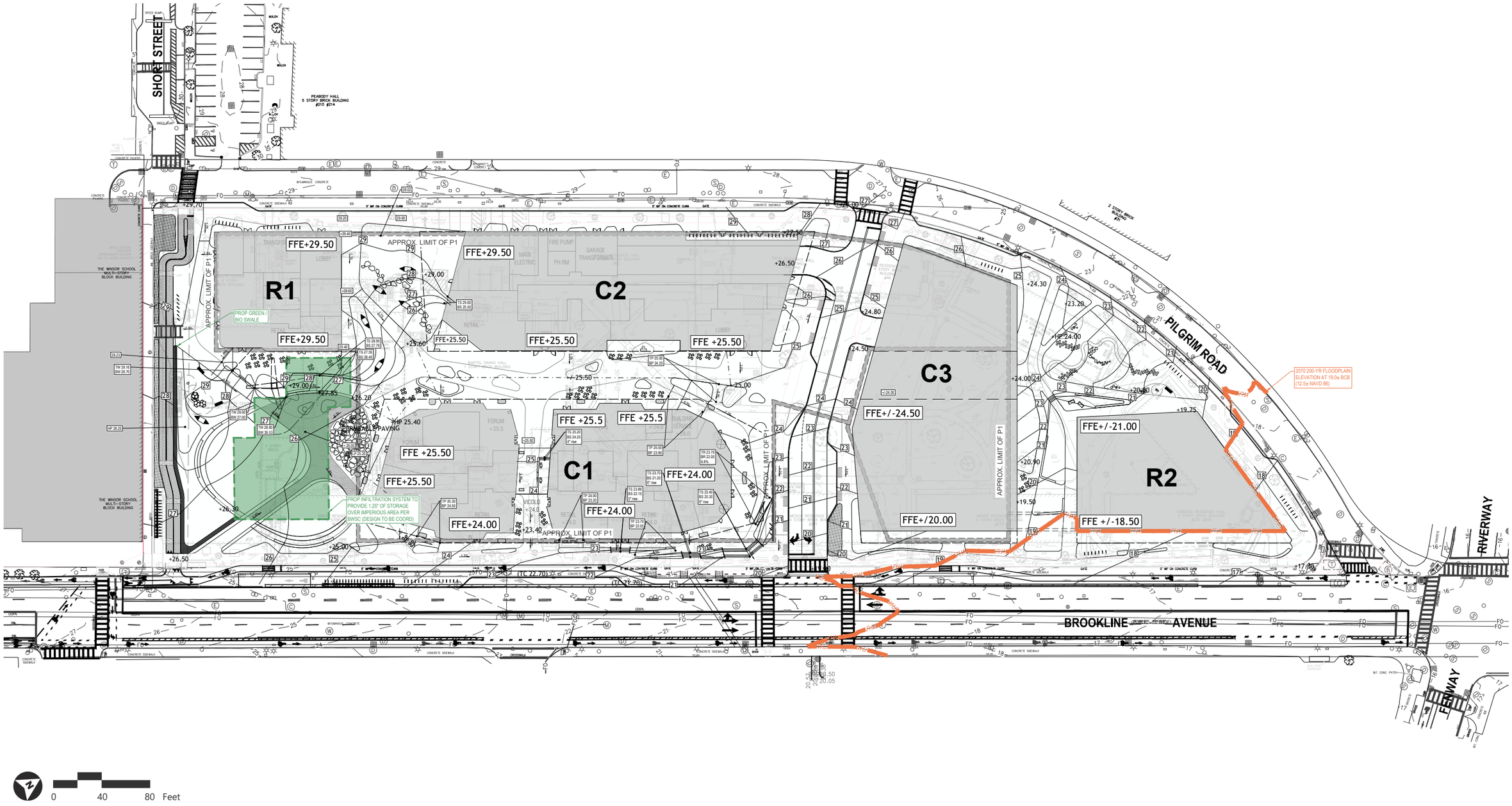
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Source: Zoning Viewer | BPDA (bostonredevelopmentauthority.org)

Figure 8.3: Proposed Building Design Floor Elevations

Longwood Place | Boston, MA



9

Greenhouse Gas Analysis and Air Quality

As specifically requested in the EEA Secretary's Certificate on the ENF, this chapter provides the following documentation in response to the 'Greenhouse Gas Emissions and Air Quality' sections of the DEIR Scope with references to specific DEIR sections in **bold:**

GHG Emissions - Stationary Sources

› An evaluation of the building energy mitigation measures for each building use as detailed in the comment letter submitted by the Department of Energy Resources (DOER). **(Section 9.2.3)**

GHG Emissions - Mobile Sources

› Identify the number of EV charging stations and EV-ready parking spaces to be provided by the MEPA Project. **(Section 9.3.5.1)**

› An evaluation of potential GHG emissions associated with mobile source emissions from the MEPA Project-generated vehicle trips, including a Build with Mitigation Condition that incorporates TDM measures, and any roadway improvements implemented by the MEPA Project. **(Sections 9.3.4 and 9.3.5, respectively)**

› A description of proposed strategies to reduce overall single occupancy vehicle trips and promote the use of low-emissions vehicles, including installing EV charging stations and providing designated parking spaces for these vehicles. **(Section 9.3.5)**

› A description of how TDM measures will be monitored and adjusted over time and provide a methodology for quantifying emission reductions impacts rather than an assumed percentage reduction. **(Section 9.3.5)**

Air Quality

› An analysis of air emissions (CO, VOCs, NOx, NO2, PM2.5, PM10, and DPM) under Existing, No Build and Build conditions using data from the traffic study, including a comparison of air pollutants of the existing and future conditions. **(Section 9.3)**

› Provide data and analyses necessary to address the MEPA Project's potential impacts on EJ populations, as detailed above. **(Chapter 3, Section 3.1.4.1)**

› A description of all feasible means to reduce and mitigate air quality impacts, including through measures that go above and beyond traffic and roadway mitigation to address vehicular delays at intersections studied through the TIA. **(Section 9.3.5 and Chapter 3, Section 3.1.4.1)**

9.1 Regulatory Context

9.1.1 MEPA Greenhouse Gas Emissions Policy and Protocol

The Executive Office of Energy and Environmental Affairs (EEA) has developed the "MEPA GHG Policy," which requires project proponents to identify and describe feasible measures to minimize both mobile and stationary source GHG emissions generated by their proposed project(s). Mobile sources include vehicles traveling to and from a project, while stationary sources include on-site boilers, heaters, and/or internal combustion engines (direct sources) as well as the consumption of energy in the form of electricity (indirect sources). Greenhouse gases include several air pollutants, such as carbon dioxide (CO_2), methane, hydrofluorocarbons, and perfluorocarbons. The MEPA GHG Policy calls for the evaluation of CO_2 emissions for a land development project because CO_2 is the predominant man-made contributor to global warming. This evaluation makes use of the terms CO_2 and GHG interchangeably.

The MEPA GHG Policy states that all projects undergoing or that have previously undergone MEPA review requiring the submission of an Environmental Impact Report (EIR) or NPCs previously requiring an EIR, must quantify the project's GHG emissions and identify measures to avoid, minimize, or mitigate such emissions. In addition to quantifying project-related GHG emissions, the MEPA GHG Policy requires proponents to quantify the effectiveness of proposed improvements in terms of energy savings and therefore, potential emissions reductions. The goal of the MEPA GHG Policy is to identify and implement measures to minimize or reduce the total GHG emissions anticipated to be generated by that respective project.

9.1.2 Stretch Energy Code

As part of the Green Communities Act of 2008, Massachusetts developed an elective building code, known as the "Stretch Energy Code," that gives cities and towns the ability to choose stronger energy performance in buildings than otherwise required under the state building code. The 2023 Stretch Energy Code is overseen by DOER in 225 CMR 22.00 and 225 CMR 23.00 and provides amendments to the 2021 International Energy Conservation Code (IECC) and American Society of Heating and Air Conditioning Engineers (ASHRAE) guideline 90.1-2019. The Stretch Energy Code increases the energy efficiency code requirements for new construction and major renovations or additions in municipalities that adopt it.

The MEPA Project buildings under the commercial energy code will demonstrate compliance using either C407.3 Passive House Pathway or C407.2 Relative Performance Compliance. The Passive House Pathway for residential requires a building to achieve Passive House Certification or comply with the exceptions defined by code. The Relative Performance Pathway requires a building to demonstrate improved energy efficiency from a code baseline building as determined by building performance factors (BPFs). Residential buildings are subject to the Passive House Pathway, while the Commercial buildings are subject to the Relative Performance Pathway.

9.1.3 Specialized Energy Code

In addition to the state Stretch Energy Code, the MEPA Project is also subject to the Municipal Opt-In Specialized Code, which is an optional specialized energy code that has been adopted by the City of Boston. This code layers on top of the Stretch Code to require additional energy efficiency

requirements to make a building net-zero or net-zero ready. Under the Specialized Code, buildings must choose between the Mixed Fuel or All-Electric pathway to comply. The Mixed Fuel pathway for buildings with planned fossil fuel consumption requires that a certain amount of on-site PV be installed and certain provisions and infrastructure to accommodate future electrification. The All-Electric pathway for buildings with no fossil fuel consumption states that buildings comply if the applicable electrification requirements are met.

9.2 Stationary Sources GHG Emissions

The following presents the results of the stationary source GHG emissions assessment, in accordance with the MEPA GHG Policy. The stationary source analysis reflects the most recent design plans available for the proposed buildings at the time of the preparation of this filing. The proposed buildings have been designed to meet the requirements of the MEPA GHG Policy in that it will incorporate reasonable and feasible energy conservation measures to reduce energy consumption. The proposed buildings will also meet the requirements of the Stretch and Specialized Energy Codes and incorporate sustainable and high-performance building design, including energy conservation measures.

9.2.1 Methodology

To achieve energy efficiency and reduce stationary source GHG emissions, the Proponent has evaluated the following key planning and design criteria:

- Methods to reduce overall energy demand through improved envelope construction;
- Methods to reduce overall energy demand through appropriate design and sizing of systems; and
- Methods to incorporate cost-effective energy-optimizing and energy recovery systems.

The buildings were evaluated through modeling with the currently proposed building geometry, HVAC system type, occupancy schedule, and ventilation rates as defined by the current design plans.

Direct stationary source CO_2 emissions include those emissions from the facility itself, such as boilers, heaters, and internal combustion engines. Indirect stationary source CO_2 emissions are derived from the consumption of electricity, heat, or cooling from off-site sources, such as electrical utility or district heating and cooling systems. The direct and indirect stationary source CO_2 emissions from the proposed building sources are calculated through an energy and GHG analysis procedure that combines the energy model with Excel spreadsheets for pre and post-processing based on assumptions for the proposed buildings, such as (but not limited to) the specific type of use(s) and users of the buildings, building configuration and architecture , building envelope (walls/windows), interior fit-out (if known), and HVAC equipment efficiency ratings.

The GHG mitigation measures can be divided into the buildings' construction materials, architecture, and the heating and cooling processes. The following presents the proposed building improvements (and their correlating energy modeling parameters for reference, where applicable) that are anticipated to be included as part of the MEPA Project for the purpose of this analysis. The specific proposed improvements will be subject to design modifications as necessary to achieve the GHG emissions reduction based on the final building program and design.

9.2.2 Analysis Conditions

The energy analysis was conducted using either the eQuest model or the WUFI model for Passive House Scenarios. The eQuest model uses the DOE2.2 simulation engine to estimate annual energy consumption by simulating a year of building operations based on a typical weather year and user inputs. Passive house analysis was conducted using WUFI Passive software. Each model estimates the respective building's electricity and gas usage based on building design and system assumptions. The amount of consumed energy is then converted into the amount of CO_2 emitted using the standardized conversion factors.[1] Where required by DOER, CO_2 emissions were quantified for (1) the Stretch Code Base corresponding to the Code minimum baseline energy model, and (2) the Design Case, which includes all energy-saving measures that were deemed to be reasonable and feasible.

- **Build Condition with MA Building Code (the "Base Case" or "Stretch Code Base Case"):** assuming typical construction materials and building equipment/systems that meet the minimum requirements of the Stretch Energy Code. Depending on the specific building and applicable energy code, this may mean meeting a maximum required performance index target or complying with Passive House.
- **Build Condition with Energy Conservation Measures (the "Design Case" or "Proposed Design"):** assuming building design and system improvements that meet the MEPA GHG Policy and exceed the Stretch and Specialized Energy Codes. Based on the current design and preliminary building modeling results, the MEPA Project will meet the MEPA GHG Policy requirement for energy reduction savings and the Stretch Energy Code.

9.2.3 Energy Modeling and GHG Emissions

The proponent met with DOER and MEPA on October 2, 2025 to discuss the analysis for stationary source GHG emissions to be included in this DEIR filing, in addition to the required comparative modeling described in **Section 9.2.2**. The result of the meeting was a "protocol" for the DEIR analysis that was meant to supersede the analysis requested in the DOER's Comment Letter on the ENF filing after accounting for the requested mitigation already included in the proposed building designs. This protocol, which was transmitted on October 5, 2025, is presented in **Appendix E**. The following sections present the agreed-upon analysis for the MEPA Project.

The analysis presented in this DEIR filing considers two prototype models. The first is the Commercial Building prototype, based on the current design for the C2 Building, which considers a lab/office building with ground-floor retail/restaurant space. The prototype also represents the C1 and C3 Buildings, which are planned to have similar uses. The other prototype is the Residential Building prototype, based on the current design for the R1 Building, which includes residential uses with ground-floor retail/restaurant space. This prototype would also represent the R2 Building.

All analyses and commitments made in the stationary source GHG analysis in this document are based on buildings being subject to the Stretch and Specialized Codes in effect at the time of this DEIR filing. Given the relatively longer construction timeframe for the MEPA Project, it is possible that newer versions of the energy code may become effective when future buildings enter design. The proposed building designs may be modified in order to comply with the code in effect at the time of

1 Electricity converted using 750 lbs CO2 per MWh. Natural Gas converted using 116 lbs CO2 per MMBtu. Future 2050 electricity emissions converted using 50 lbs/MWh as provided by DOER.

building permit application for each respective building, as is required by the Code of Massachusetts Regulations, but will do so in a way that complies with the requirements of MEPA GHG Policy, which allows for the implementation of differing but equivalent GHG reduction measures. Since energy codes typically become more stringent and require increased energy conservation with the passage of new versions, it is very likely that any proposed building designed to meet a future energy code will result in lower energy consumption and reduced GHG emissions than the designs considered in this filing.

9.2.3.1 Commercial Building

The Commercial Building typology represents a core and shell lab/office building at a 60% lab/40% office split, respectively. The Commercial building also assumes retail space on the ground-floor. Modeling was conducted using the preliminary conceptual design prepared for Building C2. This typology is a high-ventilation building under the Stretch Energy Code and follows the Relative Performance Pathway. **Table 9-1** below provides a summary of the proposed building improvements assumed for the Commercial Building. This prototype has incorporated a number of the DOER-requested energy efficiency measures, including:

- Heat Recovery Chillers;
- Exhaust Source Heat Pump (ESHP) Space Heating at 25% of Peak Load;
- Mixed Fuel Pathway Solar + Electric Readiness under the Specialized Code; and
- Heat Pump Hot Water for Core & Shell Spaces in the Lab/Office.

Table 9-1 Commercial Building Key Modeling Inputs

Building Component	Base Case (90.1-2019 App G)[1]	Design Case
Building Exterior Envelope (Construction Assemblies)		
Roof Assembly	R-15 c.i. / U-0.063	R-15 c.i. / U-0.063
Wall Assembly	U-0.084	Opaque Curtainwall: U-0.10 Framed Wall: U-0.055
Window-to-Wall Ratio	40%	Retail: 50% Rest of Building: 38%
Windows and Glazing	U-0.57 SHGC-0.39	U-0.25 SHGC: 0.28
Air Infiltration	1.0 cfm/sf @ 75pa	0.35 cfm/sf @ 75pa
HVAC Systems and Controls		
Heating Source	80% eff gas-fired boilers	Reheat screw chillers Preheat centrifugal chillers Gas-fired condensing boilers for supplemental and backup heating
Exhaust Source Heat Pumps	None	Exhaust Source Heat Pumps- 25% Electrification
Cooling Source	Water-cooled chillers	Reheat screw chillers Preheat centrifugal chillers Centrifugal Chillers
Air Handling Unit	Lab: 100% OA all-air VAV with reheat Office: Return air VAV with reheat	100% OA DOAS Labs: FCUs or Chilled Beams Office: FCUs or Chilled Beams
Energy Recovery	Lab: none (50% turn down required) Office: 50% enthalpy	High Performance Sensible Runaround
Domestic Hot Water		
DHW System Type	Gas Water Heater	Tenant: Gas Water Heater Core: Heat Pump Water Heater
Lighting and Equipment		
Power Density	Lab – 1.40 W/sf Office – 1.10 W/sf	Reduce IECC 2021 values by 10%
Plug Loads	Open Lab: 8 W/sf Lab Support: 14 W/sf Office: 2 W/sf	Open Lab: 8 W/sf Lab Support: 14 W/sf Office: 2 W/sf

1 This Case represents ASHRAE 90.1-2019 App G requirements per the Relative Performance Pathway.

The total estimated annual electricity consumption and associated emissions for the Commercial Building Prototype are presented in **Table 9-2** below, using the 2025 GHG emission factors. Under the Stretch Code Base, the CO_2 emissions for the Commercial Building are 6,607 tons per year. With the currently proposed building design and system improvements, the estimated energy use reduction for the building is 43 percent, which equates to a 29 percent decrease in stationary source CO_2 emissions when compared to the Stretch Code Base.

Table 9-2 Commercial Building Stationary Source CO_2 Emissions with 2025 Factors

	Energy Consumption				CO_2 Emissions		
	Electricity (MWh/yr)	Natural Gas (MMBtu/yr)	Total (MMBtu/yr)	PEI	Electricity (tons/yr)	Natural Gas (tons/yr)	Total (tons/yr)
Base Case[1]	10,797	44,100	80,940	0.59	4,049	2,558	6,607
Design Case	11,330	7,795	46,454	0.57	4,249	452	4,701
Energy Savings	-533	36,305	34,486	0.02	-200	2,106	1,906
Percent Savings			**43%**	**3%**			**29%**

tons/yr = short tons per year; MWh = Megawatt hour; MMBtu = million British Thermal Units; PEI = Performance Energy Index
1 This Case represents minimum Stretch Code requirements per the Relative Performance Pathway.

At the request of DOER, the Proponent also estimated GHG emissions from the building using a 2050 electricity emissions factor of 50 pounds per megawatt-hour in **Table 9-3** below. When using the 2050 emission factors, the Commercial Building is expected to result in a 74 percent reduction in GHG emissions relative to the Stretch Code Baseline and markedly reduced emissions of 735 tons per year in the Design Case.

Table 9-3 Commercial Building Stationary Source CO_2 Emissions with 2050 Factors

	2050 CO_2 Emissions		
	Electricity (tons/yr)	Natural Gas (tons/yr)	Total (tons/yr)
Base Case[1]	270	2,558	2,828
Design Case	283	452	735
Energy Savings	-13	2,106	2,092
Percent Savings			**74%**

tons/yr = short tons per year;
1 This Case represents minimum Stretch Code requirements per the Relative Performance Pathway.

DOER Design Alternatives

As noted above, the Proponent met with DOER on October 2, 2025 and determined an updated scope of analysis for this DEIR filing – relative to the scope provided in the DOER Comment Letter on the ENF Filing - based on the mitigation measures that were already incorporated into the design. The Protocol describing this analysis is presented in **Appendix E.** For the Commercial Building, this analysis broke out measures to be studied into groups as they pertain to the Lab/Office spaces, Retail Spaces, and Whole Building. It was determined in the October 2025 pre-filing meeting that a "gap analysis" was to be performed, It was also determined that outreach to the utility and consideration of solar thermal water heating were not required. The following bullets describe the measures included in the proposed design and the measures to be studied in this document.

Measures included in the Design Case:

- Heat recovery chillers
- ESHP space heating at 25% of peak load
- Specialized code: mixed fuel pathway solar photovoltaics + electric readiness
- Lab/Office: ASHP domestic hot water for core & shell spaces + gas hot water for tenant spaces

- Retail space heating by 25% ESHP plant
- Retail: gas domestic hot water and cooking equipment for a potential restaurant tenant

DOER Measures evaluated for the Lab/Office:

- Scenario 1: Reduced air infiltration per C406.9
- Scenario 2: Enhanced envelope with maximum 50% glazed wall system and weighted U-Value of 0.1285.
- Scenario 3: Heat pump domestic hot water in both tenant and core spaces

DOER Measures evaluated for the Retail:

- Scenario 1: Reduced air infiltration per C406.9
- Scenario 2: Enhanced envelope with maximum 50% glazed wall system and weighted U-Value of 0.1285.
- Scenario 3: Heat pump domestic hot water in tenant spaces
- Scenario 4: Electric kitchen

DOER Measures evaluated for the Whole Building:

- Scenario 1: 30% ESHP plant with:
  - Enhanced Envelope (50% glazed wall system and weighted U-Value of 0.1285)
  - Reduced air infiltration per C406.9
  - Centralized heat pump domestic water heater for lab/office
- Scenario 2: 30% ESHP plant with:
  - Enhanced Envelope (50% glazed wall system and weighted U-Value of 0.1285)
  - Reduced air infiltration per C406.9
  - Centralized heat pump domestic water heater for lab/office and retail
  - Electric kitchen

The analysis of these measures is presented in detail in the energy modeling report located in **Appendix E**. This report presents the modeling and gap analysis assumptions, the impacts of envelope systems on load calculations, thermal comfort, and the need for perimeter heat, energy modeling results, mitigation measure costs, and resulting cost effectiveness.

The results of the energy modeling for these mitigation measures are summarized in **Table 9-4** below. More detailed information can be found in **Appendix E**. The measures are estimated to reduce energy consumption from the proposed design between 0.0% and 5.8% on a whole-building basis, which correlates to a 2050 whole-building emissions reduction between 0.0% and 22.9%, with measures prioritizing electrification providing larger percentage decreases in GHG emissions. When viewing the mitigation measures in terms of absolute energy and GHG emissions reductions, the most impactful are the two whole building scenarios and the heat pump water heating in the lab/office tenant spaces.

Table 9-4 Commercial Energy Consumption and GHG Emissions of the DOER Alternatives

Space	Scenario	Component Energy Consumption (MMBtu)	Whole Building-Energy Savings from Design (%)	Component 2050 GHG Emissions (TPY)	Whole-Building GHG Savings from Design (%)
Lab/Office	Proposed Design	45,589	–	655	–
	1: Reduced Air Infiltration	44,792	1.7%	617	5.7%
	2: Enhanced Envelope	45,316	0.6%	643	1.8%
	3: ASHP DHW	44,010	3.4%	540	17.3%
Retail	Proposed Design	756	–	15.1	–
	1: Reduced Air Infiltration	754	0.0%	14.9	0.0%
	2: Enhanced Envelope	701	0.1%	14.3	0.1%
	3: ASHP DHW	738	0.0%	13.8	0.2%
	4: Electric Kitchen	689	0.1%	8.9	0.9%
Whole Building	Proposed Design	46,454[1]	–	665[1]	–
	1: 30% ESHP + Lab/Office	43,821	**5.7%**	521	**21.7%**
	2: 30% ESHP + Lab/Office & Retail	43,738	**5.8%**	513	**22.9%**

tons/yr = short tons per year; MWh = Megawatt hour; MMBtu = million British Thermal Units

1 The summation of the Lab/Office Proposed Design and Retail Proposed Design values do not exactly yield the Whole Building values due to rounding, as the individual space models and Whole Building Models were run independently.

The results of the energy modeling analysis, estimated construction costs, and available incentives were used to determine the cost-effectiveness of the various mitigation measures. The summary of the gap analysis is presented in **Table 9-5** below. Detailed information on the gap analysis is presented in **Appendix E**. The amortized cost used in the analysis is an annual value and does not include any maintenance or replacement costs. It is important to note that maintenance and replacement costs could be significant for the scenarios that assume heat pumps for domestic hot water heating.

Table 9-5 Cost-effectiveness of Commercial Building Mitigation Alternatives

Space	Scenario	Total Annual Cost Premium ($/yr)[1]	2050 GHG Emissions Reduction (metric tons)[2]	Carbon Cost Effectiveness ($/yr/MT)[3]
Lab/Office	1: Reduced Air Infiltration	-$7,536	37.84	-$199
	2: Enhanced Envelope	$1,005,891	11.76	$85,505
	3: ASHP DHW	$199,109	114.43	$1,740
Retail	1: Reduced Air Infiltration	$608	0.23	$2,689
	2: Enhanced Envelope	-$7,650	0.76	-$10,089
	3: ASHP DHW	$41,641	1.26	$33,082
	4: Electric Kitchen	-$1,764	6.22	-$283
Whole Building	1: 30% ESHP + Lab/Office	$1,294,131	144.58	$8,951
	2: 30% ESHP + Lab/Office & Retail	$1,334,634	152.06	$8,777

1. Total Annual Cost Premium is inclusive of one-time construction costs and incentives, amortized over 30 years at a 6% interest rate and offset by operating cost savings. The cost premium is relative to the Proposed Design.
2. The emissions reduction from the mitigation measure scenario presented in 2050 metric tons of GHG.
3. The Total Annual Cost Premium divided by the GHG emissions, yielding the cost of the measure per year and per metric ton of GHG reduced.

The results of the cost-effectiveness analysis show that three measures would have total annual cost savings and carbon cost-effectiveness:

- Enhanced Envelope in the Retail Space;
- Electric Kitchen in the Retail Space; and
- Reduced Air Infiltration in the Lab/Office,

All other measures would result in a cost premium and would have a negative return on investment over the 30-year term considered. Complete details of this analysis are provided in the energy modeling report presented in **Appendix E**. The Proponent notes that while three measures were favorable from the carbon cost perspective, their implementation may negatively impact the overall value of the MEPA Project. Those measures are further detailed below.

- Enhanced Envelope in the Retail Space: Glazed wall systems and relatively larger window-to-wall ratios are important in retail development because they directly influence marketability and consumer experience. Large expanses of glass provide natural light, retail visibility, and foot traffic attraction—factors that drive higher occupancy rates and stronger retail brand presence. Energy modeling has shown that this design change provides less than one ton per year of GHG savings. The Proponent therefore views glazed wall systems with relatively high window-to-wall ratios as a important element within the retail envelope with limited downside, since reducing glass coverage could undermine building aesthetics and impact retail business viability.
- Electric Kitchen in the Retail Space: The Proponent intends to maintain the ability to use gas in the commercial kitchens of the Commercial Building retail spaces, while informing prospective tenants of the sustainability and greenhouse gas reduction benefits associated with electric kitchen equipment. The Proponent has found that in general, restaurants prefer gas appliances due to their heating speed, cooking power and temperature control. Certain restaurant concepts, particularly full-service, chef-driven, ethnic, and authenticity-focused operations, can strongly prefer gas cooking. Applications requiring open flame, such as charbroiling, charring, and flambéing, are not easily replicated with electric equipment. Maintaining broad, mass-market appeal among food and beverage tenants is critical to the MEPA Project's financial viability, and a prohibition on gas cooking could materially reduce leasing demand and impact overall feasibility. Because retail spaces within the Residential Buildings will be fully electric, the Commercial Building retail spaces must retain the flexibility to accommodate full-service restaurant concepts that may require gas cooking to support a diverse and vibrant tenant mix.
- Reduced Air Infiltration in the Lab/Office: The Proponent has not implemented reduced air infiltration per C406.9 at this time but intends to consider this C406.9 measure for the commercial buildings as design progresses. This mitigation measure has unique challenges, particularly for the buildings that are still in conceptual design stages. Reduced infiltration per C406.9 requires construction phase testing and cannot solely be specified and selected like other mitigation measures. It instead depends critically on skilled execution of construction details, sequencing, and on-site quality control. Compliance with C406.9 is verified through blower-door testing after construction of the building. The baseline air infiltration requirements of the Stretch Energy Code allow for corrective actions to occur if measured infiltration is greater than 0.35 cfm/sf in order for the building to still receive a Certificate of Occupancy. The code specifies no such allowances for air infiltration per C406.9, creating a risk that a Certificate of Occupancy may not be issued. Because C406.9 contains no such failsafe and because success depends heavily on as-yet

undefined construction-stage practices, the inclusion of reduced air infiltration will be revisited as design progresses.

9.2.3.2 Residential Building

The Residential Building typology represents a multi-story residential building with retail space on the ground-floor. Modeling was conducted using the preliminary design prepared for Building R1. This typology is required to be Passive House certified per code section C407.3, under the Specialized Energy Code. **Table 9-6** below provides a summary of the proposed building design details assumed for the Residential Building. Note that a Base Case is not presented for the residential building, as the code requires this building to meet a defined rating system (Passive House) rather than specifying minimum building inputs or maximum energy consumption results. Since the Residential Building is designed to meet Passive House, the Base Case and Design Case are similar. The analysis for the Residential Building focuses on assessing the additional mitigation measures required by DOER. However, this prototype has already incorporated a number of the DOER-requested energy efficiency measures into the proposed design, including:

- Passive House per C407.3.1;
- Space heating by heat pump in both the residential and retail space; and
- Electric cooking and drying for residential and retail space.

Table 9-6 Residential Building Key Modeling Inputs

Building Component	Design Case
Building Exterior Envelope (Construction Assemblies)	
Roof Assembly	Average R-60
Wall Assembly	R-24
Window-to-Wall Ratio	30%
Windows and Glazing	Whole-window U-value: 0.2 (fixed), 0.2 (operable) Storefront U-value: 0.2; SHGC, all windows: 0.3
HVAC Systems and Controls	
Heating Source	Air to water heat pumps and vertical stacked water source heat pumps; COP: 2.0
Cooling Source	Open cell cooling towers with low sound fans and vertical stacked water source heat pumps; COP: 2.5
Ventilation	Continuous ventilation via rooftop DOAS system with ERVs
Domestic Hot Water	
DHW System Type	Electric storage water heaters to service each unit
Lighting and Plug Loads	
Lighting	Suites/Common Areas: Per WUFI Calculator
Plug Loads	Suites/Common Areas: Per WUFI Calculator

The total estimated annual electricity consumption and associated emissions for the Residential Building are presented in **Table 9-7** below, using the 2025 GHG emission factors. With the currently proposed building design and system improvements, the building is expected to consume 4,611 MMBtu of energy per year and emit 507 tons of GHG.

Table 9-7 Residential Building Stationary Source CO_2 Emissions with 2025 Factors

	Energy Consumption			CO_2 Emissions		
	Electricity (MWh/yr)	Natural Gas (MMBtu/yr)	Total (MMBtu/yr)	Electricity (tons/yr)	Natural Gas (tons/yr)	Total (tons/yr)
Design Case	1,351	0	4,611	507	0	507

tons/yr = short tons per year; MWh = Megawatt hour; MMBtu = million British Thermal Units

At the request of DOER, the Proponent also estimated GHG emissions from the building using a 2050 electricity emissions factor of 50 pounds per megawatt-hour in **Table 9-8** below. When using the 2050 emission factors, the Residential Building is expected to result in markedly reduced emissions of 34 tons per year in the Design Case.

Table 9-8 Residential Building Stationary Source CO_2 Emissions with 2050 Factors

	2050 CO_2 Emissions		
	Electricity (tons/yr)	Natural Gas (tons/yr)	Total (tons/yr)
Design Case	34	0	34

tons/yr = short tons per year;

DOER Design Alternatives

As described above, the Proponent met with DOER on October 2, 2025 and determined an updated scope of analysis for this DEIR filing. As a result of this meeting, the Proponent analyzed both individual heat pump domestic water heaters for the residential units and retail space, as well as a combined centralized system to serve both spaces. The following bullets describe the measures included in the proposed design and the measures to be studied in this document.

Measures included in the Design Case:

- Residential and Retail: Passive House per C407.3.1
- Residential and Retail: Space Heating by ASHP
- Residential: In-Unit Electric Resistance Water Heating
- Retail: Electric Resistance Hot Water and Electric Cooking for Potential Restaurant Tenant

DOER Measures evaluated for the Residences and Retail:

- Scenario 1: Individualized Heat Pump Domestic Water Heating
- Scenario 2: Centralized Heat Pump Domestic Water Heating

The analysis of these measures is presented in detail in the energy modeling report located in **Appendix E**. This report presents the modeling and gap analysis assumptions, energy modeling results, mitigation measure costs, and resulting cost effectiveness.

The results of the energy modeling for these mitigation measures are summarized in **Table 9-9** below. More detailed information can be found in **Appendix E**. The measures are estimated to

reduce energy consumption from the proposed design between 0.8 and 5.4%, which correlates to a similar 2050 GHG emissions reduction. The centralized system provides more of an energy and GHG benefit than the individual heat pump domestic hot water units, but it should be noted that the absolute reduction in energy consumption and GHG emissions is relatively limited, at 249 MMBtu and 2 tpy, respectively.

Table 9-9 Residential Energy Consumption and GHG Emissions of the DOER Alternatives

Scenario	Total Energy Consumption (MMBtu)	Whole Building Energy Savings from Design (%)	Total 2050 GHG Emissions (TPY)	Whole Building GHG Savings from Design (%)
Proposed Design	4,611	–	33.8	–
1: Individual HPDHW	4,576	0.8%	33.5	0.8%
2: Centralized HPDHW	4,362	5.4%	32.0	5.4%

tons/yr = short tons per year; MMBtu = million British Thermal Units

The results of the energy modeling analysis, estimated construction costs, and available incentives were used to determine the cost-effectiveness of the various mitigation measures. The summary of the gap analysis is presented in **Table 9-10** below. Detailed information on the gap analysis is presented in **Appendix E**. Again, the amortized cost is an annual value and does not include any maintenance or replacement costs, which could be meaningful for the scenarios that analyze heat pump water heating.

Table 9-10 Cost Effectiveness of Residential Building Mitigation Alternatives

Scenario	Total Annual Cost Premium ($/yr)[1]	2050 GHG Emissions Reduction (metric tons)[2]	Carbon Cost Effectiveness ($/yr/MT)[3]
1: Individual HPDHW	$91,197	0.23	$396,509
2: Centralized HPDHW	$93,022	1.66	$56,037

1 Total Annual Cost Premium is inclusive of one-time construction costs and incentives, amortized over 30 years at a 6% interest rate and offset by operating cost savings.
2 The emissions reduction from the mitigation measure scenario presented in 2050 metric tons of GHG.
3 The Total Annual Cost Premium divided by the GHG emissions, yielding the cost of the measure per year and per metric ton of GHG reduced.

The results of the cost-effectiveness analysis show that both measures would result in a cost premium and would have a negative return on investment over the 30-year term considered. Complete details of this analysis are provided in the energy modeling report presented in **Appendix E**. The proponent has not implemented these measures due to the substantial cost premium they would carry and their relatively low carbon reduction effectiveness, at less than 2 tons per year. Furthermore, the centralized heat pump domestic hot water scenario presents an additional operational challenge in the form of unbillable utility costs, since electric submetering is prohibited in Massachusetts.

9.2.3.3 Specialized Code Compliance

As the buildings are being constructed in Boston, they are subject to comply with the Specialized Energy Code. Buildings subject to this code usually comply via two pathways, the "Mixed-Fuel Pathway" or the "All-Electric Pathway", depending on the incorporation of fossil fuel use into the building design.

The Commercial Buildings will comply with the Specialized Code under the Mixed Fuel Pathway. Under the code section CC105.2, each commercial building is required to install on-site renewable energy (e.g. solar) with a total capacity of 0.5 watts per square foot of the total conditioned square footage of the three largest floorplates. Equipment installed in these buildings will meet the efficiency requirements of CC105.3. Combustion equipment will be wired for future electrification in accordance with CC106.1. Further since these buildings are considered highly-ventilated, an all-electric HVAC retrofit design will be prepared and other requirements regarding efficiencies, space, and installed infrastructure will be followed as specified in CC106.1.6.

The Residential Buildings will comply with the specialized code under the All-Electric Pathway. Under the code section CC104, the buildings will meet the definition of all-electric, meet the minimum building efficiency requirements under CC101.4, install EV-ready spaces in excess of CC101.5, and be Passive House certified per C407.3.

9.2.3.4 MEPA Project-Wide Emissions

The Proponent used the results of the prototype modeling presented above to estimate emissions for the MEPA Project. These emissions are presented in **Table 9-11** below. Collectively, the proposed buildings are expected to consume 187,864 MMBtu of energy and result in GHG emissions of 19,079 tpy under the proposed design. This represents a 42% energy savings and 28% GHG emissions savings from the Base Case.

Table 9-11 MEPA Project-wide Stationary Source CO_2 Emissions with 2025 Factors

		Energy Consumption (MMBtu)			CO_2 Emissions (tons/yr)		
#	Use	Base Case[1]	Design Case	Savings (%)	Base Case	Design Case	Savings (%)
C1	Lab/Office & Retail	121,531	69,750	43%	9,920	7,058	29%
C2	Lab/Office & Retail	80,940	46,454	43%	6,607	4,701	29%
C3	Lab/Office & Retail	111,141	63,788	43%	9,072	6,455	29%
R1	Residential & Retail	4,611	4,611	-[2]	507	507	-[2]
R2	Residential & Retail	3,261	3,261	-[2]	358	358	-[2]
	Total	**321,485**	**187,864**	**42%**	**26,463**	**19,079**	**28%**

tons/yr = short tons per year; MMBtu = million British Thermal Units

1. Lab/Office base case is representative of ASHRAE 90.1-2019 Appendix G conditions, per the Relative Performance pathway.
2. Residential buildings must achieve Passive House to be code-compliant. The residential buildings are designed to achieve Passive House, and thus, the base case and design case yield similar results.

9.3 Mobile Source Air Quality and GHG Emissions

This section presents an overview of the mobile source air quality and GHG assessment conducted for the MEPA Project, the purpose of which is to demonstrate that the MEPA Project will comply with applicable local, state, and federal air quality standards and to demonstrate there are mitigation measures that will reduce the MEPA Project's volatile organic compounds ("VOC") and oxides of nitrogen ("NOX") emissions. Emissions of Particulate Matter less than 2.5 µm in diameter (PM2.5), Particulate Matter less than 10 µm in diameter ("PM10"), and diesel particulate matter ("DPM") are also estimated as generally requested by the Secretary for recent MEPA filings. The GHG emissions are estimated to comply with the MEPA GHG Policy.

9.3.1 Background

The purpose of the air quality mesoscale analysis is to estimate the area-wide emissions of VOC and NO_X during a typical day in the peak ozone season (summer), consistent with the requirements of the State Implementation Plan (SIP). The mesoscale analysis evaluates the change in VOC and NO_X emissions from the average daily traffic volumes and vehicle emission rates. To demonstrate compliance with the SIP criteria, the air quality study must show the MEPA Project's change in daily (24-hour period) VOC and NO_X emissions.

MassDEP has established guidelines that define the modeling and review criteria for air quality studies prepared under MEPA. These guidelines recommend that mesoscale analyses be prepared for proposed development projects to determine the change in MEPA Project-related ozone precursor emissions. The predominant source of ozone precursor emissions anticipated from the MEPA Project is emissions from MEPA Project-related traffic. Ozone is not directly emitted by motor vehicles but is generated when VOC and NO_X emissions from motor vehicles, stationary sources, and area sources react in the atmosphere with sunlight and heat. MEPA Project-related ozone impacts are determined by assessing the changes in VOC and NO_X emissions of motor vehicles. MassDEP criteria require that proposed development projects include all reasonable and feasible emission reduction mitigation measures if the ozone emissions from the Build Condition are greater than the No-Build Condition. Massachusetts has incorporated this criterion into the SIP.

Boston is in Suffolk County, which is in attainment for all National Ambient Air Quality Standards (NAAQS) criteria pollutants except for the 8-hour (1997 Revoked) and 1-hour (1979 Revoked) Ozone standards. As such, the air quality analysis calculated emission inventories of the two pollutants that contribute to the violation of the Ozone NAAQS from mobile sources: VOC and NO_X.

Other criteria pollutants are generally not of concern for the area and are not required to be quantified, per the MassDEP guidelines. However, the Secretary regularly requests data for Particulate Matter less than 2.5 µm in diameter (PM2.5), Particulate Matter less than 10 µm in diameter (PM10), and diesel particulate matter (DPM) for projects with environmental justice populations within the designated geographic area. Emissions of these pollutants from mobile sources were calculated to respond to this request.

9.3.2 Methodology

The MassDEP mesoscale analysis evaluates the change in emissions with and without the MEPA Project: specifically, daily (24-hour period) VOC and NO_X emissions from the average daily traffic volumes and vehicle emission rates. MassDEP guidelines recommend that the air quality study utilize traffic and emissions data for existing and future (No-Build and Build) conditions. The traffic and emissions data are incorporated into the Environmental Protection Agency (EPA) and MassDEP air quality models to generate emission estimates that demonstrate whether the MEPA Project will have air quality impacts. For the MEPA Project, the traffic study extends along Brookline Avenue from Riverway in the south to Park Drive in the north. This study area encompasses a 0.6-mile corridor extending approximately half a mile from the MEPA Project Site to the south and a tenth of a mile to the north.

The mesoscale air quality analysis utilizes developed traffic data (volumes, speeds, and roadway geometry) and emission factor data for Existing, No-Build, Build, and Build with Mitigation Conditions. The mesoscale study area includes all links studied by the traffic analysis. The mesoscale

traffic and emission factor data were incorporated into the air quality model to evaluate the changes in VOC and NO_X emissions. Emissions of particulate matter are calculated using the same methodology.

Mobile source GHG emissions are based upon the traffic volumes, the distance vehicles travel, and GHG emission rates. The mobile source emissions are calculated by performing a mesoscale analysis to evaluate the changes in CO_2 emissions for the existing and future conditions within the traffic study area. The GHG mobile source analysis estimates the area-wide CO_2 emissions from vehicle traffic for one year. Mobile source emissions were calculated by performing an annual GHG emissions mesoscale analysis to evaluate the estimated change in CO_2 emissions for the existing and future conditions within the study area.

9.3.2.1 Emission Factor Modeling

EPA's Office of Transportation and Air Quality (OTAQ) has developed the Motor Vehicle Emission Simulator (MOVES).[2] MOVES5 is EPA's motor vehicle emissions model for state and local agencies to estimate VOCs, NO_X, CO_2, and other pollutant emissions from cars, trucks, buses, and motorcycles.

All the vehicle emission factors used in the mesoscale analysis were obtained using EPA's MOVES5 emissions model. MOVES5 calculates emission factors from motor vehicles in mass per distance format (often grams per mile) for existing and future conditions and applies these factors to Vehicle Miles Travelled (VMT) data to obtain emissions inventories. The emissions calculated for this air quality assessment include Tier 3 emission standards, which is an EPA program that sets new vehicle emissions standards, including lowering the sulfur content of gasoline, heavy-duty engines, and the second phase of light-duty vehicle GHG regulations. It also includes Massachusetts-specific conditions, such as the state vehicle registration age distribution and the statewide Inspection and Maintenance (I/M) Program. These stringent emissions regulation programs often result in lower emissions inventories over time when comparing similar scenarios.

The MOVES5 model was run at a project level to obtain emission factors for each link of the mesoscale analysis. The model was set to calculate the emissions burden by choosing to model emissions processes that are specifically related to on-road travel. Links were created that used the appropriate speeds and grades for each roadway segment.

9.3.2.2 Traffic Data

The air quality study used traffic data (volumes) developed for each analysis condition. The mesoscale analysis uses typical daily peak and off-peak traffic volumes for the ozone summer season. The VMT data used in the air quality analysis were developed based on the traffic data analyzed in the Transportation Impact Analysis. The traffic analysis included estimates for existing and future years. Existing conditions assessed the year 2025 volumes, while future year conditions assessed 2032 volumes.

Note, the Build Condition presented in Chapter 4, *Transportation,* already includes mitigation proposed by the MEPA Project. For the purposes of Air Quality and GHG analysis, a new Build condition was created by the traffic engineers that removes all proposed mitigation associated with the MEPA Project. This new condition is considered the "Build" condition in this chapter. The Build

10 MOVES5 (Motor Vehicles Emission Simulator), November 2024, US EPA, Office of Mobile Sources, Ann Arbor, MI.

condition presented in the traffic analysis, which is inclusive of proposed roadway improvements, is considered the "Build with Mitigation" condition in this chapter. These changes to the traffic analysis were made for Air Qualty and GHG Chapter, so that the full impact of the MEPA Project's proposed roadway improvements could be quantified. As seen below, these emission savings are determined by subtracting the results of the Build with Mitigation condition from the Build condition.

9.3.3 Existing Mesoscale Emissions

The mesoscale analysis calculated the existing PM, VOC, and NO_X emissions, which are estimated to be 5.64 short tons per year (tpy) of NO_X and 1.62 tpy of VOC, establish an Existing Condition to which future emissions can be compared. The GHG emissions were estimated to be 15,289 tpy. Particulate emissions are estimated to be 0.926 tpy of PM10, 0.365 tpy of PM2.5, and 0.119 tpy of DPM.

9.3.4 Future Mesoscale Emissions

Under future conditions, the MEPA Project-related emissions are based on changes in traffic and emission factor data. The traffic data includes traffic volumes that were used to calculate VMT on the study network. The emission factor data included emission reduction programs, shifts in vehicle populations, and other factors. Under the No-Build Condition, NO_X emissions were estimated to be 3.94 tpy, and VOC emissions were estimated to be 1.27 tpy. CO_2 emissions were estimated to be 13,307 tpy. Particulate emissions are estimated to be 0.789 tpy of PM10, 0.301 tpy of PM2.5, and 0.073 tpy of DPM.

Under the Full Build condition, as presented in **Table 9-12** below, the NO_X emissions are estimated to be 4.13 tpy, and the VOC emissions are estimated to be 1.33 tpy. CO_2 emissions were estimated to be 13,917 tpy. Particulate emissions are estimated to be 0.815 tpy of PM10, 0.312 tpy of PM2.5, and 0.076 tpy of DPM.

The Build emissions inventory was developed by considering the effects of the MEPA Project-generated trips on the No-Build network. The SIP and MEPA GHG Policy require that proposed projects with VOC, NO_X, and CO_2 emissions under the Build Condition that are greater than the No-Build Condition include all reasonable and feasible emission reduction measures.

Table 9-12 Mesoscale Analysis Results

Pollutant	Existing Conditions	No-Build Conditions	Full Build Conditions	MEPA Project-related Emissions[1, 2]
Oxides of Nitrogen (tpy)	5.64	3.94	4.13	0.18
Volatile Organic Compounds (tpy)	1.62	1.27	1.33	0.06
Carbon Dioxide (tpy)	15,289	13,307	13,917	610
Particulate Matter < 10 µm (tpy)	0.926	0.789	0.815	0.026
Particulate Matter < 2.5 µm (tpy)	0.365	0.301	0.312	0.011
Diesel Particulate Matter (tpy)	0.119	0.073	0.076	0.003

1 Represents the difference in pollutant emissions between the Build and No-Build Conditions.
2 Sums may not equal exactly due to rounding

9.3.5 Proposed Mitigation Measures

The Proponent is committed to implementing a comprehensive Transportation Demand Management ("TDM") program, which will include multiple demand reduction measures to mitigate the potential impacts of the Build Condition. A summary of the TDM program is presented in **Section 4.9 of Chapter 4, Transportation**, including a proposed monitoring program. Some of these measures include unbundled parking, bicycle parking and repair station, membership in a transportation management association or designation of a project-specific TDM coordinator, and promotional material. The monitoring and adjustment of TDM measures over time is defined by the TAPA that will be created with the City of Boston, as described in **Section 4.9.1 of Chapter 4, Transportation**.

Implementation of the TDM program is expected to improve air quality in the study area by promoting the use of alternative forms of transportation over the use of single-occupant motor vehicle ("SOV") trips to the MEPA Project Site. This modal shift results in lower MEPA Project-related VMT, which consequently reduces indirect emissions.

Previous estimates of similar TDM programs have ranged on the order of a two percent reduction in vehicle miles traveled ("VMT"), which is assumed to result in comparable pollutant emission savings. Note, the transportation analysis already includes "mode-share" assumptions, which reduce the unadjusted project trip generation rate to account for alternative modes of transportation such as transit, cycling, and walking. The 2% reduction assumed here is an additional reduction on top of the mode share assumptions to estimate the benefits of a TDM program, which have been shown to only have a moderate impact on switching from SOV trips.[3] As such, the TDM plan is expected to provide a less than 0.01 tpy reduction of NO_X and VOCs, and a 12 tpy reduction of GHG in the Full Build conditions. PM10, PM2.5, and DPM reductions due to TDM are expected to be less than 0.001 tpy for each.

The MEPA Project also proposes some physical roadway improvements to improve operations. Offsite improvements are described in **Section 4.6 of Chapter 4, Transportation**, and will include Brookline Avenue corridor improvements, signalization of the Mid-Block Street intersection, and improvements along Pilgrim Road. The emissions reduction due to the roadway improvements was studied in the mesoscale analysis. The roadway improvements are expected to provide a 0.12 tpy reduction of NO_X, a 0.03 tpy reduction of VOCs, and a 370 tpy reduction of GHG in the Full Build conditions. PM10, PM2.5, and DPM reductions due to roadway improvements are expected to be 0.004 tpy or less for each.

Table 9-13 below shows the emissions savings estimated due to TDM measures and roadway mitigation. Post-mitigation emissions result in a final MEPA Project-related increase of 0.07 tpy of NOx, 0.02 tpy of VOC, 227 tpy of CO_2, and less than 0.1 tpy of all PM from No-Build to Full Build. Air Quality pollutant increases from No Build to Build are all less than 1 tpy, as typically requested by the Secretary. All Build Condition emissions are less than the Existing Condition emissions due to increased stringency in vehicle emissions standards.

3 Based on sensitivity model runs conducted by the Proponent using the "Trip Reduction Impacts of Mobility Management Strategies (TRIMMS) Model v4.1" developed by the Center for Urban Transportation Research at the University of South Florida, typical travel demand measures such as carpooling services, flexible work schedules, transit information and program marketing, can provide an approximate 1-2% reduction in SOV trips, depending the exact measures chosen and site-characteristics.

Table 9-13 Mitigation Analysis Results

Pollutant	Project-related Emissions[1]	Savings due to Roadway Improvements[2]	Savings Due to TDM Measures[3]	Mitigated MEPA Project-related Emissions
Oxides of Nitrogen (tpy)	0.18	-0.12	<-0.01	0.07
Volatile Organic Compounds (tpy)	0.06	-0.03	<-0.01	0.02
Carbon Dioxide (tpy)	610	-370	-12	227
Particulate Matter < 10 µm (tpy)	0.026	-0.004	-0.001	0.021
Particulate Matter < 2.5 µm (tpy)	0.011	-0.004	<-0.001	0.007
Diesel Particulate Matter (tpy)	0.003	-0.002	<-0.001	0.001

1 Represents the difference in pollutant emissions between the Build and No-Build Conditions.
2 Mitigation from the installation of the proposed roundabouts and site driveway improvements.
3 Mitigation from TDM Measures.

9.3.5.1 Electric Vehicles

The MEPA Project will provide preferred parking for low-emitting fuel-efficient vehicles and/or electric vehicle (EV) charging stations. The Proponent is proposing to install the equivalent of 25 percent of new spaces with electric vehicle charging and the remaining 75 percent of new spaces as EV-Ready spaces per the City of Boston's EV policy. EV-Ready spaces include the construction of the appropriate infrastructure to facilitate the future installation of a charging station.

Employees, residents, or visitors with electric vehicles can use the EV charging stations, which will also help the Proponent continue its commitment to clean energy and alternative transportation solutions. Fully electric vehicles do not have any tailpipe emissions (such as NOx or particulates) and emit practically no engine heat, thereby helping to reduce the high temperature in congested corridors. Their regenerative braking technology has also been shown to greatly reduce particulate matter emissions from brake wear compared to conventional braking systems.

10

Construction Period

As specifically requested in the EEA Secretary's Certificate on the ENF, this chapter provides the following documentation in response to the 'Construction Period' section of the DEIR Scope with references to specific DEIR sections in **bold**:

- A description of how construction activities will be managed in accordance with applicable MassDEP regulations, specifically regarding air emissions and construction waste. **(Sections 10.3.1 and 10.3.6, respectively)**
- A description of construction-period impacts and proposed mitigation relative to noise, air quality, water quality, and traffic, including construction vehicle trips through residential areas. **(Section 10.3)**
- Confirmation that the MEPA Project will require its construction contractors to use Ultra Low Sulfur Diesel fuel, and discuss the use of after-engine emissions controls, such as oxidation catalysts or diesel particulate filters. **(Section 10.3.1)**
- Requirement of a Stormwater Pollution Prevention Plan (SWPPP) in accordance with its NPDES CGP to manage stormwater during the construction period. **(Section 10.3.4)**
- Description of stormwater management measures that will be implemented during construction. **(Section 10.3.4)**
- Information regarding the MEPA Project's generation, handling, recycling, and disposal of construction and demolition debris (C&D) and identification of measures to reduce solid waste generated by the MEPA Project. **(Section 10.3.6)**
- Commitment to C&D recycling activities as a sustainable measure for the MEPA Project. **(Section 10.3.6)**
- Review of mitigation measures that will be implemented to minimize potential public health risks associated with the demolition, handling, and transport of any ACM or other hazardous materials. **(Section 10.3.6)**
- Management of any contaminated material encountered during construction in accordance with the Massachusetts Contingency Plan (MCP; 310 CMR 40.00) and with prior notification to MassDEP. **(Section 10.3.6)**
- Description of potential construction period dewatering activities and associated permitting (i.e., NPDES) and identification of associated mitigation measures. **(Section 10.3.3)**
- Listing of all construction-period mitigation measures in the draft Section 61 Findings. **(Chapter 11)**

10.1 Regulatory Context

The MEPA Project will submit applicable documentation and comply with the following construction-related permits and approvals:

- U.S. EPA NPDES CGP
- U.S. EPA NPDES DRGP
- MassDEP Notification Prior to Construction or Demolition, Asbestos Notices (if required), and Solid Waste Facility Regulations and waste ban provisions
- BTD CMP for each component or component(s) of the MEPA Project for approval prior to the start of construction
- BWSC Site Plan Approval, Water/Sewer Connection Permits, Consent to Construction or Easement (if required) and Temporary Construction Dewatering Permit
- Boston Inspectional Services Department ("ISD") Demolition Permit(s)

The Proponent will also submit a Boston Residents Construction Employment Plan, in accordance with the Boston Jobs Policy. The Plan will provide that the Proponent make good faith efforts to employ local trades people from the City of Boston. In this effort, the Proponent will meet with local agencies prior to the start of construction to establish a community outreach program.

10.1.1 Construction Management Plan

The Proponent will develop a detailed CMP for each MEPA Project component or components for approval prior to the start of construction. The purpose of a CMP is to develop a proactive approach to identify and address the potential impacts on the community that may arise during each phase of construction and to avoid, minimize, or mitigate these impacts where feasible. The CMP will be developed to reflect the input of the regulatory authorities having jurisdiction over such plans, including the Boston Fire Department and BTD. The CMP will include detailed information about construction activities and schedules, staging areas, vehicle access and routing, and specific construction mitigation measures to minimize impacts on the surrounding neighborhood. It will include details about each of the topics described below in **Section 10.3** and will provide details on the phasing of the MEPA Project component or components.

It is likely that buildings within the MEPA Project will be occupied before all major construction is completed and, therefore, the CMP will include provisions to avoid unnecessary impacts on occupied buildings, and protect the safety of any employees, residents, and visitors at the MEPA Project Site. It would be the Proponent's top priority to ensure that impacts to both adjacent institutional operations and the surrounding residential community are minimized.

10.2 Anticipated Construction Schedule

Construction of the MEPA Project is proposed in phases, spanning an approximate 5-10 years from the start of construction. Currently, C1, C2 and R1 Buildings are undergoing the city's Article 80 Large Project Review. The first quarter of 2027 is the earliest that the Proponent can commence the construction of one or more of these 3 buildings, following completion of the Article 80 Large Project Review and competition of Simmons Living and Learning Center. Depending on the components of

the first phase, the construction will last approximately 24-48 months. Ultimately, the timing and order of the buildings constructed as part of the MEPA Project will be based upon market conditions.

10.3 Temporary Construction Impacts and Proposed Mitigation

Impacts associated with the MEPA Project's construction activities are temporary in nature and are typically related to truck traffic, air (dust), noise, stormwater runoff, solid waste, and vibration. The Proponent will seek to minimize construction impacts to the extent possible during the construction of the MEPA Project. Specific construction impact mitigation measures will be implemented as part of the required CMP (as described above).

10.3.1 Construction Air Quality

The primary source of potential construction air emissions is fugitive dust from construction operations (e.g., travel over unpaved areas and excavation) and vehicle emissions from construction equipment. The MEPA Project will comply with air quality regulations at 310 CMR 7.01, 7.09-7.10. The MEPA Project will implement a CMP that includes provisions for fugitive dust suppression and containment, such as street cleaning, wheel washing, vacuuming, and truck covers.

The MEPA Project will comply with the requirements of the Clean Construction Equipment Initiative aimed at reducing air emissions from diesel-powered construction equipment. Oxidation catalysts and catalyzed particulate filters will be utilized on all construction vehicles and equipment to reduce air quality degradation caused by emissions from heavy-duty, diesel-powered construction equipment. All pre-2007 diesel construction vehicles working on the MEPA Project will be retrofitted using retrofit technologies approved by the United States Environmental Protection Agency (EPA). Additionally, ultra-low-sulfur diesel ("ULSD") fuel (15 parts per million) will be used for all off-road diesel equipment. The Commonwealth of Massachusetts' anti-idling law will be enforced during the construction phase of the MEPA Project with the installation of on-site anti-idling signage. The construction contract will provide for a number of strictly enforced measures to be employed by contractors to reduce potential emissions and minimize impacts. These measures are expected to include:

- Providing wet suppression to minimize the generation of dust from excavation operations and on-site vehicle traffic, with provisions for any runoff control;
- Spraying any piles of excavation materials with suppression overnight and on weekends, and securely covering long-term material stock piles;
- Compacting of the soil or the use of gravel to stabilize the MEPA Project Site access points;
- Washing vehicle wheels before leaving the MEPA Project Site, as necessary, with provisions for runoff control;
- Periodic cleaning of paved streets near the entrances to the MEPA Project Site to minimize vehicle mud / dirt carryout;
- Installing fencing around the perimeter of the MEPA Project Site to assist in containing wind-blown dust;
- Requiring that trucks hauling excavated material from the MEPA Project Site, install secure covers over their loads; and

› Encouraging contractors for the MEPA Project to implement the Massachusetts Diesel Retrofit Program control measures for heavy-duty diesel equipment.

10.3.2 Construction Noise

The Proponent is committed to mitigating noise impacts from the construction of the MEPA Project. Construction work will comply with MassDEP and City noise regulations. While intermittent increases in noise levels will occur in the short term during the construction of the new buildings, every reasonable effort will be made to minimize the noise impact of construction activities.

Mitigation measures are expected to include:

› Conforming to City of Boston work hour regulations;

› Using appropriate mufflers on noisy construction equipment;

› Selecting the quietest of alternative items of equipment where feasible;

› Scheduling equipment operations to keep average noise levels low, to synchronize the noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels;

› Limiting vehicle and equipment idling time;

› Locating noisy equipment at locations where impacts are minimized, to the extent practicable.

10.3.3 Construction Dewatering

Temporary construction dewatering from within the excavation will be performed during construction and water collected from within the excavation will be treated and discharged under a NPDES DRGP and BWSC Temporary Construction Dewatering Permit. As the MEPA Project is located within the GCOD, measures to dewater on site to temporary basins prior to offsite dewatering will be evaluated to mitigate temporary construction dewatering impacts. The MEPA Project is not expected to cause a reduction in the groundwater levels at the MEPA Project Site or adjacent lots since the slurry walls will serve as a groundwater cut-off during construction, and a recharge well system is expected to infiltrate captured stormwater and any groundwater present in the underdrains to the groundwater table. Groundwater levels will be monitored prior to and during construction.

10.3.4 Construction Site Runoff and Erosion Control

Prior to the beginning of construction, a SWPPP will be submitted to the EPA to obtain a NPDES CGP.

The MEPA Project Site will utilize straw wattles, compost silt socks, straw bales, and silt fence around the perimeter during construction. A stabilized construction entrance/exit will be utilized at designated access points. Silt sack sediment traps will be installed at the inlets of existing and proposed catch basins (onsite and offsite) that receive stormwater runoff from the MEPA Project Site.

10.3.5 Construction Transportation

Detailed CMPs will be developed and submitted for each component or components of the MEPA Project to the BTD for their approval. These plans will detail construction vehicle routing, staging, and roadway occupancy that will require BTD approval.

10.3.5.1 Construction Truck Access and Traffic

Construction vehicles will be required to transport materials to and from the MEPA Project Site, and the Proponent recognizes that construction traffic is a concern for nearby residents and institutions. Significant efforts will be made to reduce noise, control fugitive dust, and minimize other disturbances associated with construction-related activities. Truck staging and laydown areas will be carefully planned, and contractors will be encouraged to prepare construction access plans for their personnel that de-emphasize auto use, such as utilizing off-site parking, providing transit subsidies, and offering on-site lockers for tools and equipment. Construction workers will also be encouraged to use public transportation to access the MEPA Project Site. It is anticipated that Brookline Avenue, Huntington Avenue, Longwood Avenue, and Pilgrim Road will serve as the primary construction traffic routes, with trucks routed to avoid nearby residential areas and intersections along Longwood Avenue west of Brookline Avenue. Truck access on the Riverway is restricted; therefore, construction vehicles will seek to avoid using the Riverway to access or egress the MEPA Project Site. At this time, the need for street occupancy along roadways adjacent to the MEPA Project Site has not been determined. Any street occupancy will be done in accordance with City of Boston requirements.

10.3.5.2 Construction Parking

Contractors will be encouraged to devise access plans for their personnel that de-emphasize auto use (such as seeking off-site parking, providing transit subsidies, etc.). Construction workers will also be encouraged to use public transportation to access the MEPA Project Site. The Proponents will work with BTD and Boston Police Department to ensure that parking regulations in the area and in designated residential parking areas are enforced.

10.3.5.3 Pedestrian Access and Safety

During portions of the construction period, pedestrian and bicyclist activity adjacent to the MEPA Project Site may be affected by temporary sidewalk and/or bike-lane closures. As construction phasing and staging details are refined, the Proponent will work to locate staging areas in a manner that minimizes disruptions to pedestrian, bike and vehicular circulation. A range of physical construction impact mitigation measures—such as protective barriers, temporary or replacement walkways, overhead protection, appropriate lighting, and wayfinding and informational signage—will be implemented, as necessary, to ensure public safety and protect nearby residents and the general public.

Upon completion of construction, pedestrian sidewalks and bicycle infrastructure will be permanently reconstructed or reconfigured, as applicable, to meet ADA and City standards and to reconnect the MEPA Project Site with the surrounding neighborhood. Damage resulting from construction activities will be repaired in accordance with City requirements, and the final configuration of pedestrian and bicycle paths will be carefully considered as the design advances.

10.3.6 Construction and Demolition Waste

All solid waste generated will be recycled off-site or disposed of in accordance with federal, state, and city regulations. As part of the redevelopment, the construction contractor will be required to prepare and submit a Construction Waste Management Plan ("CWMP") to the City of Boston for review and approval prior to the commencement of construction. The CWMP will identify procedures

and best management practices for the segregation, recycling, and reuse of construction and demolition materials, with the goal of minimizing the volume of waste disposed of in landfills.

All C&D and solid waste materials that cannot be recycled or reused will be transported in covered trucks to approved and permitted solid waste management facilities in compliance with MassDEP Solid Waste Facility Regulations (310 CMR 16.00 and 310 CMR 19.00), including the Waste Ban provisions at 310 CMR 19.017, which prohibit the disposal of certain recyclable and reusable materials. The CWMP and associated construction specifications will also define proper handling, storage, and transport requirements for asphalt, brick, concrete, and other subsurface materials that may be encountered during construction, consistent with these regulatory standards.

All excavated materials will be evaluated for potential reuse or recycling opportunities, the presence of hazardous constituents, and the appropriate final disposition. Should any contaminated soil, groundwater, or other material be encountered during construction, such materials will be managed in accordance with the requirements of the Massachusetts Contingency Plan (MCP; 310 CMR 40.00). Prior notification to the MassDEP will be made, as required under the MCP, to ensure that the management, transport, and disposal of contaminated materials are performed in full regulatory compliance.

Although an asbestos inspection has not yet been performed, given the age of the existing buildings, it is possible that asbestos containing materials ("ACMs") may be present. Prior to conducting any demolition activity, a Hazardous Buildings Materials Survey will be conducted to determine if ACMs are present at the MEPA Project Site. If required, ACMs will be handled and disposed of by licensed professionals in accordance with all applicable local, state, and federal requirements.

These measures will be incorporated into the construction contract documents to ensure consistent adherence to applicable solid waste, waste ban, and hazardous material management regulations throughout all phases of site preparation and redevelopment.

11

Mitigation and Draft Section 61 Findings

This chapter includes a summary of proposed mitigation measures to avoid, minimize and mitigate environmental impacts, Draft Section 61 Findings for all State Permits, and a draft GHG self-certification to the MEPA Office.

11.1 Proposed Mitigation

The MEPA Project will avoid, minimize or mitigate damage to the environment to the maximum extent practicable. The Proponent commits to the measures summarized in **Table 11-1** below. Implementation is the responsibility of the Proponent except where otherwise noted.

Table 11-1 Summary of Mitigation Measures

Mitigation Measure	Responsible Party	Estimated Cost	Timing/ Schedule	State Permit/Action
Traffic and Transportation				
Roadway Improvements Improve the intersection of Brookline Avenue and Pilgrim Road by modifying curb geometry to physically restrict left turns and improve pedestrian safety by shortening the crosswalk length.	Proponent	Included in Project Costs	Design/ Construction	None
Provide a new signalized intersection at the proposed Mid-Block Street including protected, accessible pedestrian crosswalks across Brookline Avenue that align with the existing Colleges of the Fenway pathway.	Proponent	Included in Project Costs	Design/ Construction	None
Provide intersection improvements at the intersection of Brookline Avenue and the BIDMC Main Entrance/Short Street, including an expanded accessible crosswalk, two-way bicycle crossing, and new or relocated traffic, pedestrian, and bicycle signal equipment.	Proponent	Included in Project Costs	Design/ Construction	None
Public Transit Working with the MBTA and the BTD, the Proponent will reconstruct up to two existing MBTA/LMA shuttle bus stops adjacent to the MEPA Project Site on the west side of Brookline Avenue, with floating bus stops and new shelters.	Proponent	TBD	Construction	None

Mitigation Measure	Responsible Party	Estimated Cost	Timing/ Schedule	State Permit/Action
Install new signal equipment with transit signal priority (TSP) at the intersections of Brookline Avenue with BIDMC Main Entrance/Short Street and the proposed Mid-Block Street.	Proponent	Included in Project Costs	Construction	None
Bicycle/Pedestrian Accommodations				
Provide an enhanced streetscape and pedestrian facilities along the MEPA Project Site's Brookline Avenue frontage, including new, wider sidewalks, lighting, and landscaping/furnishing.	Proponent	Included in Project Costs	Design/ Construction	N/A
Provide enhanced bicycle facilities along the MEPA Project Site's Brookline Avenue frontage, including a grade-separated bicycle lane and visitor bicycle parking.	Proponent	Included in Project Costs	Design/ Construction	N/A
Provide a new two-way bicycle path, separated by a landscape buffer, along Short Street connecting Brookline Avenue and Pilgrim Road.	Proponent	Included in Project Costs	Design/ Construction	None
Provide covered bicycle storage capacity on-site in accordance with the City of Boston Bicycle Guidelines (904 spaces), along with public bike racks to support ground floor retail space and visitors (194 spaces).	Proponent	Included in Project Costs	Design/ Construction	None
Provide a monetary contribution to Bluebikes and provide space on-site for two bikeshare stations totaling 38 docks, in accordance with the City of Boston Bicycle Guidelines.	Proponent	TBD	Design/ Construction	None
Parking				
Limit parking to 520 spaces in below-grade parking garage, much lower than BTD's Parking Ratio Guidlines. This will precipitate proactive public transportation, bicycle, and pedestrian activity on site.	Proponent	Not Applicable	Design/ Construction	N/A
Building Service and Loading				
Provide internal off-street loading docks within garage level P1 to not impact Brookline Avenue, Pilgrim Road, or the new Mid-Block Street. The dock will handle deliveries and trash removal for all buildings, except for those service and loading activities that must occur at grade pursuant to applicable building codes. Access to the loading area will be provided via a dedicated loading-only entrance on the Mid-Block Street.	Proponent	Included in Project Costs	Design/ Construction	N/A
Transportation Demand Management				
Join a Transportation Management Association.	Respective Operators/Tenants	TBD	Operations	None
Designate an on-site Transportation Coordinator to be responsible for overseeing move-in/move-out operations; oversee parking; serve as the point person for managing, communicating, and promoting the use of alternative transportation measures with building employees and staff; and develop transportation alternatives orientation materials for residents, visitors, and retail employees.	Respective Operators/Tenants	TBD	Operations	None

Mitigation Measure	Responsible Party	Estimated Cost	Timing/ Schedule	State Permit/Action
Develop and disseminate welcome packets to residents with tailored marketing information about nearby transportation options.	Respective Operators/Tenants	TBD	Operations	None
Conduct two annual events promoting multimodal travel.	Respective Operators/Tenants	TBD	Operations	None
Provide real-time transit information displayed on-screen in the entry of building lobbies (Transit Screen).	Respective Operators/Tenants	TBD	Operations	None
Provide ride services, such as reimbursement of taxi or rideshare trips, outside of peak travel periods for tenants/ employees who use sustainable transportation options.	Respective Operators/Tenants	TBD	Operations	None
Property owners or employers will participate in MBTA's Perq Program to facilitate pre-tax transit pass purchases.	Respective Operators/Tenants	TBD	Operations	None
The property owner will provide the option of tenants to lease or purchase building space without the inclusion of parking spaces at market-rate pricing. Parking spaces may be leased or purchased separately at a market rate.	Respective Operators/Tenants	TBD	Operations	None
The MEPA Project includes provision of showers and lockers for on-site employees.	Proponent	Included in Project Costs	Design/ Construction	None
Provide an on-site bicycle repair station.	Proponent	Included in Project Costs	Construction/ Operations	None
Provide a Bluebikes bikeshare membership subsidy to residents and employees at Bronze-Level.	Respective Operators/Tenants	TBD	Operations	None
Provide on-site e-bikes and/or e-cargo bikes for use by MEPA Project tenants	Respective Operators/Tenants	TBD	Operations	None
Provide carpool matching services with preferential and discounted parking close to building entrances	Respective Operators/Tenants	TBD	Operations	None
Provide one car share vehicle that is accessible 24 hours a day, seven days a week for MEPA Project tenants	Respective Operators/Tenants	TBD	Operations	None
The development is a mixed-use development with secondary land uses which can offset trips elsewhere. Secondary land uses include retail and fitness centers.	Proponent	Not Applicable	Design/ Operations	None
The development incorporates a centralized parcel drop-off/receiving station.	Proponent	Included in Project Costs	Design/ Operations	None
Stationary Source Greenhouse Gas (GHG) Emissions				
The MEPA Project will implement energy conservation measures expected to result in a 42% reduction in energy consumption and 28% reduction in stationary source GHG emissions relative to the Base Case	Proponent	Included in Project Costs	Design/ Construction	None
The commercial buildings prototype includes the following DOER-requested energy efficiency measures: › Heat Recovery Chillers; › Exhaust Source Heat Pump (ESHP) Space Heating at 25% of Peak Load; › Mixed Fuel Pathway Solar + Electric Readiness under the Specialized Code; and › Heat Pump Hot Water for Core & Shell Spaces in the Lab/Office.	Proponent	Included in Project Costs	Design/ Construction	None

Mitigation Measure	Responsible Party	Estimated Cost	Timing/ Schedule	State Permit/Action
Residential Buildings will be all electric / fossil-fuel-free for normal operations and Passive House certifiable.	Proponent	Included in Project Costs	Design/ Construction	None
Residential Buildings will include space heating by heat pump and electric cooking and drying in both the residential and retail spaces.	Proponent	Included in Project Costs	Design/ Construction	None
Achieve LEED Gold certification at a minimum for each building for all the office, laboratory, and residential typologies.	Proponent	Included in Project Costs	Design/ Construction/ Operations	None
Mobile Source Air Quality and GHG Emissions				
Refer to the 'Transportation' mitigation measures above, which contribute to mitigating mobile source air quality and GHG emissions.	-	-	-	-
Implement a TDM plan and roadway improvement measures, as described above, to reduce mobile source emissions.	Proponent	TBD	Construction/ Operations	MassDOT
Climate Change Adaptation and Resiliency				
Consider sustainable design guidelines to alleviate extreme heat in buildings.	Proponent	TBD	Design/ Construction	None
Installation of green spaces, porous surfaces/materials and new tree canopies to mitigate urban heat island impacts.	Proponent	Included in Project Costs	Design/ Construction	None
Ensure drainage systems are sized for future climate conditions where necessary.	Proponent	Included in Project Costs	Design/ Construction	None
Raise building DFE's above BFE. Select and implement additional site-specific elements for mitigation of flooding due to rising seas, storm surge and hurricane impacts.	Proponent	Included in Project Costs	Design/ Construction	None
Stormwater Management				
Design and install structural and nonstructural stormwater BMPs to mitigate changes in stormwater peak flow rates, runoff volumes, groundwater recharge volumes, and water quality, and limit impact from construction and operation on nearby water bodies.	Proponent	Included in Project Costs	Design/ Construction	None
Develop detailed Operation and Maintenance (O&M) plan for each site.	Proponent	Included in Project Costs	Design/ Construction	None
Water				
Incorporate water efficiency measures to minimize the use of water and wastewater generation	Proponent	Included in Project Costs	Design/ Construction	None
Design and install approximately 350 linear feet of new BWSC water main in Short Street to create a looped system	Proponent	Included in Project Costs	Design/ Construction	None
Wastewater				
4:1 Inflow/Infiltration payment to BWSC to mitigate increased flows to municipal sanitary sewer system	Proponent	TBD	Construction	None

Mitigation Measure	Responsible Party	Estimated Cost	Timing/ Schedule	State Permit/Action
Construction				
Develop and implement a Construction Management Plan (CMP) for submission to regulatory authorities having jurisdiction over such plans including the Boston Fire Department and BTD, once final plans are developed and the corresponding construction schedule is determined, in compliance with the City's Construction Management Program. The construction contractor will be required to comply with the details and conditions of the approved CMP.	General Contractor	Included in Project Costs	Construction	City of Boston Zoning Ordinance
Implement a CMP that includes provisions for fugitive dust suppression and containment, such as street cleaning, wheel washing, vacuuming, and truck covers.	General Contractor	Included in Project Costs	Construction	None
Enforce anti-idling measures consistent with MGL Chapter 90 Section 16A and that all diesel construction machinery will be fitted with oxidation catalysts to reduce emissions.	General Contractor	Not Applicable	Construction	MGL Chapter 90 Section 16A
Comply with the requirements of the City of Boston Noise Ordinance and make every reasonable effort to minimize the noise impact of construction activities.	General Contractor	Not Applicable	Construction	City of Boston Noise Ordinance
Submit a SWPPP to the EPA to obtain a NPDES Construction General Permit.	General Contractor	Included in Project Costs	Construction	NPDES CGP
Locate construction staging areas to minimize impacts to pedestrian and vehicular flow.	General Contractor	Included in Project Costs	Construction	None
Take an active role regarding the reprocessing and recycling of construction waste.	General Contractor	Included in Project Costs	Construction	None

11.2 Mitigation Related to EJ Populations

The MEPA Project is not a substantial source of mobile-source air pollutant emissions. MEPA Project-related emissions would increase by less than one ton relative to the No-Build condition, and Build Condition emissions would remain below existing levels, resulting in a reduced air quality burden in the study area compared to current conditions.

A review of transportation impacts at intersections adjacent to EJ census tracts shows that only one intersection within an EJ census tract, Riverway at Fenway, is projected to experience a modest worsening of LOS during the morning peak hour, associated with a limited volume increase of approximately three percent. Such a change is below thresholds typically considered to result in adverse air quality impacts, and corresponding delay-related emissions are expected to increase by a similarly minor margin.

Although physical mitigation at this intersection is constrained due to coordinated signal operations and ongoing area-wide transportation initiatives, the Proponent has committed to a comprehensive suite of mitigation measures within the affected EJ census tract. These measures include substantial investments in EV charging infrastructure, an expanded transportation demand management program, and significant roadway, pedestrian, bicycle, and transit improvements, which are designed to reduce vehicle reliance, improve traffic operations, and reduce vehicle delays and emissions.

In addition, the MEPA Project incorporates climate and environmental mitigation measures that will provide co-benefits to EJ communities, including strategies to reduce the urban heat island effect through green spaces, tree canopies, and high-albedo materials, as well as robust stormwater management and green infrastructure that prevent flooding and improve environmental resilience. Collectively, these measures ensure that EJ populations will not experience adverse impacts from MEPA Project-related emissions and will benefit from long-term improvements to mobility, safety, and environmental conditions.

11.3 Draft Section 61 Findings

11.3.1 MWRA Sewer Use Discharge Permit

D R A F T O N L Y

Findings Pursuant to

MGL Chapter 30, Section 61

PROJECT NAME:	Longwood Place
PROJECT LOCATION:	Boston
PROJECT PROPONENT:	SCD Pilgrim Road Master Planner LLC, c/o Skanska USA Commercial Development Inc.
EEA NUMBER:	16948

Each agency of the Commonwealth that is taking an Agency Action (e.g., issuing a permit) must make a finding, pursuant to MGL Chapter 30, Section 61, that all feasible measures have been taken by the Proponent to avoid damage to the environment or, to the extent damage to the environment cannot be avoided, to minimize and mitigate damage to the environment to the maximum extent practicable. These Section 61 Findings specify the entity responsible for funding and implementing any such mitigation measures, and the anticipated mitigation implementation schedule.

The proposed mitigation measures for the Longwood Place project (the "Project") are described in the Final Environmental Impact Report (FEIR), which was filed in [DATE TBD]. The following sections provide a summary of possible impacts to Massachusetts Water Resources Authority ("MWRA") water and sewer systems resulting from sewer and water connections proposed as part of the Project. The proposed impact avoidance, minimization and mitigation measures are the basis upon which Section 61 Findings may be made by MWRA. All impact minimization measures and mitigation measures outlined herein will be funded or implemented by SCD Pilgrim Road Master Planner LLC, c/o Skanska USA Commercial Development Inc. (the "Proponent"), its Agents, Representatives and/or Contractors.

Project Description

The Project consists of approximately 1.65 million square feet ("MSF") of gross floor area ("GFA") across five buildings of new residential, laboratory/office, medical/clinic uses, community space, retail, below-grade parking and loading, and associated landscape and public realm improvements within an approximately 5.89-acre site located at 259, 275, 291, 305, 321 Brookline Avenue & 38, 46, 62 Pilgrim Road in the Fenway/Longwood Medical and Academic Area neighborhood of Boston (the "Project Site"). The Project Site is commonly known as the Simmons University Residence Campus.

History of MEPA Review

The Proponent prepared and submitted, pursuant to M.G.L. c. 30, § 61 and 62A-H of MEPA and its implementing regulations (301 CMR 11.00), an Environmental Notification Form Request ("ENF") on November 26, 2024. On June 13, 2025 the Secretary of Energy and Environmental Affairs (the "Secretary") issued a Certificate on the ENF filed on April 30, 2025. The DEIR filing was submitted to the MEPA Office on March 16, 2026 addressed the scopes outlined in the Secretary's Certificate on the ENF. The EEA Secretary issued a Certificate on the DEIR to which the FEIR was filed in response on [DATE TBD].

Permit Requirements

It is anticipated that a Sewer Use Discharge Permit may be required from MWRA depending on the future tenants and their wastewater discharge type.

Project Impacts

As described in the DEIR, the full buildout is estimated to generate approximately 104,615 gallons per day ("GPD") of net new wastewater and use approximately 115,075 GPD GPD of net new water, excluding consideration of existing generation and use and depending on the development program mix of uses.

The first quarter of 2027 is the earliest that the Proponent can commence construction of the Project. Applications for a Sewer Use Discharge Permit(s) will be submitted as applicable phases advance and building users are identified.

Mitigation Measures

The Proponent will coordinate with MWRA to install all water and sewer direct connections in accordance with MWRA construction standards and standard engineering practice.

Proposed Water Conservation Measures

Various water conservation measures, such as low-flow toilets and urinals, restricted flow faucets, and sensor operated sinks, toilets, and urinals may be incorporated as water conservation measures. Additionally, a rainwater re-use system is proposed to provide recycled water for the Project for non-potable use applications, such as toilet flushing and/or irrigation. This is expected to result in a further decrease in water demand and potentially reduce impacts to the municipal storm drain system during storm events.

Proposed Wastewater Mitigation

The inflow and infiltration ("I/I") mitigation fee has been accepted by BWSC in lieu of construction of off-site projects to offset wastewater flows. The Proponent will reduce the amount of I/I from going

into the BWSC sewer system, and ultimately the MWRA regional wastewater system, at a rate of 4-gallons for every 1-gallon of new sewer flow. The BWSC calculates the monetary amount required to fulfill this mitigation requirement by multiplying the estimated wastewater flow by four and then by $2.41. The Proponent will continue to work with BWSC as the construction sequencing is determined and the building program is finalized to identify the I/I payment to be made to mitigate impacts to the municipal system.

Per the March 4, 2021 letter from BWSC, the existing flows from the Simmons dormitory buildings, total approximately 111,090 GPD, will be credited against the required mitigation. The Proponent will also work with BWSC during the Site Plan Review approval process to determine how this credit will be allocated to the Project.

Section 61 Findings

Based upon a review of the FEIR, supporting documentation, and the applicable provisions of the MWRA Sewer Use Regulations (360 CMR 10.000), the following findings are made:

1. **Acceptability of Discharge** - The wastewater generated by the mixed-use facility, consisting of residential, commercial, medical, and laboratory uses, is acceptable for discharge to the MWRA sewer system subject to compliance with applicable permit conditions. The discharge does not include prohibited substances as defined in 360 CMR 10.005.
2. **Compliance with Sewer Use Regulations** -The proposed discharge, as conditioned, complies with the requirements of the MWRA Sewer Use Regulations. Pollutant concentrations, discharge volume, and discharge characteristics are within limits established to protect the MWRA collection system and wastewater treatment facilities.
3. **Protection of the Collection System and Treatment Works** - The discharge will not cause pass through, interference, corrosion, obstruction, or damage to the MWRA sewer system, pumping facilities, or wastewater treatment works. The discharge will not adversely affect sludge handling, treatment, or disposal practices.
4. **Pretreatment and Operational Controls** - Where required, appropriate pretreatment, operational controls, and best management practices will be implemented to ensure compliance with permit limits and to prevent the introduction of pollutants that could adversely impact the sewer system or treatment processes.
5. **Monitoring and Reporting** - Adequate provisions have been made for sampling, monitoring, recordkeeping, and reporting in accordance with MWRA requirements to verify compliance with permit conditions and applicable regulations.
6. **Protection of Public Health and the Environment** -The discharge, as regulated by this permit, will not pose a threat to public health, safety, or the environment and will not result in the degradation of receiving waters.
7. **Consistency with Applicable Requirements** - Issuance of this Sewer Use Discharge Permit is consistent with applicable local, state, and federal requirements and will not conflict with other regulatory approvals.
8. **No Significant Adverse Impact** - With compliance with all permit conditions, the discharge will not result in significant adverse impacts to the MWRA sewer system or wastewater treatment operations.

For the reasons stated above, MWRA hereby finds that pursuant to MGL c. 30, § 61, the construction of the Project as described above, and with the implementation by the Proponent of the noted mitigation measures, all practicable means and measures will be taken to avoid or minimize adverse environmental impacts related to the Project.

Agency:_____

Commissioner:_____

Date:_____

11.4 GHG Self-Certification

In accordance with the MEPA GHG Policy, the Proponent will provide a Self-Certification to the MEPA Office signed by an appropriate professional following the completion of construction of the Project to demonstrate that all the required mitigation measures, or their equivalent, have been completed. A draft Letter of Commitment for the future GHG Self-Certifications for the Project is provided below.

D R A F T

Secretary Rebecca Tepper
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

ATTN: Director Tori Kim, MEPA Office

Re: Letter of Commitment for Greenhouse Gas Emissions Self-Certification
EA No. 16948 – Longwood Place, Boston, MA

On behalf of SCD Pilgrim Road Master Planner LLC, c/o Skanska USA Commercial Development Inc. (the "Proponent"), the team has prepared a summary of the estimated reduction in overall energy use and stationary source Greenhouse Gas ("GHG") emissions for the Longwood Place project in Boston (the "Project").

In accordance with the current MEPA Greenhouse Gas Emissions Policy and Protocol (the "GHG Policy") dated May 2010, the stationary source GHG assessment was provided to the MEPA Office as part of the Draft Environmental Impact Report (DEIR). The design case assumed building design and system improvements that would result in energy reductions, in accordance with the GHG Policy.

Building energy modeling based on early stages of design estimates that the energy conservation measures across the Project could reduce overall energy usage by 42 percent, resulting in a 28 percent decrease in stationary source CO_2 emissions, using 2025 emission factors, when compared to the Stretch Code baseline. The following table presents the estimated energy savings and CO_2

emissions reductions by building. Documentation of energy modeling assumptions leading to the percentages presented herein is available in Chapter 9 of the DEIR filing.

		Energy Consumption (MMBtu)			CO_2 Emissions (tons/yr)		
#	Use	Base Case[1]	Design Case	Savings (%)	Base Case	Design Case	Savings (%)
C1	Lab/Office & Retail	121,531	69,750	43%	9,920	7,058	29%
C2	Lab/Office & Retail	80,940	46,454	43%	6,607	4,701	29%
C3	Lab/Office & Retail	111,141	63,788	43%	9,072	6,455	29%
R1	Residential & Retail	4,611	4,611	-[2]	507	507	-[2]
R2	Residential & Retail	3,261	3,261	-[2]	358	358	-[2]
	Total	**321,485**	**187,864**	**42%**	**26,463**	**19,079**	**28%**

tons/yr = short tons per year; MMBtu = million British Thermal Units

1 Lab/Office base case is representative of ASHRAE 90.1-2019 Appendix G conditions, per the Relative Performance pathway.

2 Residential buildings must achieve Passive House to be code-compliant. The residential buildings are designed to achieve Passive House, and thus, the base case and design case yield similar results.

		Energy Consumption (MMBtu)			CO_2 Emissions (tons/yr)		
	Use	Base Case[1]	Design Case	Savings (%)	Base Case	Design Case	Savings (%)
C1	Lab/Office & Retail	121,531	69,750	43%	9,920	7,058	29%
C2	Lab/Office & Retail	80,940	46,454	43%	6,607	4,701	29%
C3	Lab/Office & Retail	111,141	63,788	43%	9,072	6,455	29%
R1	Residential & Retail	4,611	4,611	-[2]	507	507	-[2]
R2	Residential & Retail	3,261	3,261	-[2]	358	358	-[2]
	Total	**321,485**	**187,864**	**42%**	**26,463**	**19,079**	**28%**

tons/yr = short tons per year; MMBtu = million British Thermal Units

1 Lab/Office base case is representative of ASHRAE 90.1-2019 Appendix G conditions, per the Relative Performance pathway.

2 Residential buildings must achieve Passive House to be code-compliant. The residential buildings are designed to achieve Passive House, and thus, the base case and design case yield similar results.

The building energy model results presented above are preliminary, based on the current building design. Following the completion of construction of the Project, the Proponent will submit a Self-Certification to the MEPA Office, signed by an appropriate professional, which identifies the as-built energy conservation measures and documents the associated stationary source GHG emissions reductions from the baseline case.

12

Response to Comments

This chapter includes responses to the ENF Certificate issued June 13, 2025. Copies of the ENF Certificate and each comment letter received during the public review period are included in **Appendix G**.

12.1 List of Comment Letters

The ENF Certificate is assigned a letter and all other comment letters are assigned a number, as listed below in **Table 12-1** below.

Table 12-1 List of ENF Comment Letters

Letter No.	Commenter	Affiliation	Date Received
C	Secretary Rebecca L. Tepper	Executive Office of Energy and Environmental Affairs/MEPA Office	June 13, 2025
1	Brian Arrigo	Department of Conservation and Recreation	June 3, 2025
2	Jennifer Mecca	Massachusetts Department of Transportation	June 3, 2025
3	John D. Viola	Massachusetts Department of Environmental Protection - NERO	June 3, 2025
4	Brona Simon	Massachusetts Historic Commission	June 2, 2025
5	Becca Edson	Department of Energy Resources	June 13, 2025
6	Colleen Rizzi, P.E.	Massachusetts Water Resources Authority	June 9, 2025
7	John P. Sullivan, P.E.	Boston Water and Sewer Commission	May 15, 2025
8	Karen Mauney-Brodek	Emerald Necklace Conservancy	June 3, 2025
9	Alison Pultinas	Public Comment Letter	May 30, 2025

12.2 Agency Comment Letters

MEPA Certificate

Comment C.1

The DEIR should follow Section 11.07 of the MEPA regulations for outline and content and provide the information and analyses required in this Scope. It should clearly demonstrate that the Proponent will avoid, minimize and mitigate Damage to the Environment to the maximum extent practicable through project alternatives and design.

Response

The DEIR has been organized to correspond with each section of the Certificate.

Comment C.2

The DEIR should include updated site plans for existing and post-development conditions at a legible scale and a detailed description of all project components.

Response

Updated site plans for existing and post-development conditions are included in **Figures 1.3** and **1.5**, respectively. A detailed description of all MEPA Project's components is included in **Section 1.4** of **Chapter 1, Project Description**.

Comment C.3

It should provide plans showing existing and proposed site grades and ground-level elevations of all proposed structures. Conceptual plans should be provided at a legible scale and clearly identify buildings, public areas, open space, impervious areas, pedestrian and bicycle accommodations, roadways, and stormwater and utility infrastructure. Site elevations should be provided in relation to the NAVD 88 datum.

Response

Refer to **Figures 1.5, 4.1, 4.2, 5.1, 6.1** and **8.3** for plans showing existing and proposed site grades and ground-level elevations of proposed structures as well as conceptual plans depicting proposed infrastructure.

Comment C.4

The DEIR should identify any changes since the filing of the ENF.

Response

While the proposed development program has not changed since the ENF, the MEPA Project has advanced as described in **Section 1.4.2** of **Chapter 1, Project Description.**

Comment C.5

The DEIR should identify and describe state, federal and local permitting and review requirements associated with the project, provide an update on the status of each of these pending actions, analyze applicable statutory and regulatory standards and requirements, and provide a discussion of the project's consistency with those standards.

Response

The state, federal and local permitting and review requirements associated with the MEPA Project with an update on the status of each of the pending actions as well as a discussion on the MEPA Project's consistency with applicable statutory and regulatory standards, are included in S**ection 1.6** of **Chapter 1, Project Description.**

Comment C.6

As noted, the ENF did not provide information related to the impacts of the existing Residence Campus to be relocated. However, as this campus relocation will be occurring simultaneously with this project, the DEIR should include a general description of the Living and Learning Center and document its potential impacts, including trip generation, impervious area, water use, and wastewater generation, in comparison to the existing uses at the current location of the Residence Campus at the project site.

Response

The Living and Learning Center is separate and distinct from the MEPA Project. As requested, a detailed description of the Living and Learning Center is included in **Section 2.1** of **Chapter 2, Alternatives Analysis.**

Comment C.7

As detailed below, the development program and environmental impacts of the PDA Development Plan Alternative are similar to those of the Preferred Alternative, and the DEIR should include a supplemental alternatives analysis which reviews development programs substantially different from the Preferred Alternative.

Response

A supplemental alternatives analysis is included in **Section 2.2** of **Chapter 2, Alternatives Analysis** for a project that would reuse the existing dorm buildings for residential uses.

Comment C.8

Consistent with that goal, an alternatives analysis is required to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment.

Response

A comparison of project alternatives (No-Build Alternative, Substantially Different Alternative, and Preferred Alternative) is included in **Section 2.3** of **Chapter 2, Alternatives Analysis.**

Comment C.9

The alternatives analysis should identify the project purpose and criteria for selecting the Preferred Alternative.

Response

Evaluation of the considered alternatives against the MEPA Project's purpose and criteria for selecting the Preferred Alternative, are included in **Section 2.4** of **Chapter 2, Alternatives Analysis.**

Comment C.10

The DEIR should include a supplemental alternative analysis that reviews alternatives that are significantly different than the Preferred Alternative in size and/or use, and degree of environmental impact. A conceptual-level plan of each alternative should be provided.

Response

A description of the Substantially Different Alternative evaluated as a part of the alternatives analysis, is included in **Section 2.2** of **Chapter 2, Alternatives Analysis.** Based on clarification with the MEPA Office, a conceptual-level plan for each alternative was deemed not necessary.

Comment C.11

The alternatives analysis should clearly describe and, to the extent possible, quantify the environmental impacts associated with each alternative, and identify potential measures to minimize and mitigate environmental impacts and impacts to EJ populations in the DGA.

Response

Table 2-2 of **Chapter 2, Alternatives Analysis**, provides an evaluation of the potential environmental impacts of the No-Build Alternative, Substantially Different Alternative, and Preferred Alternatives. A description of potential measures to minimize and mitigate environmental impacts and impacts to EJ populations in the DGA is included in **Section 3.1.4** of **Chapter 3, Environmental Justice and Public Health.**

Comment C.12

The DEIR should provide more specific information about how each alternative is consistent with zoning.

Response

A discussion on how each alternative is consistent with the zoning, is included in **Section 2.3** of **Chapter 2, Alternatives Analysis.**

Comment C.13

Given the historical significance of the Residence Campus, the DEIR should evaluate an alternative in which one or more of the existing buildings are reused.

Response

The Substantially Different Alternative presented in Section 2-2 includes the reuse of the eight dormitory buildings for residential use. In addition, the project team developed and submitted an alternatives analysis to the Massachusetts Historical Commission (MHC) exploring plans that will avoid, minimize, or mitigate the adverse effect on the Simmons College Residence Campus (BOS.AEM), per MHC comment letter. Alternatives under evaluation include keeping all or a majority of Simmons College Residence Campus buildings, or retaining the core 1905-1906 Georgian Revival buildings designed by Guy Lowell and mentioned specifically in the MHC comment letter (North Hall, BOS.7580; South Hall, BOS.7358; Refectory, BOS.7581). Evaluation factors include financial feasibility, site plan implications, construction phasing, and the marketability of the MEPA Project. On March 12, 2026, the Proponent responded with the requested alternatives analysis to the MHC and requested consulting parties, specifically: BLC, MWRA, BPA and ENC. A copy of the MHC review correspondence is provided in **Appendix F.** Refer to **Chapter 7, Cultural Resources and Open Space**, for additional information.

Comment C.14

The DEIR should review the public engagement conducted by the Proponent between the filing of the ENF and DEIR.

Response

The Proponent has maintained a strong track record of community engagement, which will continue across the public review and planning phases of the MEPA Project. In summary, the public outreach measures implemented since the ENF fling are included in **Section 3.1.1** of **Chapter 3, Environmental Justice and Public Health.**

Comment C.15

It should provide a summary of any public meetings or informational events held by the Proponent, including questions and comments posed by the public and responses provided by the Proponent.

Response

A summary of public meetings held by the Proponent is included in **Section 3.1.1** of **Chapter 3, Environmental Justice and Public Health**. Refer to the updated Public Engagement Plan (PEP) included in **Appendix B** for a description of questions and comments posed by the public and responses provided by the Proponent.

Comment C.16

The DEIR should discuss whether and how the public involvement activities in the PEP are consistent with best practices listed in the MEPA EJ Public Involvement Protocol, including a commitment to on-going engagement such as through a mechanism for response to comments received during public meetings.

Response

The Proponent has developed the PEP based on public engagement principles encompassing Education and Transparency, Inclusivity, Accessibility, Cultural Sensitivity, and Sustained Engagement. These public engagement principles are consistent with and directly reflect the best practices set forth in the MEPA Public Involvement Protocol as described in **Section 3.1.2** of **Chapter 3, Environmental Justice and Public Health.**

Comment C.17

The DEIR should include a revised PEP which identifies specific project milestones at which the Proponent will seek public feedback and includes other revisions in response to public input.

Response

Refer to **Table B.1-1 of Appendix B** for a list of specific MEPA Project milestones and associated measures to solicit feedback from the public.

Comment C.18

The ENF did not include a review of vulnerable EJ health criteria for any other census tract within the DGA, as required by the MEPA Interim Protocol for Analysis of EJ Impacts; this analysis should be provided in the DEIR.

Response

The DPH EJ Tool was used to evaluate vulnerable EJ health criteria for census tracts within the DGA. This analysis is presented in **Section 3.1.3** of **Chapter 3, Environmental Justice and Public Health**.

Comment C.19

The DPH EJ Tool also provides data on other sources of air pollution, including energy and transportation infrastructure; however, this data was not reviewed in the ENF. Given the project's high

trip generation, the DEIR should include a list of these additional pollution sources in the DGA and discuss the addition of project-generated emissions to existing sources.

Response

Refer to **Section 3.1.3.1** of **Chapter 3, Environmental Justice and Public Health,** for a comprehensive list of potential sources of air pollution, including energy and transportation infrastructure.

Comment C.20

The DEIR should identify the individual census block groups of any EJ Populations that exceed the 80th percentile of an environmental indicator within a one-mile radius of the site

Response

Refer to **Section 3.1.3.2** of **Chapter 3, Environmental Justice and Public Health,** for a discussion on individual census block groups that exceed the 80th percentile of an environmental indicator within a one-mile radius of the MEPA Project Site. **Appendix B** includes EJ Screen reports generated for each census block group within the DGA.

Comment C.21

Due to elevated air indicators in the vicinity of the project site, along with childhood asthma rates identified as a vulnerable health condition by the DPH EJ tool, the DEIR shall take additional steps to survey localized respiratory health conditions within the project DGA. Specifically, the Proponent should utilize MassDEP CIA methods to analyze asthma prevalence at a finer scale (by census block group) via asthma prevalence for kindergarten through 8th grade (K-8) schools. These prevalences should be provided for all schools servicing EJ populations where air quality indicators and air related indicators are elevated above the 80th percentile. Specifically, the Proponent should utilize the pediatric asthma analysis framework finalized in MassDEP Cumulative Impact Analysis (CIA) air permitting regulations

Response

The Proponent reviewed pediatric asthma rates following the methodology established under MassDEP's Cumulative Impact Analysis framework for establishing existing community conditions. The findings of this assessment are documented in **Section 3.1.3.3** of **Chapter 3, Environmental Justice and Public Health.**

Comment C.22

Further analysis of project impacts and mitigation should be provided in the DEIR.

Response

Further analysis of MEPA Project impacts and mitigation are included in **Section 3.1.4** of **Chapter 3, Environmental Justice and Public Health.**

Comment C.23

To assess the project's impacts associated with its high trip generation, the DEIR should present an air quality assessment consistent with the MassDEP Guidelines for Performing Mesoscale Analysis of Indirect Sources (1991), as detailed below

Response

The Proponent has provided an air quality assessment in accordance with the MassDEP Guidelines in **Section 9.3** of **Chapter 9, Greenhouse Gas Analysis and Air Quality**.

Comment C.24

For any routes of travel located adjacent to EJ populations, the DEIR indicates whether those intersections will be impacted by the project as shown in the TIA, and, if so, what mitigation is being proposed to address those impacts.

Response

The Proponent has analyzed the intersections in the TIA adjacent to EJ census tracts in **Section 3.1.4** of **Chapter 3, Environmental Justice and Public Health**. Mitigation at impacted intersections is also addressed in this section.

Comment C.25

The DEIR should also calculate the increase in air emissions (by percentage or volumetric increase) at any impacted intersections adjacent to EJ populations based on the methodology used for the mesoscale analysis described below, and discuss whether the increase in emissions from the project would have material impacts on the adjacent EJ population.

Response

The Proponent has estimated that the volume increase at the one impacted intersection is estimated to be 3 percent in the morning peak hour. Generally, volume increases of less than 5 percent are not considered an impact from an air quality perspective. Refer to **Section 3.1.4** of **Chapter 3, Environmental Justice and Public Health,** for additional details.

Comment C.26

If the level of existing burden in the community is high (as indicated by the number or intensity of DPH EJ Tool or EPA EJ Screen indicators), the project should consider ways to avoid impacts altogether by reducing emissions below No Build conditions, or if impacts cannot be avoided, to make other contributions to reduce the public health burden of the EJ population.

Response

The MEPA Project is committed to the proposed mitigation measures described in **Section 9.3.5** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.** Build emissions are expected to be less than

existing emissions, meaning the existing burden will be reduced irrespective of the MEPA Project's construction.

Comment C.27

At minimum, the DEIR should confirm that any impacted intersections within the traffic study area (where Level of Service (LOS) was shown to degrade from No Build to Build conditions) and adjacent to EJ populations will be adequately mitigated.

Response

The Proponent has analyzed the intersections in the TIA adjacent to EJ census tracts **in Section 3.1.4** of **Chapter 3, Environmental Justice and Public Health.** Mitigation at impacted intersections is also addressed in this section.

Comment C.28

Mitigation should also be considered if air pollutants are documented to increase from Existing to future Build conditions for the study area, or if total project-generated emissions will exceed 1 ton per year (tpy) for any pollutant, which is the lowest level at which MassDEP air permitting for stationary sources is required. Potential mitigation could include increased commitments to EV charging infrastructure, investments into public infrastructure and transportation, expanded TDM program, air monitoring during remediation/construction activities, and contributions to public health services that directly benefit EJ populations.

Response

The MEPA Project is not expected to be a substantial source of mobile air pollutant emissions. MEPA Project emissions of air pollutants will be less than a one-ton increase from the No-Build Condition emissions. Additionally, build emissions will be less than existing emissions, meaning with the construction of the MEPA Project, the air quality conditions in the study area will be improved in comparison to current conditions. Nonetheless, the Proponent is committed to providing mitigation to reduce mobile source emissions as described in **Section 9.3.5** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.**

Comment C.29

The DEIR should review mitigation measures for minimizing heat island effect.

Response

A detailed description of mitigation measures is included in **Section 8.2.2** of **Chapter 8, Climate Change Adaptation and Resiliency.**

Comment C.30

The DEIR should evaluate the potential for stormwater flooding and heat effects in the surrounding neighborhoods.

Response

The MEPA Project will provide an infiltration system with a minimum volume equal to 1.25-inches of rainfall over the property per BWSC requirements and be in general conformance with MassDEP Stormwater Standards. Stormwater runoff will be collected and treated, as necessary, on-site, and will be routed to infiltration systems to reduce the impact on the surrounding drainage system. The MEPA Project will reduce peak flows up to the current 100-yr storm event as well as the RMAT projected 2070 50-year storm event. See **Chapter 5, Stormwater**, for more information regarding stormwater management. A detailed description of mitigation measures to reduce heat island effect is included in **Section 8.2.2** of **Chapter 8, Climate Change Adaptation and Resiliency.**

Comment C.31

Analysis of the stormwater management system should specifically assess whether flooding risks may be exacerbated for nearby EJ populations, including under future climate conditions.

Response

The MEPA Project will reduce peak flows up to the current 100-yr storm event as well as the RMAT projected 2070 50-year storm event. See **Chapter 5, Stormwater**, for further details on the proposed stormwater management system and proposed low impact design (LID) and green infrastructure strategies that will benefit the surrounding EJ communities.

Comment C.32

The DEIR should contain an GHG emissions analysis consistent with the GHG Emissions section of the Scope.

Response

The Proponent has incorporated a GHG analysis consistent with the scope in **Chapter 9, Greenhouse Gas Analysis and Air Quality.**

Comment C.33

The DEIR should analyze any other relevant short-term environmental or public health impacts of the project, including construction period activities.

Response

Public health impacts are described in **Section 3.2.1** of **Chapter 3, Environmental Justice and Public Health.** Specific discussion on temporary construction-related impacts is included in **Section 3.1.4.4** of **Chapter 3, Environmental Justice and Public Health.**

Comment C.34

The DEIR should provide further details of the project benefits, highlighting key improvements to the site such as creation of public amenities (such as landscaped parks and open spaces), construction of

new housing stock, funding for the Emerald Necklace, and other benefits. The DEIR should describe how the proposed public benefits will offset impacts to EJ populations, specifically, with respect to air quality impacts from new traffic and urban heat effects from increased impervious cover.

Response

Further details of the MEPA Project benefits to EJ populations are included in **Section 3.1.5** of **Chapter 3, Environmental Justice and Public Health.** In addition, a list of MEPA Project benefits is included in **Section 1.5 of Chapter 1, Project Description.**

Comment C.35

The DEIR should include a separate section on "Public Health," and discuss any known or reasonably foreseeable public health consequences that may result from the environmental impacts of the project. Focus should be given to any impacts that may materially exacerbate "vulnerable health EJ criteria," in accordance with the MEPA Interim Protocol for Analysis of EJ Impacts.

Response

A separate section on public health is included as **Section 3.2** of **Chapter 3, Environmental Justice and Public Health.**

Comment C.36

Publicly available data, including data from the DPH EJ Tool and EJ Screen Tool, should be surveyed to assess the public health conditions in the immediate vicinity of the project site, in accordance with 301 CMR 11.07(6)(g)10, and in the immediate vicinity of anticipated truck routes.

Response

As detailed in **Section 3.2.1** of **Chapter 3, Environmental Justice and Public Health,** anticipated truck routes are not expected to cause adverse impacts on health conditions in their immediate vicinity.

Comment C.37

To the extent any required Permits for the project contain performance standards intended to protect public health, the DEIR should contain specific discussion of such standards and how the project intends to meet or exceed them.

Response

Permit Performance Standards intended to protect public health are discussed in **Section 3.2.2** of **Chapter 3, Environmental Justice and Public Health.**

Comment C.38

As a Sewer Use Discharge Permit may be required from MWRA, the DEIR should discuss the permit standards that will need to be followed to ensure that any wastewater discharges will meet public health standards.

Response

A MWRA Sewer Use Discharge Permit may be required for the MEPA Project to the extent it may be required for specific waste discharges by future tenants/users not yet identified. An application will be submitted to the MWRA prior to construction. Details on permit standards are included in **Section 3.2.2** of **Chapter 3, Environmental Justice and Public Health.**

Comment C.39

The ENF did not include estimates of the project's peak hour trip generation, or explain how the adjusted trip generation estimate was calculated; this information should be provided in the DEIR as detailed below.

Response

Refer to **Section 4.5.1** of **Chapter 4, Transportation**, and **Appendix C** for peak hour trip generation estimates and calculations.

Comment C.40

The DEIR should include a traffic study prepared consistent with the EEA/MassDOT Transportation Impact Assessment (TIA) Guidelines issued in March 2014, this Scope, and DCR's comment letter, which is incorporated herein by reference. The TIA should document how the trip generation estimate provided in the ENF was calculated, including mode share assumptions and any adjustments for internal capture or pass-by trips.

Response

The transportation study included in **Chapter 4, Transportation** was prepared consistent with the 2014 TIA Guidelines, the scope referenced, and DCR's comment letter. Refer to **Section 4.2** of **Chapter 4, Transportation**, for a discussion of study methodology and the selected study area. Refer to **Section 4.5.1 of Chapter 4, Transportation**, and **Appendix C** for peak hour trip generation estimates and calculations, including assumptions for internal capture.

Comment C.41

The Proponent should consult with DCR prior to completing the analysis to ensure that it will be designed to assess impacts on DCR roadways.

Response

During development of the DEIR, the Proponent coordinated with DCR, through the sharing of the proposed MEPA Project study area, analysis methodology, trip generation, site plan, etc. This is referenced in **Section 4.2** of **Chapter 4, Transportation**. All signalized intersections under DCR jurisdiction along the Riverway and within the Sears Rotary are included in the transportation study area described in **Section 4.2.1**.

Comment C.42

The DEIR should identify the proposed study area for the TIA. The study area should include intersections and roadways identified in consultation with DCR and, consistent with TIA Guidelines, the TIA should analyze intersections and roadways where site traffic exceeds 100 vehicle trips per hour or 5% of existing volume.

Response

Refer to **Section 4.2** and **Section 4.2.1** of **Chapter 4, Transportation** for a discussion of methodology and a description of the transportation study area. The study area intersections were selected to include locations meeting MassDOT thresholds for intersections and roadways where site traffic exceeds 100 vehicle trips per hour or 5% of existing traffic volume, as well as intersections under DCR jurisdiction along the Riverway and within the Sears Rotary. Refer to **Figures 4.19** and **4.20** for MEPA Project-generated trips within the study area.

Comment C.43

The TIA should include a multimodal assessment of the transportation impacts of the Project.

Response

The transportation study included in **Chapter 4, Transportation** includes a multimodal assessment of the transportation impacts of the MEPA Project, including discussion of traffic as well as bicycling, walking, and public transportation.

Comment C.44

Due to the project's high trip generation and the site's location near a large number of EJ populations, the Proponent should ensure that study area includes roadways and other transportation facilities that reflect conditions at key intersections, public transportation stations, and major pedestrian and bicycle facilities adjacent to EJ populations.

Response

Refer to **Section 4.2** of **Chapter 4, Transportation** for a discussion of methodology and transportation study area, which includes transportation facilities at key locations adjacent to EJ populations. Refer to **Chapter 3, Environmental Justice and Public Health**, for a discussion of local EJ populations.

Comment C.45

Within the final study area, project trips should be assigned to the intersections and roadways based on the anticipated directional distribution of employees, residents, and visitors to the site, considering populations of nearby towns and regional travel to and from the site.

Response

Consistent with the City of Boston's PDA transportation analysis, MEPA Project-generated trips were assigned to study area intersections based on the anticipated directional distribution of employees, residents, and visitors to the MEPA Project Site, reflected in the U.S Census Bureau's Journey to Work data (2012-2016) for the Census Tract representing the MEPA Project Site. Refer to **Section 4.5.1.5** of **Chapter 4, Transportation** for a discussion of trip distribution.

Comment C.46

The TIA should include a network map and shows the percentages of traffic assigned to each roadway link and each intersection for the anticipated trip generation. It should provide capacity analyses for the existing conditions, future No-Build conditions, and future Build conditions within the study area.

Response

The transportation study in **Chapter 4, Transportation** includes a traffic capacity analysis for Existing, future No-Build, and future Build conditions using Synchro analysis software, as described in **Section 4.8**. Refer to **Figures 4.19** and **4.20** for volume maps of MEPA Project-generated trips within the study area.

Comment C.47

The No-Build and Build conditions should include trips generated by other nearby planned and/or approved projects. In addition, an annual growth factor should be superimposed on existing traffic volumes prior to the addition of the volumes associated with background project-specific growth. Future scenarios should also incorporate planned transportation projects, including roadway improvement projects, and transit service changes by the MBTA.

Response

Refer to **Section 4.4** of **Chapter 4, Transportation** for a discussion of nearby planned and/or approved projects, as well as planned area-wide transportation initiatives such as the MBTA's Bus Network Redesign and the Fenway-Kenmore Transportation Action Plan, which were incorporated into the analysis. Refer to **Figures 4.17, 4.18, 4.21,** and **4.22** for 2032 No-Build Conditions and 2032 Build Conditions vehicular volumes.

Comment C.48

The Proponent should coordinate with the MBTA and the City regarding the appropriate data needed for analysis and about ongoing and planned transportation improvements in the vicinity of the project site.

Response

The Proponent has held several coordination meetings with both the City and the MBTA to confirm assumptions and request appropriate data needed for the transportation analysis. Refer to **Section 4.2 and Section 4.4.1.2** of **Chapter 4, Transportation** for a discussion of these coordination efforts and the planned transportation improvements that were incorporated into the future conditions. As stated in this section, as the FTAP is still under development, no changes or supplemental analyses reflecting the outcomes of this study were incorporated into the future conditions analysis.

Comment C.49

The future Build conditions should include an analysis of operations both with and without any improvements suggested to mitigate project impacts.

Response

Refer to **Section 4.8** of **Chapter 4, Transportation** for a discussion of the traffic capacity analysis. The transportation mitigation identified for the MEPA project, including signal timing adjustments and the construction/signalization of the new Mid-Block Street, are incorporated in the 2032 Build Condition. A separate Build without Mitigation condition was not included in this analysis, because the transportation improvements being implemented along Brookline Avenue, Short Street, Pilgrim Road, and the Mid-Block Street are required to support the MEPA Project.

Comment C.50

The study should propose a mitigation package intended to reduce vehicular travel while supporting increased use of carpooling, walking, bicycling, and transit by residents, employees, and visitors.

Response

Refer to **Section 4.6** of **Chapter 4, Transportation** for a discussion of proposed area improvements in and around the MEPA Project Site, as well as **Section 4.9** for a discussion of TDM strategies. The MEPA Project will include a robust program of TDM strategies to take full advantage of its multiple mobility options and its synergy with the surrounding neighborhood to reduce vehicular travel demand.

Comment C.51

Capacity analyses should be conducted for the weekday morning, evening peak hours, and the Saturday peak hour for both existing and future conditions.

Response

Refer to **Section 4.2** of **Chapter 4, Transportation** for a discussion of peak periods used for the analysis.

Comment C.52

In addition, capacity analyses for Build with Mitigation conditions should be provided at impacted locations on DCR roadways.

Response

Refer to **Section 4.2.1** of **Chapter 4, Transportation** for a discussion of the transportation study area, which includes the Riverway and Sears Rotary intersections under DCR jurisdiction. **Section 4.8** includes discussion of the traffic capacity analysis.

Comment C.53

The TIA should provide illustrations depicting the peak hour 50th (average) and 95th percentile queue lengths for each lane group/turning movement at each study area intersection.

Response

The 50th and 95th percentile queue lengths are depicted and noted in **Table 4-12** and **4-13** of **Chapter 4, Transportation**.

Comment C.54

The DEIR should identify appropriate mitigation measures at any locations where project-generated traffic will impact roadway operations. The Proponent should consult with DCR regarding mitigation at DCR roadways and intersections. The TIA should describe proposed mitigation measures at project site intersections, including signalization of the Mid-Block Street and Brookline Avenue intersection, and other intersections adjacent to the project site.

Response

Refer to **Section 4.6** of **Chapter 4, Transportation** for a discussion of proposed mitigation measures in and around the MEPA Project Site. As described in the analysis, the MEPA Project will provide improvements along Brookline Avenue, Short Street, and Pilgrim Road, including adding a new signalized intersection between Brookline Avenue and the proposed Mid-Block Street, improving the existing signalized intersection between Brookline Avenue and BIDMC Main Entrance/Short Street, and improving the existing unsignalized intersection between Brookline Avenue and Pilgrim Road. See **Figures 4.23 through 4.29** for concept plans depicting the proposed intersection conditions with mitigation in place.

During development of the DEIR, the Proponent shared information to coordinate with both DCR and the MBTA. The MEPA Project does not propose any changes at intersections under DCR jurisdiction. The traffic capacity analysis presented in **Section 4.8** does not indicate that mitigation is needed along the Riverway or within the Sears Rotary, as there is minimal change in traffic operations between the 2032 No-Build and 2032 Build Conditions.

Comment C.55

The DEIR should describe the transit ridership that will be generated by the project, and provide an analysis of the impacts of project-generated ridership on the MBTA's system. The Proponent should consult with the MBTA regarding the appropriate data and methodology to use for this analysis.

Response

Refer to **Section 4.5.1** of **Chapter 4, Transportation** for a summary of trip generation, including transit trips. Refer to **Section 4.2** for a discussion of methodology and **4.4.1.2** for a discussion of future public transit conditions in the LMA. Based on multiple coordination meetings that were held with MBTA, the analysis includes a summary of transit ridership expected to be generated by the MEPA Project and a discussion of future service in the LMA under the Bus Network Redesign, which is currently in progress.

Comment C.56

The DEIR should review potential mitigation measures, including bus stop improvements, funding of bus priority infrastructure on Brookline Avenue, and pedestrian accessibility improvements to facilitate access between the project site and Longwood Station.

Response

Refer to **Section 4.6** of **Chapter 4, Transportation** for a discussion of proposed improvements along Brookline Avenue, including the construction of floating bus stops to replace up to two existing MBTA bus and Longwood Collective Shuttle stops. This section also describes proposed pedestrian accessibility improvements in and around the MEPA Project Site, including along Brookline Avenue, Pilgrim Road, and Short Street.

Comment C.57

The DEIR should include a summary of the recommendations of the Fenway-Kenmore Transportation Action Plan, identify potential measures that may be funded by the Proponent, and review the consistency of the potential mitigation measures with the mitigation measures recommended by the MBTA.

Response

Refer to **Section 4.4.1.2** of **Chapter 4, Transportation** for a discussion of the Fenway-Kenmore Transportation Action Plan (FTAP). As the FTAP is still under development, no changes were incorporated into the future conditions of the transportation analysis, per ongoing coordination with the City of Boston. Coordination meetings were held between the Proponent and the City to confirm this approach.

Comment C.58

The DEIR should specify whether mitigation requested by MBTA will be funded through the $4 million contribution to the City or directly by the Proponent.

Response

As described in **Section 4.1** of **Chapter 4, Transportation**, the design and construction of the new bus stop(s) will be funded through the $4 million dollars Transportation Infrastructure Contribution committed in the approved PDA Development Plan.

Comment C.59

The DEIR should provide a thorough inventory of all on-site and off-site existing, planned, and proposed pedestrian and bicycle services, facilities, and routes for accessing the site. It should provide an evaluation of the pedestrian network, including pavement conditions, sidewalk widths, crosswalks, compliance with current accessibility standards, and existing pedestrian volumes and movements.

Response

Refer to **Section 4.3** of **Chapter 4, Transportation**, for a discussion of existing area transportation conditions, including a discussion of the pedestrian and bicycle network. **Figures 4.13** and **4.14** depict existing bicycle network conditions. Refer to **Section 4.4.1** for a discussion of planned area improvements and initiatives, **Section 4.6** for proposed MEPA Project improvements, and **Section 4.7.4** for a discussion of MEPA Project bicycle parking facilities.

Comment C.60

The TIA should include a detailed inventory of the bicycle network, including bikeway types, bikeway widths, and bicycle numbers and speeds. The DEIR should identify the likely travel routes for bicyclists within the study area, assess the degree to which these routes can safely support bicycle travel, and reevaluate these routes based on the origin-destination of potential residents, employees, and visitors to the site.

Response

Refer to **Section 4.3.4** of **Chapter 4, Transportation**, for a discussion of existing bicycle network conditions, depicted in **Figures 4.13** and **4.14.** Refer to **Figures 4.10** and **4.11** for existing peak hour bicycle network volumes within the study area.

Comment C.61

Improved pedestrian and bicycle access to Longwood Station should be evaluated as a way of facilitating access to public transportation.

Response

The MEPA Project will provide a significantly upgraded streetscape along the MEPA Project's Brookline Avenue and Pilgrim Road frontage, including new, wider sidewalks, lighting, visitor bicycle parking, landscaping, and other amenities. The MEPA Project is also proposing a shared-use corridor along Short Street on the southwest side of the MEPA Project Site consisting of a bike path and adjacent landscaping to complement the existing pedestrian pathway on the Winsor School property, which will provide an improved connection between Brookline Avenue and Pilgrim Road with

dedicated space for pedestrians and bicyclists, as shown in **Figure 4.23** and **Figure 4.26**. This will significantly improve the connection from not only the Site, but for the larger LMA neighborhood north of Longwood Ave.

Comment C.62

The Proponent should work with DCR to ensure that a seamless connection between the existing and planned pedestrian facilities that span across multiple jurisdictions is available to accommodate demand generated by the project.

Response

Refer to the response to **Comment C.61** above.

Comment C.63

The DEIR should include a discussion of the proposed parking supply in relation to the City's parking ratio for the site, ITE parking ratios, and the parking supply at other locations within walking distance of the project site.

Response

The overall parking ratio for the MEPA Project is approximately 0.32 spaces per 1,000 SF of development, which was developed in close coordination with BPDA and BTD and aligned with the City's guidelines and goals for reducing auto dependency. The overall parking ratio is well below the BTD maximum parking ratios and the ITE average parking ratios for the respective MEPA Project land uses. Refer to **Section 4.7.1** of **Chapter 4, Transportation** for a more detailed comparison of proposed MEPA Project parking supply against City of Boston Maximum parking ratios and Institute of Transportation Engineers (ITE) parking demand data. See **Figure 4.12** for a depiction of area-wide public parking.

Comment C.64

The TIA should describe proposed parking pricing and evaluate the potential for shared parking.

Response

Refer to **Section 4.9** of **Chapter 4, Transportation** for a discussion of TDM strategies that will be implemented by the MEPA Project to encourage non-auto modes of transportation. Several of these strategies include parking pricing and shared parking, including the provision of unbundled, market-rate parking, carpool matching services, and a minimum of one car share vehicle for building tenants.

Comment C.65

The DEIR should identify any on-street parking or drop-off areas to be constructed along Brookline Avenue and Pilgrim Road.

Response

All parking spaces proposed as part of the MEPA Project are located in the below grade garage. Refer to **Figure 4.2** for the proposed site plan - vehicular focus for drop-off areas along Mid-Block Street, Brookline Avenue, and Pilgrim Road.

Comment C.66

The TIA should evaluate additional TDM measures.

Response

Refer to **Section 4.9** of **Chapter 4, Transportation** for a summary of TDM strategies that will be implemented by the MEPA Project to encourage non-auto modes of transportation, in accordance with City of Boston guidelines.

Comment C.67

The DEIR should include detailed plans at a readable scale of the proposed drainage system and provide calculations of water quality volume, infiltration volume, total suspended solids removal, and peak rates of runoff for predevelopment and post- development site.

Response

Refer to **Chapter 5, Stormwater** for a summary of compliance with BWSC and DEP stormwater management standards. **Figures 5.1** and **5.2** provide pre-development and post-development drainage area maps.

Comment C.68

It should discuss whether the design of the stormwater management system may cause or contribute to flooding risks for adjacent areas, including to EJ populations.

Response

Refer to the responses to **Comment C.30 and C.31**. No stormwater-related impacts to EJ populations are anticipated as a result of the MEPA Project.

Comment C.69

If the site currently experiences flooding, the DEIR should discuss whether the project has considered all feasible measures to improve such conditions, even in excess of SMS standards.

Response

The MEPA Project Site does not have any known history of flooding. Refer to **Chapter 5, Stormwater** for a summary of compliance with BWSC and DEP stormwater management standards.

Comment C.70

The DEIR should include an evaluation of the use of low impact design (LID) strategies and green infrastructure wherever practicable.

Response

The MEPA Project is committed to providing LID and green infrastructure where feasible. The use of permeable pavers and landscaping are proposed within the Main Heart and along the City street frontages and bioswales are proposed along the new bike lane within the site to promote infiltration. Refer to **Section 5.2.3** of **Chapter 5, Stormwater**, for additional details on the proposed LID measures.

Comment C.71

It should provide analysis of the capacity of the stormwater management system under future climate conditions, as described below.

Response

Refer to the response to **Comment C.31**.

Comment C.72

The DEIR should describe and provide plans of proposed water and sewer service to the site.

Response

Referto **Chapter 6, Water and Wastewater**, for a summary of the proposed water and wastewater services. **Figure 6.1** provides a to-scale map of the proposed water and wastewater utilities.

Comment C.73

It should review the capacity of the BWSC system to provide water and sewer service, and describe any on-site or off-site improvements that the Proponent will be required to construct.

Response

Based on preliminary calculations and discussions with BWSC, it is anticipated that there is sufficient water capacity in the adjacent water mains to serve the MEPA Project. Refer to **Sections 6.1** and **6.2** of **Chapter 6, Water and Wastewater**, for a summary of water use and wastewater generation.

Comment C.74

The DEIR should review additional water conservation measures that can be incorporated into the project design, including reuse of rainwater and gray water and measures to eliminate or minimize water needed for irrigation.

Response

Proposed water conservation measures are detailed in **Section 6.1.2** of **Chapter 6, Water and Wastewater.**

Comment C.75

The DEIR should confirm the volume of wastewater that will be mitigated by the project.

Response

Proposed wastewater mitigation measures are detailed in **Section 6.2.2** of **Chapter 6, Water and Wastewater.**

Comment C.76

As requested by the MWRA, the DEIR should identify specific projects that would offset the project's wastewater generation, and the Proponent should commit to implement the projects before wastewater is discharged from the project.

Response

Per additional correspondence with BWSC after receipt of the EEA Secretary's Certificate of the ENF, the inflow and infiltration ("I/I") mitigation fee has been accepted by BWSC in lieu of construction of off-site projects to offset wastewater flows. See **Section 6.2.2** of **Chapter 6, Water and Wastewater**, for more information.

Comment C.77

The DEIR should specifically identify potential increased CSO discharges affecting surface water quality in EJ populations and address mitigation of these impacts.

Response

No connections to CSOs are proposed and, therefore, the MEPA Project is not expected to have an impact on off-site adjacent EJ populations.

Comment C.78

According to the MWRA, if any on-site uses will discharge industrial process, manufacturing, power generating, or laboratory wastewater, a Sewer Use Discharge Permit will be required; the DEIR should address the potential need for this permit and review the relevant standards.

Response

Refer to the response to **Comment C.38**.

Comment C.79

The DEIR should include a commitment to use oil/gas separators in the parking garage drainage systems.

Response

Approved Oil/water separators will be provided as part of the MEPA Project prior to discharge from covered parking and loading areas to the sanitary sewer system.

Comment C.80

The DEIR should review the historical resources at the project site, report on the Proponent's consultation with MHC, provide any additional analyses requested by MHC or prepared for the City (including studies of off-site shadow impacts), and describe proposed mitigation measures.

Response

On-Site Historical Resources are included in **Section 7.1** of **Chapter 7, Cultural Resources and Open Space.** Details of consultation with MHC and alternatives analysis are discussed in **Section 7.2** of **Chapter 7, Cultural Resources and Open Space**.

If the analysis demonstrates that adverse effects to the campus cannot be avoided or minimized, the Proponent will work with the MHC, BLC, ENC, BPA, and other identified consulting parties to develop mitigation measures appropriate to the adverse effect, to be documented in a Memorandum of Agreement (MOA) in compliance with M.G.L. Chapter 9, sections 26-27C (950CMR 71.00).

Please see **Section 7.2.1, Cultural Resources and Open Space**, for a discussion of off-site shadow impacts.

Comment C.81

The DEIR should describe and provide plans of proposed on-site open space, and review potential connections to off-site public parkland, including nearby components of the Emerald Necklace such as the Riverway and Back Bay Fens.

Response

Refer to **Section 7.3** of **Chapter 7, Cultural Resources and Open Space** for a description of the proposed on-site open spaces and connection to public parkland, and **Figure 1.5** for the proposed conditions site plan for the plan of proposed on-site open space.

Comment C.82

The DEIR should address the design recommendations for each climate parameter provided by the MA Resilience Design Tool. If the project is not anticipated to meet the design recommendations provided by the MA Resilience Design Tool, the DEIR should discuss whether the project has considered adaptive management strategies.

Response

Chapter 8, Climate Change Adaptation and Resiliency, provides details on how the MEPA Project is addressing the design recommendations generated by the MA Resilience Design Tool.

Comment C.83

The DEIR should address specific impacts to EJ populations, consistent with MEPA EJ protocols, as well as impacts on other vulnerable populations.

Response

The construction of the MEPA Project is not expected to negatively impact the neighboring community including local EJ populations. See **Chapter 8, Climate Change Adaptation and Resiliency** for more information.

Comment C.84

The DEIR should review the capacity and performance of the proposed stormwater management system to accommodate the 2070 50-year storm event (24-hour precipitation depth of 9.8 inches), as recommended by the Tool.

Response

Refer to the response to **Comment C.30**. The MEPA Project will reduce peak flows up to the current 100-yr storm event as well as the projected 2070 50-year storm event as recommended by the Tool. See **Chapter 5, Stormwater,** for more information.

Comment C.85

The DEIR should include a plan showing all proposed structures (including critical infrastructure) and building first floor elevations (NAVD 88) in relation to the 2070 200-year storm flood elevation (12.5 ft NAVD 88).

Response

Figure 8.1 of **Chapter 8, Climate Change Adaptation and Resiliency,** shows the requested flood elevations and proposed grades.

Comment C.86

The DEIR should describe all flood resiliency measures that will be incorporated into the design of the project.

Response

Proposed flood resiliency measures are described in **Chapter 8, Climate Change Adaptation and Resiliency.**

Comment C.87

It should also report any local requirements for building elevation, including whether the project is subject to elevation to the City of Boston's recommended design flood elevations (DFE) for sites subject to future sea level rise.

Response

Figure 8.1 of **Chapter 8, Climate Change Adaptation and Resiliency**, indicates the planned Finished Floor Elevations (FFE's) of each building on the first floor all of which provide multiple feet of freeboard above the current 100-year and BPDA SLR-DFE. In addition, critical equipment for each building such as transformers and switchgear will be located at or above the minimum DFE for each building. See **Chapter 8, Climate Change Adaptation and Resiliency** for more information.

Comment C.88

Given the proposal to increase impervious area on a site that is already predominantly impervious, the DEIR should include a robust discussion of measures the project will take to mitigate urban heat island effect through cooling and shading measures.

Response

Measures to reduce heat island effect are discussed in **Section 8.2.2** of **Chapter 8, Climate Change Adaptation and Resiliency.**

Comment C.89

To the extent site constraints prevent extensive measures such as tree planting, the DEIR should consider off-site mitigation to benefit surrounding EJ communities.

Response

Measures to reduce heat island effect are discussed in **Section 8.2.2** of **Chapter 8, Climate Change Adaptation and Resiliency**. The MEPA Project is committed to meeting or exceeding existing total caliper inches onsite.

Comment C.90

The DEIR should identify the number of EV charging stations and EV-ready parking spaces to be provided by the MEPA Project.

Response

The Proponent will provide mitigation to reduce the MEPA Project's mobile source emissions in the form of increased commitments to EV charging infrastructure. The Proponent is proposing that 25% of spaces be equipped with EV charging equipment and the remaining 75% of spaces be made EV-ready in accordance with the City of Boston Policy.

Comment C.91

The DEIR should review the building energy mitigation measures for each building use as detailed in the comment letter submitted by the Department of Energy Resources (DOER), which include:

- *The residential buildings should be designed in accordance with Passivehouse standards; provide space heating using electric ASHPs; provide service water heating using electric ASHPs or solar thermal plus electric resistance water heaters; and include electric cooking and drying appliances.*
- *Uses with space that is highly ventilated, such as laboratory/R&D, should be designed with a glazed wall system that covers no more than 50% of the above-grade vertical wall; heat recovery chillers to capture concurrent heating and cooling; a primary heating system using electric ASHPs sized to 25% of peak space heating load; service water heating using electric ASHPs; and reduced air infiltration per Option 8 of the C406 measures listed in the Massachusetts Energy Code.*
- *Other nonresidential uses without the need for highly ventilated space should be designed with a glazed wall system that covers no more than 50% of the above-grade vertical wall; electric ASHPs for space heating; service water heating using electric ASHPs or solar thermal plus electric resistance water heaters; electric cooking and drying appliances; and reduced air infiltration per Option 8 of the C406 measures listed in the Massachusetts Energy Code.*

Response

The Proponent held a pre-filing meeting with DOER and MEPA on October 2, 2025 and determined the scope of work for the DEIR filing. This analysis is presented in **Section 9.2** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.**

Comment C.92

According to DOER, if the DEIR includes commitments to implement the measures listed above, no further analyses are required. If the recommended design measures are not adopted, then the DEIR should include the additional evaluations detailed in DOER's comment letter and in accordance with the MEPA GHG Policy. The analysis should clearly demonstrate consistency with the key objective of MEPA review, which is to document the means by which Damage to the Environment can be avoided, minimized and mitigated to the maximum extent feasible.

Response

The Proponent held a pre-filing meeting with DOER and MEPA on October 2, 2025 and determined the scope of work for the DEIR filing. This analysis is presented in **Section 9.2** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.** The Proponent has incorporated many of the requested mitigation measures into the design and has performed feasibility studies on those measures that could not be incorporated.

Comment C.93

The DEIR should include an evaluation of potential GHG emissions associated with mobile source emissions from project-generated vehicle trips.

Response

The Proponent has provided a mobile source GHG assessment in **Section 9.3** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.**

Comment C.94

The DEIR should follow the guidance provided in the GHG Policy for Indirect Emissions from Transportation to determine mobile emissions, and should provide data on Existing Conditions, Build Conditions, and Build Conditions with Mitigation consistent with the air quality assessment required below.

Response

The Proponent has provided a mobile source GHG assessment in **Section 9.3** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.** The assessment was conducted for the requested conditions and in accordance with the GHG Policy.

Comment C.95

The DEIR should thoroughly explore means to reduce overall single occupancy vehicle trips and review measures to promote the use of low-emissions vehicles, including installing EV charging stations for both vehicles and trucks and providing designated parking spaces for these vehicles (a minimum of 25% of proposed spaces) with the balance of spaces being EV ready for future installation.

Response

The Proponent is committed to a comprehensive traffic demand management plan aimed at reducing single occupancy vehicle trips, and to EV installation at 25 percent installed/75 percent EV ready per the City of Boston's policy. Mobile source mitigation measures are reviewed in **Section 9.3.5** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.**

Comment C.96

The Build with Mitigation model should incorporate TDM measures, and any roadway improvements implemented by the project, and document the associated reductions in GHG emissions.

Response

The Proponent has provided a mobile source GHG assessment in **Section 9.3** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.** The Build with Mitigation scenario assessed the reductions associated with roadway improvements and TDM measures.

Comment C.97

The DEIR should explain how TDM measures will be monitored and adjusted over time and provide a methodology for quantifying emission reductions impacts rather than an assumed percentage reduction.

Response

The monitoring and adjusting of TDM measures over time are described in **Chapter 4, Transportation.** The Proponent is committed to a TDM monitoring plan after the construction of the MEPA Project. The assessment of emissions from TDM measures is presented in **Section 9.3.5** of **Chapter 9, Greenhouse Gas Analysis and Air Quality**, based on an established trip reduction impact model.

Comment C.98

The Proponent should conduct an indirect source review analysis in accordance with the 1991 MassDEP Guidelines for Performing Mesoscale Analysis of Indirect Sources. The analysis should model emissions under Existing, No Build and Build conditions using data from the traffic study. Data on CO, VOCs, NOx, NO_2, $PM_{2.5}$, PM_{10}, and DPM should be provided, in addition to greenhouse gas emissions as indicated in the Climate Change section above.

Response

The Proponent has provided an air quality assessment in accordance with the MassDEP Guidelines and for the requested analysis conditions in **Section 9.3** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.**

Comment C.99

The DEIR should provide a comparison of air pollutants from Existing (current) conditions to future No Build, future Build, and future Build with Mitigation conditions, and should quantify the effects of TDM measures to the extent feasible.

Response

The Proponent has documented the estimated change in air pollutants in the requested conditions and for TDM measures in **Section 9.3** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.**

Comment C.100

The DEIR should include data and analyses necessary to address the project's potential impacts on EJ populations, as detailed above.

Response

Refer to **Section 3.1.4 of Chapter 3, Environmental Justice and Public Health**, for data and analyses presented to address MEPA Project's potential impacts on EJ populations.

Comment C.101

The DEIR should explore all feasible means to reduce and mitigate air quality impacts, including through measures that go above and beyond traffic and roadway mitigation to address vehicular delays at intersections studied through the TIA.

Response

As detailed in Chapter **Chapter 9, Greenhouse Gas Analysis and Air Quality**, the MEPA Project is not expected to be a substantial source of mobile air pollutant emissions. MEPA Project emissions of air pollutants will be less than a one-ton increase from the No Build emissions. Future build emissions will be less than existing emissions, meaning with the construction of the MEPA Project, the air quality in the study area will be improved in comparison to current conditions. The Proponent is committed to providing mitigation to reduce mobile source emissions as described in **Section 9.3.5** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.**

Comment C.102

The DEIR should describe how construction activities will be managed in accordance with applicable MassDEP regulations regarding Air Pollution Control (310 CMR 7.01, 7.09-7.10), and Solid Waste Facilities (310 CMR 16.00 and 310 CMR 19.00, including the waste ban provision at 310 CMR 19.017).

Response

As described in Section 10.3.1 of **Chapter 10, Construction Period**, the MEPA Project will comply with air quality regulations at 310 CMR 7.01, 7.09-7.10. All C&D and solid waste materials that cannot be recycled or reused will be transported in covered trucks to approved and permitted solid waste management facilities in compliance with MassDEP Solid Waste Facility Regulations (310 CMR 16.00 and 310 CMR 19.00), including the Waste Ban provisions at 310 CMR 19.017, which prohibit the disposal of certain recyclable and reusable materials.

Comment C.103

The DEIR should describe all construction-period impacts and mitigation relative to noise, air quality, water quality, and traffic, including construction vehicle trips through residential areas.

Response

All construction-period impacts and mitigation relative to noise, air quality, water quality, and traffic, are described in **Chapter 10, Construction Period.**

Comment C.104

It should confirm that the project will require its construction contractors to use Ultra Low Sulfur Diesel fuel, and discuss the use of after-engine emissions controls, such as oxidation catalysts or diesel particulate filters.

Response

As described in **Section 10.3.1** of **Chapter 10, Construction Period,** ULSD fuel (15 parts per million) will be used for all off-road diesel equipment. The MEPA Project will also comply with the requirements of the Clean Construction Equipment Initiative aimed at reducing air emissions from diesel-powered construction equipment. Oxidation catalysts and catalyzed particulate filters will be

utilized on all construction vehicles and equipment to reduce air quality degradation caused by emissions from heavy-duty, diesel-powered construction equipment.

Comment C.105

The DEIR should provide more information regarding the project's generation, handling, recycling, and disposal of construction and demolition debris (C&D) and identify measures to reduce solid waste generated by the project.

Response

The CWMP will identify procedures and best management practices for the segregation, recycling, and reuse of construction and demolition materials, with the goal of minimizing the volume of waste disposed of in landfills. Refer to **Section 10.3.6** of **Chapter 10, Construction Period,** for more details.

Comment C.106

I encourage the Proponent to commit to C&D recycling activities as a sustainable measure for the project.

Response

Commitment to C&D recycling activities is described in **Section 10.3.6** of **Chapter 10, Construction Period.**

Comment C.107

The DEIR should review mitigation measures that will be implemented to minimize potential public health risks associated with the demolition, handling, and transport of any ACM or other hazardous materials.

Response

Prior to conducting any demolition activity, a Hazardous Buildings Materials Survey will be conducted to determine if ACMs are present at the MEPA Project Site. If required, ACMs will be handled and disposed of by licensed professionals in accordance with all applicable local, state, and federal requirements. Refer to **Section 10.3.6** of **Chapter 10, Construction Period,** for further details regarding handling of ACMs.

Comment C.108

Any contaminated material encountered during construction must be managed in accordance with the Massachusetts Contingency Plan (MCP; 310 CMR 40.00) and with prior notification to MassDEP.

Response

Should any contaminated soil, groundwater, or other material be encountered during construction, such materials will be managed in accordance with the requirements of the Massachusetts

Contingency Plan (MCP; 310 CMR 40.00). Prior notification to the MassDEP will be made, as required under the MCP, to ensure that the management, transport, and disposal of contaminated materials are performed in full regulatory compliance.

Comment C.109

The project will be required to develop a Stormwater Pollution Prevention Plan (SWPPP) in accordance with its NPDES CGP to manage stormwater during the construction period.

Response

Prior to the start of construction, a SWPPP will be developed and submitted via an electronic Notice of Intent to the EPA to obtain a NPDES CGP.

Comment C.110

The DEIR should describe stormwater management measures that will be implemented during construction

Response

Refer to **Section 10.3.4** of **Chapter 10, Construction Period**, for description of stormwater management measures that will be implemented during construction.

Comment C.111

It should describe potential construction period dewatering activities and associated permitting (i.e., NPDES) and identify mitigation measures

Response

Potential dewatering activities and associated permitting and mitigation measures are described in **Section 10.3.3** of **Chapter 10, Construction Period.**

Comment C.112

All construction-period mitigation measures should be listed in the Draft Section 61 Findings.

Response

Chapter 11, Mitigation and Draft Section 61 Findings, lists construction-period mitigation measures.

Comment C.113

The DEIR should include a separate chapter summarizing all proposed mitigation measures including construction-period measures. This chapter should also include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the environmental and related

public health impacts of the project, and should include a separate section outlining mitigation commitments relative to EJ populations.

Response

Refer to **Chapter 11, Mitigation and Draft Section 61 Findings,** for a separate chapter summarizing all proposed mitigation measures.

Comment C.114

The filing should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments should be provided in a tabular format organized by subject matter (traffic, water/wastewater, GHG, EJ, etc.) and identify the Agency Action or Permit associated with each category of impact.

Response

Refer to **Table 11-1** of **Chapter 11, Mitigation and Draft Section 61 Findings,** for the proposed mitigation measures including how the MEPA Project covers individual costs, if applicable, of each proposed measure, responsible parties and a schedule for implementation.

Comment C.115

Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project

Response

Draft Section 61 Findings are included in **Section 11.3** of **Chapter 11, Mitigation and Draft Section 61 Findings**

Comment C.116

The DEIR should include a commitment to provide a GHG self-certification to the MEPA Office upon construction of the building signed by an appropriate professional indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source GHG emission and transportation-related measures, have been incorporated into the project.

Response

The Proponent is committed to provide a self-certification and a draft Letter is provided in **Section 11.4** of **Chapter 11, Mitigation and Draft Section 61 Findings** and commits to achieving the GHG reductions presented in this document using the described or equivalent measures.

Comment C.117

If equivalent measures are adopted, the project is encouraged to commit to achieving the same level of GHG emissions (i.e., "carbon footprint") identified in the Preferred Alternative expressed as a volumetric measure (tpy) in addition to a percentage GHG reduction from Base Case. The commitment to provide this self-certification in the manner outlined above should be incorporated into the draft Section 61 Findings included in the DEIR.

Response

The Proponent is committed to provide a self-certification and a draft Letter is provided in **Section 11.4** of **Chapter 11, Mitigation and Draft Section 61 Findings** and commits to achieving the percentage reduction described in this document.

Comment C.118

The DEIR should contain a copy of this Certificate and a copy of each comment letter Received.

Response

Appendix G contains a copy of delineated Certificate and each comment letter received on the ENF.

Comment C.119

The DEIR should contain a direct response to the scope items in this Certificate. To ensure that the issues raised by commenters are addressed, the DEIR should also include direct responses to comments to the extent that they are within MEPA jurisdiction.

Response

This chapter, **Chapter 12, Response to Comments,** contains a direct response to the scope items in the Certificate.

Comment C.120

In accordance with 301 CMR 11.16, the Proponent should circulate the DEIR to each Person or Agency who commented on the EENF, each Agency from which the project will seek Permits, Land Transfers or Financial Assistance, and to any other Agency or Person identified in the Scope.

Response

The DEIR will be electronically distributed to all entities listed in **Appendix A**. Hard copies will be made available upon request.

Comment C.121

Pursuant to 301 CMR 11.16(5), the Proponent may circulate copies of the DEIR to commenters in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Proponent should

make available a reasonable number of hard copies to accommodate those without convenient access to a computer to be distributed upon request on a first come, first served basis.

Response

The DEIR will be electronically distributed to all entities listed in **Appendix A**. Hardcopies will be made available upon request.

Comment C.122

Copies of the DEIR should be made available for review in the Coolidge Corner and Brookline Village branches of the Brookline Public Library, and the Central Library (main branch), Parker Hill, and Roxbury Branches of the Boston Public Library.

Response

Hard copies will be made available at the listed libraries located in the vicinity of the MEPA Project Site.

Letter 1: Department of Conservation and Recreation

Comment 1.1

DCR notes that the Longwood Medical Area team is proposing improvements for MBTA Bus Facilities and bus circulation that will have traffic impacts in the Project area. The Sears Building project will also have traffic impacts in the Project area that must be considered in the EIR traffic impact assessments.

Response

The Proponent looks forward to continued collaboration with local and state agencies and the community as ongoing area planning initiatives are progressed, including the MBTA Bus Network Redesign and the FTAP. The transportation analysis does include traffic generated as part of the Landmark Center project in the Sears Building. Refer to **Section 4.4.1** of **Chapter 4, Transportation** for a discussion of planned projects and initiatives included in the future conditions analysis.

Comment 1.2

DCR respectfully requests that an assessment of additional trips generated by the Project for all intersections in the vicinity of the Project be conducted by the Proponent. Coordination with the City of Boston will be required for DCR's Park Drive intersection with Brookline Avenue/Boylston Street, because the City monitors and controls the intersection.

Response

Refer to **Section 4.5.1.5** and **Figures 4.19 through 4.22** of **Chapter 4, Transportation** for a summary of additional trips generated by the MEPA Project. The MEPA Project does not propose any changes at the Sears Rotary intersections, including Brookline Avenue at Boylston Stret/Park Drive. The project team looks forward to collaborating with the City of Boston, DCR, and other involved agencies as design progresses.

Comment 1.3

DCR requests the opportunity to coordinate with the Proponent regarding the scope of the EIR Traffic Impact Study, and traffic mitigation strategies.

Response

During development of the DEIR, the Proponent shared information to coordinate with DCR, including a description of the proposed MEPA Project study area, analysis methodology, trip generation, site plan, etc. This is referenced in **Section 4.2** of **Chapter 4, Transportation**. The project team looks forward to continued collaboration with DCR as design progresses.

Letter 2: Massachusetts Department of Transportation

Comment 2.1

The MBTA will need to coordinate with the proponent and City to plan an alternative location for stop 1778 during the construction period so as not to disrupt bus service in the area. To ensure the planned bus stop facility adheres to MBTA design standards, MBTA will require design review and sign-off prior to construction.

Response

The project team met with MBTA on October 10, 2025 and looks forward to continuing to coordinate on both temporary and final Brookline Avenue bus stop locations.

Comment 2.2

It is recommended that the project adhere to all MBTA Engineering Design Standards and Plans, specifically, MBTA Design Standards and Guidelines.

Response

The MEPA Project's bus stops will comply with *MBTA Design Standards and Guidelines.*

Comment 2.3

MBTA requests the support of the proponent to further the MBTA's Bus Priority Vision, which identifies Brookline Avenue as a priority corridor due to historic transit delay and planned service increases under the Bus Network Redesign service plan. Due to this planned service increase, MBTA requests the proponent's support to ensure high-quality bus priority infrastructure is constructed on Brookline Avenue to ensure current and future service increases are frequent and reliable as planned.

Response

The Proponent recognizes Brookline Avenue as an important corridor for bus service and looks forward to continued collaboration with the MBTA as design progresses.

Comment 2.4

Prior to any Boston Planning Department Board action on this project in the future, the MBTA kindly requests that the project team schedule a follow up meeting to discuss the items outlined here in more detail if any clarity is needed.

Response

The project team met with MBTA on October 10, 2025 and looks forward to continued coordination with the agency. During development of the DEIR, the Proponent shared information to coordinate with both DCR and the MBTA.

Letter 3: Massachusetts Department of Environmental Protection-NERO

Comment 3.1

MassDEP encourages the Proponent to review the plan to identify project management and operational practices that will assist the Commonwealth in meeting its material management goals.

Response

Material management measures are described in **Section 10.3.6** of **Chapter 10, Construction Period**.

Comment 3.2

MassDEP encourages the Proponent to make a significant commitment to construction and demolition (C&D) waste recycling activities as a sustainable measure for the project and to assist in complying with waste ban requirements.

Response

Commitment to C&D recycling activities is described in **Section 10.3.6** of **Chapter 10, Construction Period.**

Comment 3.3

The project proponent is advised that excavating, removing and/or disposing of contaminated soil, pumping of contaminated groundwater, or working in contaminated media, if present, must be done under the provisions of M.G.L. c.21E (and, potentially, c.21C), the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000), and all other applicable federal, state, and local laws, regulations, and bylaws.

Response

Should any contaminated soil, groundwater, or other material be encountered during construction, such materials will be managed in accordance with the requirements of the Massachusetts Contingency Plan (MCP; 310 CMR 40.00). Prior notification to the MassDEP will be made, as required under the MCP, to ensure that the management, transport, and disposal of contaminated materials are performed in full regulatory compliance.

Comment 3.4

If dewatering activities are to occur at a site with contaminated groundwater, or in proximity to contaminated groundwater where dewatering can draw in the contamination, a plan must be in place to properly manage the groundwater and ensure site conditions are not exacerbated by these activities.

Response

A dewatering permit will be secured from BWSC/MWRA as needed, and a plan will be put in place, to be provided as applicable, for contaminated, or proximate to contaminated, groundwater.

Comment 3.5

A Licensed Site Professional (LSP) must be employed or engaged to manage, supervise or actually perform the necessary response actions at disposal sites regulated under M.G.L. c.21E and the MCP.

Response

A Licensed Site Professional (LSP) will be present on-site to supervise or perform the necessary response actions at any disposal sites regulated under M.G.L. c.21E and the MCP.

Letter 4: Massachusetts Historic Commission

Comment 4.1

After review of our files and the information submitted, the MHC has determined that the proposed project will have an "adverse effect" (950 CMR 7 l .05(a) and 950 CMR 71.07(2)(6)(3)) on the Simmons College Residence Campus through its complete destruction and redevelopment. Pursuant to 950 CMR 71.07(3), the MHC looks forward to consulting with SCD Pilgrim Road Master Planner LLC and the MWRA to seek ways to avoid, minimize, or mitigate the adverse effect of the proposed demolition. The MHC hereby initiates its consultation process.

Response

Per the MHC letter, the Proponent developed an alternatives analysis, which was distributed on March 12, 2026 (**Appendix F**). The alternatives analysis explored plans that will avoid, minimize, or mitigate the adverse effect on the Simmons College Residence Campus (BOS.AEM), per the MHC comment letter. Evaluated alternatives include keeping all or a majority of Simmons College Residence Campus buildings, or retaining the core 1905-1906 Georgian Revival buildings designed by Guy Lowell and mentioned specifically in the MHC comment letter (North Hall, BOS.7580; South Hall, BOS.7358; Refectory, BOS.7581). Evaluation factors include financial feasibility, site plan implications, construction phasing, and the marketability of the MEPA Project. The Proponent looks forward to continued coordination with MHC.

Comment 4.2

Please submit project materials to the Boston Landmarks Commission, Boston Preservation Alliance, and Emerald Necklace Conservancy for review and comment. Copies of any comments received should be forwarded to the MHC.

Response

Copies of the alternatives analysis have been distributed on March 12, 2026, were provided to the listed parties as well as the MHC. The project team will ensure that any comments received by these parties are also provided to the MHC.

Letter 5: Department of Energy Resources

Comment 5.1

The project should pursue MassSave incentives which include significant rebates for Passivehouse, energy efficiency, and efficient electrification. Note that with very limited exceptions, fossil fuel connections to new construction buildings will disqualify the project from MassSave incentives.

Response

The MEPA Project will pursue MassSave incentives where applicable. Estimates for these incentives were included in the cost analysis in **Section 9.2** of **Chapter 9, Greenhouse Gas Analysis and Air Quality** and **Appendix E**.

Comment 5.2

If the Passivehouse, efficient electrification, etc outlined above are not incorporated, then additional evaluations are needed in the next submission to ensure the project is avoiding emissions. The evaluations should be based on energy modeled scenarios, as follows:

Residential uses:

Note that Passivehouse is mandatory by code and the submission indicates that the residential will be all electric, including electric air source heat pumps for space heating. Accordingly, with that as the starting point, we recommend the following to evaluate service water heating:

- *Passivehouse, air source heat pump space heating, electric resistance service water heating.*
    - *As above, but with solar thermal water heating, sized to 25% of rooftop by area with electric resistance supplemental*
    - *As above, but with in-building centrally-located air source heat pump water heating*

Response

The Proponent held a pre-filing meeting with DOER and MEPA on October 2, 2025 and determined the scope of work for the DEIR filing. This analysis for the residential uses is presented in **Section 9.2** of **Chapter 9, Greenhouse Gas Analysis and Air Quality**.

Comment 5.3

High ventilation uses:

Note that 25% hybrid heat pump is mandatory by code. Accordingly, with that as the starting point, we recommend the following to evaluate glazing, service water heating, heat recovery chillers, and low air infiltration:

- *25% hybrid space heating*
    - *As above, with heat recovery chillers*

- *As above, with heat recovery chillers plus low air infiltration*
- *As above, with heat recovery chillers plus low air infiltration plus no more than 50% glazed wall system*
- *As above, with heat recovery chillers plus low air infiltration plus no more than 50% glazed wall system plus air source heat pump service water heating*

Response

The Proponent held a pre-filing meeting with DOER and MEPA on October 2, 2025 and determined the scope of work for the DEIR filing. This analysis for the High Ventilation uses is presented in **Section 9.2** of **Chapter 9, Greenhouse Gas Analysis and Air Quality**.

Comment 5.4

All other normally ventilated/nonresidential uses (including restaurants)

We recommend the following scenarios:

- *Air source heat pump space heating*
  - *As above, with low air infiltration*
  - *As above, with low air infiltration plus no more than 50% glazed wall system*
  - *As above, with low air infiltration plus no more than 50% glazed wall system plus electric cooking and drying*
- *One version of above with solar thermal water heating, sized to 25% of rooftop by area with electric resistance supplemental*
- *One version of above with in-building centrally-located air source heat pump water heating*

Response

The Proponent held a pre-filing meeting with DOER and MEPA on October 2, 2025 and determined the scope of work for the DEIR filing. This analysis for the Normally Ventilated uses is presented in **Section 9.2** of **Chapter 9, Greenhouse Gas Analysis and Air Quality.**

Comment 5.5

For each building use type, develop a "gap analysis" table that summarize the key design changes to go from planned scenario to scenarios being evaluated. Gap analysis should also include reductions in HVAC equipment size enabled by increasingly improved building thermal performance, as well as reduction in peak electric usage due to improved thermal performance.

Response

A gap analysis was conducted as requested and is presented in **Section 9.2** of **Chapter 9, Greenhouse Gas Analysis and Air Quality** and **Appendix E**.

Comment 5.6

Provide a cost-estimate analysis tied to each row of the gap analysis, showing specific additional costs/reductions. Develop a cash flow model for each scenario, as follows:

- *Estimate net cost increase associated with each improved scenario;*
    - *Amortize this cost into annual cost increase using 30-year mortgage term, after netting against rebates and other tax incentives*
- *Estimate cost to operate per year;*
- *Net operating cost increase (or decrease) (operating+amortized).*

Response

A gap analysis was conducted as requested and is presented in **Section 9.2** of **Chapter 9, Greenhouse Gas Analysis and Air Quality** and **Appendix E**.

Comment 5.7

Include the following in the next submission:

- *Communications to the gas and electric utilities sharing the above scenario findings (kW demand, etc.)*

Response

The Proponent held a pre-filing meeting with DOER and MEPA on October 2, 2025 and determined that utility coordination was not required as part of the analysis requested in the DOER comment letter.

Comment 5.8

Written communications from the gas and electric utilities that present the following:

- *Utility estimate/analysis of the size of the electric and gas utility needs, for each scenario*
- *All costs to expand the gas system to service the project under all scenarios (including: cost to project, cost to ratepayers, costs covered by grants, costs financed, costs/financing from any other source(s))*
- *All costs to expand the electric system to service the project (including: cost to project, cost to ratepayers, costs covered by grants, costs financed, costs/financing from any other source(s))*
- *If gas is used, provide the following*
    - *Plan and costs (from all sources: ratepayers, residents, etc) from the gas utility for eventual decommissioning/abandonment of the gas service by 2050.*
    - *Plan and costs (from all sources: ratepayers, residents, etc) from the electric utility for eventual necessary upgrades to electric service by 2050 to support a transition from gas to electric.*

Response

The Proponent held a pre-filing meeting with DOER and MEPA on October 2, 2025 and determined that utility coordination was not required for the MEPA Project.

Letter 6: Massachusetts Water Resources Authority

Comment 6.1

To ensure that the Project's wastewater flow does not increase system surcharging or overflows in large storms, the Proponent should work with BWSC to effect a 4:1 offset of the Project's new wastewater flow by removing stormwater and/or I/I from a hydraulically related sewer system(s). Additionally, MWRA requests that the Proponent identify specific projects that would offset discharge and make every effort to implement the projects before discharge begins.

Response

Per additional correspondence with BWSC after receipt of the EEA Secretary's Certificate of the ENF, the inflow and infiltration ("I/I") mitigation fee has been accepted by BWSC in lieu of construction of off-site projects to offset wastewater flows. See **Section 6.2.2** of **Chapter 6, Water and Wastewater** for more information.

Comment 6.2

The Project Site has access to storm drains and is not located in a combined sewer area. Therefore, the discharge of groundwater or stormwater to the sanitary sewer system associated with this Project is prohibited. If groundwater is anticipated during the construction phase of the Longwood Place Project, an MWRA Temporary Construction Dewatering Permit will be required, pursuant to 360 C.M.R. 10.091-10.094.

Response

A dewatering permit will be secured from MWRA as needed.

Comment 6.3

The Proponent must apply for an MWRA Sewer Use Discharge Permit if proposing to discharge industrial process, laboratory wastewater, and/or photo processing wastewater to the sanitary sewer system.

Response

A MWRA Sewer Use Discharge Permit may be required for the MEPA Project to the extent it may be required for specific waste discharges by future tenants/users not yet identified. If required, an application will be submitted to the MWRA prior to construction of any facilities requiring this (these) permits.

Comment 6.4

Any gas/oil separators in parking garages associated with the Project must comply with 360 C.M.R. 10.016 and State Plumbing Code. The installation of the proposed gas/oil separators may not be back filled until inspected and approved by the MWRA and the Local Plumbing Inspector.

Response

Approved Oil/water separators will be provided as part of the MEPA Project, as needed, prior to discharge from covered parking and loading areas to the sanitary sewer system, and will be open for inspection as required.

Letter 7: Boston Water and Sewer Commission

Comment 7.1

Prior to the initial phase of the site plan development, SCD/Skanska, should meet with the Commission's Design and Engineering Customer Services Departments to review water main, sewer and storm drainage system availability and potential upgrades that could impact the development.

Response

The project team met with BWSC in April 2024 and will continue to coordinate as plans are further developed as part of the Site Plan Review (SPR) process, as plans are further developed.

Comment 7.2

Prior to demolition of any buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The proponent must complete a Cut and Cap General Services Application, available from the Commission.

Response

A Cut & Cap General Services Application will be submitted to BWSC prior to demolition work.

Comment 7.3

All new or relocated water mains, sewers and storm drains must be designed and constructed at SCD/Skanska's, expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use regulations, and Requirements for Site Plans.

Response

The MEPA Project will coordinate with BWSC on all new and relocated water mains, sewers and storm drains as plans are further developed as part of the SPR process with BWSC.

Comment 7.4

The site plan should include the locations of new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections, water meter locations, as well as backflow prevention devices in the facilities that will require inspection.

Response

Final details of water, storm and sewer infrastructure will be provided as part of the SPR and General Service Application (GSA) packages to BWSC as plans are further developed.

Comment 7.5

A General Service Application must also be submitted to the Commission with the site plan.

Response

A SPR and GSA package will be provided to BWSC prior to construction.

Comment 7.6

Any new connection or expansion of an existing connection that exceeds 15,000 gallons per day of wastewater shall assist in the 1/1 reduction effort to ensure that the additional wastewater flows are offset by the removal of 1/1. Currently, a minimum ratio of 4: 1 for I/I removal to new wastewater flow added is used. The Commission will require proponent to develop a consistent inflow reduction plan. The 4: 1 requirement should be addressed at least 90 days prior to activation of water service and will be based on the estimated sewage generation provided on the project site plan.

Response

The applicant is aware of the I/I mitigation requirements and will be providing an I/I commitment letter in the future BWSC applications. Refer to **Section 6.2.2** of **Chapter 6, Water and Wastewater** for more information.

Comment 7.7

The design of the project should comply with the City of Boston's Complete Streets Initiative, which requires incorporation of "green infrastructure" into street designs. Green infrastructure includes greenscapes, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The proponent must develop a maintenance plan for the proposed green infrastructure.

Response

The MEPA Project will comply with the Complete Streets guidelines and a maintenance plan will be prepared for the proposed green infrastructure as part of the SPR and GSA to BWSC and final License, Maintenance, and Indemnification (LM&I) Agreement with Public Improvement Commission (PIC). Refer to **Section 5.2.3** of **Chapter 5, Stormwater** for more information regarding the proposed low impact development measures.

Comment 7.8

SCD/Skanska is advised that the Commission will not allow buildings to be constructed over any of its water lines. Also, any plans to build over Commission sewer facilities are subject to review and approval by the Commission. The project must be designed so that access, including vehicular access, to the Commission's water and sewer lines for the purpose of operation and maintenance is not inhibited.

Response

The MEPA Project is not proposing any buildings or structures over the BWSC water or sewer facilities. The MEPA Project is anticipating constructing BWSC water main extension between Pilgrim Road and Brookline Avenue generally in the location of the proposed bike lane clear of any proposed buildings or structures. Final details of the extension and associated utility easement for access and operation will be provided during the Site Plan Review process.

Comment 7.9

The Commission will require SCD/Skanska to undertake all necessary precautions to prevent damage or disruption of the existing active water and sewer lines on, or adjacent to, the project site during construction. As a condition of the site plan approval, the Commission will require SCD/Skanska to inspect the existing sewer lines by CCTV after site construction is complete, to confirm that the lines were not damaged from construction activity.

Response

Inspections of the existing sewer and drains by CCTV will be performed per the final conditions of approval.

Comment 7.10

It is SCD/Skanska's responsibility to evaluate the capacity of the water, sewer and storm drain systems serving the project site to determine if the systems are adequate to meet future project demands. With the site plan, SCD/Skanska must include a detailed capacity analysis for the water, sewer and storm drain systems serving the project site, as well as an analysis of the impacts the proposed project will have on the Commission's water, sewer and storm drainage systems.

Response

Based on preliminary calculations and discussions with BWSC, it's anticipated that there is sufficient water and sewer capacity in the adjacent water mains to serve the MEPA Project. An analysis of the water and sewer systems serving the MEPA Project will be included in BWSC applications. Further details regarding water, sewer and storm drain systems can be found in **Chapter 5, Stormwater** and **Chapter 6, Water and Waste Water**.

Comment 7.11

The laboratory space may require that the project proponent or owner of the facility complete and submit a Sewer Use Discharge Permit Application with the MWRA.

Response

If required based on discharges from a particular tenant, a Sewer Use Discharge Permit application will be submitted to the MWRA.

Comment 7.12

SCD/Skanska must provide separate estimates of peak and continuous maximum water demand for residential, commercial, industrial, irrigation of landscaped areas, and air conditioning make-up water for the project with the site plan. Estimates should be based on full-site build-out of the proposed project. SCD/Skanska should also provide the methodology used to estimate water demand for the proposed project.

Response

Detailed estimates of peak and continuous maximum water demand will be included in BWSC applications. Refer to **Section 6.1** and **Section 6.2** of **Chapter 6, Water and Wastewater** for more information regarding preliminary water and sanitary demand estimates.

Comment 7.13

SCD/Skanska should explore opportunities for implementing water conservation measures in addition to those required by the State Plumbing Code, consider outdoor landscaping which requires minimal use of water to maintain. If SCD/Skanska plans to install in-ground sprinkler systems, the Commission recommends that timers, soil moisture indicators and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should be considered.

Response

The MEPA Project is committed to implementing water conservation measures to reduce water use as further described in **Chapter 6, Water and Wastewater**. The MEPA Project intends to utilize native and adopted plants in the landscape design with the goal of reducing the outdoor water usage by at least 50 percent compared to the EPA Water Budget baseline. The MEPA Project will also seek to reduce indoor potable water use through the use of WaterSense labeled fixtures and will further evaluate low flow fixtures as design progresses.

Comment 7.14

SCD/Skanska is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered.

Response

A Hydrant Permit will be obtained prior to construction and water used from the hydrant will be metered.

Comment 7.15

SCD/Skanska will be required to install approved backflow prevention devices on the water services for fire protection, mechanical and any irrigation systems.

Response

Backflow preventors will be provided as required and shown in future BWSC application(s).

Comment 7.16

SCD/Skanska will be required to submit with the site plan a phosphorus reduction plan for the proposed development. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer.

Response

Calculations indicating the phosphorous reduction will be included in future BWSC applications. A major portion of the phosphorous removal will be achieved by capturing stormwater runoff from 1.25" of impervious surfaces on the MEPA Project Site.

The MEPA Project will direct initial roof runoff to on-site stormwater systems prior to discharge to the municipal storm drain system. To the extent practical, runoff within the "main heart" will be infiltrated through use of permeable pavers and bioswales. Final details of the stormwater management system(s) will be included in future BWSC application(s). The MEPA Project will not discharge stormwater to sanitary sewer.

Comment 7.17

In conjunction with the Site Plan and the General Service Application the SCD/Skanska will be required to submit a Stormwater Pollution Prevention Plan. The plan must:

- *Identify best management practices for controlling erosion and for preventing the discharge of sediment and contaminated groundwater or storm water runoff to the Commission's drainage system when the construction is underway*
- *Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control or treatment structures to be utilized during construction.*
- *Provide a stormwater management plan in compliance with the DEP standards mentioned above. The plan should include a description of the measures to control pollutants after construction is completed.*

Response

As is typical for sites disturbing greater than an acre, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared prior to construction. A National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) will be filed with Environmental Protection Agency (EPA) as well. A draft SWPP Plan will be included in future BWSC application(s).

Comment 7.18

Developers of projects involving disturbances of land of one acre or more will be required to obtain an NPDES General Permit for Construction from the Environmental Protection Agency and the Massachusetts Department of Environmental Protection. SCD/Skanska is responsible for determining if such a pennit is required and for obtaining the permit. If such a permit is required, it is required that a copy of the permit and any pollution prevention plan prepared pursuant to the permit be provided to the Commission's Engineering Services Department, prior to the commencement of construction. The pollution prevention plan submitted pursuant to a NPDES Permit may be submitted in place of the pollution prevention plan required by the Commission provided the Plan addresses the same components identified in item 1 above.

Response

See Response to **Comment 7.17 above**.

Comment 7.19

The Commission encourages SCD/Skanska to explore additional opportunities for protecting stormwater quality on site by minimizing sanding and the use of deicing chemicals, pesticides, and fertilizers.

Response

The MEPA Project will seek to minimize the use of sanding and the use of other harmful chemicals. Additionally, the MEPA Project has taken measures to minimize paved areas on the MEPA Project Site.

Comment 7.20

The discharge of dewatering drainage to a sanitary sewer is prohibited by the Commission. SCD/Skanska is advised that the discharge of any dewatering drainage to the storm drainage system requires a Drainage Discharge Permit from the Commission. If the dewatering drainage is contaminated with petroleum products SCD/Skanska will be required to obtain a Remediation General Permit from the Environmental Protection Agency (EPA) for the discharge.

Response

A Dewatering and Remediation General Permit from BWSC and EPA will be obtained prior to construction. Groundwater that is collected will be treated on-site prior to discharge to the BWSC storm drains.

Comment 7.21

Sanitary sewage must be kept separate from stormwater and separate sanitary sewer and storm drain service connections must be provided. The Commission requires that existing stormwater and sanitary sewer service connections, which are to be re-used by the proposed project, be dye tested to confirm they are connected to the appropriate system.

Response

Sanitary sewage and stormwater drain flows will be kept separate, and any connections to be re-used by the MEPA Project will be dye tested prior to construction.

Comment 7.22

The Commission requests that SCD/Skanska install a permanent casting stating "Don't Dump: Drains to "Charles River" next to any catch basin created or modified as part of this project.

Response

All storm drain inlets to have the “Don’t Dump” plaque. Details on quantity and location will be included in future BWSC application(s).

Comment 7.23

If a cafeteria or food service facility is built as part of this project, grease traps will be required in accordance with the Commission's Sewer Use Regulations.

Response

Food service facilities are expected to be included in the MEPA Project. Grease trap(s) for these food service facilities will be provided in accordance with the Commission's Sewer Use Regulations.

Comment 7.24

The enclosed floors of a parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations.

Response

Approved Oil/water separators will be provided as needed prior to discharge to the sanitary sewer system. Details for the separators will be included in future BWSC application(s).

Letter 8: Emerald Necklace Conservancy

Comment 8.1

Clarification on the planned provision and management of park funding to be provided as Mitigation.

Response

The Proponent, on behalf of the MEPA Project, is proud to contribute $7,000,000 to create an endowment for the Boston Parks and Recreation Department to support the long-term needs of the Emerald Necklace Parks. This overall contribution was determined during the PDA Development Plan review and approval process and is codified in the PDA Development Plan. Per the PDA Development Plan, a $1,000,000 installment has already been paid by the Proponent. The second installment of $6,000,000 will be delivered within 30 days after issuance of a building permit for above grade construction of Phase I of the MEPA Project.

This mitigation amount is intended to support the long-term improvement, maintenance, and operations within and around the Emerald Necklace Parks. As set forth in the BPDA Board Memorandum approving the PDA Development Plan, a portion of the mitigation payment will also be used by the Parks Department to fund a study of the shadow impacted areas of the Emerald Necklace and develop a policy to prioritize the protection of the Emerald Necklace from development impacts. The specific uses of the endowment will be determined by the Boston Parks and Recreation Department.

Comment 8.2

Review Existing Environmental Value Provided and Evaluate Impacts By this Proposal.

Response

The potential benefits, impacts, and mitigation of the MEPA Project have been evaluated in this DEIR in accordance with the Massachusetts Environmental Policy Act. The Proponent looks forward to continued collaboration with state and local agencies and the community throughout the review process.

Comment 8.3

A copy of the letter provided by the Emerald Necklace Conservancy to the City of Boston Planning Department on the Longwood Place Phase I was attached.

Response

The Proponent acknowledges receipt of the letter from the Emerald Necklace Conservancy that was submitted to the Boston Planning Department as part of the ongoing Article 80B Large Project Review for the Phase One component of the MEPA Project. As part of its Supplemental Filing with the BPDA, the Proponent provided a response to each comment raised in the Emerald Necklace Conservancy's letter, which can be found in **Chapter 7, Response to Comments** in the filing (pages 7-

66 to 7-69), which is available at https://www.bostonplans.org/projects/development-projects/longwood-place-phase-one.

Letter 9: Public Comment Letter – Alison Pultinas

Comment 9.1

Sharing my concerns about the 520-car garage in the transit rich LMA and Fenway neighborhoods. This is an irrational and regressive plan.…The capacity of this proposed 520 car garage should be reduced by half if not more. Planning a garage of this size when the timeline for two of the five buildings is likely to be far off in the future is wrongheaded and should not be approved.

Response

The parking provided was determined in careful coordination with the City as part of the PDA Development Plan process and is anticipated to help achieve the City's mode share goals for reducing reliance on personal autos. The proposed parking supply is approximately 50 percent of what is permissible by BTD Parking Guidelines' maximum parking ratios and represents an overall parking ratio of approximately 0.32 spaces per 1,000 square feet of development. The overall parking ratio is well below the BTD maximum parking ratios and the ITE average parking ratios for the respective MEPA Project land uses. While we appreciate the desire to reduce parking further, further reduction would risk the functional viability of the overall development.

Appendix A: DEIR Distribution List

DEIR Distribution List

Below is a list of all agencies and persons to whom the Proponent circulated the ENF, in accordance with 301 CMR 11.16(3) and the Public Involvement Protocol.

State and Regional Agencies and Officials

Executive Office of Energy and Environmental Affairs Attn: MEPA Office 100 Cambridge Street, Suite 900 Boston, MA 02114 mepa@mass.gov	Massachusetts Department of Transportation Public/Private Development Unit Attn: J. Lionel Lucien 10 Park Plaza Suite #4150 Boston, MA 02116 MassDOTPPDU@dot.state.ma.us
Department of Environmental Protection Attn: Commissioner's Office One Winter Street Boston, MA 02108 helena.boccadoro@mass.gov	Massachusetts DOT District #6 Attn: MEPA Coordinator 185 Kneeland Street Boston, MA 02111 michael.garrity@dot.state.ma.us
DEP/Northeast Regional Office Attn: John D. Viola 205B Lowell Street Wilmington, MA 01887 john.d.viola@mass.gov	Massachusetts Historical Commission Attn: Brona Simon The MA Archives Building 220 Morrissey Boulevard Boston, MA 02125 brona.simon@sec.state.ma.us
Department of Energy Resources Attention: MEPA Coordinator 100 Cambridge Street, 10th Floor Boston, MA 02114 paul.ormond@mass.gov becca.edson@mass.gov	Massachusetts Water Resource Authority Attn: MEPA Coordinator 33 Tafts Avenue Deer Island Boston, MA 02128 Hillary.Monahan@mwra.com Colleen.Rizzi@mwra.com
MEPA Office Attn: EEA EJ Director 100 Cambridge Street, Suite 900 Boston, MA 02144 MEPA-EJ@mass.gov	Department of Conservation and Recreation Attn: MEPA Coordinator 251 Causeway Street, Suite 600 Boston, MA 02114 andy.backman@mass.gov Val.Soroka@mass.gov manuel.pires@mass.gov
Metropolitan Area Planning Council Attn: Executive Director 60 Temple Place Boston, MA 02111	Massachusetts Bay Transportation Authority Attn: Jennifer Mecca 10 Park Plaza Boston, MA 02116 jblankenship@mbta.com

mpillsbury@mapc.org afelix@mapc.org	jmecca@mbta.com
Boston Water and Sewer Commission Attn: John P. Sullivan 980 Harrison Avenue Boston, MA 02119 sullivanjp@bwsc.org	

City of Boston

Boston Planning and Development Agency Attn: Sarah Peck, Project Manager One City Hall Square, 9th Floor Boston, MA 02201 Kairos.Shen@boston.gov sarah.peck@boston.gov	Boston City Council Attn: City Council 1 City Hall Square, Room 550 Boston, MA 02201-2043 city.council@boston.gov
Boston Conservation Commission Attn: Elena Itameri 1 City Hall Square, Room 709 Boston, MA 02201 CC@boston.gov	Boston Public Health Commission 1010 Massachusetts Ave, 2nd Floor Boston, MA 02118 info@bphc.org

Town of Brookline

Town of Brookline Select Board Attn: Board of Selectmen 333 Washington Steet, 6th Floor Brookline, MA 02445 SelectBoard@brooklinema.gov	Brookline Planning and Community Development Department Attn: Kara Brewton 333 Washington Steet, 3rd Floor Brookline, MA 02445 kbrewton@brooklinema.gov
Brookline Conservation Commission Attn: Thomas D. Brady 333 Washington Steet, 4th Floor Brookline, MA 02445 tbrady@brooklinema.gov	Brookline Health Department Attn: Sigalle Reiss 11 Pierce St Brookline, MA 02445 PublicHealth@brooklinema.gov

Libraries

Boston Public Library Central Library (Main Branch) 700 Boylston Street Boston, MA 02116	Boston Public Library Parker Hill Branch 1497 Tremont Street Roxbury, MA 02120
Boston Public Library Roxbury Branch 149 Dudley Street	The Public Library of Brookline Coolidge Corner Library 31 Pleasant Street

Roxbury, MA 02119	Brookline, MA 02446
The Public Library of Brookline Brookline Village Library 361 Washington Street Brookline, MA 02445	

Statewide Environmental Justice Community Based Organizations

Unitarian Universalist Mass Action Network	Sierra Club MA
Mass Rivers Alliance	Environmental League of Massachusetts
The Trust for Public Land	Environment Massachusetts
Browning the GreenSpace	Mass Land Trust Coalition
Community Action Works	Clean Water Action
Sierra Club MA	Neighbor to Neighbor Mass.
Conservation Law Foundation	Mass Audubon
Ocean River Institute	

Indigenous Organizations

Chappaquiddick Tribe of the Wampanoag Nation	North American Indian Center of Boston
Nipmuc Nation (Hassanamisco Nipmucs)	Pocassett Wampanoag Tribe
Massachusetts Commission on Indian Affairs (MCIA)	Massachusetts Tribe at Ponkapoag
Herring Pond Wampanoag Tribe	Chappaquiddick Tribe of the Wampanoag Nation, Whale Clan

Federally Recognized Tribes

Wampanoag Tribe of Gay Head (Aquinnah)	Mashpee Wampanoag Tribe

Local Community Based Organizations

Mystic River Watershed Association	Chinese Progressive Association
Boston Farms Community Land Trust	Mass Community Labor United
Save the Harbor/Save the Bay	Chinatown Community Land Trust
Boston Harbor Now	New England United for Justice
Charles River Conservancy	Coalition for Social Justice
Charles River Watershed Assoc.	

Other Interested Parties

Fenway Forward	The Longwood Collective
The Fenway Alliance	Emerald Necklace Conservancy
Fenway Civic Association	Alison Pultinas

Appendix B: Environmental Justice Supporting Documentation

- **Updated Public Engagement Plan**
- **EJ Screen Report_1-Mile Buffer Area**
- **EJ Screen Report_Census Block Groups within the DGA**

Updated Public Engagement Plan

B.1

Public Engagement Plan

SCD Pilgrim Road Master Planner LLC, c/o Skanska USA Commercial Development Inc. (the "Proponent") has developed a Public Engagement Plan ("PEP") for the Longwood Place MEPA Project (the "MEPA Project") located at the Simmons University Residence Campus at 305 Brookline Avenue, Boston, Massachusetts (the "MEPA Project Site"). The MEPA Project proposes the redevelopment of the MEPA Project Site with approximately 2.8 acres of publicly accessible open space and public realm and approximately 1,648,000 million square feet (MSF) of gross floor area (GFA), as defined by the City of Boston Zoning Code (the "Code"), of mixed-use development spread across five buildings, of new residential, laboratory/office, medical/clinic uses, community space, retail, below-grade parking and loading, and associated landscape and public realm improvements.

The initial PEP was included as an attachment to the Environmental Notification Form ("ENF") filed in April 2025 and the updated PEP has been included in the Draft Environmental Impact Report ("DEIR") filing as a living document that will be revisited periodically during the review of the MEPA Project. Updates to the PEP are reflective of the requirements of the DEIR Scope in the ENF Certificate, public comments received, and measures as they are implemented during the MEPA Project's review.

B.1.1 Public Engagement Framework

Between March 2021 and January 2022, the Proponent held over 90 meetings with the public and community stakeholders including community based organizations ("CBOs") within the Longwood Medical and Academic Area ("LMA") and Fenway neighborhoods, City of Boston staff, the City of Boston Impact Advisory Group ("IAG"), and the Boston Civic Design Commission ("BCDC"), to review the proposed Planned Development Area ("PDA") Development Plan. As a result of these discussions, the MEPA Project was substantially reconfigured multiple times during the review process to incorporate feedback from these meetings into the PDA Development Plan. The MEPA Project's design represents a response to feedback that appropriately balanced community priorities with the neighborhood and City's longer range goals and provides critical support to Simmons' continuation as a world-renowned institution.

The Proponent's strong track record of community engagement will continue during the public review and planning processes associated with both MEPA and City of Boston Article 80B review for the MEPA Project. As part of its stakeholder outreach plan, the Proponent has promoted and will continue to promote public involvement by the EJ populations located within the designated geographic area ("DGA"), or within one mile of the MEPA Project.

B.1.1.1 Public Engagement Principles

The following principles are designed to guide the Proponent's outreach strategies for effective public involvement:

- **Education and Transparency**: Provide materials that explain technical aspects of the MEPA Project in plain language and a digestible format. Maintain open and accessible communication about MEPA Project details, timelines, impacts, and major decision-making.
- **Inclusivity**: Affirmatively encourage the contributions of underrepresented groups to fully participate in the engagement process.
- **Accessibility**: Offer virtual meetings to enhance meeting accessibility. When in-person meetings are scheduled, ensure that meeting venues are ADA-compliant, and offer Chinese and Spanish language[1] interpretation services on an as-requested basis.
- **Cultural Sensitivity**: Respect cultural norms and preferences when engaging with diverse communities and seek guidance from community leaders and cultural liaisons to ensure inclusivity and sensitivity in outreach efforts.
- **Sustained Engagement**: Commit to ongoing communication and engagement throughout the MEPA Project lifecycle, providing updates on progress, addressing concerns, and soliciting input from the community at key milestones.

The subsequent sections provide specific strategies the Proponent will explore and/or utilize to effectuate these principles.

B.1.1.2 Public Engagement Measures

As required in the DEIR Scope, **Table B.1-1** below presents a summary of the public engagement measures and associated MEPA Project milestones along with the status and actions taken to accomplish each measure. This plan was developed through guidance provided in the *MEPA Public Involvement Protocol for Environmental Justice Populations*.

Table B.1-1 Public Engagement Measures and Project Milestones

Measure	Project Milestone	Status	Action
Hold a community meeting(s)	Pre- and Post-filing of the ENF	Ongoing; Continued effort	› Held over 90 meetings between March 2021 and January 2023 with the City staff, IAG, BCDC, public and key stakeholders within the LMA and Fenway neighborhoods to review the PDA Development Plan › Held a virtual evening MEPA site consultation session post-filing of the ENF to gather feedback from the MEPA Office, state agencies, EJ CBOs, including state, tribal and local community groups,

[1] Languages identified as spoken by five percent or more of the population located within one-mile of the MEPA Project Site.

Measure	Project Milestone	Status	Action
			residents, businesses and environmental organizations, and the general public during the public review period › Hold additional public meetings during the MEPA review process to provide project updates and discuss the content of the MEPA filings › Held numerous public meetings, as required by the Article 80B review process
Widely disseminate written project summary (with translation into relevant languages) with basic project details	Prior to filing the ENF	Complete	› Distributed the EJ Screening Form to the EJ CBOs List and community members opting into the Project's listserv › Distributed translated copies of the EJ Screening Form in Spanish and Chinese languages
Host a project website to provide project information	Post-filing of the ENF	Complete	› Includes project details, links to downloadable electronic copies of the ENF, and public presentation materials › Includes link to translated project materials › Includes location to submit contact information for receiving development updates › Provides an online platform for community members to submit questions, concerns or comments regarding the project › Include the URL in other outreach materials
Use of community-specific media outlets to publicize the Project	Prior to, concurrent with, and post-filing of the ENF	Complete	› Published public notices of the ENF in the Boston Herald, El Mundo, and Sampan newspapers › Published Article 80 Review public notices of the PNF (prior to filing the ENF) and the Supplemental Information Document (SID) (post-filing of the ENF)

Measure	Project Milestone	Status	Action
Make MEPA filings publicly available	Concurrent with and Post-filing of the ENF	Complete for the ENF filed	› Distributed electronic copies of the ENF (and provided hard copies, if requested) to the MEPA EJ Reference List › Made hard copies of the ENF available at local public libraries located for public viewing › To distribute electronic copies of the DEIR and FEIR (and provide hard copies, if requested) to the MEPA EJ Reference List › Make hard copies of the DEIR and FEIR available at local public libraries for public viewing
Encourage public participation in community meetings	Post-filing of the ENF	Completed for the MEPA Site Consultation post-filing of the ENF; Ongoing, continued effort for upcoming public meetings post-filing of the DEIR	› Provide at least two weeks advance notice before community meetings to allow stakeholders to plan and participate effectively › Notify the public of upcoming project meetings via local English, Chinese, and Spanish publications, project website and other appropriate communication channels › Offer Chinese and Spanish languages translation services upon request, prior to meeting › Develop meeting agendas that include project overview, potential environmental impacts, proposed mitigation measures, opportunities for public input, and Q&A sessions › Assign experienced facilitators to ensure productive discussions, manage time effectively, and address concerns raised by attendees
Provide oral language interpretation at public meetings	Pre- and Post-filing ENF	Offered for the MEPA Site Consultation post-filing of the ENF;	› Provide Chinese and/or Spanish languages interpretation upon request

Measure	Project Milestone	Status	Action
		Ongoing, continued effort for upcoming public meetings	
Engage in creative outreach	Pre- and Post-filing ENF	Ongoing; Continued effort	› Developed QR codes to put on banners on-site, bus posters, and social media to capture feedback › Utilize various communication channels such as mail, email, phone calls, social media, community bulletin boards, and project website to notify about the upcoming Project and engagement opportunities › Continue close coordination with organizations
Job Training and Career Center outreach	Post-Construction	To be implemented	› Engage in close coordination with organizations
Ensure outreach to the public is communicated in clear, understandable language and in a user-friendly format	At all stages of Project Development and beyond	Ongoing; Continued effort	› Utilize project website and project summary flyer to support this effort

B.1.1.3 Notification/Communication Strategy

- In accordance with the PEP, the Proponent completed the 45-day advance notice to the MEPA determined CBOs by circulating the MEPA EJ Screening Form, which provides high-level details of the MEPA Project. The MEPA EJ Screening Form, which was translated into Spanish and Chinese languages, was initially distributed on November 26, 2024. Because the ENF was not filed within 90 days of the initial EJ Screening Form distribution, on March 28, 2025, the Proponent provided the second advanced notification of the MEPA Project in English, Chinese, and Spanish languages to the entities listed in the EJ Reference List.
- Distribute electronic copies of all MEPA filings (and hard copies, if requested) to the MEPA Distribution List, including the EJ Reference List obtained from the MEPA Office. The ENF was electronically distributed to the ENF Distribution List including the EJ Reference List (dated March 28, 2025).

- Provide notification of all MEPA filings in a manner that effectively notifies stakeholders through a broad range of media, such as electronic distribution to the MEPA Distribution List, the MEPA Environmental Monitor website, and/or publish notice in local newspapers. The public notices of the ENF were provided in English and Chinese languages in the Boston Herald and in Spanish in El Mundo on May 1, 2025, and in Chinese in Sampan on May 9, 2025.
- Provide notification of public meetings on the Project in a manner that effectively notifies stakeholders through appropriate communication channels, such as the MEPA Distribution List, MEPA Environmental Monitor website, City of Boston Planning Department project website, CBO email listservs, social media and/or notice in local newspapers. Public meetings will be publicized with sufficient notice of the meeting (where possible, at least two weeks in advance). All notifications shall be translated into Chinese and Spanish languages. Notification of the remote MEPA site consultation held on May 22, 2025, was widely distributed in English, Chinese and Spanish languages.
- Make hard copies of all MEPA filings available at the local public libraries located in the vicinity of the MEPA Project Site: the Coolidge Corner and Brookline Village branches of the Brookline Public Library, and the Central Library (main branch), Parker Hill, and Roxbury Branches of the Boston Public Library. Hard copies of the ENF were made available at these libraries.
- Work with our community engagement team to maintain an interactive website that will provide MEPA Project updates, as well as all links to all public filings and public presentations. The website (URL: www.longwoodplaceboston.com) includes tools, such as a moderated forum where the community can submit comments, questions, or concerns to the Proponent. The website also allows the Proponent to utilize surveys to activate stakeholders and to gather community feedback throughout the design process.
- Collaborate with our community engagement team to conduct community-based outreach in various forms, including the potential for distribution of information regarding the MEPA Project at local gathering places, pop-up events at local venues, and/or other efforts to spread the word in places where the community is located.

B.1.1.4 Public Meeting Strategy

- Following the filing of the ENF the Proponent held a public site consultation session on May 22, 2025 at 6:00 PM to accommodate residents who may be unable to attend meetings during working hours to introduce the MEPA Project to the MEPA office, state agencies, and the public, including state, tribal and local community groups, residents, businesses and environmental organizations on the EJ Reference list. (Note, only the MEPA Reviewer was in attendance so the Proponent recorded the presentation to be made available to agency reviews or the public upon request.)

  The notice of the MEPA remote consultation session was translated into Chinese and Spanish languages, and the Proponent offered to provide oral interpretation at the consultation session and to hold an additional in-person meeting upon request (no such requests were received).

- The Proponent will hold additional public meetings at appropriate times during the MEPA review process to provide an update on the MEPA Project or the content of the filing, or to provide an overview to those that may not be familiar with the MEPA Project. Meeting notifications will be

translated into Chinese and Spanish languages. Interpretation will be offered in Chinese and Spanish for meetings and will be provided upon request.

› As described in Section B.1.1.6 below, numerous public meetings have been and will be held as part of the ongoing City of Boston Article 80B review process, which is focused on the initial phase of development. The Proponent will offer simplified and traditional Chinese language interpretation services at these public meetings on an as-requested basis.

B.1.1.5 Public Feedback Approach

The Proponent has established a robust system for gathering feedback from the public. The MEPA Project website (URL: http://www.longwoodplaceboston.com) includes a survey to gather community feedback throughout the design process. The community can find answers to frequently asked questions and submit comments, questions, or concerns to the Proponent on the website. Additionally, the Project Team has developed QR codes on banners on-site, bus posters and social media, which have enabled meaningful outreach to community members. This ensures that feedback is captured from a broader representation of the community by empowering them to share comments privately or publicly. The Proponent has reviewed every comment and taken the feedback into consideration as the MEPA Project continues to advance.

B.1.1.6 City of Boston Article 80B Review

The Project is required to undergo Article 80B Review, which includes design review, as well as the study of potential environmental impacts on the initial phase of development.

During the PDA public review process in 2021-2022, the Boston Planning Department established an IAG that will continue to oversee the community review process for the Project. The IAG includes representatives from CBOs in the Longwood Medical Area and the Fenway neighborhoods, including the Longwood Collective, Fenway Civic Association, Fenway Forward (Previously Fenway Community Development Corporation), Fenway Alliance, Emerald Necklace Conservancy and Temple Israel. During the Article 80B review process, these CBOs are anticipated to continue to be closely involved.

Additionally, the Project will comply with the City of Boston's Project-specific Language Access Plan ("PLAP") policy, which requires projects subject to Article 80 review take reasonable steps to provide Limited English Proficiency ("LEP") persons meaningful opportunities to be informed of and participate in the Article 80 development review process. The Proponent has distributed the PLAP Fact Sheet and Checklist, which outlines the Proponent's strategies for providing translation of key documents and interpretation services at public meetings into "Threshold Languages", which were determined to be simplified and traditional Chinese.

EJ Screen Report_1-Mile Buffer Area

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within 1 mile of this specified point (ejam_uniq_id 1)
Area in Square Miles: 3.14
Population: 79,411

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	7	7	56	8	11	1	1
Ozone (ppb)	56	57	40	62	27	1	1
Nitrogen Dioxide (NO2)	18	9	96	8	98	2	2
Diesel Particulate Matter (ug/m3)	0	0	95	0	89	2	2
Toxic Releases to Air	4,393	2,755	86	4,612	84	1	2
Traffic Proximity and Volume (daily traffic count/distance to road)	18,550,290	6,068,428	96	1,687,230	99	11	3
Lead Paint Indicator (% pre-1960s housing)	1	1	50	0	76	2	1
Superfund Proximity (site count/km distance)	0	0	40	0	56	0	0
RMP Proximity (facility count/km distance)	0	0	71	1	61	1	1
Hazardous Waste Proximity (facility count/km distance)	56	11	97	4	99	16	5
Underground Storage Tanks (UST) indicator	13	3	96	4	92	4	4
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	125	761	76	701,805	57	0	0
Drinking Water Non-Compliance	6	3	79	2	91	3	2
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2	1	82	1	70	1	2
Supplemental Demographic Index USA	2	2	69	2	54	1	1
% Low Income	0	0	82	0	69	1	2
% in limited English-speaking Households	0	0	82	0	87	2	2
% Unemployed	0	0	78	0	77	2	2
% with Less Than High School Education	0	0	54	0	42	1	1
% under Age 5	0	0	35	0	31	1	1
% over Age 64	0	0	17	0	19	0	0
% People of Color	0	0	75	0	62	1	1

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

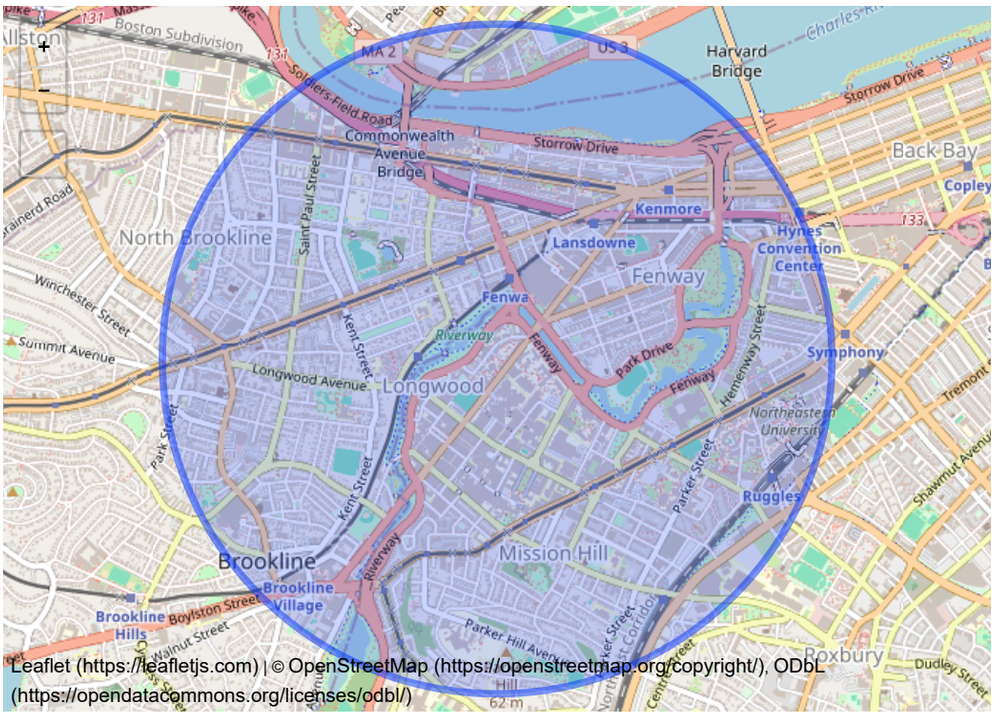
The indexes for a selected area are compared to those for all other locations in the state or nation.

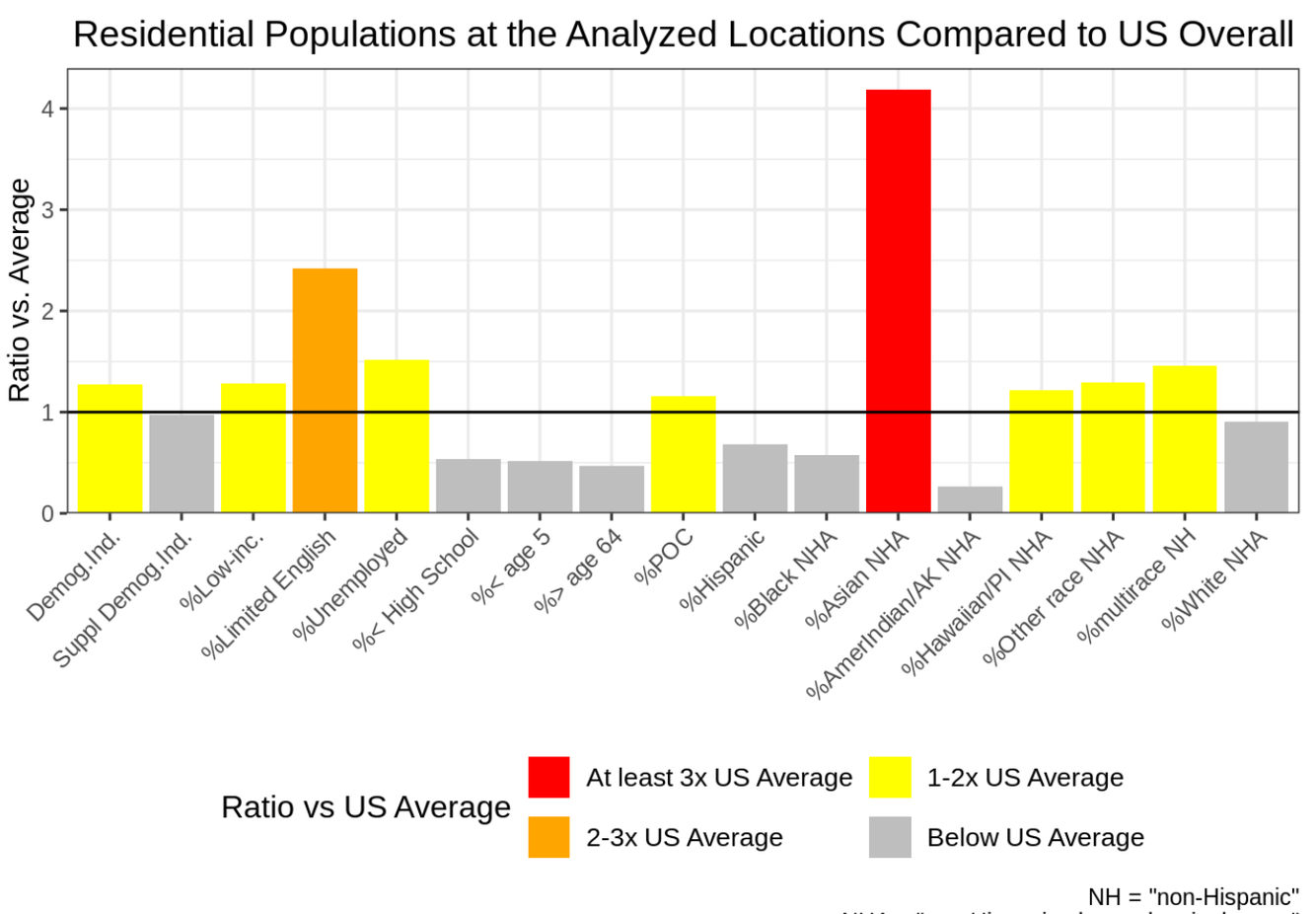
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	84	26
Ozone Summary Index	74	50
Nitrogen Dioxide (NO2) Summary Index	89	87
Diesel Particulate Matter Summary Index	91	85
Toxic Releases to Air Summary Index	92	86
Traffic Proximity and Volume Summary Index	91	87
Lead Paint Summary Index	76	79
Superfund Proximity Summary Index	66	68
RMP Proximity Summary Index	85	75
Hazardous Waste Proximity Summary Index	91	88
Underground Storage Tanks Summary Index	88	84
Wastewater Discharge Summary Index	88	74
Drinking Water Non-Compliance Summary Index	88	90
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	72	14
Ozone Supplemental Summary Index	51	31
Nitrogen Dioxide (NO2) Supplemental Summary Index	85	86
Diesel Particulate Matter Supplemental Summary Index	87	84
Toxic Releases to Air Supplemental Summary Index	88	82
Traffic Proximity and Volume Supplemental Summary Index	87	87
Lead Paint Supplemental Summary Index	62	70
Superfund Proximity Supplemental Summary Index	49	60
RMP Proximity Supplemental Summary Index	77	66
Hazardous Waste Proximity Supplemental Summary Index	88	87
Underground Storage Tanks Supplemental Summary Index	83	80
Wastewater Discharge Supplemental Summary Index	81	64
Drinking Water Non-Compliance Supplemental Summary Index	83	83

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	0	1	1
% Black or African American (non-Hispanic, single race)	0	1	1
% Asian (non-Hispanic, single race)	0	4	3
% American Indian and Alaska Native (non-Hispanic, single race)	0	0	1
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0	1	5
% Other race (non-Hispanic, single race)	0	1	1
% Two or more races (non-Hispanic)	0	1	1
% White (non-Hispanic, single race)	1	1	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	0	NA	NA
% speaking Other Indo-European at home	0	NA	NA
% speaking Asian and Pacific Island languages at home	0	NA	NA
% speaking Other and Unspecified languages at home	0	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	0	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	0	NA	NA
% speaking Other languages (as % of limited English households)	0	NA	NA
BREAKDOWN BY SEX			
% Males	0	NA	NA
% Females	1	NA	NA
HEALTH			
% with Disabilities	0	1	1
% with Low Life Expectancy	0	1	1
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	12	NA	NA
% of Adults with Cancer (excluding skin cancer)	3	NA	NA
AGE			
% under Age 5	0	1	1
% under age 18	0	NA	NA
% over Age 64	0	0	0
COMMUNITY			
Occupied Housing Units	29,236	NA	NA
Life Expectancy in Years	34	NA	NA
Per Capita Income	42,821	NA	NA
% Owner Occupied households	0	NA	NA
POVERTY			
% of Households below Poverty Level	0	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	1	NA	NA
Number of Sites Nearby (avg)	1	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	18	NA	NA
Number of Air Pollution Facilities	51	NA	NA
Number of Toxic Release Facilities	3	NA	NA
Number of Water Discharge Facilities	71	NA	NA
Number of Brownfields	3	NA	NA
Number of Schools	9	NA	NA
Number of Worship Places	38	NA	NA
Number of Hospitals	15	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0	NA	NA
Estimated Flood Risk in 30 Years	0	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0	NA	NA
% Households without Health Insurance	0	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	79,411	NA	NA
Count of Population Age 25 up	38,014	NA	NA
Count of Households	29,236	NA	NA
Universe for % unemployed (denominator, count)	73,664	NA	NA
Count of Housing Units Built Pre 1960	16,975	NA	NA
Built housing units count (denominator for % pre 1960)	32,247	NA	NA
Count of Population for whom Poverty Status is Determined	56,606	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.003 | Report created on December 22, 2025

EJ Screen Report_Census Block Groups within the DGA

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250173531022)
Area in Square Miles: 0.14
Population: 1,579

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.56	6.52	51	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	42	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	20.0	8.8	98	7.8	99	2.6	2.3
Diesel Particulate Matter (ug/m3)	0.378	0.176	97	0.191	90	2.0	2.1
Toxic Releases to Air	4,000	2,800	81	4,600	83	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	19,000,000	6,100,000	97	1,700,000	99	11.0	3.2
Lead Paint Indicator (% pre-1960s housing)	0.00%	0.51	0	0.3	0	0.0	0.0
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.44	0.37	71	0.57	60	0.8	1.2
Hazardous Waste Proximity (facility count/km distance)	70.2	11.2	99	3.5	99	20.0	6.3
Underground Storage Tanks (UST) indicator	3.1	3.3	63	3.6	71	0.9	0.9
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	180	760	85	700,000	61	0.0	0.2
Drinking Water Non-Compliance	30.0	3.17	98	2.2	98	14.0	9.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.96	1.19	61	1.34	40	0.7	1.0
Supplemental Demographic Index USA	0.48	1.52	1	1.64	0	0.3	0.3
% Low Income	0%	22%	0	30%	0	0.0	0.0
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	8%	5%	78	6%	77	1.5	1.6
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	0%	18%	0	18%	0	0.0	0.0
% People of Color	61%	31%	84	40%	72	1.5	1.9

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

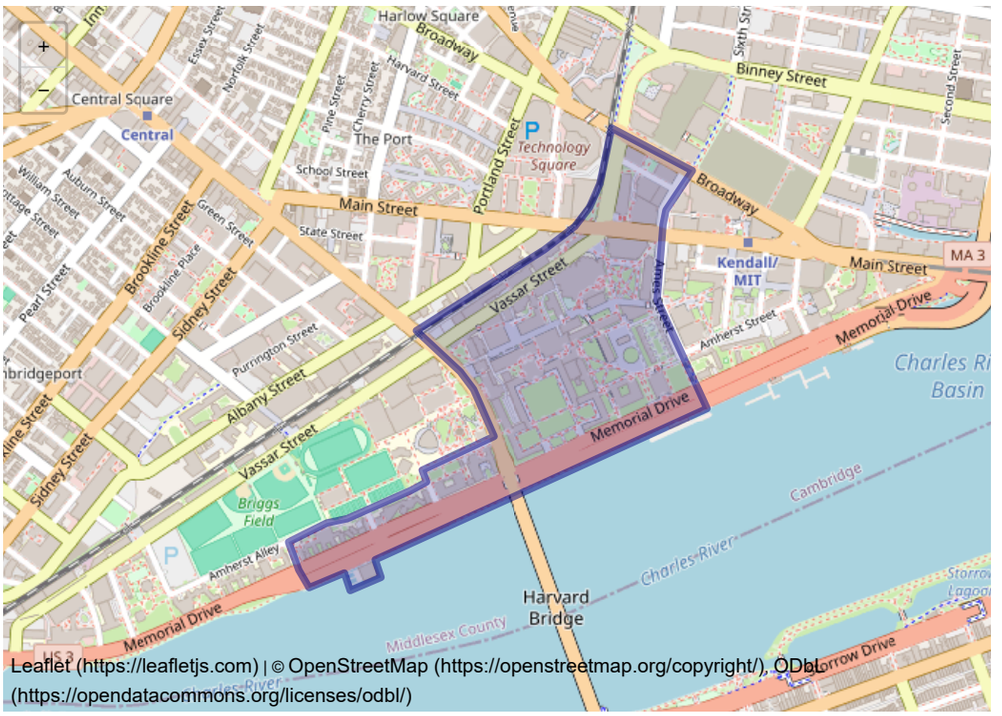
The indexes for a selected area are compared to those for all other locations in the state or nation.

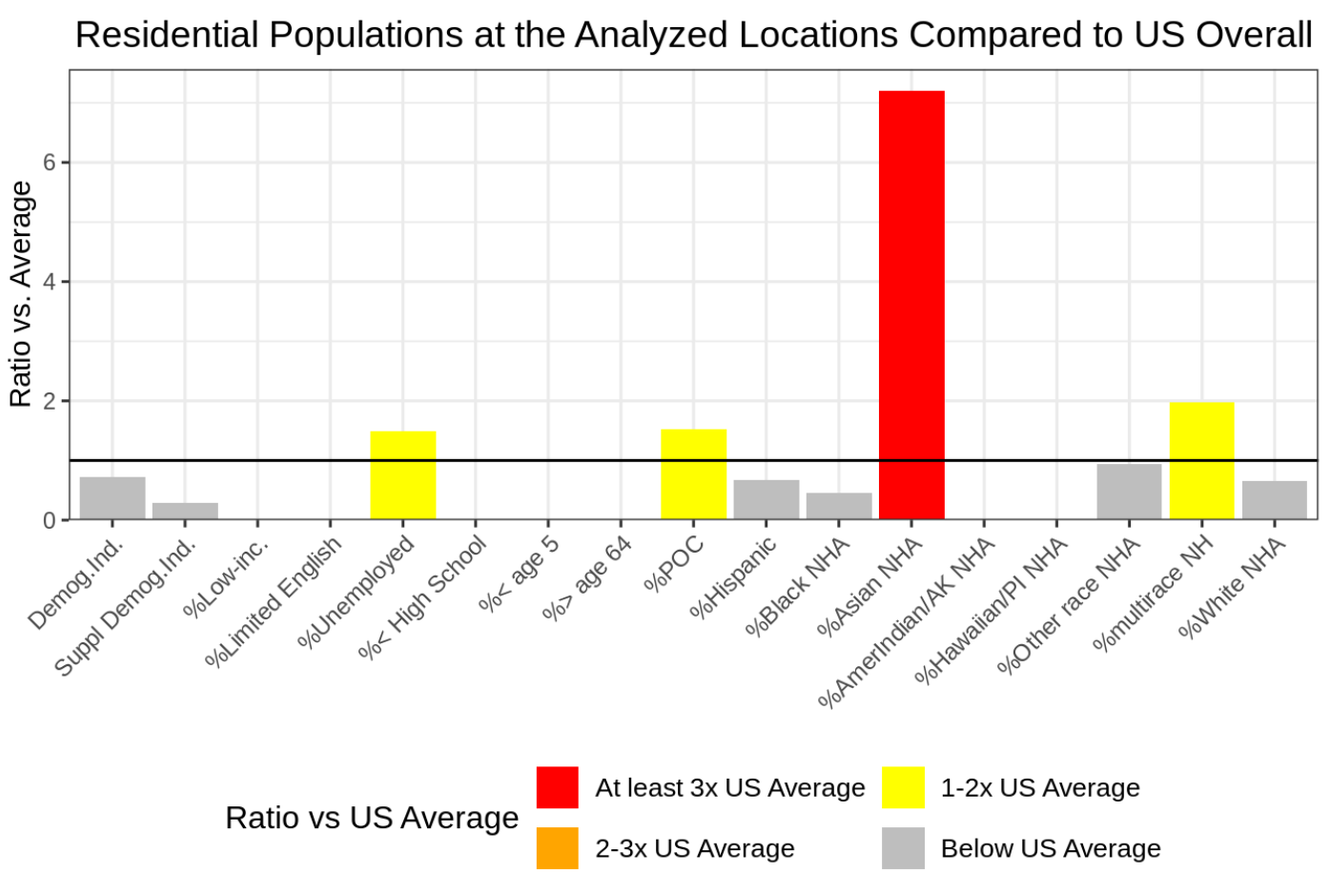
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	63	16
Ozone Summary Index	58	33
Nitrogen Dioxide (NO2) Summary Index	77	70
Diesel Particulate Matter Summary Index	78	68
Toxic Releases to Air Summary Index	77	68
Traffic Proximity and Volume Summary Index	78	70
Lead Paint Summary Index	0	0
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	71	57
Hazardous Waste Proximity Summary Index	79	71
Underground Storage Tanks Summary Index	65	63
Wastewater Discharge Summary Index	77	57
Drinking Water Non-Compliance Summary Index	86	85
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	18	4
Ozone Supplemental Summary Index	18	9
Nitrogen Dioxide (NO2) Supplemental Summary Index	38	36
Diesel Particulate Matter Supplemental Summary Index	37	33
Toxic Releases to Air Supplemental Summary Index	29	29
Traffic Proximity and Volume Supplemental Summary Index	36	36
Lead Paint Supplemental Summary Index	0	0
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	32	30
Hazardous Waste Proximity Supplemental Summary Index	36	36
Underground Storage Tanks Supplemental Summary Index	26	29
Wastewater Discharge Supplemental Summary Index	31	21
Drinking Water Non-Compliance Supplemental Summary Index	58	73

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	12%	0.7	0.9
% Black or African American (non-Hispanic, single race)	6%	0.4	0.8
% Asian (non-Hispanic, single race)	36%	7.2	5.3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0.9	0.4
% Two or more races (non-Hispanic)	7%	2	1.7
% White (non-Hispanic, single race)	39%	0.7	0.6
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	47%	NA	NA
% speaking Other Indo-European at home	12%	NA	NA
% speaking Asian and Pacific Island languages at home	25%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	7%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	48%	NA	NA
% Females	52%	NA	NA
HEALTH			
% with Disabilities	2%	0.2	0.2
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	10.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.10	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	3%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	4	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	8,202	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	0%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	3	NA	NA
Number of Air Pollution Facilities	3	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	18	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	1	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	90%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,579	NA	NA
Count of Population Age 25 up	48	NA	NA
Count of Households	4	NA	NA
Universe for % unemployed (denominator, count)	1,579	NA	NA
Count of Housing Units Built Pre 1960	0	NA	NA
Built housing units count (denominator for % pre 1960)	4	NA	NA
Count of Population for whom Poverty Status is Determined	4	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250173531023)
Area in Square Miles: 0.14
Population: 2,033

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.56	6.52	51	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	42	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	18.9	8.8	97	7.8	99	2.4	2.1
Diesel Particulate Matter (ug/m3)	0.378	0.176	97	0.191	90	2.0	2.1
Toxic Releases to Air	4,200	2,800	84	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	18,000,000	6,100,000	96	1,700,000	99	11.0	3.0
Lead Paint Indicator (% pre-1960s housing)	34.78%	0.51	31	0.3	62	1.2	0.7
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.41	0.37	69	0.57	59	0.7	1.1
Hazardous Waste Proximity (facility count/km distance)	62.5	11.2	99	3.5	99	18.0	5.6
Underground Storage Tanks (UST) indicator	4.9	3.3	77	3.6	79	1.4	1.5
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	180	760	85	700,000	61	0.0	0.2
Drinking Water Non-Compliance	30.0	3.17	98	2.2	98	14.0	9.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.19	1.19	69	1.34	51	0.9	1.2
Supplemental Demographic Index USA	1.51	1.52	63	1.64	48	0.9	1.0
% Low Income	15%	22%	46	30%	29	0.5	0.7
% in limited English-speaking Households	37%	6%	97	5%	97	7.7	6.1
% Unemployed	2%	5%	33	6%	35	0.4	0.4
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	1%	5%	14	5%	14	0.1	0.1
% over Age 64	0%	18%	0	18%	0	0.0	0.0
% People of Color	53%	31%	80	40%	67	1.3	1.7

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

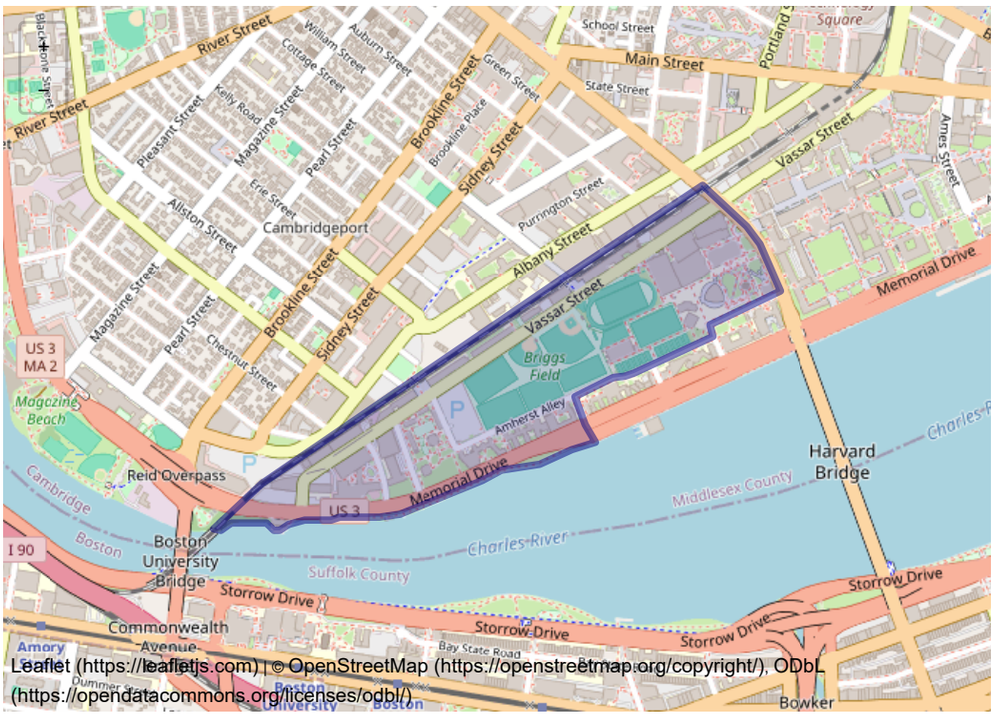
The indexes for a selected area are compared to those for all other locations in the state or nation.

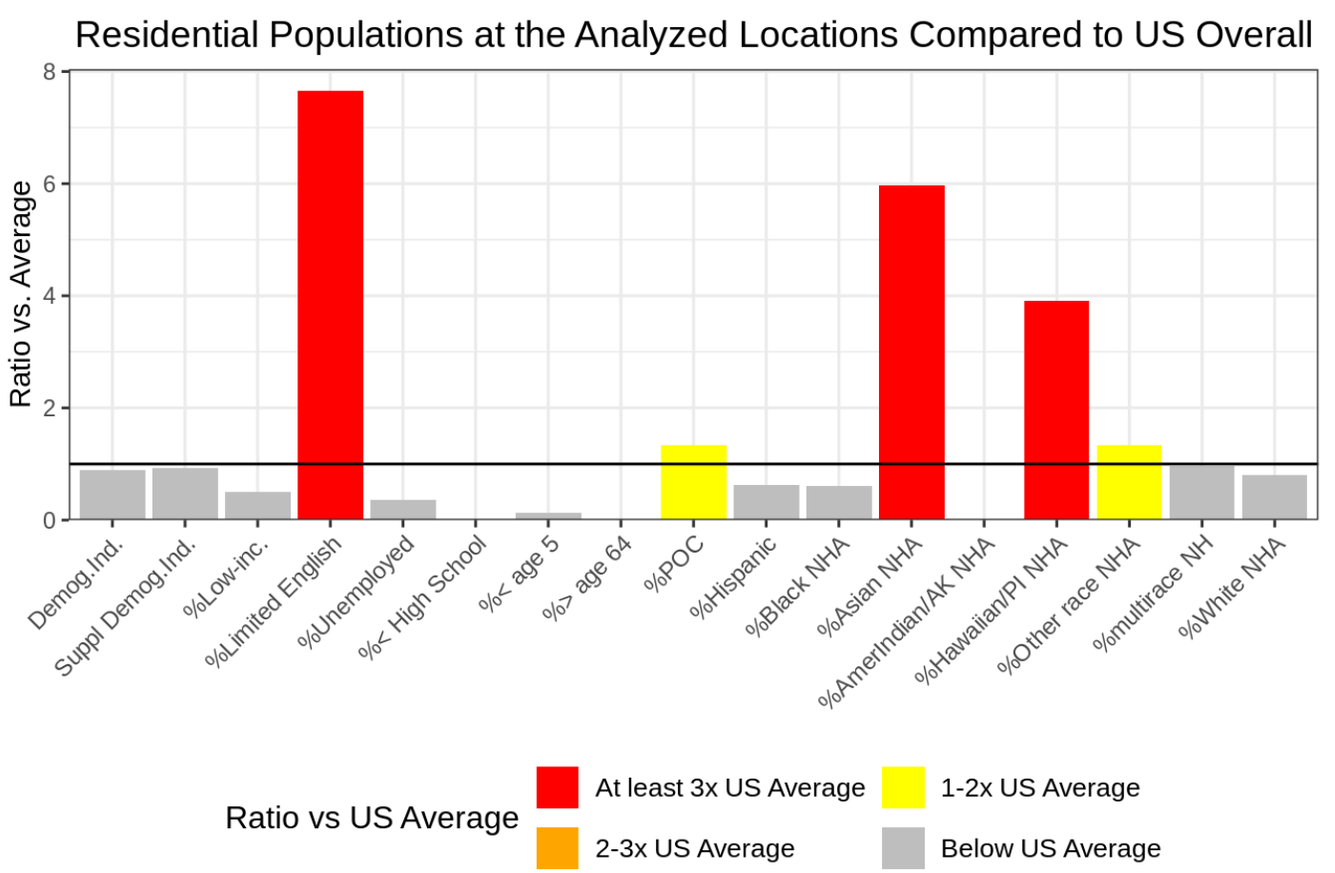
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	71	19
Ozone Summary Index	65	39
Nitrogen Dioxide (NO2) Summary Index	81	77
Diesel Particulate Matter Summary Index	84	75
Toxic Releases to Air Summary Index	84	76
Traffic Proximity and Volume Summary Index	83	77
Lead Paint Summary Index	52	65
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	76	63
Hazardous Waste Proximity Summary Index	84	77
Underground Storage Tanks Summary Index	76	72
Wastewater Discharge Summary Index	82	64
Drinking Water Non-Compliance Summary Index	89	88
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	64	13
Ozone Supplemental Summary Index	49	30
Nitrogen Dioxide (NO2) Supplemental Summary Index	83	84
Diesel Particulate Matter Supplemental Summary Index	86	82
Toxic Releases to Air Supplemental Summary Index	85	79
Traffic Proximity and Volume Supplemental Summary Index	85	85
Lead Paint Supplemental Summary Index	40	62
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	73	62
Hazardous Waste Proximity Supplemental Summary Index	87	85
Underground Storage Tanks Supplemental Summary Index	76	74
Wastewater Discharge Supplemental Summary Index	83	64
Drinking Water Non-Compliance Supplemental Summary Index	90	88

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	11%	0.6	0.9
% Black or African American (non-Hispanic, single race)	7%	0.6	1.1
% Asian (non-Hispanic, single race)	30%	6	4.4
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	1%	3.9	18
% Other race (non-Hispanic, single race)	1%	1.3	0.5
% Two or more races (non-Hispanic)	3%	1	0.9
% White (non-Hispanic, single race)	47%	0.8	0.7
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	47%	NA	NA
% speaking Other Indo-European at home	12%	NA	NA
% speaking Asian and Pacific Island languages at home	25%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	7%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	57%	NA	NA
% Females	43%	NA	NA
HEALTH			
% with Disabilities	2%	0.2	0.2
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	10.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.10	NA	NA
AGE			
% under Age 5	1%	0.1	0.1
% under age 18	3%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	19	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	17,414	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	11%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	6	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	86%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	58%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	2,033	NA	NA
Count of Population Age 25 up	389	NA	NA
Count of Households	19	NA	NA
Universe for % unemployed (denominator, count)	2,007	NA	NA
Count of Housing Units Built Pre 1960	8	NA	NA
Built housing units count (denominator for % pre 1960)	23	NA	NA
Count of Population for whom Poverty Status is Determined	65	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250173532001)
Area in Square Miles: 0.05
Population: 1,357

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.58	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	55.7	56.7	36	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	17.7	8.8	96	7.8	99	2.3	2.0
Diesel Particulate Matter (ug/m3)	0.377	0.176	96	0.191	90	2.0	2.1
Toxic Releases to Air	4,300	2,800	85	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	18,000,000	6,100,000	96	1,700,000	99	10.0	2.9
Lead Paint Indicator (% pre-1960s housing)	53.30%	0.51	50	0.3	76	1.8	1.0
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.37	0.37	67	0.57	56	0.7	1.0
Hazardous Waste Proximity (facility count/km distance)	60.2	11.2	98	3.5	99	17.0	5.4
Underground Storage Tanks (UST) indicator	2.6	3.3	58	3.6	67	0.7	0.8
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	150	760	80	700,000	59	0.0	0.2
Drinking Water Non-Compliance	30.0	3.17	98	2.2	98	14.0	9.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.75	1.19	48	1.34	28	0.6	0.7
Supplemental Demographic Index USA	0.99	1.52	29	1.64	15	0.6	0.7
% Low Income	18%	22%	52	30%	33	0.6	0.8
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	4%	5%	49	6%	50	0.7	0.7
% with Less Than High School Education	7%	9%	58	11%	46	0.6	0.8
% under Age 5	5%	5%	61	5%	55	1.0	1.1
% over Age 64	22%	18%	71	18%	71	1.2	1.2
% People of Color	21%	31%	46	40%	38	0.5	0.7

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

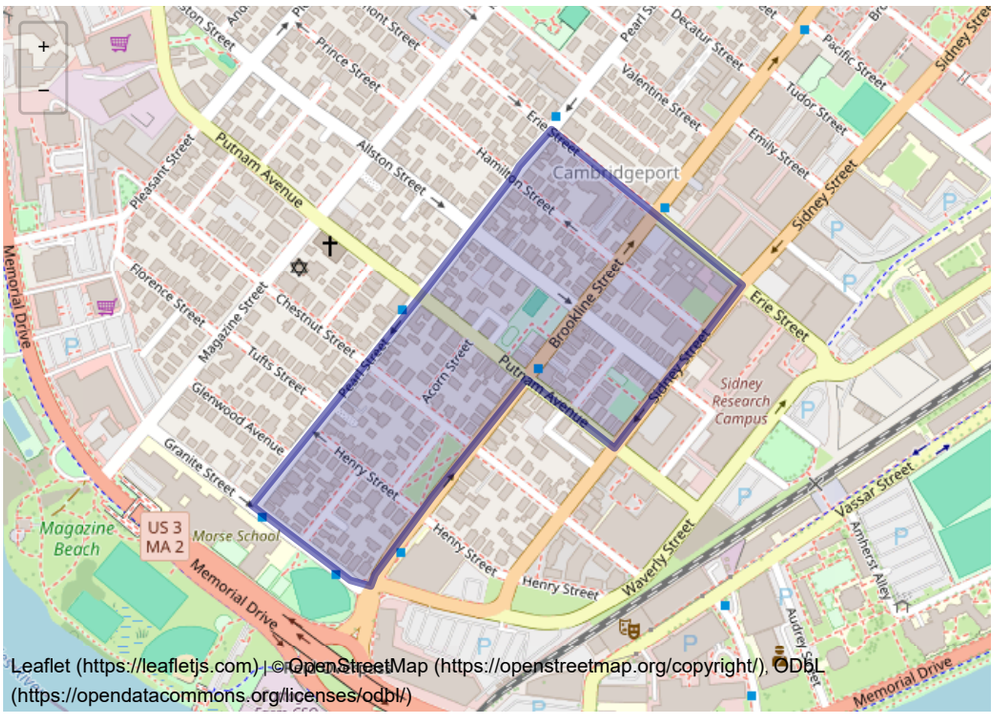
The indexes for a selected area are compared to those for all other locations in the state or nation.

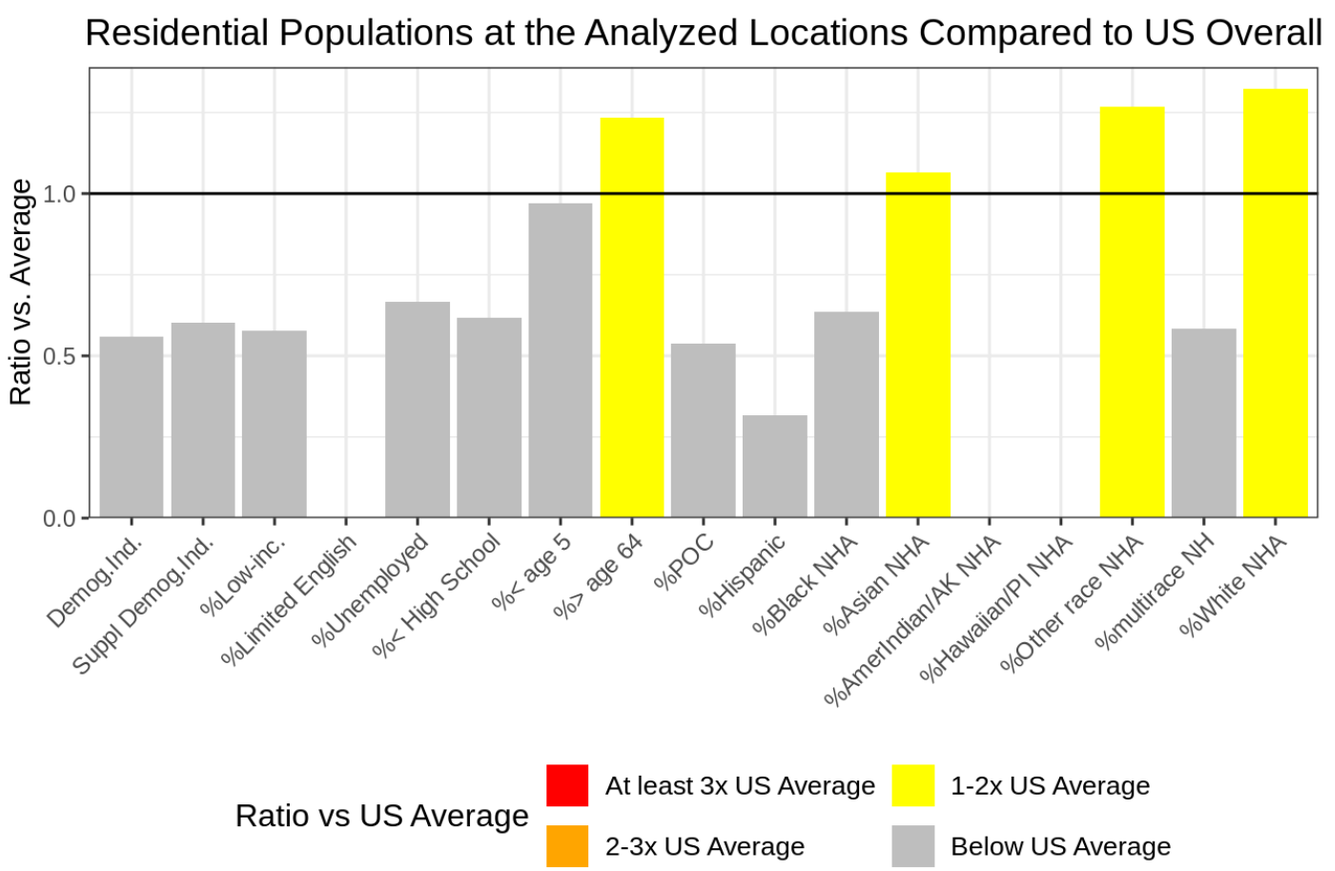
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	54	12
Ozone Summary Index	43	26
Nitrogen Dioxide (NO2) Summary Index	68	62
Diesel Particulate Matter Summary Index	70	60
Toxic Releases to Air Summary Index	70	60
Traffic Proximity and Volume Summary Index	69	62
Lead Paint Summary Index	52	56
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	62	49
Hazardous Waste Proximity Summary Index	70	63
Underground Storage Tanks Summary Index	55	55
Wastewater Discharge Summary Index	67	48
Drinking Water Non-Compliance Summary Index	81	82
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	47	8
Ozone Supplemental Summary Index	33	18
Nitrogen Dioxide (NO2) Supplemental Summary Index	70	67
Diesel Particulate Matter Supplemental Summary Index	72	64
Toxic Releases to Air Supplemental Summary Index	70	59
Traffic Proximity and Volume Supplemental Summary Index	71	68
Lead Paint Supplemental Summary Index	43	51
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	56	43
Hazardous Waste Proximity Supplemental Summary Index	72	68
Underground Storage Tanks Supplemental Summary Index	49	49
Wastewater Discharge Supplemental Summary Index	63	42
Drinking Water Non-Compliance Supplemental Summary Index	80	79

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	6%	0.3	0.4
% Black or African American (non-Hispanic, single race)	8%	0.6	1.2
% Asian (non-Hispanic, single race)	5%	1.1	0.8
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	1%	1.3	0.5
% Two or more races (non-Hispanic)	2%	0.6	0.5
% White (non-Hispanic, single race)	79%	1.3	1.2
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	37%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	16%	NA	NA
% speaking Other and Unspecified languages at home	3%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	7%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	46%	NA	NA
% Females	54%	NA	NA
HEALTH			
% with Disabilities	7%	0.5	0.6
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	2	NA	NA
% of Adults with Asthma	9.80	NA	NA
% of Adults with Cancer (excluding skin cancer)	3.50	NA	NA
AGE			
% under Age 5	5%	1	1.1
% under age 18	16%	NA	NA
% over Age 64	22%	1.2	1.2
COMMUNITY			
Occupied Housing Units	699	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	68,623	NA	NA
% Owner Occupied households	35%	NA	NA
POVERTY			
% of Households below Poverty Level	7%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	33%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	17%	NA	NA
% Households without Health Insurance	4%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,357	NA	NA
Count of Population Age 25 up	1,005	NA	NA
Count of Households	699	NA	NA
Universe for % unemployed (denominator, count)	1,171	NA	NA
Count of Housing Units Built Pre 1960	388	NA	NA
Built housing units count (denominator for % pre 1960)	728	NA	NA
Count of Population for whom Poverty Status is Determined	1,349	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250173532002)
Area in Square Miles: 0.07
Population: 1,303

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.58	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	55.7	56.7	36	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	18.0	8.8	97	7.8	99	2.3	2.0
Diesel Particulate Matter (ug/m3)	0.378	0.176	96	0.191	90	2.0	2.1
Toxic Releases to Air	4,200	2,800	85	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	18,000,000	6,100,000	96	1,700,000	99	11.0	3.0
Lead Paint Indicator (% pre-1960s housing)	31.56%	0.51	28	0.3	60	1.1	0.6
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.39	0.37	68	0.57	57	0.7	1.0
Hazardous Waste Proximity (facility count/km distance)	63.1	11.2	99	3.5	99	18.0	5.6
Underground Storage Tanks (UST) indicator	5.0	3.3	77	3.6	79	1.4	1.5
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	160	760	82	700,000	59	0.0	0.2
Drinking Water Non-Compliance	30.0	3.17	98	2.2	98	14.0	9.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.70	1.19	82	1.34	69	1.3	1.7
Supplemental Demographic Index USA	1.13	1.52	42	1.64	24	0.7	0.8
% Low Income	32%	22%	74	30%	58	1.0	1.4
% in limited English-speaking Households	3%	6%	58	5%	69	0.7	0.5
% Unemployed	12%	5%	88	6%	87	2.1	2.2
% with Less Than High School Education	4%	9%	42	11%	31	0.4	0.4
% under Age 5	4%	5%	51	5%	45	0.8	0.9
% over Age 64	6%	18%	9	18%	10	0.3	0.3
% People of Color	61%	31%	84	40%	72	1.5	1.9

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

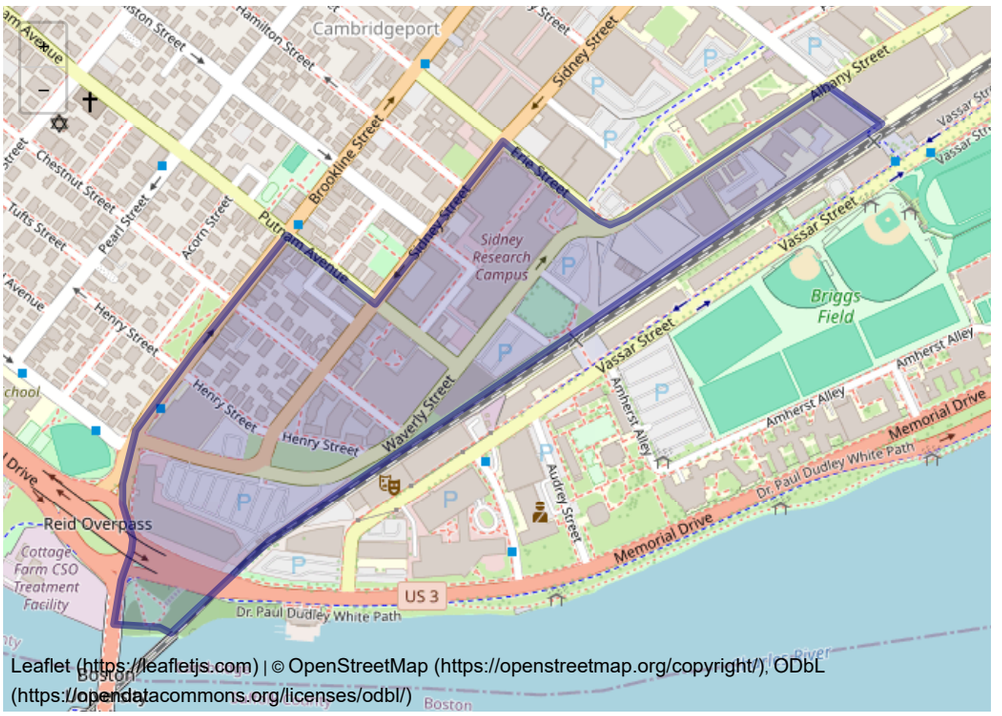
The indexes for a selected area are compared to those for all other locations in the state or nation.

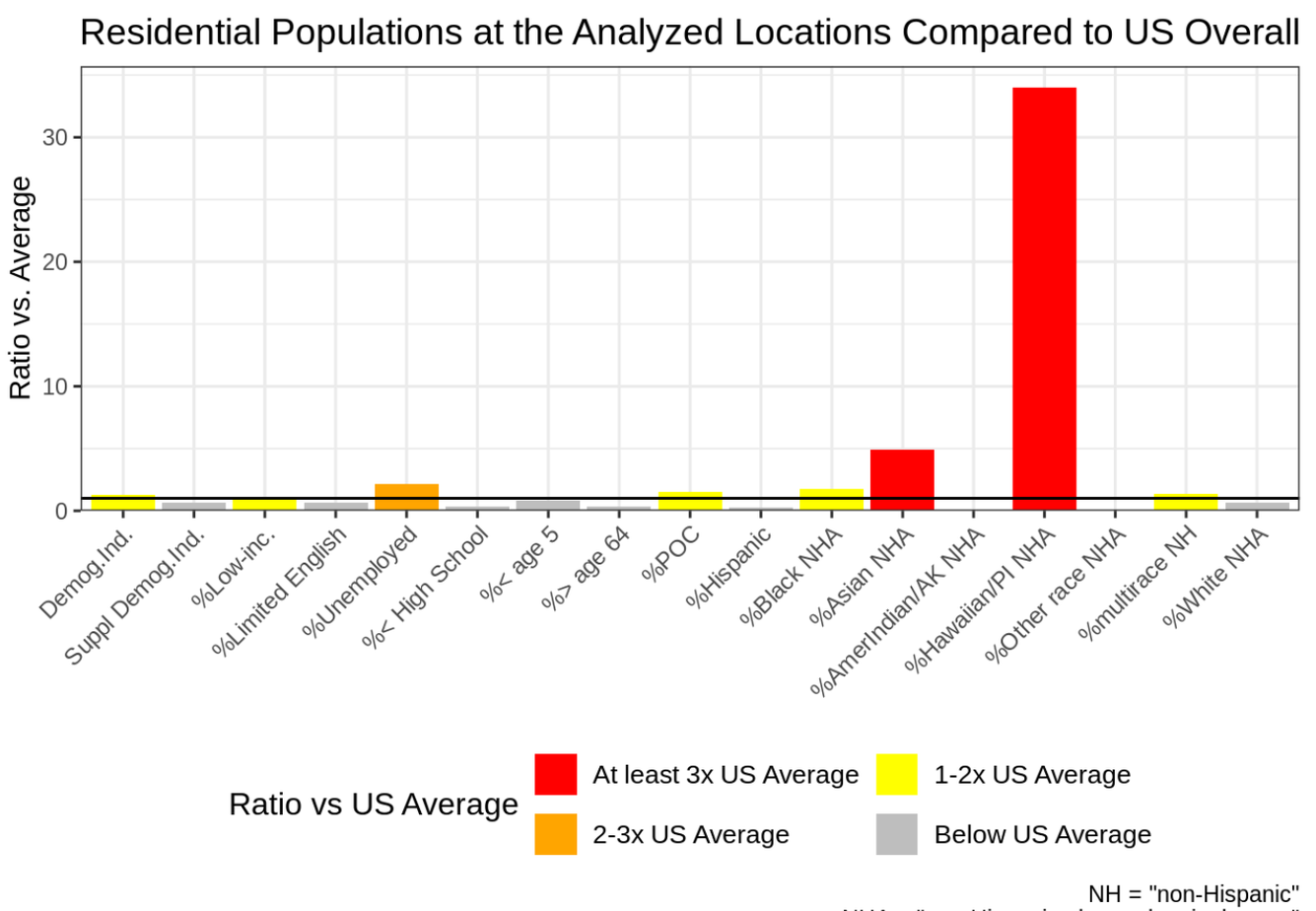
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	83	25
Ozone Summary Index	70	49
Nitrogen Dioxide (NO2) Summary Index	89	87
Diesel Particulate Matter Summary Index	91	85
Toxic Releases to Air Summary Index	91	86
Traffic Proximity and Volume Summary Index	91	87
Lead Paint Summary Index	59	76
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	84	72
Hazardous Waste Proximity Summary Index	92	88
Underground Storage Tanks Summary Index	85	82
Wastewater Discharge Summary Index	90	75
Drinking Water Non-Compliance Summary Index	93	93
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	53	9
Ozone Supplemental Summary Index	37	21
Nitrogen Dioxide (NO2) Supplemental Summary Index	75	73
Diesel Particulate Matter Supplemental Summary Index	77	70
Toxic Releases to Air Supplemental Summary Index	76	65
Traffic Proximity and Volume Supplemental Summary Index	77	74
Lead Paint Supplemental Summary Index	30	46
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	62	48
Hazardous Waste Proximity Supplemental Summary Index	79	74
Underground Storage Tanks Supplemental Summary Index	66	62
Wastewater Discharge Supplemental Summary Index	71	48
Drinking Water Non-Compliance Supplemental Summary Index	84	81

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	5%	0.3	0.4
% Black or African American (non-Hispanic, single race)	22%	1.8	3.3
% Asian (non-Hispanic, single race)	24%	4.9	3.6
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	5%	34	150
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	5%	1.4	1.2
% White (non-Hispanic, single race)	39%	0.7	0.6
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	37%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	16%	NA	NA
% speaking Other and Unspecified languages at home	3%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	7%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	50%	NA	NA
% Females	50%	NA	NA
HEALTH			
% with Disabilities	7%	0.5	0.6
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	2	NA	NA
% of Adults with Asthma	9.80	NA	NA
% of Adults with Cancer (excluding skin cancer)	3.50	NA	NA
AGE			
% under Age 5	4%	0.8	0.9
% under age 18	14%	NA	NA
% over Age 64	6%	0.3	0.3
COMMUNITY			
Occupied Housing Units	555	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	75,004	NA	NA
% Owner Occupied households	21%	NA	NA
POVERTY			
% of Households below Poverty Level	22%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	4	NA	NA
Number of Toxic Release Facilities	2	NA	NA
Number of Water Discharge Facilities	3	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	17%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	2%	NA	NA
% Households without Health Insurance	4%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,303	NA	NA
Count of Population Age 25 up	809	NA	NA
Count of Households	555	NA	NA
Universe for % unemployed (denominator, count)	1,142	NA	NA
Count of Housing Units Built Pre 1960	178	NA	NA
Built housing units count (denominator for % pre 1960)	564	NA	NA
Count of Population for whom Poverty Status is Determined	1,155	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250173533003)
Area in Square Miles: 0.1
Population: 1,391

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	54	8.45	11	0.8	1.0
Ozone (ppb)	55.7	56.7	36	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	17.4	8.8	96	7.8	98	2.2	2.0
Diesel Particulate Matter (ug/m3)	0.377	0.176	96	0.191	90	2.0	2.1
Toxic Releases to Air	4,300	2,800	86	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	18,000,000	6,100,000	96	1,700,000	99	10.0	2.9
Lead Paint Indicator (% pre-1960s housing)	75.25%	0.51	77	0.3	89	2.5	1.5
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.35	0.37	66	0.57	55	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	53.4	11.2	97	3.5	99	15.0	4.8
Underground Storage Tanks (UST) indicator	12.0	3.3	95	3.6	91	3.3	3.6
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	160	760	82	700,000	59	0.0	0.2
Drinking Water Non-Compliance	30.0	3.17	98	2.2	98	14.0	9.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.94	1.19	59	1.34	39	0.7	0.9
Supplemental Demographic Index USA	0.66	1.52	5	1.64	2	0.4	0.4
% Low Income	8%	22%	26	30%	15	0.3	0.4
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	1%	5%	27	6%	30	0.3	0.3
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	2%	5%	24	5%	22	0.3	0.4
% over Age 64	16%	18%	48	18%	49	0.9	0.9
% People of Color	47%	31%	76	40%	63	1.2	1.5

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

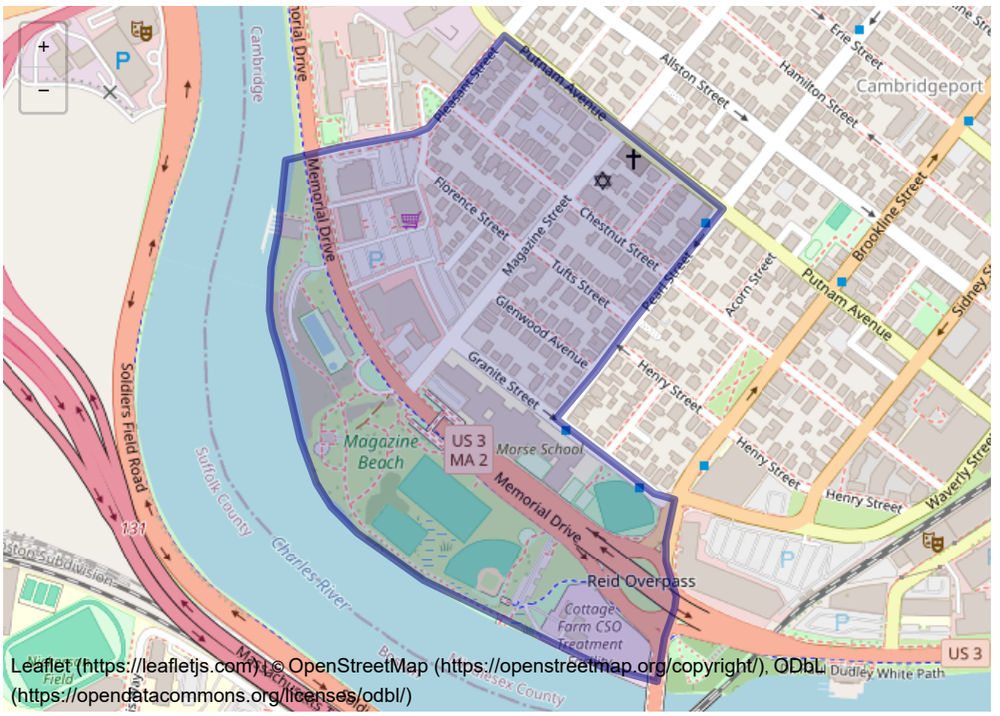
The indexes for a selected area are compared to those for all other locations in the state or nation.

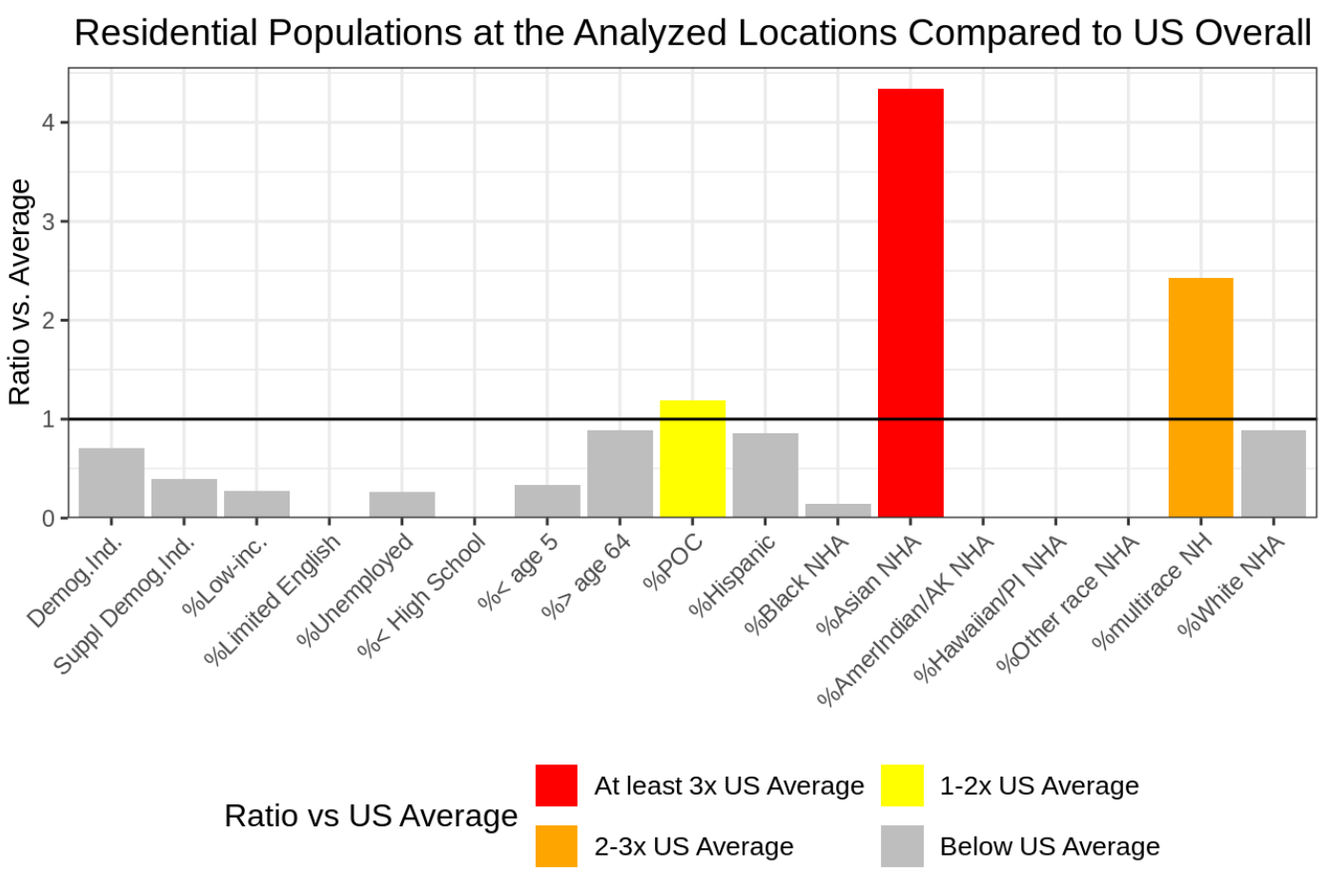
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	64	15
Ozone Summary Index	51	31
Nitrogen Dioxide (NO2) Summary Index	75	69
Diesel Particulate Matter Summary Index	77	67
Toxic Releases to Air Summary Index	78	68
Traffic Proximity and Volume Summary Index	76	70
Lead Paint Summary Index	72	69
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	68	54
Hazardous Waste Proximity Summary Index	77	70
Underground Storage Tanks Summary Index	76	70
Wastewater Discharge Summary Index	75	55
Drinking Water Non-Compliance Summary Index	85	85
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	28	5
Ozone Supplemental Summary Index	22	12
Nitrogen Dioxide (NO2) Supplemental Summary Index	51	48
Diesel Particulate Matter Supplemental Summary Index	51	45
Toxic Releases to Air Supplemental Summary Index	48	40
Traffic Proximity and Volume Supplemental Summary Index	50	49
Lead Paint Supplemental Summary Index	41	40
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	39	32
Hazardous Waste Proximity Supplemental Summary Index	50	49
Underground Storage Tanks Supplemental Summary Index	49	45
Wastewater Discharge Supplemental Summary Index	44	28
Drinking Water Non-Compliance Supplemental Summary Index	65	74

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	15%	0.9	1.2
% Black or African American (non-Hispanic, single race)	2%	0.1	0.3
% Asian (non-Hispanic, single race)	22%	4.3	3.2
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	8%	2.4	2.1
% White (non-Hispanic, single race)	53%	0.9	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	33%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	9%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	12%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	45%	NA	NA
% Females	55%	NA	NA
HEALTH			
% with Disabilities	10%	0.7	0.8
% with Low Life Expectancy	12%	0.6	0.7
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	9.90	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.10	NA	NA
AGE			
% under Age 5	2%	0.3	0.4
% under age 18	15%	NA	NA
% over Age 64	16%	0.9	0.9
COMMUNITY			
Occupied Housing Units	569	NA	NA
Life Expectancy in Years	86	NA	NA
Per Capita Income	89,158	NA	NA
% Owner Occupied households	63%	NA	NA
POVERTY			
% of Households below Poverty Level	2%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	1	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	44%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	2%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,391	NA	NA
Count of Population Age 25 up	1,129	NA	NA
Count of Households	569	NA	NA
Universe for % unemployed (denominator, count)	1,195	NA	NA
Count of Housing Units Built Pre 1960	450	NA	NA
Built housing units count (denominator for % pre 1960)	598	NA	NA
Count of Population for whom Poverty Status is Determined	1,391	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250214001001)
Area in Square Miles: 0.04
Population: 1,293

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.61	6.52	57	8.45	11	0.8	1.0
Ozone (ppb)	55.8	56.7	37	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	15.2	8.8	93	7.8	96	1.9	1.7
Diesel Particulate Matter (ug/m3)	0.360	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,600	2,800	88	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	15,000,000	6,100,000	93	1,700,000	99	9.1	2.5
Lead Paint Indicator (% pre-1960s housing)	57.35%	0.51	55	0.3	79	1.9	1.1
Superfund Proximity (site count/km distance)	0.10	0.34	44	0.39	59	0.3	0.3
RMP Proximity (facility count/km distance)	0.36	0.37	66	0.57	56	0.6	1.0
Hazardous Waste Proximity (facility count/km distance)	52.2	11.2	96	3.5	99	15.0	4.7
Underground Storage Tanks (UST) indicator	3.7	3.3	68	3.6	73	1.0	1.1
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	110	760	74	700,000	56	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.78	1.19	83	1.34	72	1.3	1.7
Supplemental Demographic Index USA	1.40	1.52	61	1.64	41	0.9	1.0
% Low Income	46%	22%	87	30%	77	1.5	2.1
% in limited English-speaking Households	7%	6%	72	5%	80	1.5	1.2
% Unemployed	3%	5%	43	6%	45	0.5	0.6
% with Less Than High School Education	4%	9%	40	11%	30	0.3	0.4
% under Age 5	2%	5%	27	5%	24	0.4	0.4
% over Age 64	11%	18%	26	18%	28	0.6	0.6
% People of Color	45%	31%	74	40%	61	1.1	1.4

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

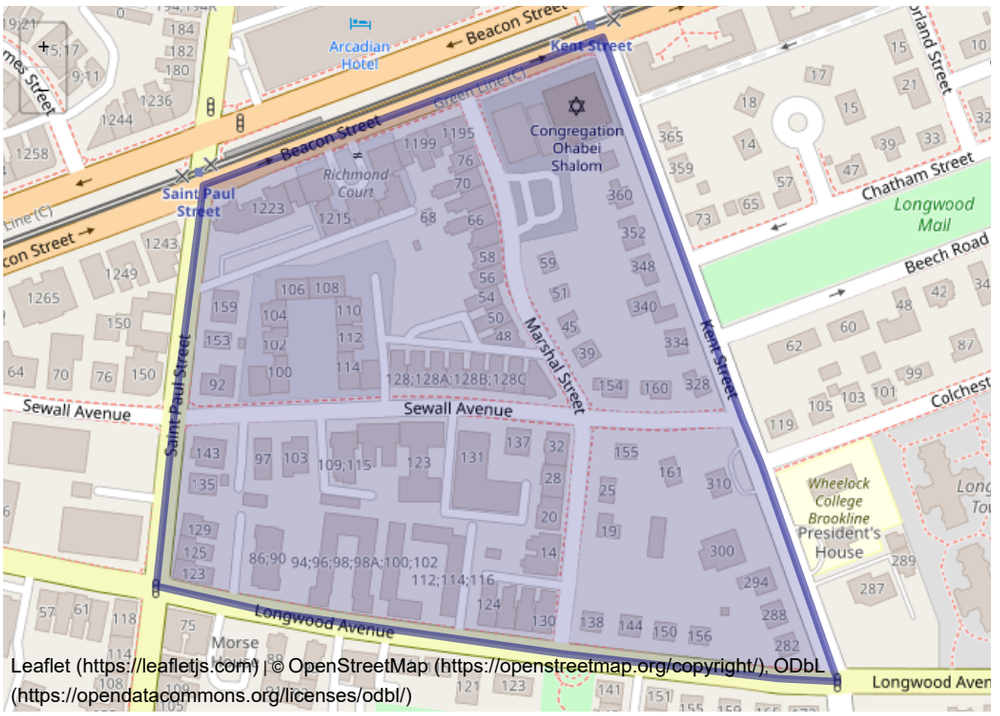
The indexes for a selected area are compared to those for all other locations in the state or nation.

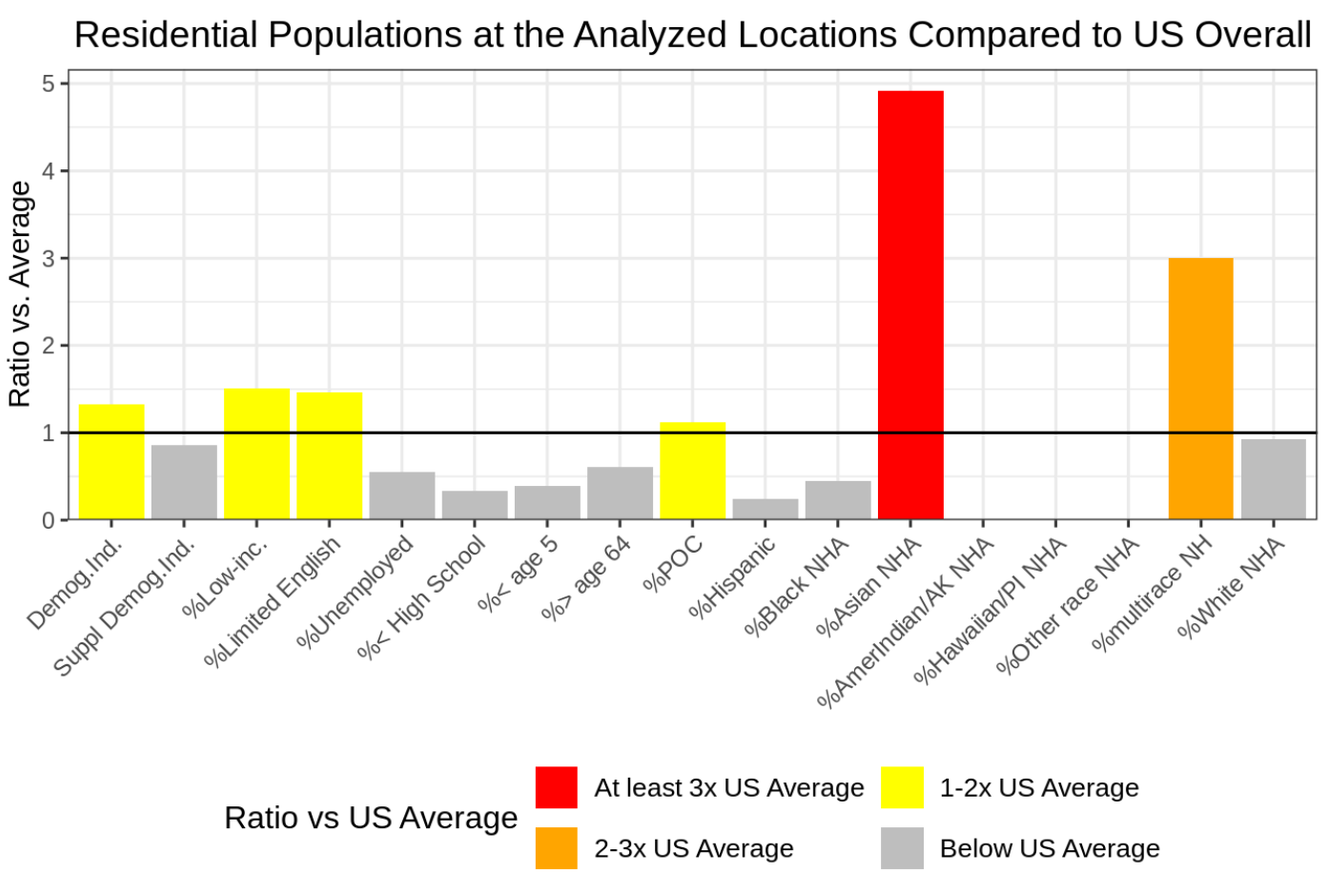
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	85	26
Ozone Summary Index	72	50
Nitrogen Dioxide (NO2) Summary Index	89	87
Diesel Particulate Matter Summary Index	91	86
Toxic Releases to Air Summary Index	93	88
Traffic Proximity and Volume Summary Index	91	89
Lead Paint Summary Index	80	85
Superfund Proximity Summary Index	82	79
RMP Proximity Summary Index	84	73
Hazardous Waste Proximity Summary Index	92	89
Underground Storage Tanks Summary Index	83	81
Wastewater Discharge Summary Index	88	75
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	68	12
Ozone Supplemental Summary Index	44	26
Nitrogen Dioxide (NO2) Supplemental Summary Index	81	80
Diesel Particulate Matter Supplemental Summary Index	83	79
Toxic Releases to Air Supplemental Summary Index	86	76
Traffic Proximity and Volume Supplemental Summary Index	83	83
Lead Paint Supplemental Summary Index	62	70
Superfund Proximity Supplemental Summary Index	58	67
RMP Proximity Supplemental Summary Index	70	56
Hazardous Waste Proximity Supplemental Summary Index	85	83
Underground Storage Tanks Supplemental Summary Index	70	68
Wastewater Discharge Supplemental Summary Index	76	56
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	4%	0.2	0.3
% Black or African American (non-Hispanic, single race)	5%	0.4	0.8
% Asian (non-Hispanic, single race)	25%	4.9	3.6
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	10%	3	2.6
% White (non-Hispanic, single race)	55%	0.9	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	39%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	10%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	41%	NA	NA
% Females	59%	NA	NA
HEALTH			
% with Disabilities	9%	0.7	0.7
% with Low Life Expectancy	17%	0.9	1
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.30	NA	NA
AGE			
% under Age 5	2%	0.4	0.4
% under age 18	21%	NA	NA
% over Age 64	11%	0.6	0.6
COMMUNITY			
Occupied Housing Units	528	NA	NA
Life Expectancy in Years	81	NA	NA
Per Capita Income	95,461	NA	NA
% Owner Occupied households	44%	NA	NA
POVERTY			
% of Households below Poverty Level	22%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	1	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	2	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	22%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	2%	NA	NA
% Households without Health Insurance	4%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,293	NA	NA
Count of Population Age 25 up	846	NA	NA
Count of Households	528	NA	NA
Universe for % unemployed (denominator, count)	1,026	NA	NA
Count of Housing Units Built Pre 1960	312	NA	NA
Built housing units count (denominator for % pre 1960)	544	NA	NA
Count of Population for whom Poverty Status is Determined	1,293	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250214001002)
Area in Square Miles: 0.05
Population: 1,022

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.61	6.52	57	8.45	11	0.8	1.0
Ozone (ppb)	55.8	56.7	37	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	16.8	8.8	95	7.8	98	2.1	1.9
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,500	2,800	87	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	17,000,000	6,100,000	95	1,700,000	99	10.0	2.8
Lead Paint Indicator (% pre-1960s housing)	56.85%	0.51	54	0.3	78	1.9	1.1
Superfund Proximity (site count/km distance)	0.10	0.34	42	0.39	58	0.2	0.3
RMP Proximity (facility count/km distance)	0.40	0.37	69	0.57	58	0.7	1.1
Hazardous Waste Proximity (facility count/km distance)	57.7	11.2	98	3.5	99	16.0	5.2
Underground Storage Tanks (UST) indicator	12.9	3.3	96	3.6	92	3.6	3.9
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	76	700,000	57	0.0	0.2
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.88	1.19	56	1.34	36	0.7	0.9
Supplemental Demographic Index USA	1.12	1.52	40	1.64	23	0.7	0.8
% Low Income	16%	22%	47	30%	29	0.5	0.7
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	1%	5%	21	6%	24	0.1	0.1
% with Less Than High School Education	11%	9%	71	11%	63	1.0	1.2
% under Age 5	9%	5%	84	5%	81	1.6	1.8
% over Age 64	11%	18%	26	18%	28	0.6	0.6
% People of Color	33%	31%	61	40%	51	0.8	1.0

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

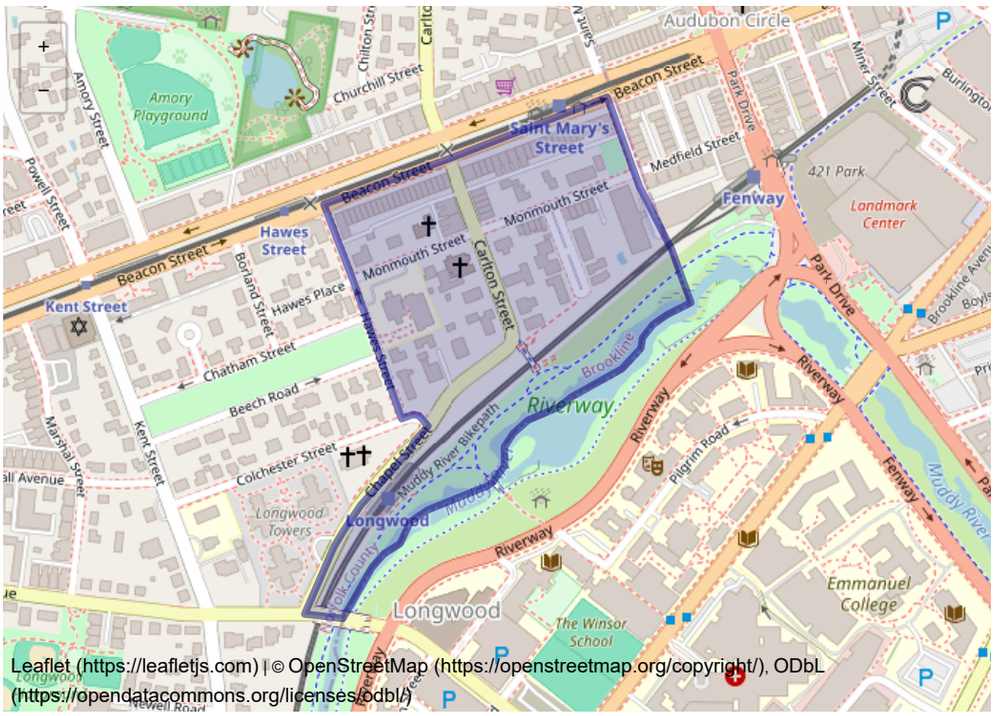
The indexes for a selected area are compared to those for all other locations in the state or nation.

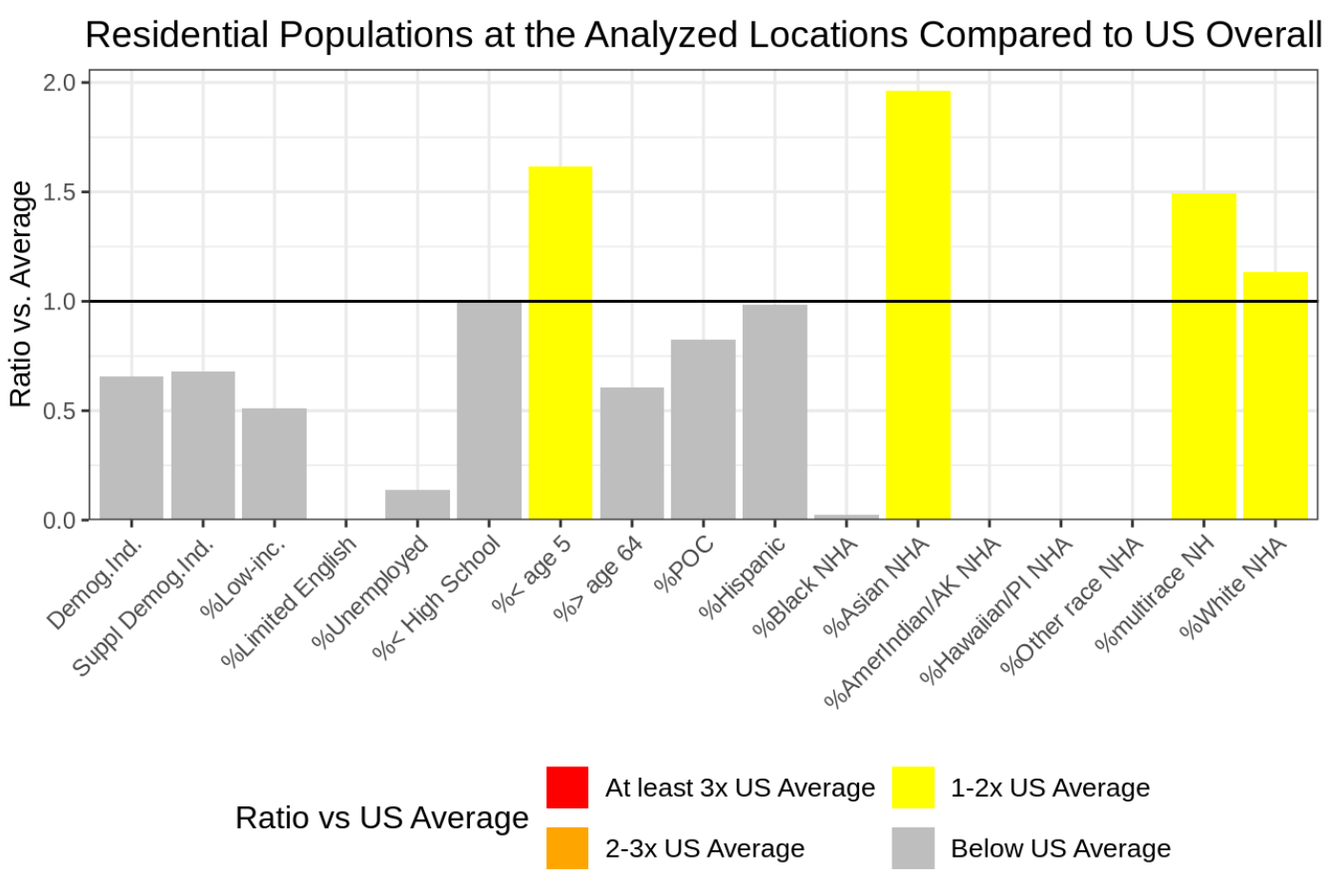
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	63	14
Ozone Summary Index	50	30
Nitrogen Dioxide (NO2) Summary Index	73	67
Diesel Particulate Matter Summary Index	74	65
Toxic Releases to Air Summary Index	76	66
Traffic Proximity and Volume Summary Index	74	67
Lead Paint Summary Index	59	63
Superfund Proximity Summary Index	61	66
RMP Proximity Summary Index	67	54
Hazardous Waste Proximity Summary Index	75	68
Underground Storage Tanks Summary Index	74	68
Wastewater Discharge Summary Index	71	52
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	56	9
Ozone Supplemental Summary Index	37	21
Nitrogen Dioxide (NO2) Supplemental Summary Index	74	72
Diesel Particulate Matter Supplemental Summary Index	76	69
Toxic Releases to Air Supplemental Summary Index	77	65
Traffic Proximity and Volume Supplemental Summary Index	76	74
Lead Paint Supplemental Summary Index	50	58
Superfund Proximity Supplemental Summary Index	49	61
RMP Proximity Supplemental Summary Index	62	48
Hazardous Waste Proximity Supplemental Summary Index	78	73
Underground Storage Tanks Supplemental Summary Index	74	68
Wastewater Discharge Supplemental Summary Index	66	46
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	17%	1	1.4
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	10%	2	1.4
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	5%	1.5	1.3
% White (non-Hispanic, single race)	67%	1.1	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	39%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	10%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	43%	NA	NA
% Females	57%	NA	NA
HEALTH			
% with Disabilities	9%	0.7	0.7
% with Low Life Expectancy	17%	0.9	1
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.30	NA	NA
AGE			
% under Age 5	9%	1.6	1.8
% under age 18	9%	NA	NA
% over Age 64	11%	0.6	0.6
COMMUNITY			
Occupied Housing Units	585	NA	NA
Life Expectancy in Years	81	NA	NA
Per Capita Income	68,768	NA	NA
% Owner Occupied households	20%	NA	NA
POVERTY			
% of Households below Poverty Level	8%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	2	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	4	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	23%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	2%	NA	NA
% Households without Health Insurance	4%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,022	NA	NA
Count of Population Age 25 up	669	NA	NA
Count of Households	585	NA	NA
Universe for % unemployed (denominator, count)	933	NA	NA
Count of Housing Units Built Pre 1960	382	NA	NA
Built housing units count (denominator for % pre 1960)	672	NA	NA
Count of Population for whom Poverty Status is Determined	917	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214001003)
Area in Square Miles: 0.05
Population: 701

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.61	6.52	57	8.45	11	0.8	1.0
Ozone (ppb)	55.8	56.7	37	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	16.8	8.8	95	7.8	98	2.1	1.9
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,500	2,800	87	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	94	1,700,000	99	9.5	2.6
Lead Paint Indicator (% pre-1960s housing)	76.96%	0.51	79	0.3	90	2.6	1.5
Superfund Proximity (site count/km distance)	0.10	0.34	44	0.39	59	0.3	0.3
RMP Proximity (facility count/km distance)	0.38	0.37	68	0.57	57	0.7	1.0
Hazardous Waste Proximity (facility count/km distance)	57.0	11.2	98	3.5	99	16.0	5.1
Underground Storage Tanks (UST) indicator	5.7	3.3	81	3.6	81	1.6	1.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	120	760	75	700,000	57	0.0	0.2
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.07	1.19	65	1.34	46	0.8	1.1
Supplemental Demographic Index USA	1.01	1.52	31	1.64	17	0.6	0.7
% Low Income	5%	22%	15	30%	9	0.2	0.2
% in limited English-speaking Households	10%	6%	79	5%	85	2.1	1.7
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	18%	5%	99	5%	98	3.4	3.8
% over Age 64	14%	18%	40	18%	41	0.8	0.8
% People of Color	59%	31%	84	40%	71	1.5	1.9

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

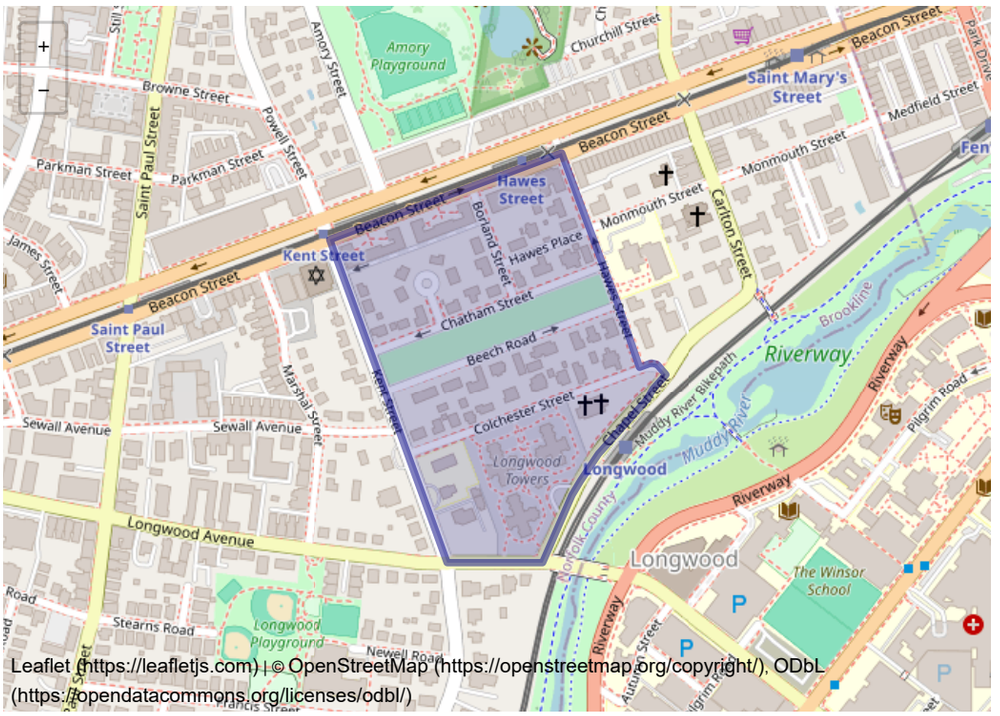
The indexes for a selected area are compared to those for all other locations in the state or nation.

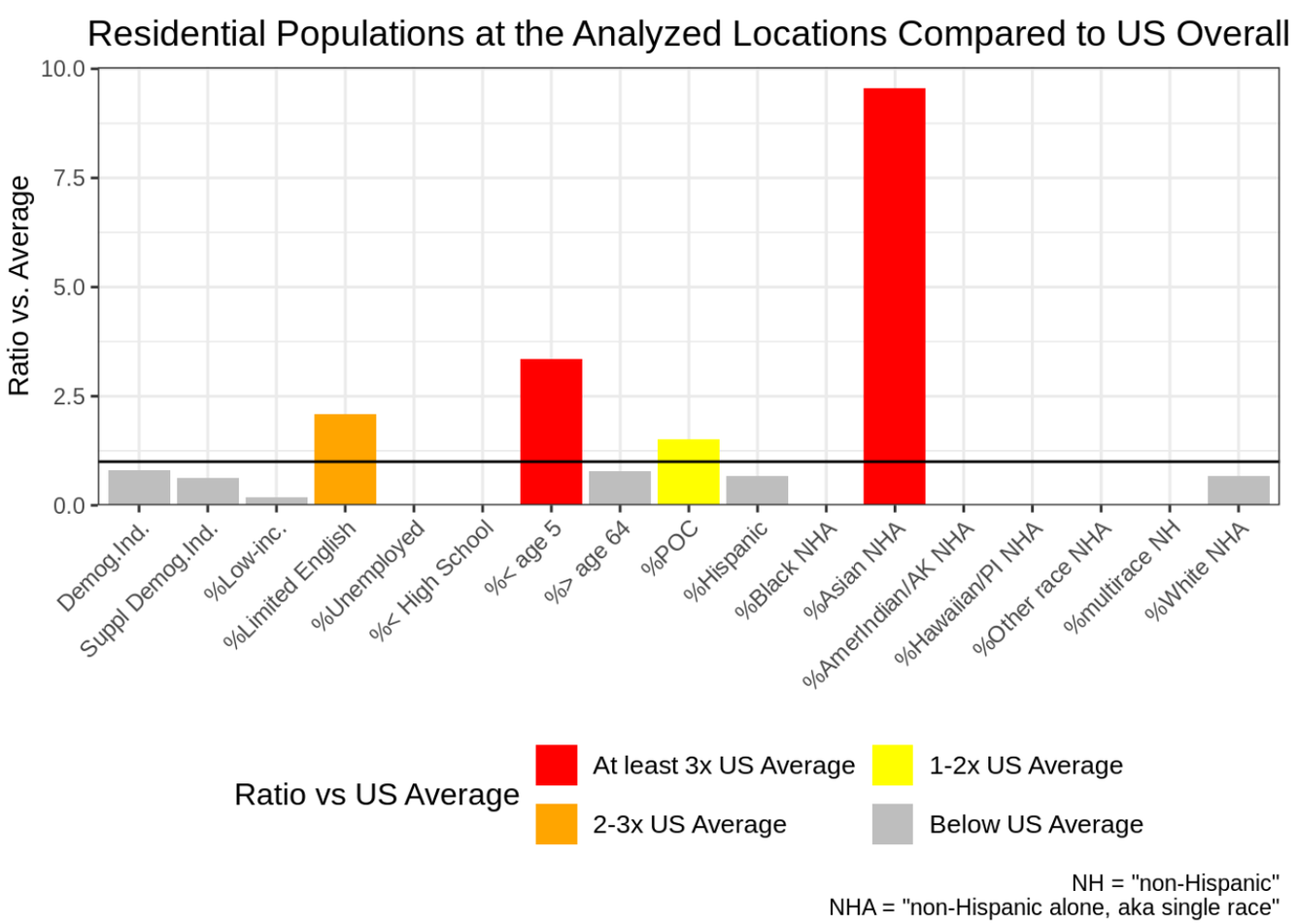
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	71	17
Ozone Summary Index	57	35
Nitrogen Dioxide (NO2) Summary Index	78	73
Diesel Particulate Matter Summary Index	80	71
Toxic Releases to Air Summary Index	82	72
Traffic Proximity and Volume Summary Index	79	73
Lead Paint Summary Index	77	74
Superfund Proximity Summary Index	68	70
RMP Proximity Summary Index	73	59
Hazardous Waste Proximity Summary Index	81	74
Underground Storage Tanks Summary Index	75	70
Wastewater Discharge Summary Index	76	58
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	52	8
Ozone Supplemental Summary Index	35	18
Nitrogen Dioxide (NO2) Supplemental Summary Index	70	68
Diesel Particulate Matter Supplemental Summary Index	71	65
Toxic Releases to Air Supplemental Summary Index	72	60
Traffic Proximity and Volume Supplemental Summary Index	71	69
Lead Paint Supplemental Summary Index	63	60
Superfund Proximity Supplemental Summary Index	48	60
RMP Proximity Supplemental Summary Index	57	44
Hazardous Waste Proximity Supplemental Summary Index	73	69
Underground Storage Tanks Supplemental Summary Index	63	58
Wastewater Discharge Supplemental Summary Index	61	42
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	12%	0.7	0.9
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	48%	9.6	7.1
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	0%	0	0
% White (non-Hispanic, single race)	41%	0.7	0.6
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	39%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	10%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	46%	NA	NA
% Females	54%	NA	NA
HEALTH			
% with Disabilities	9%	0.7	0.7
% with Low Life Expectancy	17%	0.9	1
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.30	NA	NA
AGE			
% under Age 5	18%	3.4	3.8
% under age 18	25%	NA	NA
% over Age 64	14%	0.8	0.8
COMMUNITY			
Occupied Housing Units	318	NA	NA
Life Expectancy in Years	81	NA	NA
Per Capita Income	67,688	NA	NA
% Owner Occupied households	26%	NA	NA
POVERTY			
% of Households below Poverty Level	12%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	2	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	4%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	701	NA	NA
Count of Population Age 25 up	515	NA	NA
Count of Households	318	NA	NA
Universe for % unemployed (denominator, count)	529	NA	NA
Count of Housing Units Built Pre 1960	284	NA	NA
Built housing units count (denominator for % pre 1960)	369	NA	NA
Count of Population for whom Poverty Status is Determined	687	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214001004)
Area in Square Miles: 0.06
Population: 349

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.61	6.52	57	8.45	11	0.8	1.0
Ozone (ppb)	55.8	56.7	37	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	18.1	8.8	97	7.8	99	2.3	2.0
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,400	2,800	86	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	19,000,000	6,100,000	96	1,700,000	99	11.0	3.1
Lead Paint Indicator (% pre-1960s housing)	89.53%	0.51	93	0.3	96	3.0	1.8
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.39	0.37	68	0.57	58	0.7	1.0
Hazardous Waste Proximity (facility count/km distance)	55.4	11.2	97	3.5	99	16.0	5.0
Underground Storage Tanks (UST) indicator	5.7	3.3	81	3.6	81	1.6	1.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	140	760	78	700,000	58	0.0	0.2
Drinking Water Non-Compliance	0.0	3.17	56	2.2	73	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.38	1.19	92	1.34	86	1.8	2.3
Supplemental Demographic Index USA	1.41	1.52	62	1.64	41	0.9	1.0
% Low Income	67%	22%	96	30%	93	2.2	3.0
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	14%	5%	92	6%	90	2.5	2.6
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	8%	18%	16	18%	17	0.5	0.5
% People of Color	51%	31%	79	40%	66	1.3	1.6

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

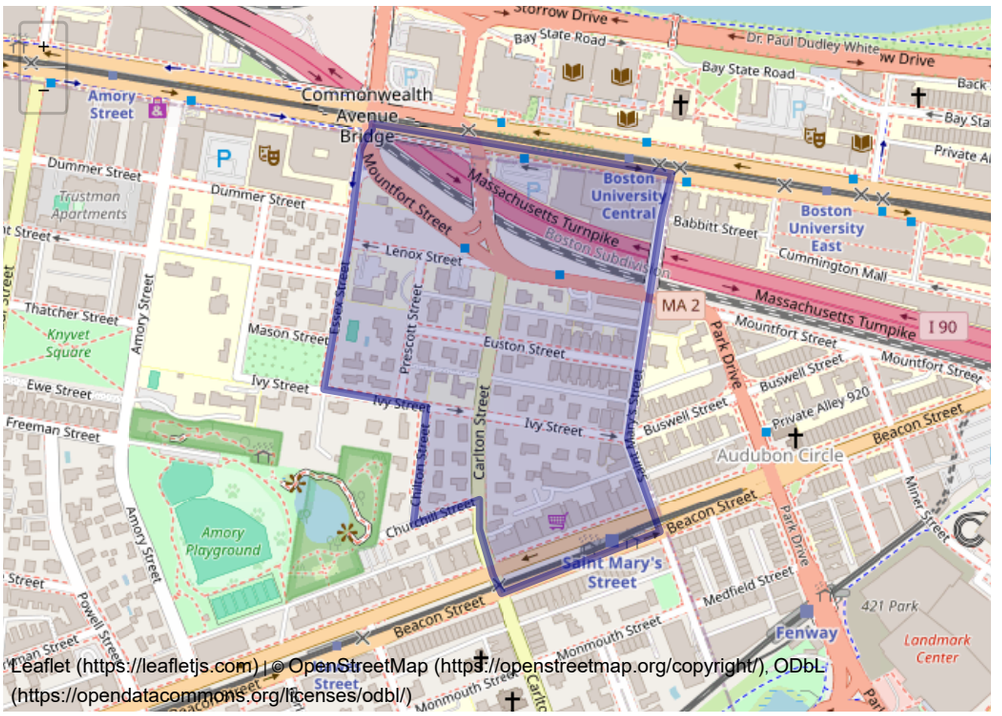
The indexes for a selected area are compared to those for all other locations in the state or nation.

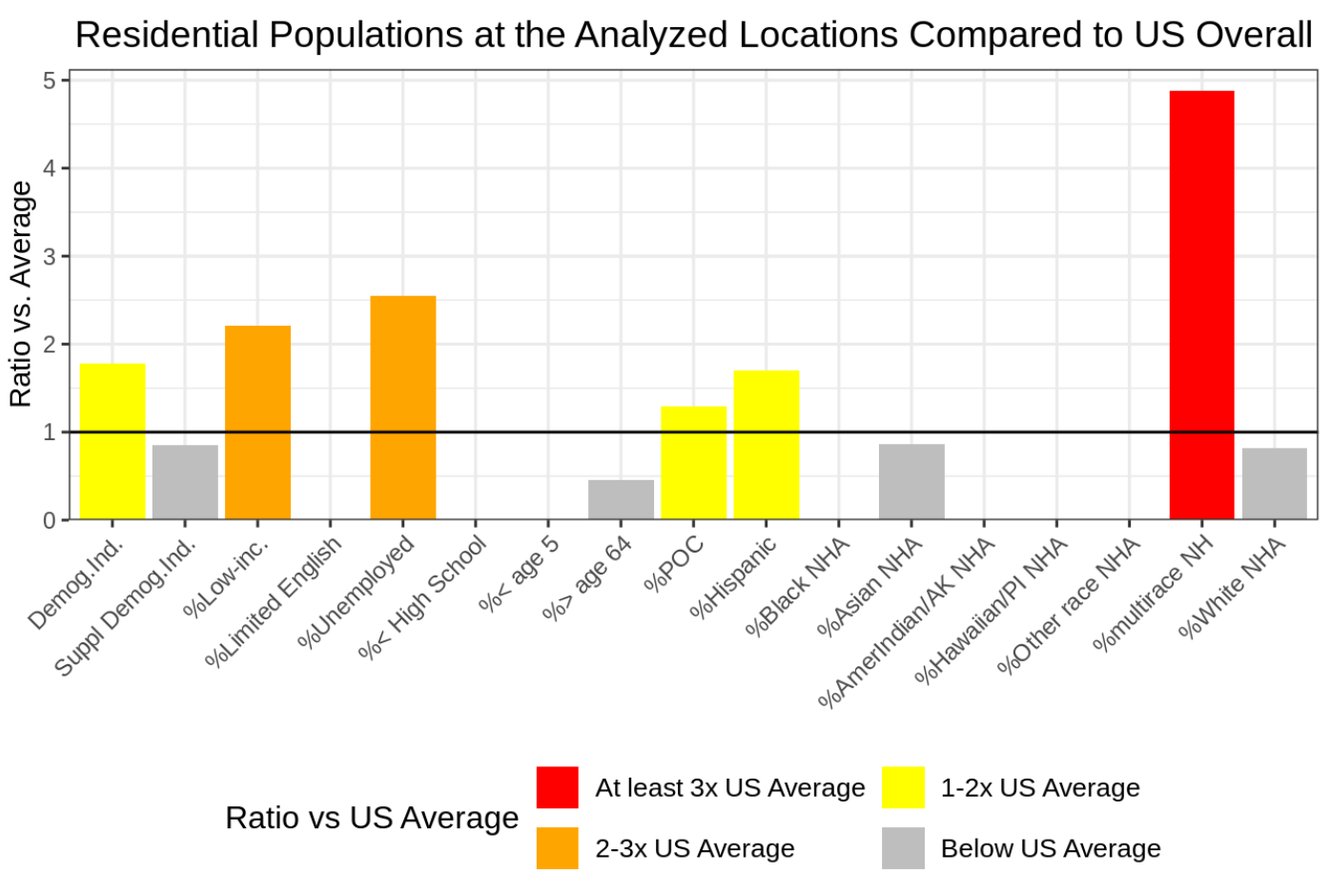
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	90	33
Ozone Summary Index	80	60
Nitrogen Dioxide (NO2) Summary Index	96	95
Diesel Particulate Matter Summary Index	96	93
Toxic Releases to Air Summary Index	96	94
Traffic Proximity and Volume Summary Index	97	96
Lead Paint Summary Index	97	96
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	90	82
Hazardous Waste Proximity Summary Index	97	96
Underground Storage Tanks Summary Index	94	91
Wastewater Discharge Summary Index	95	84
Drinking Water Non-Compliance Summary Index	90	93
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	68	12
Ozone Supplemental Summary Index	45	26
Nitrogen Dioxide (NO2) Supplemental Summary Index	83	82
Diesel Particulate Matter Supplemental Summary Index	84	79
Toxic Releases to Air Supplemental Summary Index	85	76
Traffic Proximity and Volume Supplemental Summary Index	85	83
Lead Paint Supplemental Summary Index	83	79
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	72	58
Hazardous Waste Proximity Supplemental Summary Index	86	83
Underground Storage Tanks Supplemental Summary Index	77	72
Wastewater Discharge Supplemental Summary Index	78	58
Drinking Water Non-Compliance Supplemental Summary Index	74	80

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	30%	1.7	2.4
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	4%	0.9	0.6
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	17%	4.9	4.3
% White (non-Hispanic, single race)	49%	0.8	0.7
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	39%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	10%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	40%	NA	NA
% Females	60%	NA	NA
HEALTH			
% with Disabilities	9%	0.7	0.7
% with Low Life Expectancy	17%	0.9	1
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.30	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	8%	0.5	0.5
COMMUNITY			
Occupied Housing Units	119	NA	NA
Life Expectancy in Years	81	NA	NA
Per Capita Income	74,215	NA	NA
% Owner Occupied households	10%	NA	NA
POVERTY			
% of Households below Poverty Level	63%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	5%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	10%	NA	NA
% Households without Health Insurance	4%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	349	NA	NA
Count of Population Age 25 up	99	NA	NA
Count of Households	119	NA	NA
Universe for % unemployed (denominator, count)	349	NA	NA
Count of Housing Units Built Pre 1960	154	NA	NA
Built housing units count (denominator for % pre 1960)	172	NA	NA
Count of Population for whom Poverty Status is Determined	295	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214001005)
Area in Square Miles: 0.14
Population: 1,964

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.61	6.52	57	8.45	11	0.8	1.0
Ozone (ppb)	55.8	56.7	37	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	17.0	8.8	96	7.8	98	2.2	1.9
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,500	2,800	88	4,600	85	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	17,000,000	6,100,000	95	1,700,000	99	9.8	2.7
Lead Paint Indicator (% pre-1960s housing)	71.66%	0.51	72	0.3	87	2.4	1.4
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.36	0.37	66	0.57	56	0.6	1.0
Hazardous Waste Proximity (facility count/km distance)	55.7	11.2	97	3.5	99	16.0	5.0
Underground Storage Tanks (UST) indicator	3.2	3.3	64	3.6	71	0.9	0.9
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	76	700,000	58	0.0	0.2
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.14	1.19	67	1.34	49	0.9	1.1
Supplemental Demographic Index USA	1.20	1.52	47	1.64	28	0.7	0.9
% Low Income	23%	22%	64	30%	44	0.8	1.1
% in limited English-speaking Households	5%	6%	66	5%	76	1.1	0.8
% Unemployed	8%	5%	75	6%	74	1.4	1.4
% with Less Than High School Education	6%	9%	54	11%	42	0.5	0.7
% under Age 5	6%	5%	70	5%	64	1.2	1.3
% over Age 64	23%	18%	75	18%	75	1.3	1.3
% People of Color	38%	31%	67	40%	56	0.9	1.2

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

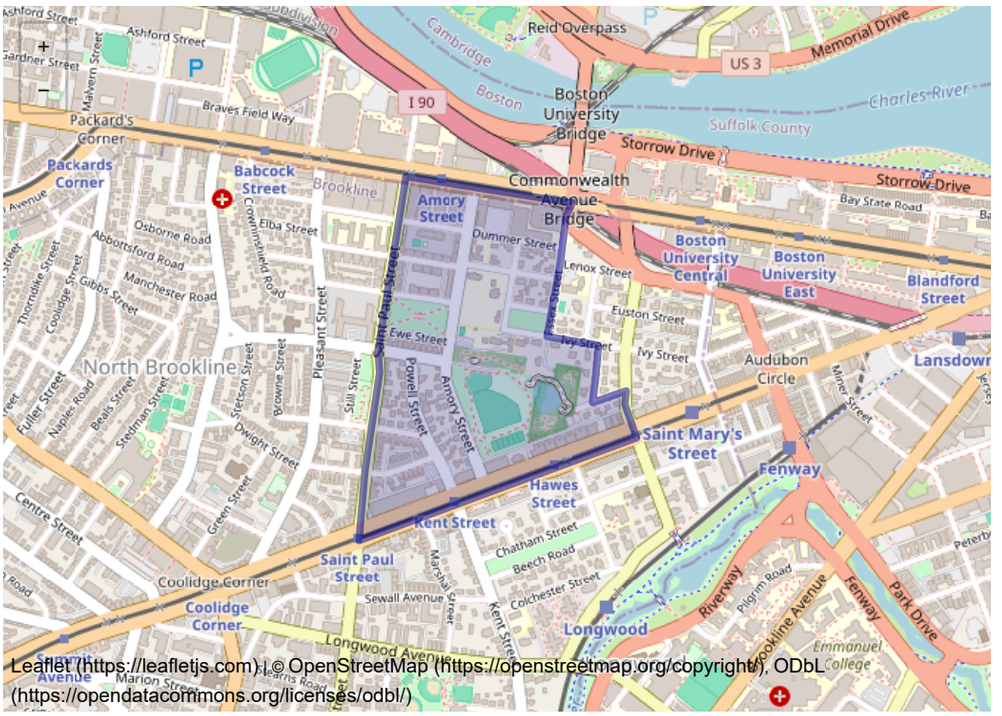
The indexes for a selected area are compared to those for all other locations in the state or nation.

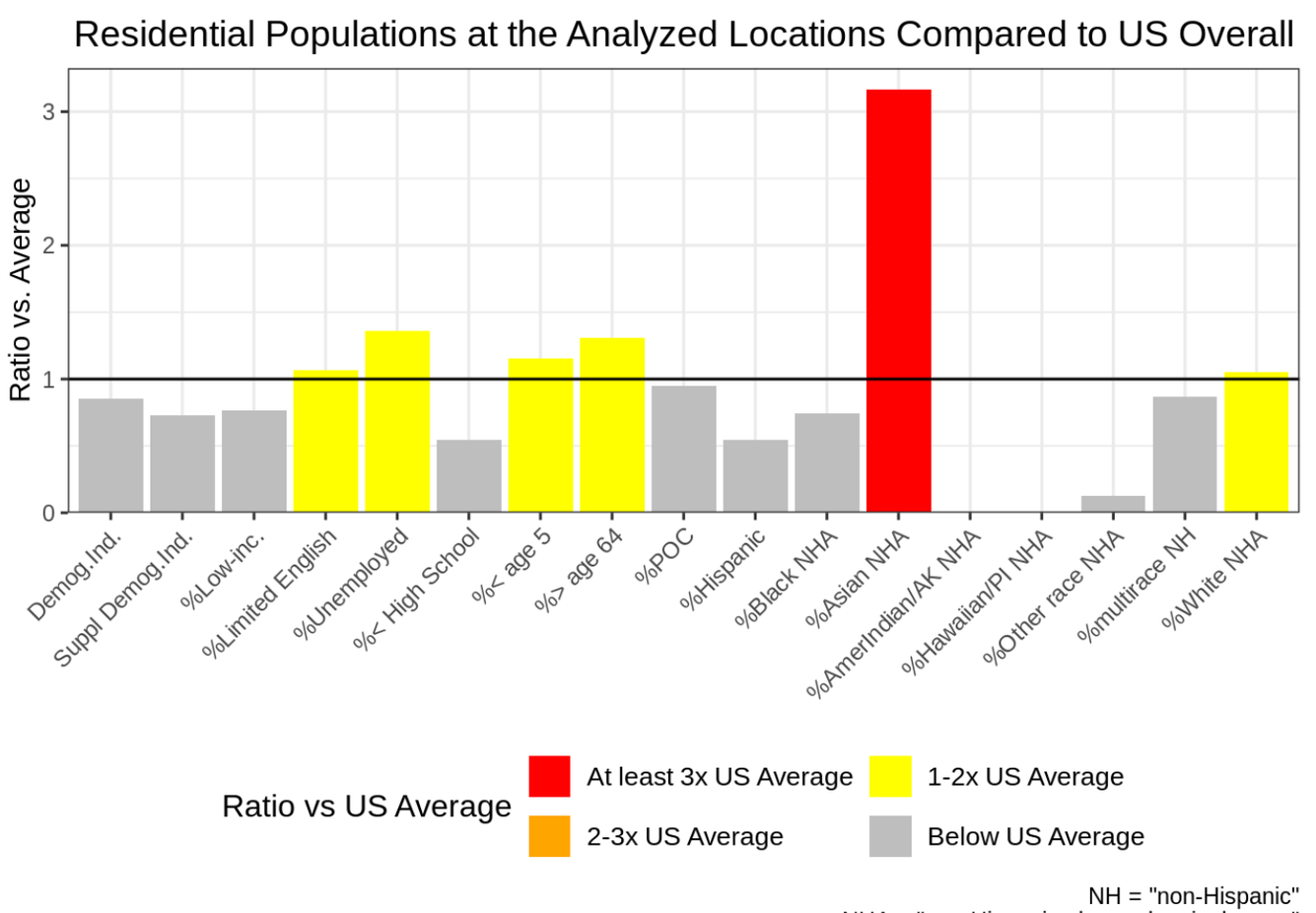
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	73	18
Ozone Summary Index	59	37
Nitrogen Dioxide (NO2) Summary Index	80	75
Diesel Particulate Matter Summary Index	81	73
Toxic Releases to Air Summary Index	84	75
Traffic Proximity and Volume Summary Index	81	75
Lead Paint Summary Index	76	75
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	73	60
Hazardous Waste Proximity Summary Index	82	76
Underground Storage Tanks Summary Index	69	68
Wastewater Discharge Summary Index	78	61
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	60	10
Ozone Supplemental Summary Index	40	22
Nitrogen Dioxide (NO2) Supplemental Summary Index	77	75
Diesel Particulate Matter Supplemental Summary Index	78	72
Toxic Releases to Air Supplemental Summary Index	80	69
Traffic Proximity and Volume Supplemental Summary Index	78	77
Lead Paint Supplemental Summary Index	67	67
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	63	50
Hazardous Waste Proximity Supplemental Summary Index	80	76
Underground Storage Tanks Supplemental Summary Index	60	60
Wastewater Discharge Supplemental Summary Index	70	50
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	10%	0.5	0.8
% Black or African American (non-Hispanic, single race)	9%	0.7	1.4
% Asian (non-Hispanic, single race)	16%	3.2	2.3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0.1	0.1
% Two or more races (non-Hispanic)	3%	0.9	0.8
% White (non-Hispanic, single race)	62%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	39%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	10%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	33%	NA	NA
% Females	67%	NA	NA
HEALTH			
% with Disabilities	9%	0.7	0.7
% with Low Life Expectancy	17%	0.9	1
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.30	NA	NA
AGE			
% under Age 5	6%	1.2	1.3
% under age 18	12%	NA	NA
% over Age 64	23%	1.3	1.3
COMMUNITY			
Occupied Housing Units	898	NA	NA
Life Expectancy in Years	81	NA	NA
Per Capita Income	59,266	NA	NA
% Owner Occupied households	42%	NA	NA
POVERTY			
% of Households below Poverty Level	20%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	15%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	8%	NA	NA
% Households without Health Insurance	4%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,964	NA	NA
Count of Population Age 25 up	1,469	NA	NA
Count of Households	898	NA	NA
Universe for % unemployed (denominator, count)	1,738	NA	NA
Count of Housing Units Built Pre 1960	655	NA	NA
Built housing units count (denominator for % pre 1960)	914	NA	NA
Count of Population for whom Poverty Status is Determined	1,927	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214002011)
Area in Square Miles: 0.08
Population: 3,283

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	58	8.45	12	0.8	1.0
Ozone (ppb)	55.7	56.7	36	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	15.3	8.8	93	7.8	96	1.9	1.7
Diesel Particulate Matter (ug/m3)	0.360	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,600	2,800	88	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	93	1,700,000	99	9.2	2.6
Lead Paint Indicator (% pre-1960s housing)	58.64%	0.51	57	0.3	79	2.0	1.2
Superfund Proximity (site count/km distance)	0.10	0.34	43	0.39	58	0.2	0.3
RMP Proximity (facility count/km distance)	0.34	0.37	65	0.57	54	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	52.5	11.2	96	3.5	99	15.0	4.7
Underground Storage Tanks (UST) indicator	3.2	3.3	64	3.6	71	0.9	1.0
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	110	760	74	700,000	57	0.0	0.2
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.72	1.19	47	1.34	27	0.5	0.7
Supplemental Demographic Index USA	1.27	1.52	52	1.64	33	0.8	0.9
% Low Income	11%	22%	34	30%	20	0.4	0.5
% in limited English-speaking Households	18%	6%	89	5%	92	3.8	3.0
% Unemployed	4%	5%	52	6%	53	0.7	0.8
% with Less Than High School Education	3%	9%	32	11%	23	0.2	0.3
% under Age 5	5%	5%	62	5%	56	1.0	1.1
% over Age 64	19%	18%	62	18%	62	1.1	1.1
% People of Color	29%	31%	57	40%	47	0.7	0.9

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

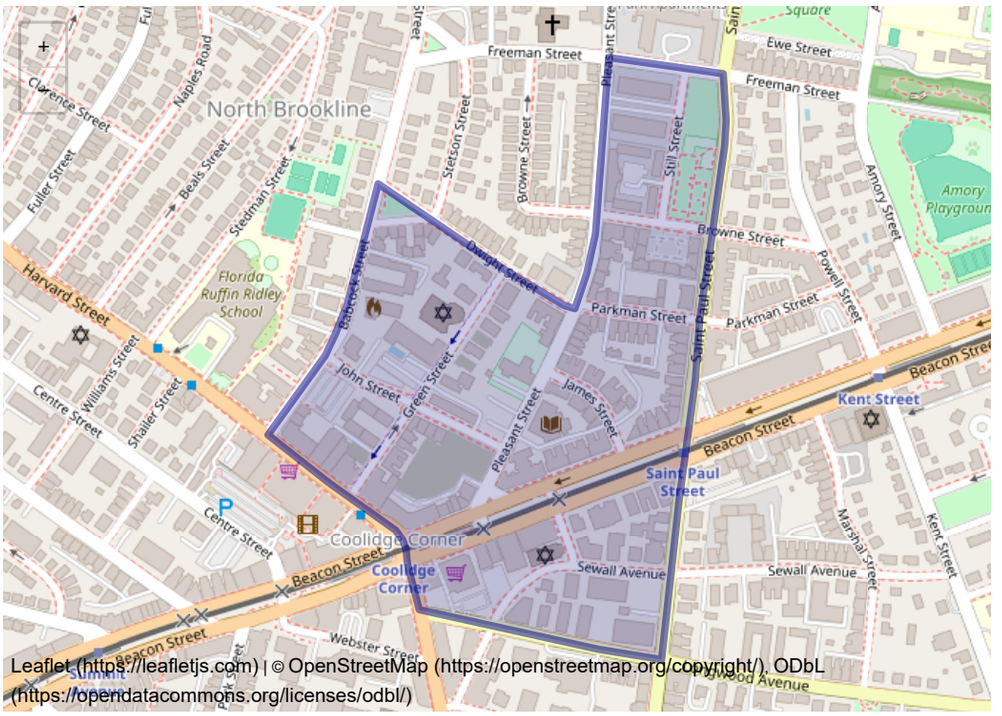
The indexes for a selected area are compared to those for all other locations in the state or nation.

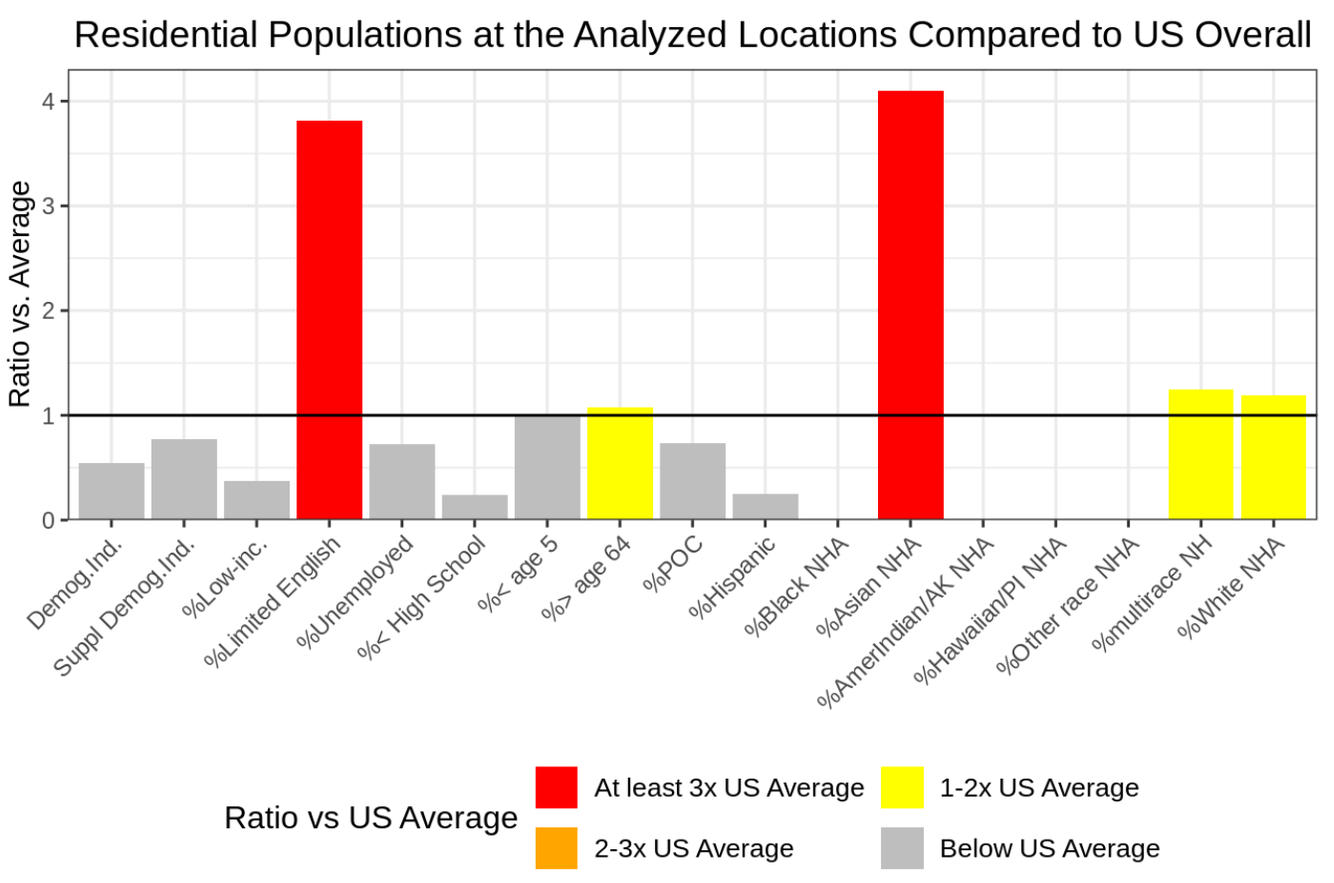
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	56	13
Ozone Summary Index	42	25
Nitrogen Dioxide (NO2) Summary Index	67	60
Diesel Particulate Matter Summary Index	69	59
Toxic Releases to Air Summary Index	70	59
Traffic Proximity and Volume Summary Index	68	61
Lead Paint Summary Index	55	56
Superfund Proximity Summary Index	57	64
RMP Proximity Summary Index	60	47
Hazardous Waste Proximity Summary Index	69	62
Underground Storage Tanks Summary Index	57	55
Wastewater Discharge Summary Index	64	45
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	64	11
Ozone Supplemental Summary Index	41	24
Nitrogen Dioxide (NO2) Supplemental Summary Index	77	77
Diesel Particulate Matter Supplemental Summary Index	79	75
Toxic Releases to Air Supplemental Summary Index	82	72
Traffic Proximity and Volume Supplemental Summary Index	80	79
Lead Paint Supplemental Summary Index	59	65
Superfund Proximity Supplemental Summary Index	53	64
RMP Proximity Supplemental Summary Index	65	51
Hazardous Waste Proximity Supplemental Summary Index	81	79
Underground Storage Tanks Supplemental Summary Index	62	62
Wastewater Discharge Supplemental Summary Index	71	52
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	4%	0.3	0.4
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	20%	4.1	3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	4%	1.2	1.1
% White (non-Hispanic, single race)	71%	1.2	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	36%	NA	NA
% speaking Other Indo-European at home	17%	NA	NA
% speaking Asian and Pacific Island languages at home	10%	NA	NA
% speaking Other and Unspecified languages at home	8%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	1%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	88%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	12%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	41%	NA	NA
% Females	59%	NA	NA
HEALTH			
% with Disabilities	9%	0.7	0.8
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.50	NA	NA
AGE			
% under Age 5	5%	1	1.1
% under age 18	12%	NA	NA
% over Age 64	19%	1.1	1.1
COMMUNITY			
Occupied Housing Units	1,782	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	86,097	NA	NA
% Owner Occupied households	39%	NA	NA
POVERTY			
% of Households below Poverty Level	14%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	2	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	2	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	4	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	8%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	4%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	3,283	NA	NA
Count of Population Age 25 up	2,458	NA	NA
Count of Households	1,782	NA	NA
Universe for % unemployed (denominator, count)	2,894	NA	NA
Count of Housing Units Built Pre 1960	1,099	NA	NA
Built housing units count (denominator for % pre 1960)	1,874	NA	NA
Count of Population for whom Poverty Status is Determined	3,283	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
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Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250214002021)
Area in Square Miles: 0.05
Population: 965

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	57	8.45	12	0.8	1.0
Ozone (ppb)	55.7	56.7	35	61.8	25	0.9	1.0
Nitrogen Dioxide (NO2)	15.7	8.8	94	7.8	97	2.0	1.8
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,500	2,800	87	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	94	1,700,000	99	9.6	2.7
Lead Paint Indicator (% pre-1960s housing)	54.04%	0.51	51	0.3	76	1.8	1.1
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.34	0.37	65	0.57	55	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	53.8	11.2	97	3.5	99	15.0	4.8
Underground Storage Tanks (UST) indicator	4.2	3.3	72	3.6	76	1.1	1.2
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	76	700,000	58	0.0	0.2
Drinking Water Non-Compliance	0.1	3.17	57	2.2	74	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.42	1.19	92	1.34	86	1.8	2.4
Supplemental Demographic Index USA	1.89	1.52	80	1.64	69	1.2	1.4
% Low Income	66%	22%	96	30%	92	2.2	3.0
% in limited English-speaking Households	29%	6%	95	5%	96	6.1	4.8
% Unemployed	13%	5%	90	6%	89	2.3	2.4
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	1%	5%	18	5%	16	0.2	0.2
% over Age 64	11%	18%	27	18%	29	0.6	0.6
% People of Color	55%	31%	81	40%	69	1.4	1.8

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

The indexes for a selected area are compared to those for all other locations in the state or nation.

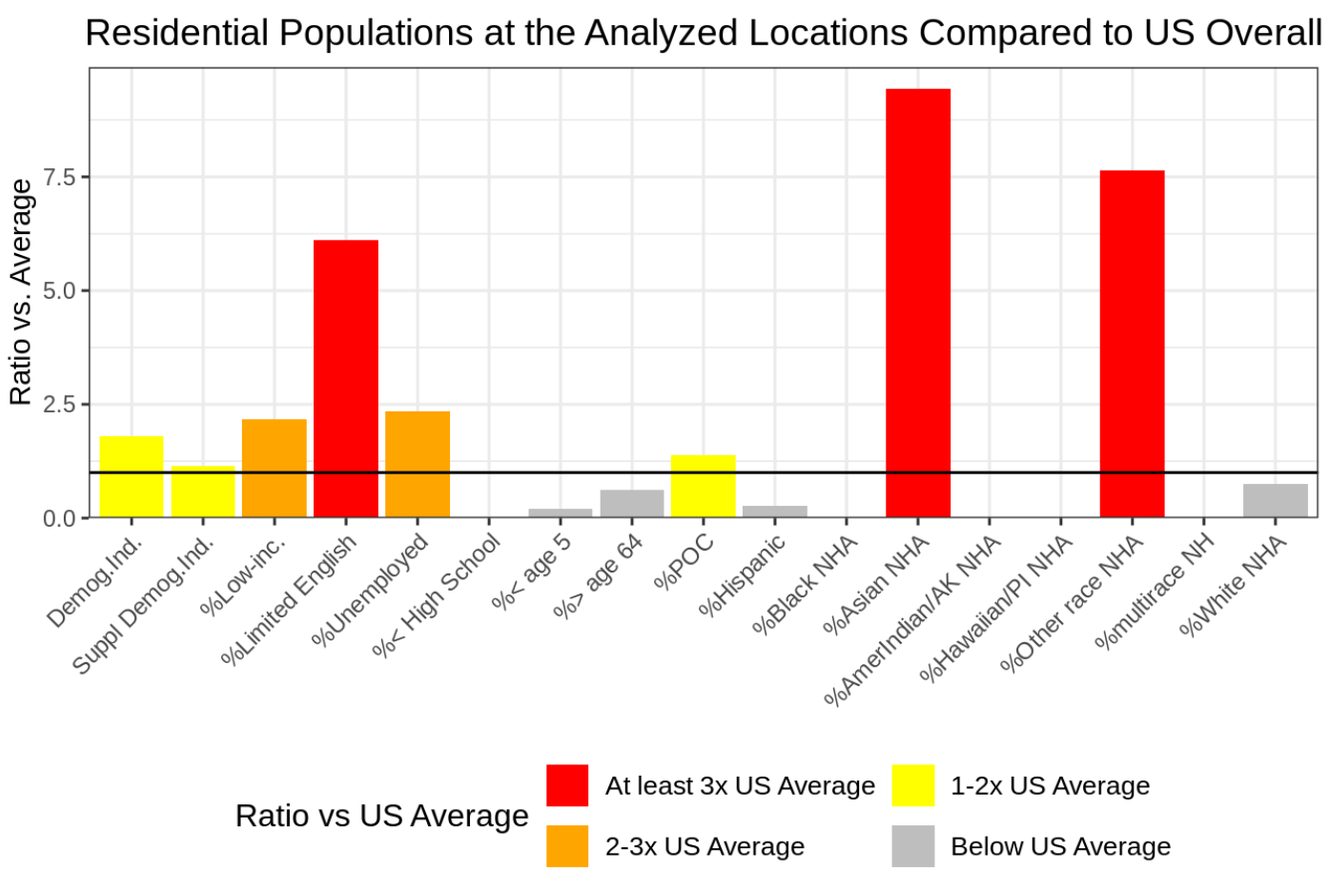
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	91	35
Ozone Summary Index	79	59
Nitrogen Dioxide (NO2) Summary Index	95	95
Diesel Particulate Matter Summary Index	96	94
Toxic Releases to Air Summary Index	97	94
Traffic Proximity and Volume Summary Index	97	96
Lead Paint Summary Index	86	91
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	90	81
Hazardous Waste Proximity Summary Index	97	96
Underground Storage Tanks Summary Index	92	90
Wastewater Discharge Summary Index	95	85
Drinking Water Non-Compliance Summary Index	90	94
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	81	17
Ozone Supplemental Summary Index	53	35
Nitrogen Dioxide (NO2) Supplemental Summary Index	90	91
Diesel Particulate Matter Supplemental Summary Index	92	89
Toxic Releases to Air Supplemental Summary Index	93	87
Traffic Proximity and Volume Supplemental Summary Index	92	92
Lead Paint Supplemental Summary Index	72	82
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	80	69
Hazardous Waste Proximity Supplemental Summary Index	93	92
Underground Storage Tanks Supplemental Summary Index	83	82
Wastewater Discharge Supplemental Summary Index	88	72
Drinking Water Non-Compliance Supplemental Summary Index	84	87

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	5%	0.3	0.4
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	47%	9.4	7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	3%	7.6	3.1
% Two or more races (non-Hispanic)	0%	0	0
% White (non-Hispanic, single race)	45%	0.8	0.7
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	53%	NA	NA
% speaking Other Indo-European at home	22%	NA	NA
% speaking Asian and Pacific Island languages at home	15%	NA	NA
% speaking Other and Unspecified languages at home	10%	NA	NA
% speaking English at home	0	NA	NA
% speaking Spanish at home	5%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	77%	NA	NA
% speaking Other languages (as % of limited English households)	23%	NA	NA
BREAKDOWN BY SEX			
% Males	50%	NA	NA
% Females	50%	NA	NA
HEALTH			
% with Disabilities	8%	0.6	0.7
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.50	NA	NA
AGE			
% under Age 5	1%	0.2	0.2
% under age 18	3%	NA	NA
% over Age 64	11%	0.6	0.6
COMMUNITY			
Occupied Housing Units	514	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	19,450	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	53%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	14%	NA	NA
% Households without Health Insurance	0%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	965	NA	NA
Count of Population Age 25 up	334	NA	NA
Count of Households	514	NA	NA
Universe for % unemployed (denominator, count)	939	NA	NA
Count of Housing Units Built Pre 1960	341	NA	NA
Built housing units count (denominator for % pre 1960)	631	NA	NA
Count of Population for whom Poverty Status is Determined	965	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214002022)
Area in Square Miles: 0.07
Population: 2,776

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	57	8.45	12	0.8	1.0
Ozone (ppb)	55.7	56.7	35	61.8	25	0.9	1.0
Nitrogen Dioxide (NO2)	15.7	8.8	94	7.8	97	2.0	1.8
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,500	2,800	88	4,600	85	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	93	1,700,000	99	9.3	2.6
Lead Paint Indicator (% pre-1960s housing)	55.34%	0.51	53	0.3	77	1.8	1.1
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.33	0.37	64	0.57	54	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	48.9	11.2	96	3.5	99	14.0	4.4
Underground Storage Tanks (UST) indicator	3.3	3.3	65	3.6	71	0.9	1.0
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	120	760	75	700,000	57	0.0	0.2
Drinking Water Non-Compliance	0.1	3.17	57	2.2	74	0.1	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.03	1.19	62	1.34	44	0.8	1.0
Supplemental Demographic Index USA	1.08	1.52	37	1.64	21	0.7	0.8
% Low Income	29%	22%	71	30%	53	0.9	1.3
% in limited English-speaking Households	4%	6%	61	5%	72	0.8	0.6
% Unemployed	3%	5%	44	6%	46	0.6	0.6
% with Less Than High School Education	0%	9%	14	11%	10	0.0	0.0
% under Age 5	13%	5%	95	5%	94	2.4	2.7
% over Age 64	5%	18%	8	18%	10	0.3	0.3
% People of Color	23%	31%	49	40%	41	0.6	0.7

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

The indexes for a selected area are compared to those for all other locations in the state or nation.

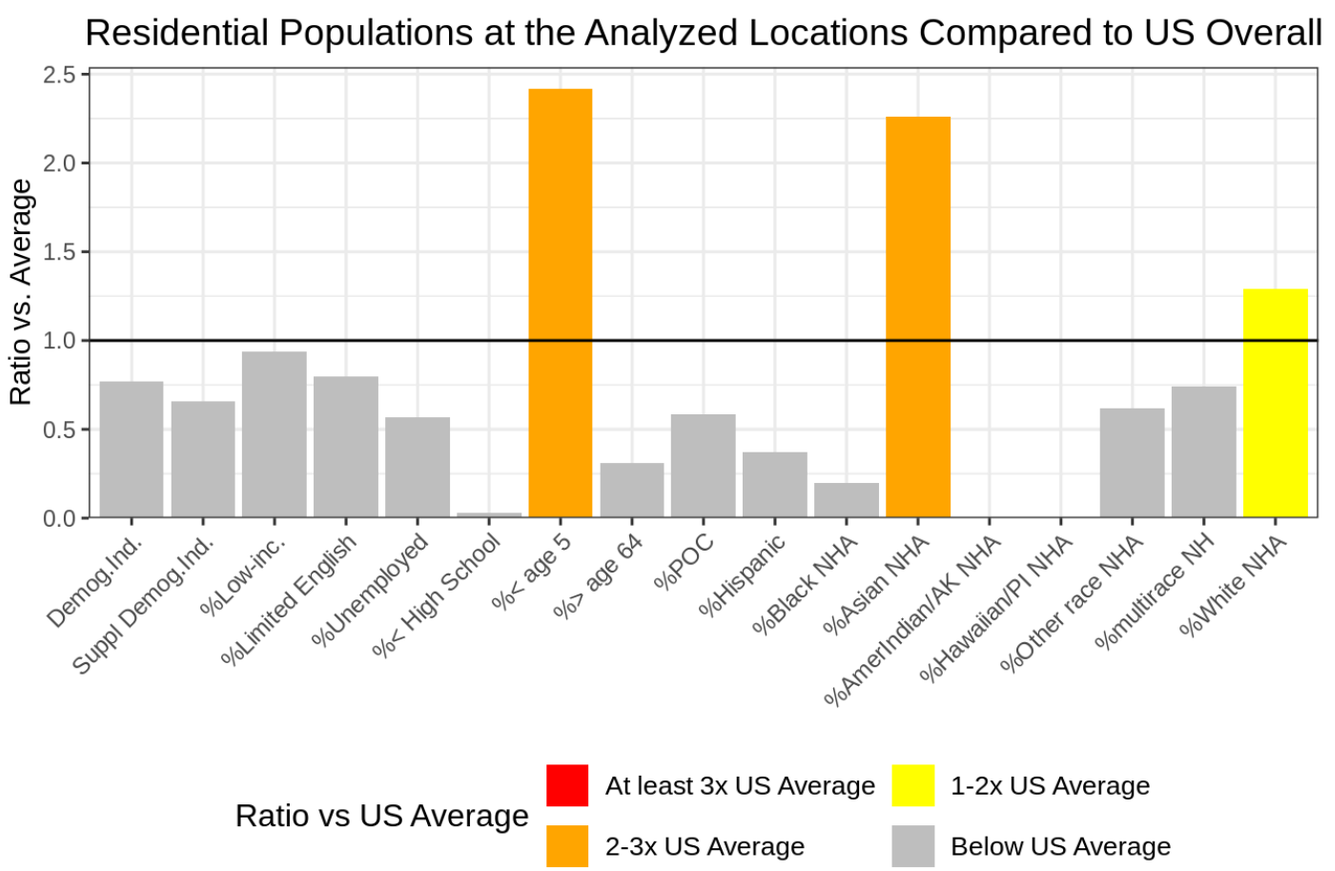
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	69	18
Ozone Summary Index	53	33
Nitrogen Dioxide (NO2) Summary Index	77	72
Diesel Particulate Matter Summary Index	78	70
Toxic Releases to Air Summary Index	81	72
Traffic Proximity and Volume Summary Index	77	72
Lead Paint Summary Index	63	68
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	69	56
Hazardous Waste Proximity Summary Index	79	73
Underground Storage Tanks Summary Index	67	65
Wastewater Discharge Summary Index	75	57
Drinking Water Non-Compliance Summary Index	77	83
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	54	10
Ozone Supplemental Summary Index	35	19
Nitrogen Dioxide (NO2) Supplemental Summary Index	72	70
Diesel Particulate Matter Supplemental Summary Index	74	68
Toxic Releases to Air Supplemental Summary Index	75	64
Traffic Proximity and Volume Supplemental Summary Index	73	72
Lead Paint Supplemental Summary Index	48	56
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	57	44
Hazardous Waste Proximity Supplemental Summary Index	75	72
Underground Storage Tanks Supplemental Summary Index	56	55
Wastewater Discharge Supplemental Summary Index	64	44
Drinking Water Non-Compliance Supplemental Summary Index	66	76

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	7%	0.4	0.5
% Black or African American (non-Hispanic, single race)	2%	0.2	0.4
% Asian (non-Hispanic, single race)	11%	2.3	1.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0.6	0.3
% Two or more races (non-Hispanic)	3%	0.7	0.7
% White (non-Hispanic, single race)	77%	1.3	1.1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	53%	NA	NA
% speaking Other Indo-European at home	22%	NA	NA
% speaking Asian and Pacific Island languages at home	15%	NA	NA
% speaking Other and Unspecified languages at home	10%	NA	NA
% speaking English at home	0	NA	NA
% speaking Spanish at home	5%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	24%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	76%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	45%	NA	NA
% Females	55%	NA	NA
HEALTH			
% with Disabilities	8%	0.6	0.7
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.50	NA	NA
AGE			
% under Age 5	13%	2.4	2.7
% under age 18	33%	NA	NA
% over Age 64	5%	0.3	0.3
COMMUNITY			
Occupied Housing Units	965	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	88,401	NA	NA
% Owner Occupied households	39%	NA	NA
POVERTY			
% of Households below Poverty Level	5%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	2	NA	NA
Number of Hospitals	1	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	3%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	6%	NA	NA
% Households without Health Insurance	0%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	2,776	NA	NA
Count of Population Age 25 up	1,481	NA	NA
Count of Households	965	NA	NA
Universe for % unemployed (denominator, count)	1,926	NA	NA
Count of Housing Units Built Pre 1960	534	NA	NA
Built housing units count (denominator for % pre 1960)	965	NA	NA
Count of Population for whom Poverty Status is Determined	2,757	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214003002)
Area in Square Miles: 0.07
Population: 1,410

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.63	6.52	59	8.45	12	0.8	1.0
Ozone (ppb)	55.6	56.7	34	61.8	25	0.9	1.0
Nitrogen Dioxide (NO2)	14.6	8.8	91	7.8	95	1.9	1.7
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,600	2,800	88	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	15,000,000	6,100,000	92	1,700,000	99	8.7	2.4
Lead Paint Indicator (% pre-1960s housing)	84.12%	0.51	87	0.3	94	2.8	1.7
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.32	0.37	62	0.57	53	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	46.3	11.2	96	3.5	99	13.0	4.1
Underground Storage Tanks (UST) indicator	5.9	3.3	81	3.6	82	1.6	1.8
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	110	760	74	700,000	56	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.03	1.19	63	1.34	44	0.8	1.0
Supplemental Demographic Index USA	0.79	1.52	12	1.64	6	0.5	0.5
% Low Income	17%	22%	51	30%	33	0.6	0.8
% in limited English-speaking Households	7%	6%	71	5%	80	1.4	1.1
% Unemployed	10%	5%	82	6%	81	1.7	1.8
% with Less Than High School Education	1%	9%	18	11%	13	0.1	0.1
% under Age 5	2%	5%	27	5%	24	0.4	0.4
% over Age 64	14%	18%	40	18%	42	0.8	0.8
% People of Color	39%	31%	69	40%	57	1.0	1.3

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

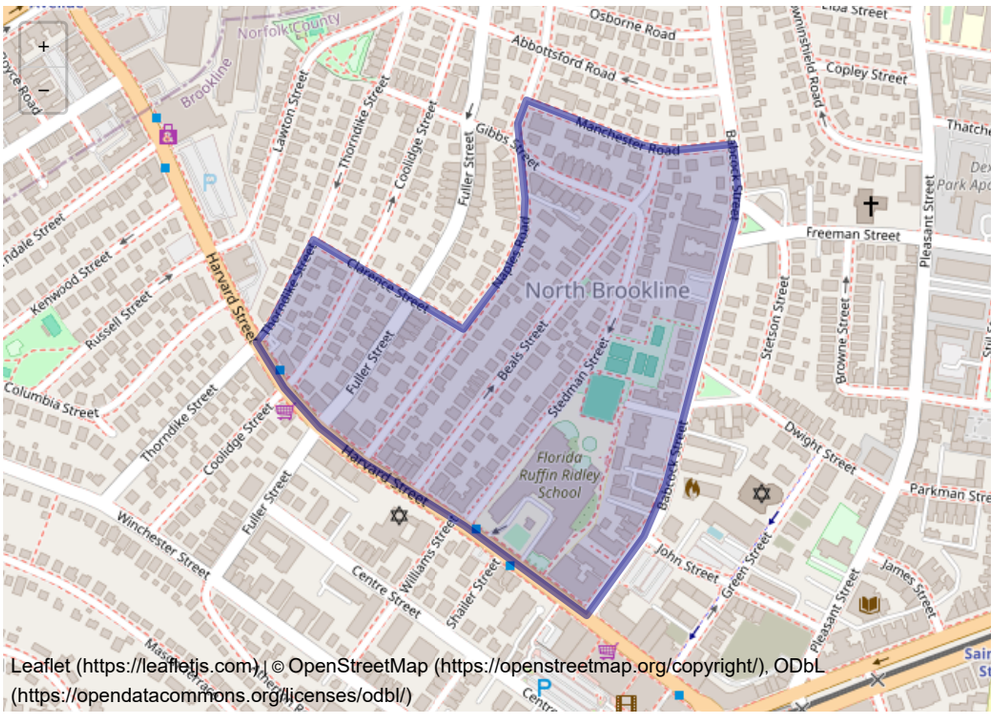
The indexes for a selected area are compared to those for all other locations in the state or nation.

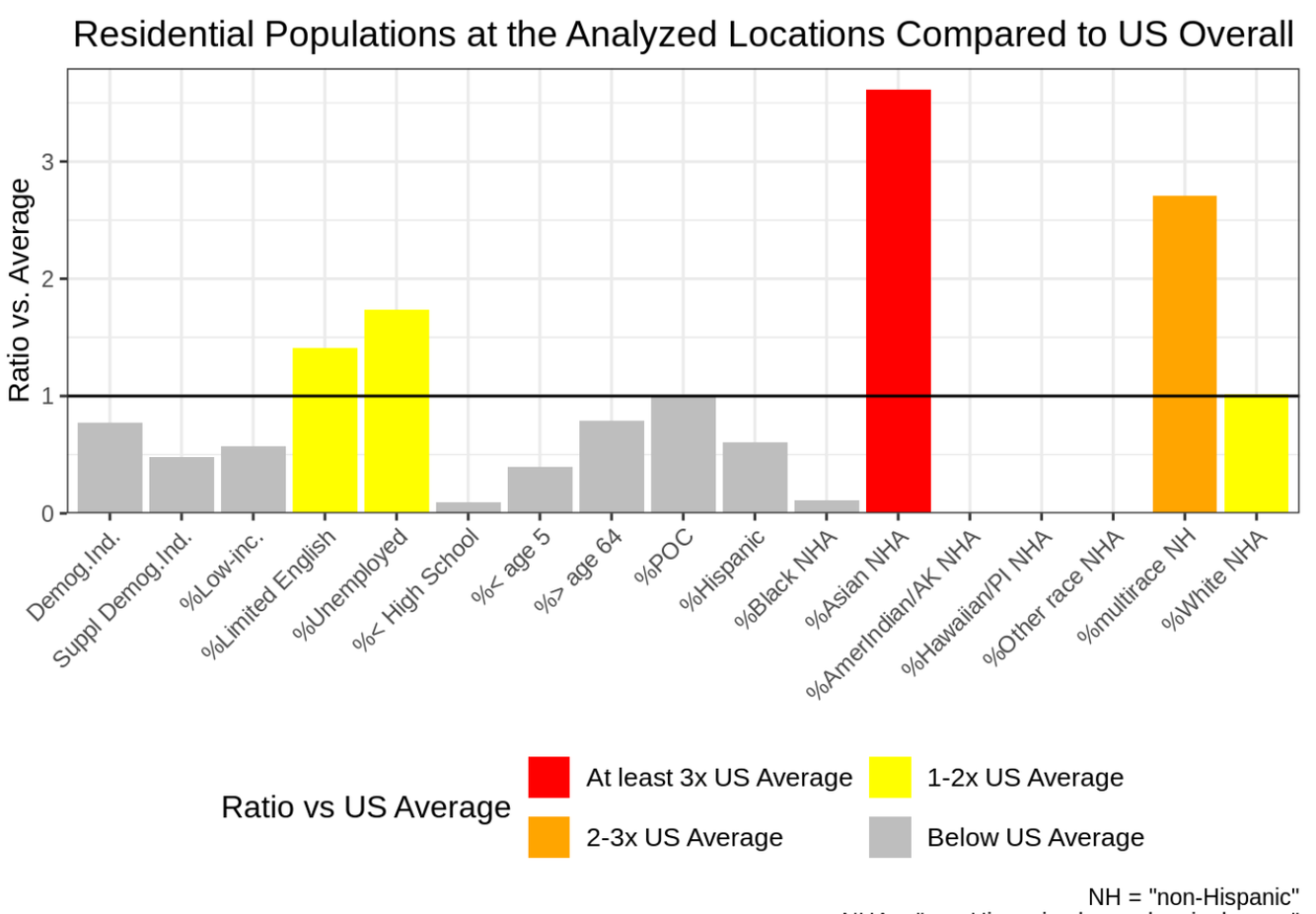
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	71	18
Ozone Summary Index	52	33
Nitrogen Dioxide (NO2) Summary Index	76	71
Diesel Particulate Matter Summary Index	79	70
Toxic Releases to Air Summary Index	81	72
Traffic Proximity and Volume Summary Index	78	72
Lead Paint Summary Index	78	74
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	69	56
Hazardous Waste Proximity Summary Index	79	73
Underground Storage Tanks Summary Index	74	69
Wastewater Discharge Summary Index	75	57
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	40	7
Ozone Supplemental Summary Index	25	13
Nitrogen Dioxide (NO2) Supplemental Summary Index	58	55
Diesel Particulate Matter Supplemental Summary Index	60	53
Toxic Releases to Air Supplemental Summary Index	59	49
Traffic Proximity and Volume Supplemental Summary Index	57	58
Lead Paint Supplemental Summary Index	55	50
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	44	35
Hazardous Waste Proximity Supplemental Summary Index	59	57
Underground Storage Tanks Supplemental Summary Index	51	48
Wastewater Discharge Supplemental Summary Index	48	32
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	11%	0.6	0.8
% Black or African American (non-Hispanic, single race)	1%	0.1	0.2
% Asian (non-Hispanic, single race)	18%	3.6	2.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	9%	2.7	2.4
% White (non-Hispanic, single race)	61%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	33%	NA	NA
% speaking Other Indo-European at home	9%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	8%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	2%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	50%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	50%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	46%	NA	NA
% Females	54%	NA	NA
HEALTH			
% with Disabilities	5%	0.4	0.4
% with Low Life Expectancy	13%	0.7	0.8
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	10.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.70	NA	NA
AGE			
% under Age 5	2%	0.4	0.4
% under age 18	15%	NA	NA
% over Age 64	14%	0.8	0.8
COMMUNITY			
Occupied Housing Units	677	NA	NA
Life Expectancy in Years	85	NA	NA
Per Capita Income	69,221	NA	NA
% Owner Occupied households	41%	NA	NA
POVERTY			
% of Households below Poverty Level	17%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	1	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	29%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	4%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,410	NA	NA
Count of Population Age 25 up	977	NA	NA
Count of Households	677	NA	NA
Universe for % unemployed (denominator, count)	1,234	NA	NA
Count of Housing Units Built Pre 1960	588	NA	NA
Built housing units count (denominator for % pre 1960)	699	NA	NA
Count of Population for whom Poverty Status is Determined	1,375	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214004011)
Area in Square Miles: 0.09
Population: 1,733

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.64	6.52	60	8.45	12	0.8	1.0
Ozone (ppb)	55.6	56.7	34	61.8	25	0.9	1.0
Nitrogen Dioxide (NO2)	14.2	8.8	90	7.8	94	1.8	1.6
Diesel Particulate Matter (ug/m3)	0.359	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,700	2,800	89	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	14,000,000	6,100,000	90	1,700,000	99	8.3	2.3
Lead Paint Indicator (% pre-1960s housing)	45.71%	0.51	42	0.3	71	1.5	0.9
Superfund Proximity (site count/km distance)	0.10	0.34	43	0.39	59	0.3	0.3
RMP Proximity (facility count/km distance)	0.31	0.37	61	0.57	52	0.5	0.8
Hazardous Waste Proximity (facility count/km distance)	44.3	11.2	95	3.5	99	12.0	4.0
Underground Storage Tanks (UST) indicator	4.6	3.3	75	3.6	77	1.3	1.4
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	72	700,000	56	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.93	1.19	58	1.34	39	0.7	0.9
Supplemental Demographic Index USA	1.33	1.52	56	1.64	36	0.8	0.9
% Low Income	18%	22%	53	30%	34	0.6	0.8
% in limited English-speaking Households	8%	6%	75	5%	82	1.7	1.4
% Unemployed	7%	5%	73	6%	72	1.3	1.3
% with Less Than High School Education	1%	9%	15	11%	11	0.1	0.1
% under Age 5	4%	5%	49	5%	43	0.7	0.8
% over Age 64	36%	18%	94	18%	93	2.0	2.0
% People of Color	32%	31%	60	40%	50	0.8	1.0

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

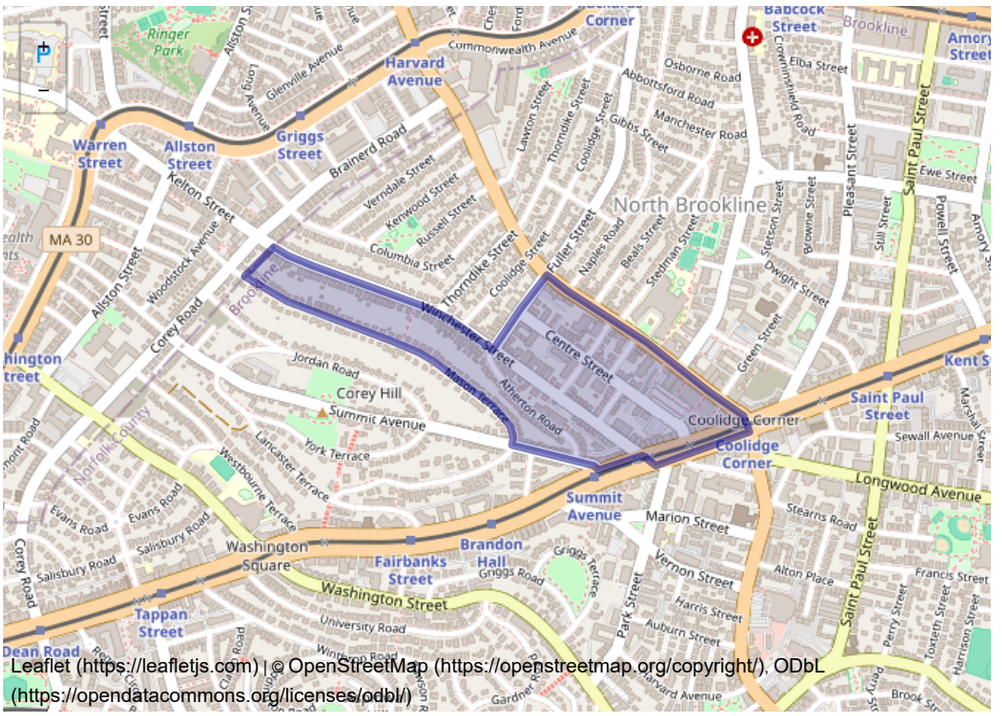
The indexes for a selected area are compared to those for all other locations in the state or nation.

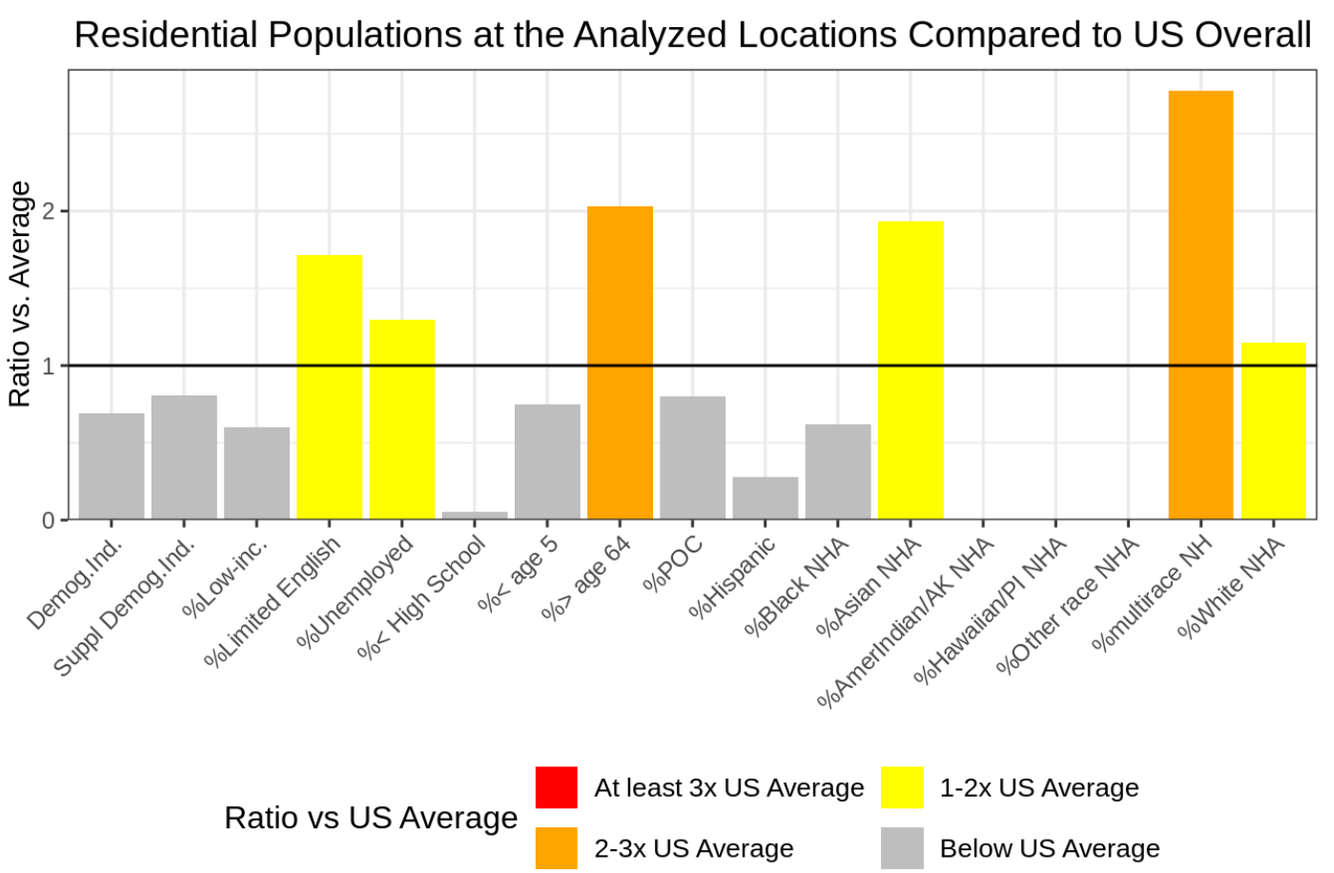
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	67	16
Ozone Summary Index	48	30
Nitrogen Dioxide (NO2) Summary Index	73	67
Diesel Particulate Matter Summary Index	76	67
Toxic Releases to Air Summary Index	78	68
Traffic Proximity and Volume Summary Index	74	69
Lead Paint Summary Index	53	61
Superfund Proximity Summary Index	63	67
RMP Proximity Summary Index	66	52
Hazardous Waste Proximity Summary Index	76	70
Underground Storage Tanks Summary Index	68	65
Wastewater Discharge Summary Index	71	53
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	67	12
Ozone Supplemental Summary Index	40	24
Nitrogen Dioxide (NO2) Supplemental Summary Index	78	77
Diesel Particulate Matter Supplemental Summary Index	81	77
Toxic Releases to Air Supplemental Summary Index	84	74
Traffic Proximity and Volume Supplemental Summary Index	80	81
Lead Paint Supplemental Summary Index	47	62
Superfund Proximity Supplemental Summary Index	54	65
RMP Proximity Supplemental Summary Index	64	51
Hazardous Waste Proximity Supplemental Summary Index	83	81
Underground Storage Tanks Supplemental Summary Index	71	68
Wastewater Discharge Supplemental Summary Index	72	53
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	5%	0.3	0.4
% Black or African American (non-Hispanic, single race)	8%	0.6	1.1
% Asian (non-Hispanic, single race)	10%	1.9	1.4
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	9%	2.8	2.4
% White (non-Hispanic, single race)	68%	1.1	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	26%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	4%	NA	NA
% speaking Other and Unspecified languages at home	8%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	3%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	80%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	20%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	44%	NA	NA
% Females	56%	NA	NA
HEALTH			
% with Disabilities	16%	1.2	1.3
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	9.80	NA	NA
% of Adults with Cancer (excluding skin cancer)	6.50	NA	NA
AGE			
% under Age 5	4%	0.7	0.8
% under age 18	13%	NA	NA
% over Age 64	36%	2	2
COMMUNITY			
Occupied Housing Units	956	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	93,951	NA	NA
% Owner Occupied households	35%	NA	NA
POVERTY			
% of Households below Poverty Level	7%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	4%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,733	NA	NA
Count of Population Age 25 up	1,327	NA	NA
Count of Households	956	NA	NA
Universe for % unemployed (denominator, count)	1,555	NA	NA
Count of Housing Units Built Pre 1960	458	NA	NA
Built housing units count (denominator for % pre 1960)	1,002	NA	NA
Count of Population for whom Poverty Status is Determined	1,704	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250214004012)
Area in Square Miles: 0.04
Population: 2,406

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.64	6.52	60	8.45	12	0.8	1.0
Ozone (ppb)	55.6	56.7	34	61.8	25	0.9	1.0
Nitrogen Dioxide (NO2)	14.2	8.8	90	7.8	94	1.8	1.6
Diesel Particulate Matter (ug/m3)	0.359	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,800	2,800	90	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	13,000,000	6,100,000	87	1,700,000	99	7.9	2.2
Lead Paint Indicator (% pre-1960s housing)	63.34%	0.51	62	0.3	82	2.1	1.2
Superfund Proximity (site count/km distance)	0.10	0.34	45	0.39	59	0.3	0.3
RMP Proximity (facility count/km distance)	0.30	0.37	60	0.57	51	0.5	0.8
Hazardous Waste Proximity (facility count/km distance)	39.8	11.2	94	3.5	99	11.0	3.6
Underground Storage Tanks (UST) indicator	2.5	3.3	57	3.6	66	0.7	0.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	99	760	71	700,000	55	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.06	1.19	64	1.34	45	0.8	1.1
Supplemental Demographic Index USA	1.46	1.52	64	1.64	45	0.9	1.0
% Low Income	19%	22%	55	30%	36	0.6	0.9
% in limited English-speaking Households	3%	6%	59	5%	70	0.7	0.6
% Unemployed	9%	5%	80	6%	79	1.6	1.7
% with Less Than High School Education	13%	9%	75	11%	67	1.1	1.4
% under Age 5	5%	5%	57	5%	51	0.9	1.0
% over Age 64	12%	18%	30	18%	33	0.7	0.7
% People of Color	39%	31%	68	40%	57	1.0	1.2

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

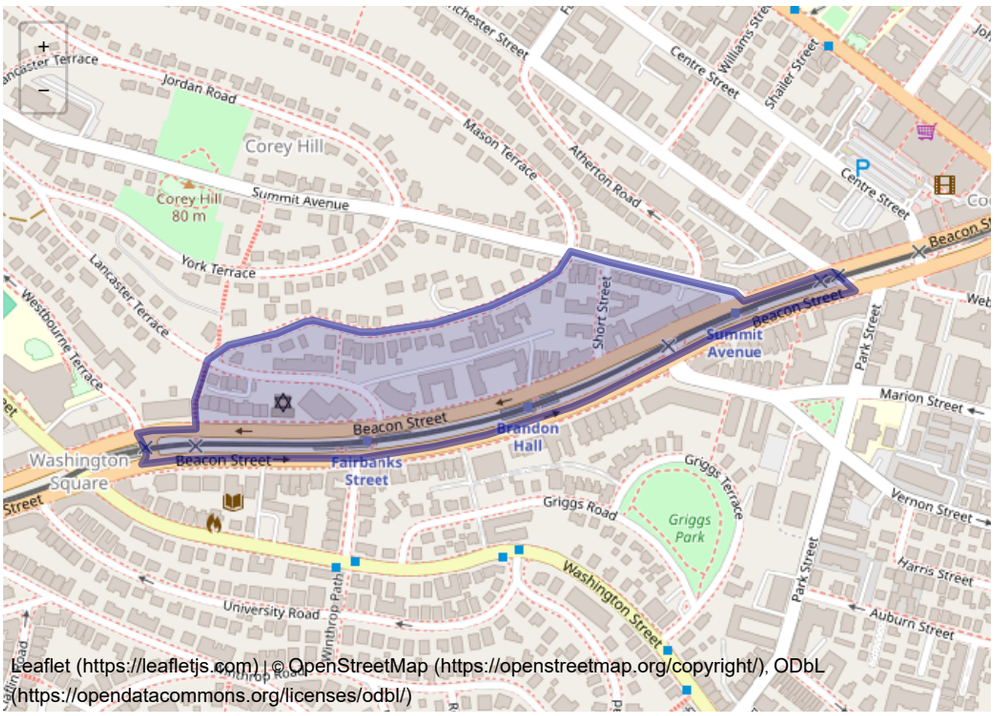
The indexes for a selected area are compared to those for all other locations in the state or nation.

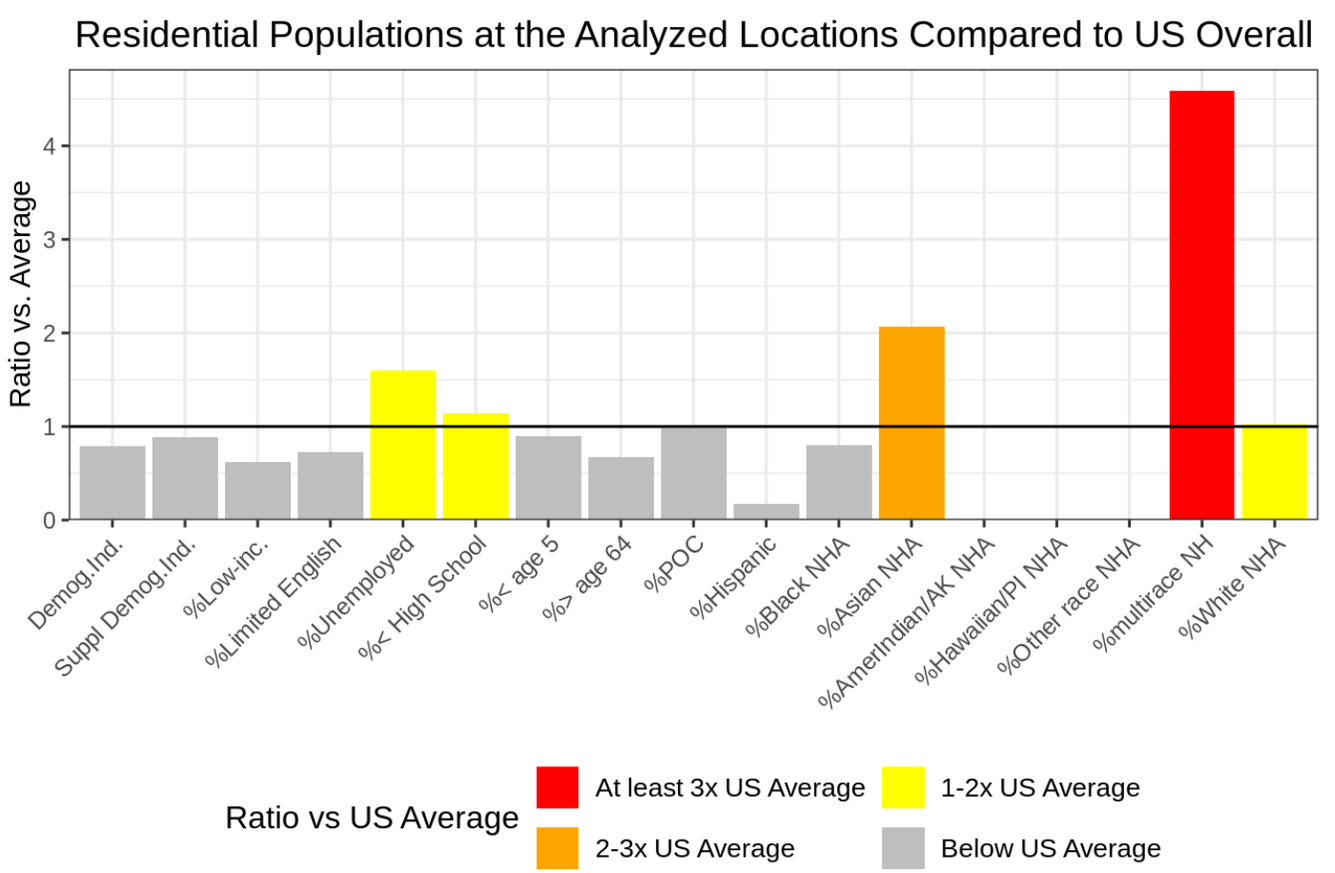
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	72	18
Ozone Summary Index	53	34
Nitrogen Dioxide (NO2) Summary Index	77	71
Diesel Particulate Matter Summary Index	79	71
Toxic Releases to Air Summary Index	82	73
Traffic Proximity and Volume Summary Index	77	73
Lead Paint Summary Index	69	71
Superfund Proximity Summary Index	68	69
RMP Proximity Summary Index	69	55
Hazardous Waste Proximity Summary Index	79	74
Underground Storage Tanks Summary Index	64	64
Wastewater Discharge Summary Index	74	57
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	71	13
Ozone Supplemental Summary Index	43	26
Nitrogen Dioxide (NO2) Supplemental Summary Index	81	81
Diesel Particulate Matter Supplemental Summary Index	84	80
Toxic Releases to Air Supplemental Summary Index	87	78
Traffic Proximity and Volume Supplemental Summary Index	82	84
Lead Paint Supplemental Summary Index	68	74
Superfund Proximity Supplemental Summary Index	60	68
RMP Proximity Supplemental Summary Index	67	54
Hazardous Waste Proximity Supplemental Summary Index	85	84
Underground Storage Tanks Supplemental Summary Index	63	65
Wastewater Discharge Supplemental Summary Index	76	57
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	3%	0.2	0.2
% Black or African American (non-Hispanic, single race)	10%	0.8	1.5
% Asian (non-Hispanic, single race)	10%	2.1	1.5
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	16%	4.6	4
% White (non-Hispanic, single race)	61%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	26%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	4%	NA	NA
% speaking Other and Unspecified languages at home	8%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	3%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	100%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	0%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	48%	NA	NA
% Females	52%	NA	NA
HEALTH			
% with Disabilities	16%	1.2	1.3
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	9.80	NA	NA
% of Adults with Cancer (excluding skin cancer)	6.50	NA	NA
AGE			
% under Age 5	5%	0.9	1
% under age 18	13%	NA	NA
% over Age 64	12%	0.7	0.7
COMMUNITY			
Occupied Housing Units	1,229	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	87,352	NA	NA
% Owner Occupied households	25%	NA	NA
POVERTY			
% of Households below Poverty Level	17%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	14%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	2,406	NA	NA
Count of Population Age 25 up	1,826	NA	NA
Count of Households	1,229	NA	NA
Universe for % unemployed (denominator, count)	2,130	NA	NA
Count of Housing Units Built Pre 1960	807	NA	NA
Built housing units count (denominator for % pre 1960)	1,274	NA	NA
Count of Population for whom Poverty Status is Determined	2,406	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214005004)
Area in Square Miles: 0.04
Population: 1,400

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.65	6.52	62	8.45	12	0.8	1.0
Ozone (ppb)	55.6	56.7	34	61.8	25	0.9	1.0
Nitrogen Dioxide (NO2)	14.7	8.8	92	7.8	95	1.9	1.7
Diesel Particulate Matter (ug/m3)	0.359	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,800	2,800	90	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	14,000,000	6,100,000	88	1,700,000	99	8.0	2.2
Lead Paint Indicator (% pre-1960s housing)	51.71%	0.51	49	0.3	75	1.7	1.0
Superfund Proximity (site count/km distance)	0.10	0.34	46	0.39	60	0.3	0.3
RMP Proximity (facility count/km distance)	0.31	0.37	61	0.57	52	0.5	0.8
Hazardous Waste Proximity (facility count/km distance)	42.4	11.2	95	3.5	99	12.0	3.8
Underground Storage Tanks (UST) indicator	4.0	3.3	70	3.6	75	1.1	1.2
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	99	760	71	700,000	55	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.78	1.19	50	1.34	30	0.6	0.8
Supplemental Demographic Index USA	0.87	1.52	19	1.64	9	0.5	0.6
% Low Income	12%	22%	37	30%	22	0.4	0.5
% in limited English-speaking Households	2%	6%	51	5%	64	0.4	0.3
% Unemployed	0%	5%	20	6%	23	0.1	0.1
% with Less Than High School Education	1%	9%	21	11%	15	0.1	0.2
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	23%	18%	75	18%	75	1.3	1.3
% People of Color	31%	31%	59	40%	50	0.8	1.0

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

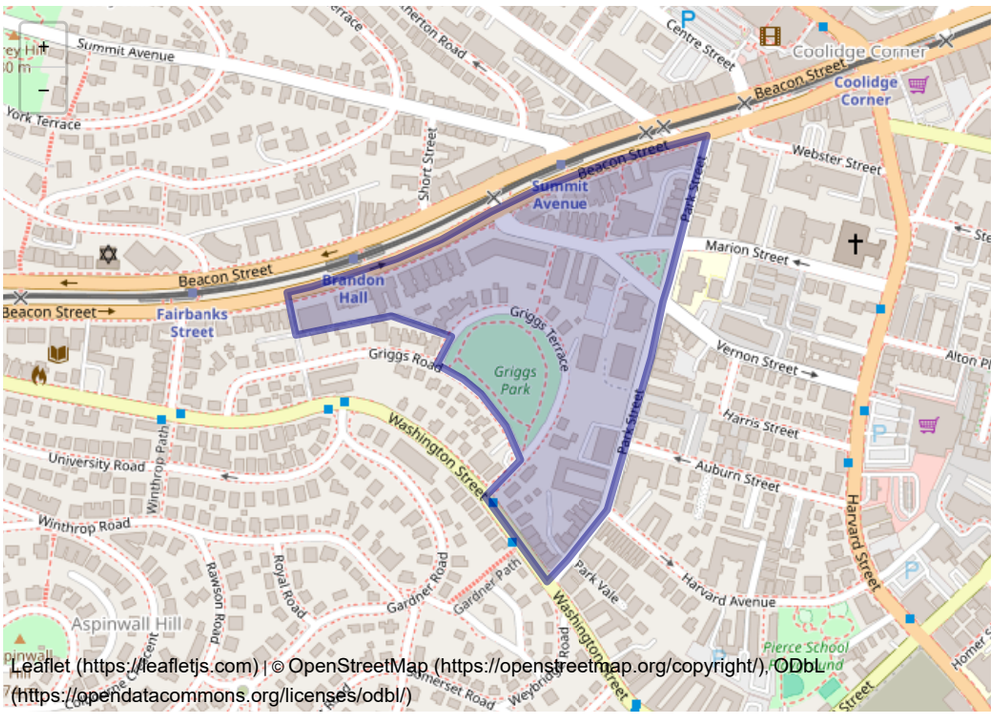
The indexes for a selected area are compared to those for all other locations in the state or nation.

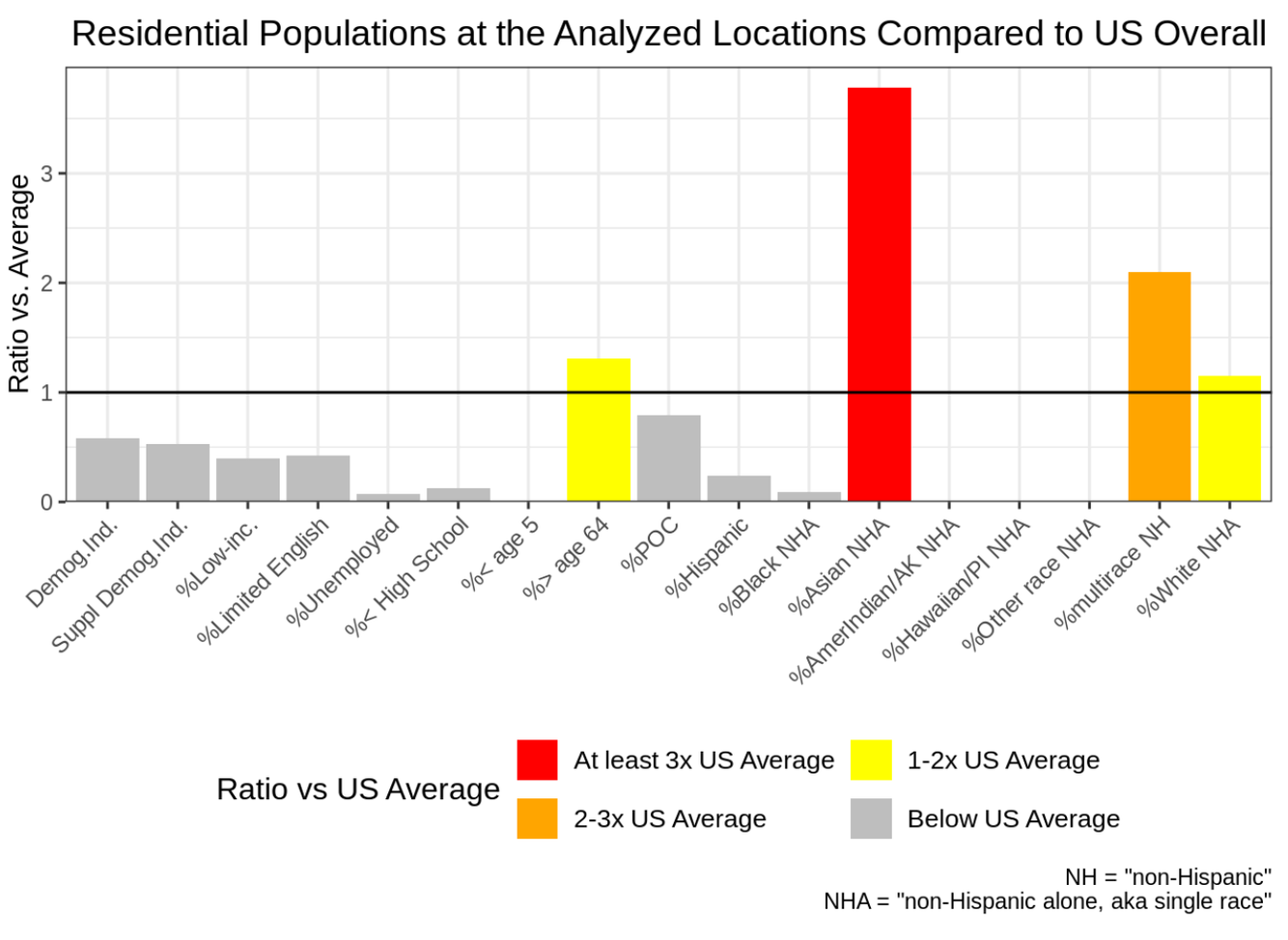
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	61	14
Ozone Summary Index	42	26
Nitrogen Dioxide (NO2) Summary Index	69	62
Diesel Particulate Matter Summary Index	71	61
Toxic Releases to Air Summary Index	74	62
Traffic Proximity and Volume Summary Index	68	64
Lead Paint Summary Index	52	57
Superfund Proximity Summary Index	60	65
RMP Proximity Summary Index	61	48
Hazardous Waste Proximity Summary Index	71	64
Underground Storage Tanks Summary Index	61	59
Wastewater Discharge Summary Index	65	47
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	49	8
Ozone Supplemental Summary Index	28	15
Nitrogen Dioxide (NO2) Supplemental Summary Index	63	59
Diesel Particulate Matter Supplemental Summary Index	65	58
Toxic Releases to Air Supplemental Summary Index	67	53
Traffic Proximity and Volume Supplemental Summary Index	61	62
Lead Paint Supplemental Summary Index	38	45
Superfund Proximity Supplemental Summary Index	45	58
RMP Proximity Supplemental Summary Index	47	37
Hazardous Waste Proximity Supplemental Summary Index	65	62
Underground Storage Tanks Supplemental Summary Index	51	48
Wastewater Discharge Supplemental Summary Index	52	35
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	4%	0.2	0.3
% Black or African American (non-Hispanic, single race)	1%	0.1	0.2
% Asian (non-Hispanic, single race)	19%	3.8	2.8
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	7%	2.1	1.8
% White (non-Hispanic, single race)	69%	1.2	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	24%	NA	NA
% speaking Other Indo-European at home	14%	NA	NA
% speaking Asian and Pacific Island languages at home	6%	NA	NA
% speaking Other and Unspecified languages at home	0%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	4%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	38%	NA	NA
% Females	62%	NA	NA
HEALTH			
% with Disabilities	7%	0.5	0.6
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	9.90	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.10	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	1%	NA	NA
% over Age 64	23%	1.3	1.3
COMMUNITY			
Occupied Housing Units	838	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	129,015	NA	NA
% Owner Occupied households	15%	NA	NA
POVERTY			
% of Households below Poverty Level	9%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	2	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	50%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	6%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,400	NA	NA
Count of Population Age 25 up	1,200	NA	NA
Count of Households	838	NA	NA
Universe for % unemployed (denominator, count)	1,382	NA	NA
Count of Housing Units Built Pre 1960	500	NA	NA
Built housing units count (denominator for % pre 1960)	967	NA	NA
Count of Population for whom Poverty Status is Determined	1,400	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214007001)
Area in Square Miles: 0.08
Population: 1,147

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.65	6.52	61	8.45	12	0.8	1.0
Ozone (ppb)	55.7	56.7	35	61.8	25	0.9	1.0
Nitrogen Dioxide (NO2)	13.8	8.8	88	7.8	94	1.8	1.6
Diesel Particulate Matter (ug/m3)	0.359	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,800	2,800	90	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	14,000,000	6,100,000	88	1,700,000	99	8.1	2.2
Lead Paint Indicator (% pre-1960s housing)	59.96%	0.51	58	0.3	80	2.0	1.2
Superfund Proximity (site count/km distance)	0.11	0.34	48	0.39	61	0.3	0.3
RMP Proximity (facility count/km distance)	0.32	0.37	63	0.57	53	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	46.8	11.2	96	3.5	99	13.0	4.2
Underground Storage Tanks (UST) indicator	18.1	3.3	98	3.6	95	5.0	5.4
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	96	760	70	700,000	55	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.62	1.19	39	1.34	21	0.5	0.6
Supplemental Demographic Index USA	0.95	1.52	25	1.64	13	0.6	0.7
% Low Income	13%	22%	39	30%	23	0.4	0.6
% in limited English-speaking Households	12%	6%	82	5%	87	2.5	2.0
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	4%	9%	38	11%	28	0.3	0.4
% under Age 5	5%	5%	58	5%	53	0.9	1.0
% over Age 64	24%	18%	78	18%	77	1.4	1.4
% People of Color	20%	31%	45	40%	37	0.5	0.7

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

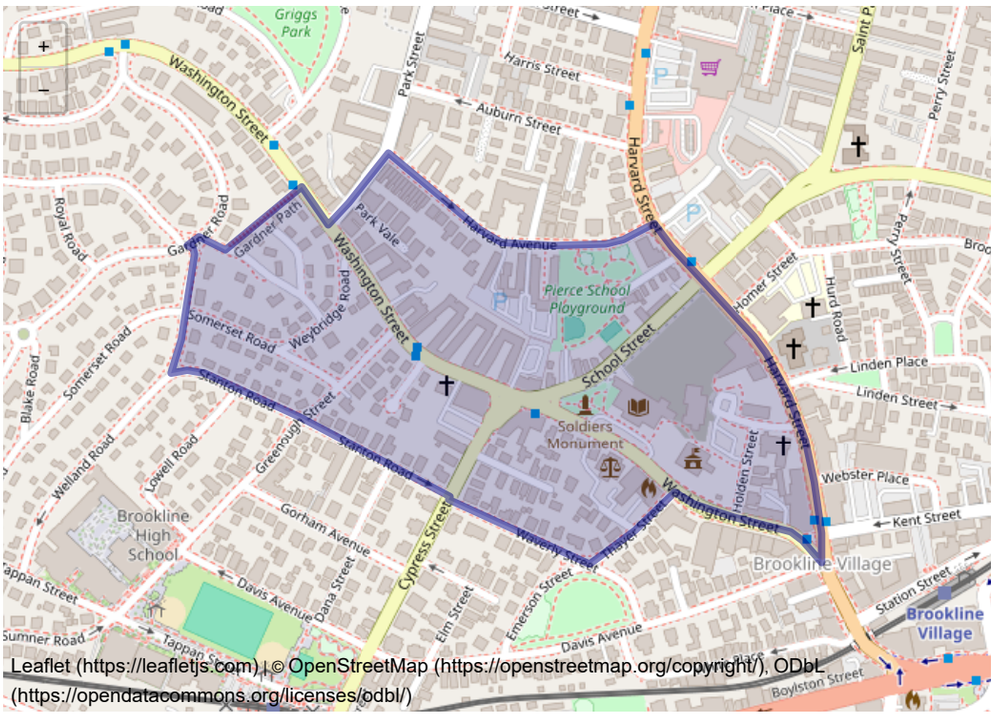
The indexes for a selected area are compared to those for all other locations in the state or nation.

	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	52	11
Ozone Summary Index	36	21
Nitrogen Dioxide (NO2) Summary Index	61	55
Diesel Particulate Matter Summary Index	64	54
Toxic Releases to Air Summary Index	66	54
Traffic Proximity and Volume Summary Index	61	57
Lead Paint Summary Index	51	51
Superfund Proximity Summary Index	55	62
RMP Proximity Summary Index	55	43
Hazardous Waste Proximity Summary Index	64	57
Underground Storage Tanks Summary Index	64	59
Wastewater Discharge Summary Index	57	40
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	52	8
Ozone Supplemental Summary Index	31	17
Nitrogen Dioxide (NO2) Supplemental Summary Index	65	63
Diesel Particulate Matter Supplemental Summary Index	68	62
Toxic Releases to Air Supplemental Summary Index	70	58
Traffic Proximity and Volume Supplemental Summary Index	64	67
Lead Paint Supplemental Summary Index	46	51
Superfund Proximity Supplemental Summary Index	48	59
RMP Proximity Supplemental Summary Index	51	40
Hazardous Waste Proximity Supplemental Summary Index	69	66
Underground Storage Tanks Supplemental Summary Index	68	62
Wastewater Discharge Supplemental Summary Index	55	38
Drinking Water Non-Compliance Supplemental Summary Index	0	0

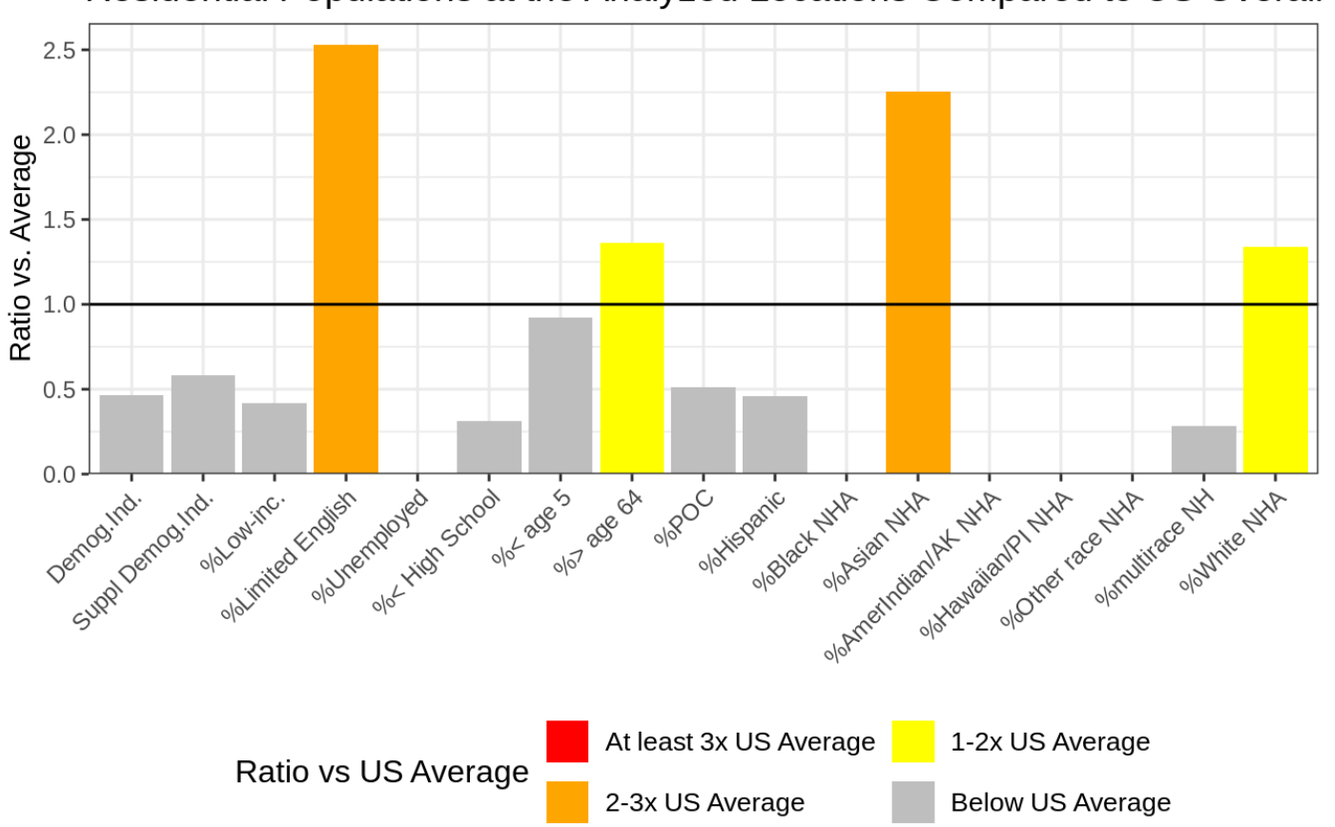
ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	8%	0.5	0.6
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	11%	2.3	1.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	1%	0.3	0.2
% White (non-Hispanic, single race)	80%	1.3	1.2
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	24%	NA	NA
% speaking Other Indo-European at home	7%	NA	NA
% speaking Asian and Pacific Island languages at home	10%	NA	NA
% speaking Other and Unspecified languages at home	3%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	4%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	23%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	65%	NA	NA
% speaking Other languages (as % of limited English households)	12%	NA	NA
BREAKDOWN BY SEX			
% Males	43%	NA	NA
% Females	57%	NA	NA
HEALTH			
% with Disabilities	5%	0.4	0.4
% with Low Life Expectancy	14%	0.7	0.8
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	9.80	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.10	NA	NA
AGE			
% under Age 5	5%	0.9	1
% under age 18	15%	NA	NA
% over Age 64	24%	1.4	1.4
COMMUNITY			
Occupied Housing Units	534	NA	NA
Life Expectancy in Years	83	NA	NA
Per Capita Income	107,316	NA	NA
% Owner Occupied households	49%	NA	NA
POVERTY			
% of Households below Poverty Level	7%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	1	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	1	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	3	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	13%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	1%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,147	NA	NA
Count of Population Age 25 up	909	NA	NA
Count of Households	534	NA	NA
Universe for % unemployed (denominator, count)	1,004	NA	NA
Count of Housing Units Built Pre 1960	325	NA	NA
Built housing units count (denominator for % pre 1960)	542	NA	NA
Count of Population for whom Poverty Status is Determined	1,147	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)



Residential Populations at the Analyzed Locations Compared to US Overall



NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214007002)
Area in Square Miles: 0.06
Population: 1,735

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.65	6.52	61	8.45	12	0.8	1.0
Ozone (ppb)	55.7	56.7	35	61.8	25	0.9	1.0
Nitrogen Dioxide (NO2)	14.0	8.8	89	7.8	94	1.8	1.6
Diesel Particulate Matter (ug/m3)	0.359	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,900	2,800	91	4,600	86	1.1	1.8
Traffic Proximity and Volume (daily traffic count/distance to road)	14,000,000	6,100,000	90	1,700,000	99	8.4	2.3
Lead Paint Indicator (% pre-1960s housing)	64.48%	0.51	64	0.3	83	2.2	1.3
Superfund Proximity (site count/km distance)	0.11	0.34	49	0.39	62	0.3	0.3
RMP Proximity (facility count/km distance)	0.33	0.37	63	0.57	53	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	40.2	11.2	94	3.5	99	11.0	3.6
Underground Storage Tanks (UST) indicator	23.4	3.3	99	3.6	97	6.4	7.0
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	93	760	69	700,000	55	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.88	1.19	55	1.34	36	0.7	0.9
Supplemental Demographic Index USA	0.77	1.52	12	1.64	5	0.5	0.5
% Low Income	24%	22%	65	30%	46	0.8	1.1
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	6%	5%	64	6%	64	1.0	1.1
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	5%	5%	59	5%	54	0.9	1.1
% over Age 64	7%	18%	14	18%	15	0.4	0.4
% People of Color	20%	31%	44	40%	36	0.5	0.6

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

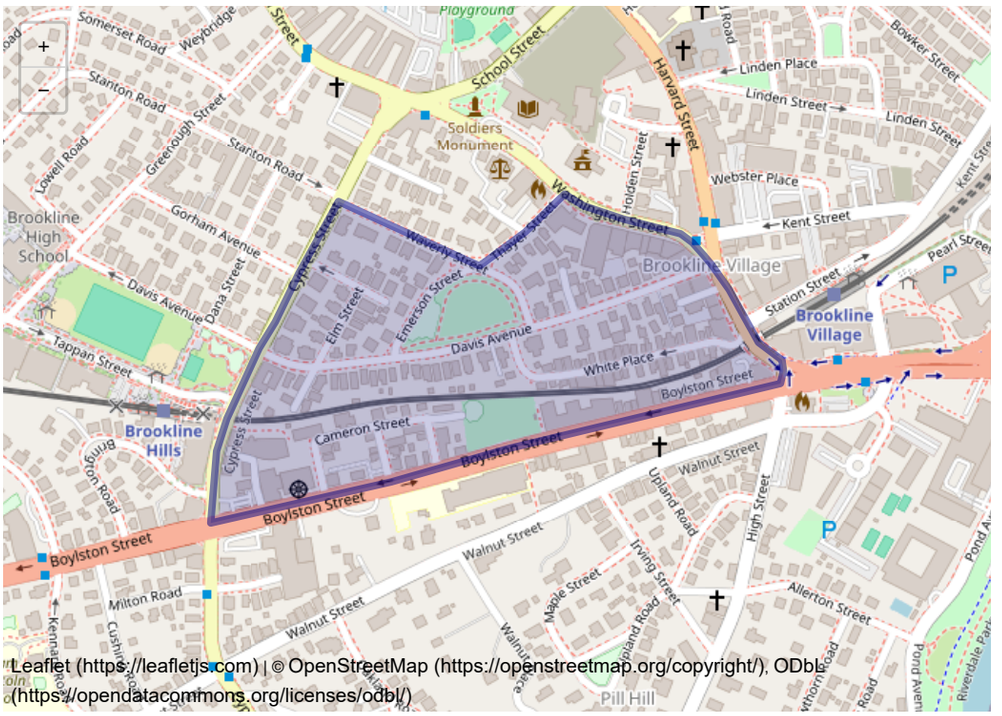
The indexes for a selected area are compared to those for all other locations in the state or nation.

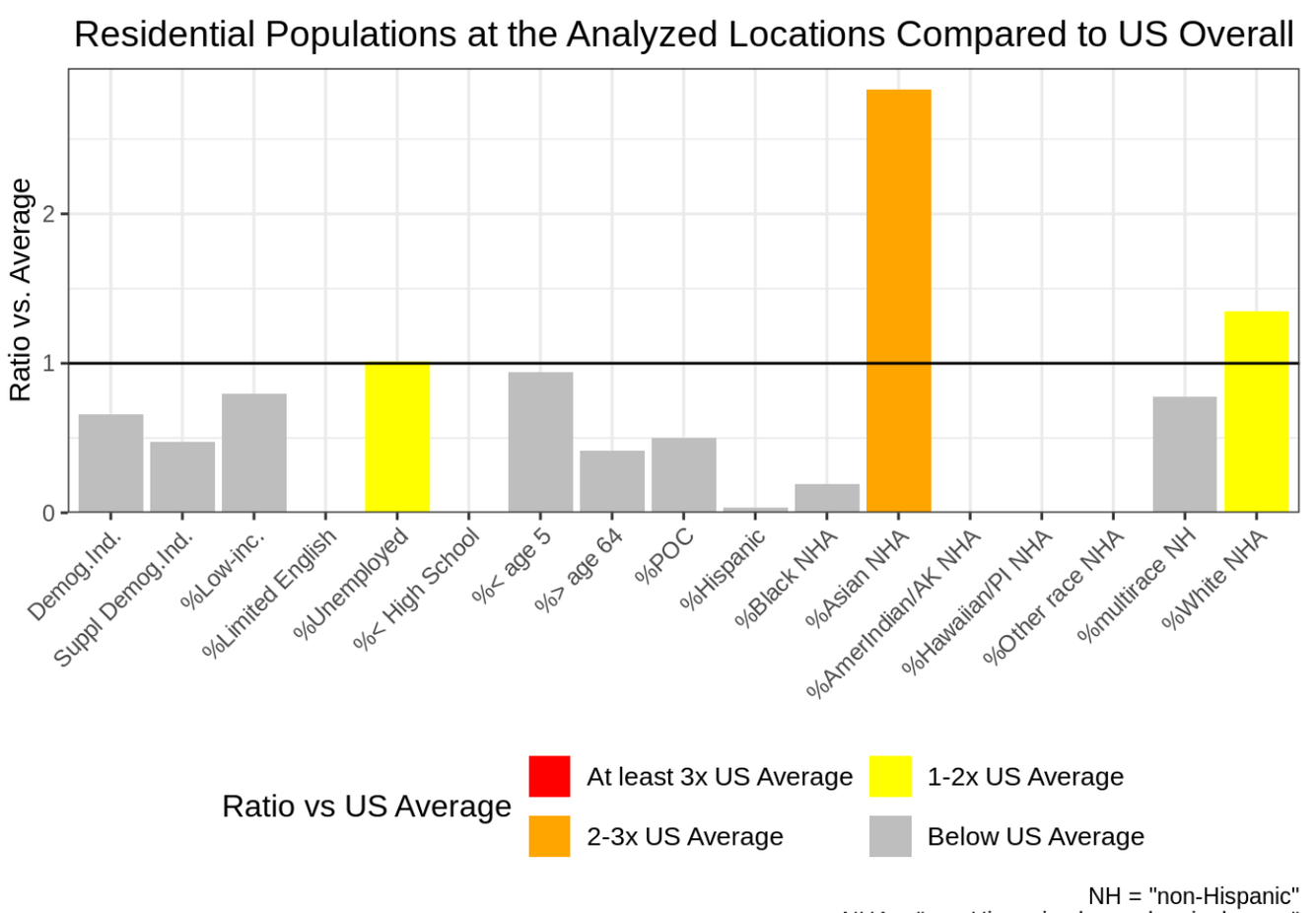
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	65	16
Ozone Summary Index	47	29
Nitrogen Dioxide (NO2) Summary Index	70	66
Diesel Particulate Matter Summary Index	74	65
Toxic Releases to Air Summary Index	77	67
Traffic Proximity and Volume Summary Index	71	67
Lead Paint Summary Index	64	65
Superfund Proximity Summary Index	65	67
RMP Proximity Summary Index	65	51
Hazardous Waste Proximity Summary Index	73	68
Underground Storage Tanks Summary Index	75	69
Wastewater Discharge Summary Index	67	51
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	42	7
Ozone Supplemental Summary Index	26	13
Nitrogen Dioxide (NO2) Supplemental Summary Index	57	53
Diesel Particulate Matter Supplemental Summary Index	59	52
Toxic Releases to Air Supplemental Summary Index	61	48
Traffic Proximity and Volume Supplemental Summary Index	56	57
Lead Paint Supplemental Summary Index	42	44
Superfund Proximity Supplemental Summary Index	44	57
RMP Proximity Supplemental Summary Index	44	35
Hazardous Waste Proximity Supplemental Summary Index	58	57
Underground Storage Tanks Supplemental Summary Index	59	54
Wastewater Discharge Supplemental Summary Index	46	31
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	1%	0	0
% Black or African American (non-Hispanic, single race)	2%	0.2	0.4
% Asian (non-Hispanic, single race)	14%	2.8	2.1
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	3%	0.8	0.7
% White (non-Hispanic, single race)	80%	1.3	1.2
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	24%	NA	NA
% speaking Other Indo-European at home	7%	NA	NA
% speaking Asian and Pacific Island languages at home	10%	NA	NA
% speaking Other and Unspecified languages at home	3%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	4%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	37%	NA	NA
% Females	63%	NA	NA
HEALTH			
% with Disabilities	5%	0.4	0.4
% with Low Life Expectancy	14%	0.7	0.8
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	9.80	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.10	NA	NA
AGE			
% under Age 5	5%	0.9	1.1
% under age 18	15%	NA	NA
% over Age 64	7%	0.4	0.4
COMMUNITY			
Occupied Housing Units	691	NA	NA
Life Expectancy in Years	83	NA	NA
Per Capita Income	89,276	NA	NA
% Owner Occupied households	39%	NA	NA
POVERTY			
% of Households below Poverty Level	14%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	57%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,735	NA	NA
Count of Population Age 25 up	1,021	NA	NA
Count of Households	691	NA	NA
Universe for % unemployed (denominator, count)	1,501	NA	NA
Count of Housing Units Built Pre 1960	463	NA	NA
Built housing units count (denominator for % pre 1960)	718	NA	NA
Count of Population for whom Poverty Status is Determined	1,735	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214008001)
Area in Square Miles: 0.09
Population: 2,024

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.63	6.52	59	8.45	12	0.8	1.0
Ozone (ppb)	55.7	56.7	37	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	15.3	8.8	93	7.8	96	1.9	1.7
Diesel Particulate Matter (ug/m3)	0.360	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,700	2,800	89	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	15,000,000	6,100,000	92	1,700,000	99	8.7	2.4
Lead Paint Indicator (% pre-1960s housing)	69.55%	0.51	70	0.3	86	2.3	1.4
Superfund Proximity (site count/km distance)	0.10	0.34	46	0.39	60	0.3	0.3
RMP Proximity (facility count/km distance)	0.35	0.37	65	0.57	55	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	48.6	11.2	96	3.5	99	14.0	4.3
Underground Storage Tanks (UST) indicator	11.1	3.3	93	3.6	90	3.0	3.3
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	72	700,000	56	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.86	1.19	54	1.34	35	0.6	0.9
Supplemental Demographic Index USA	0.84	1.52	17	1.64	8	0.5	0.6
% Low Income	16%	22%	48	30%	30	0.5	0.7
% in limited English-speaking Households	3%	6%	56	5%	68	0.6	0.5
% Unemployed	1%	5%	22	6%	25	0.1	0.2
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	4%	5%	52	5%	46	0.8	0.9
% over Age 64	5%	18%	8	18%	9	0.3	0.3
% People of Color	30%	31%	58	40%	49	0.8	1.0

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

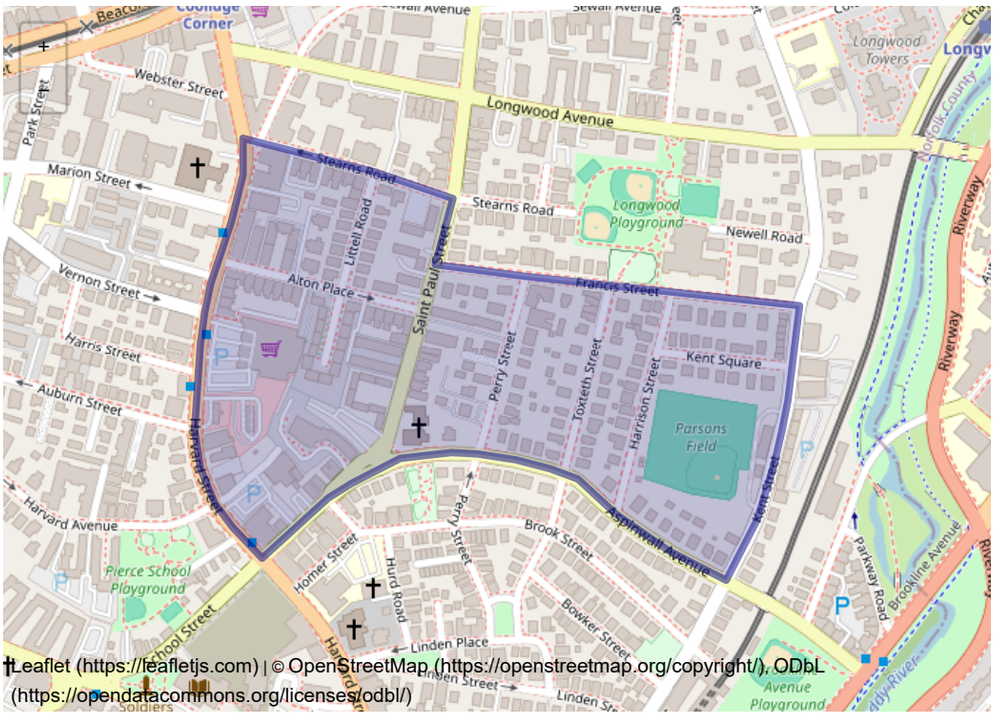
The indexes for a selected area are compared to those for all other locations in the state or nation.

	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	63	15
Ozone Summary Index	49	29
Nitrogen Dioxide (NO2) Summary Index	72	66
Diesel Particulate Matter Summary Index	73	64
Toxic Releases to Air Summary Index	76	65
Traffic Proximity and Volume Summary Index	72	67
Lead Paint Summary Index	66	65
Superfund Proximity Summary Index	63	66
RMP Proximity Summary Index	65	52
Hazardous Waste Proximity Summary Index	74	67
Underground Storage Tanks Summary Index	72	67
Wastewater Discharge Summary Index	68	50
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	45	7
Ozone Supplemental Summary Index	30	15
Nitrogen Dioxide (NO2) Supplemental Summary Index	62	58
Diesel Particulate Matter Supplemental Summary Index	63	56
Toxic Releases to Air Supplemental Summary Index	65	52
Traffic Proximity and Volume Supplemental Summary Index	61	61
Lead Paint Supplemental Summary Index	50	49
Superfund Proximity Supplemental Summary Index	45	58
RMP Proximity Supplemental Summary Index	49	37
Hazardous Waste Proximity Supplemental Summary Index	64	60
Underground Storage Tanks Supplemental Summary Index	61	55
Wastewater Discharge Supplemental Summary Index	51	34
Drinking Water Non-Compliance Supplemental Summary Index	0	0

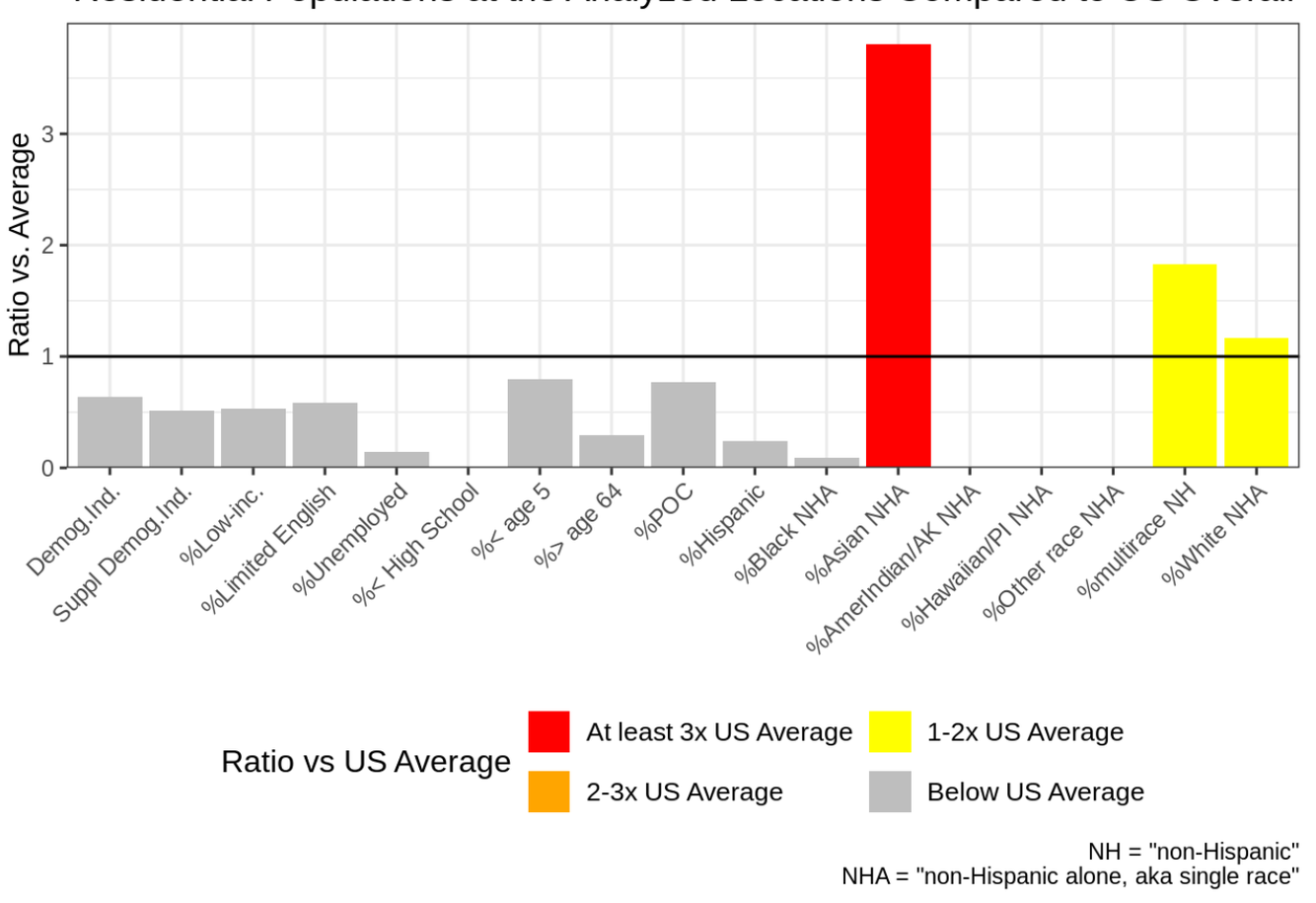
ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	4%	0.2	0.3
% Black or African American (non-Hispanic, single race)	1%	0.1	0.2
% Asian (non-Hispanic, single race)	19%	3.8	2.8
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	6%	1.8	1.6
% White (non-Hispanic, single race)	70%	1.2	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	30%	NA	NA
% speaking Other Indo-European at home	12%	NA	NA
% speaking Asian and Pacific Island languages at home	15%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	2%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	42%	NA	NA
% Females	58%	NA	NA
HEALTH			
% with Disabilities	5%	0.4	0.4
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	9.90	NA	NA
% of Adults with Cancer (excluding skin cancer)	6.30	NA	NA
AGE			
% under Age 5	4%	0.8	0.9
% under age 18	18%	NA	NA
% over Age 64	5%	0.3	0.3
COMMUNITY			
Occupied Housing Units	785	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	50,440	NA	NA
% Owner Occupied households	33%	NA	NA
POVERTY			
% of Households below Poverty Level	7%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	2	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	4	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	6%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	2,024	NA	NA
Count of Population Age 25 up	1,055	NA	NA
Count of Households	785	NA	NA
Universe for % unemployed (denominator, count)	1,671	NA	NA
Count of Housing Units Built Pre 1960	546	NA	NA
Built housing units count (denominator for % pre 1960)	785	NA	NA
Count of Population for whom Poverty Status is Determined	2,024	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)



Residential Populations at the Analyzed Locations Compared to US Overall



NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214008002)
Area in Square Miles: 0.07
Population: 972

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.63	6.52	59	8.45	12	0.8	1.0
Ozone (ppb)	55.7	56.7	37	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	15.8	8.8	94	7.8	97	2.0	1.8
Diesel Particulate Matter (ug/m3)	0.360	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,600	2,800	89	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	15,000,000	6,100,000	93	1,700,000	99	9.1	2.5
Lead Paint Indicator (% pre-1960s housing)	50.93%	0.51	48	0.3	74	1.7	1.0
Superfund Proximity (site count/km distance)	0.10	0.34	46	0.39	60	0.3	0.3
RMP Proximity (facility count/km distance)	0.37	0.37	67	0.57	56	0.7	1.0
Hazardous Waste Proximity (facility count/km distance)	54.9	11.2	97	3.5	99	16.0	4.9
Underground Storage Tanks (UST) indicator	13.0	3.3	96	3.6	92	3.6	3.9
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	110	760	73	700,000	56	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.77	1.19	50	1.34	30	0.6	0.8
Supplemental Demographic Index USA	0.87	1.52	19	1.64	9	0.5	0.6
% Low Income	10%	22%	29	30%	17	0.3	0.4
% in limited English-speaking Households	4%	6%	61	5%	72	0.8	0.6
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	4%	9%	41	11%	31	0.4	0.4
% under Age 5	10%	5%	91	5%	87	1.9	2.2
% over Age 64	10%	18%	24	18%	26	0.6	0.6
% People of Color	34%	31%	63	40%	53	0.9	1.1

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

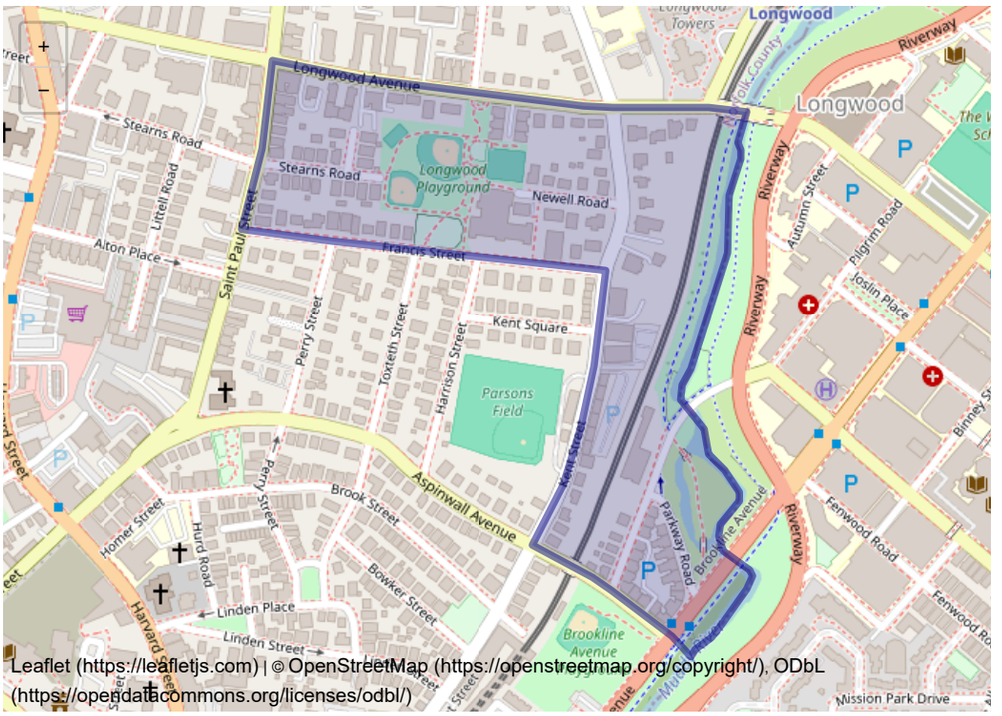
The indexes for a selected area are compared to those for all other locations in the state or nation.

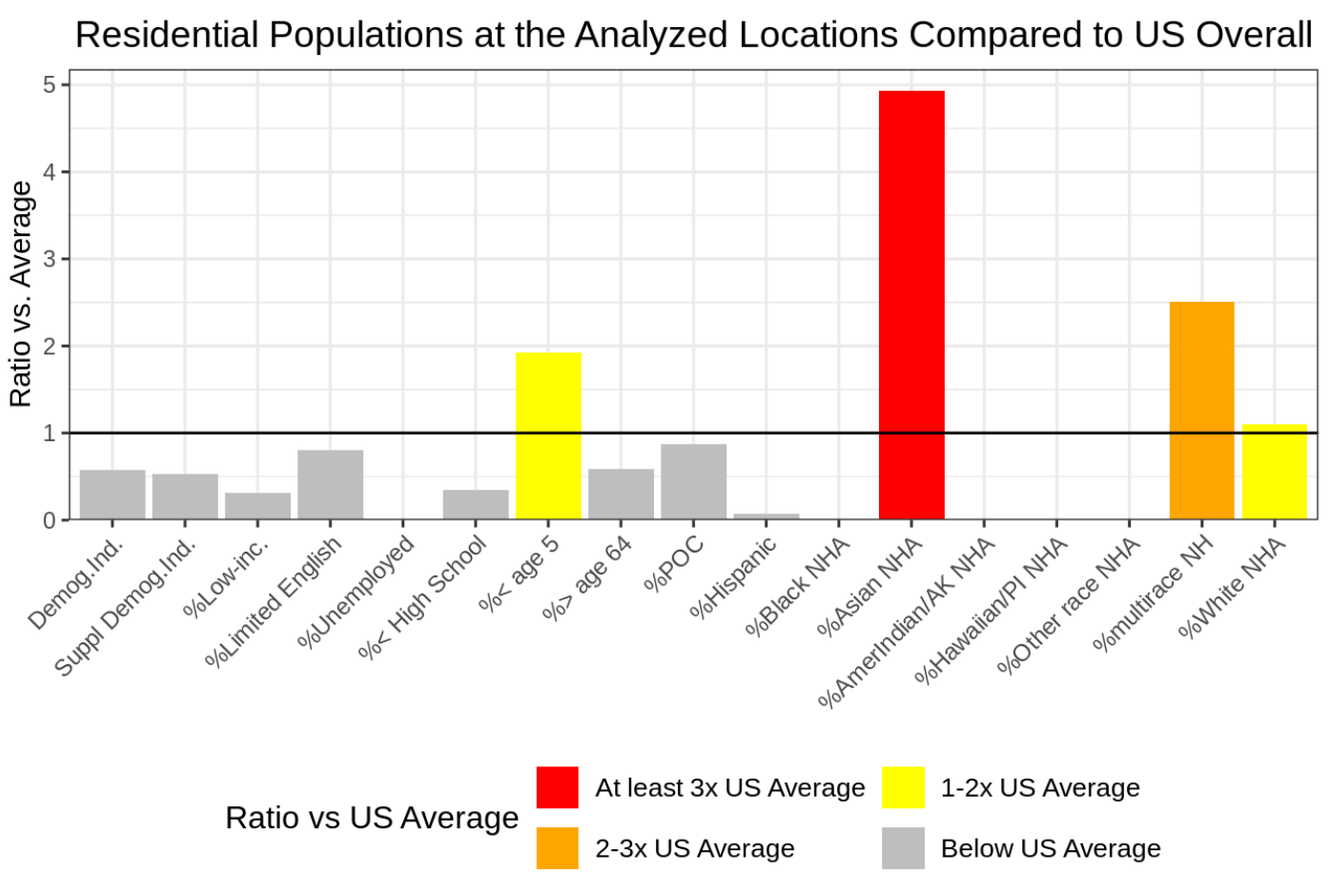
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	59	14
Ozone Summary Index	45	26
Nitrogen Dioxide (NO2) Summary Index	69	63
Diesel Particulate Matter Summary Index	71	61
Toxic Releases to Air Summary Index	73	61
Traffic Proximity and Volume Summary Index	70	63
Lead Paint Summary Index	52	56
Superfund Proximity Summary Index	60	65
RMP Proximity Summary Index	63	49
Hazardous Waste Proximity Summary Index	71	64
Underground Storage Tanks Summary Index	70	64
Wastewater Discharge Summary Index	66	47
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	46	8
Ozone Supplemental Summary Index	31	16
Nitrogen Dioxide (NO2) Supplemental Summary Index	64	60
Diesel Particulate Matter Supplemental Summary Index	64	58
Toxic Releases to Air Supplemental Summary Index	66	53
Traffic Proximity and Volume Supplemental Summary Index	63	62
Lead Paint Supplemental Summary Index	37	44
Superfund Proximity Supplemental Summary Index	45	58
RMP Proximity Supplemental Summary Index	51	39
Hazardous Waste Proximity Supplemental Summary Index	66	62
Underground Storage Tanks Supplemental Summary Index	63	57
Wastewater Discharge Supplemental Summary Index	53	35
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	1%	0.1	0.1
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	25%	4.9	3.6
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	9%	2.5	2.2
% White (non-Hispanic, single race)	66%	1.1	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	30%	NA	NA
% speaking Other Indo-European at home	12%	NA	NA
% speaking Asian and Pacific Island languages at home	15%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	2%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	100%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	0%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	43%	NA	NA
% Females	57%	NA	NA
HEALTH			
% with Disabilities	5%	0.4	0.4
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	9.90	NA	NA
% of Adults with Cancer (excluding skin cancer)	6.30	NA	NA
AGE			
% under Age 5	10%	1.9	2.2
% under age 18	17%	NA	NA
% over Age 64	10%	0.6	0.6
COMMUNITY			
Occupied Housing Units	414	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	102,576	NA	NA
% Owner Occupied households	48%	NA	NA
POVERTY			
% of Households below Poverty Level	7%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	34%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	4%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	972	NA	NA
Count of Population Age 25 up	730	NA	NA
Count of Households	414	NA	NA
Universe for % unemployed (denominator, count)	823	NA	NA
Count of Housing Units Built Pre 1960	218	NA	NA
Built housing units count (denominator for % pre 1960)	428	NA	NA
Count of Population for whom Poverty Status is Determined	972	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214008003)
Area in Square Miles: 0.04
Population: 1,938

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.63	6.52	59	8.45	12	0.8	1.0
Ozone (ppb)	55.7	56.7	37	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	15.4	8.8	93	7.8	96	2.0	1.7
Diesel Particulate Matter (ug/m3)	0.359	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,700	2,800	90	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	15,000,000	6,100,000	91	1,700,000	99	8.6	2.4
Lead Paint Indicator (% pre-1960s housing)	29.87%	0.51	26	0.3	58	1.0	0.6
Superfund Proximity (site count/km distance)	0.10	0.34	45	0.39	59	0.3	0.3
RMP Proximity (facility count/km distance)	0.33	0.37	64	0.57	54	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	49.2	11.2	96	3.5	99	14.0	4.4
Underground Storage Tanks (UST) indicator	4.1	3.3	72	3.6	75	1.1	1.2
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	72	700,000	56	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.86	1.19	55	1.34	35	0.6	0.9
Supplemental Demographic Index USA	0.85	1.52	18	1.64	8	0.5	0.6
% Low Income	10%	22%	32	30%	19	0.3	0.5
% in limited English-speaking Households	5%	6%	67	5%	77	1.1	0.9
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	1%	9%	16	11%	11	0.1	0.1
% under Age 5	4%	5%	46	5%	41	0.7	0.8
% over Age 64	23%	18%	73	18%	73	1.3	1.3
% People of Color	38%	31%	68	40%	56	1.0	1.2

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

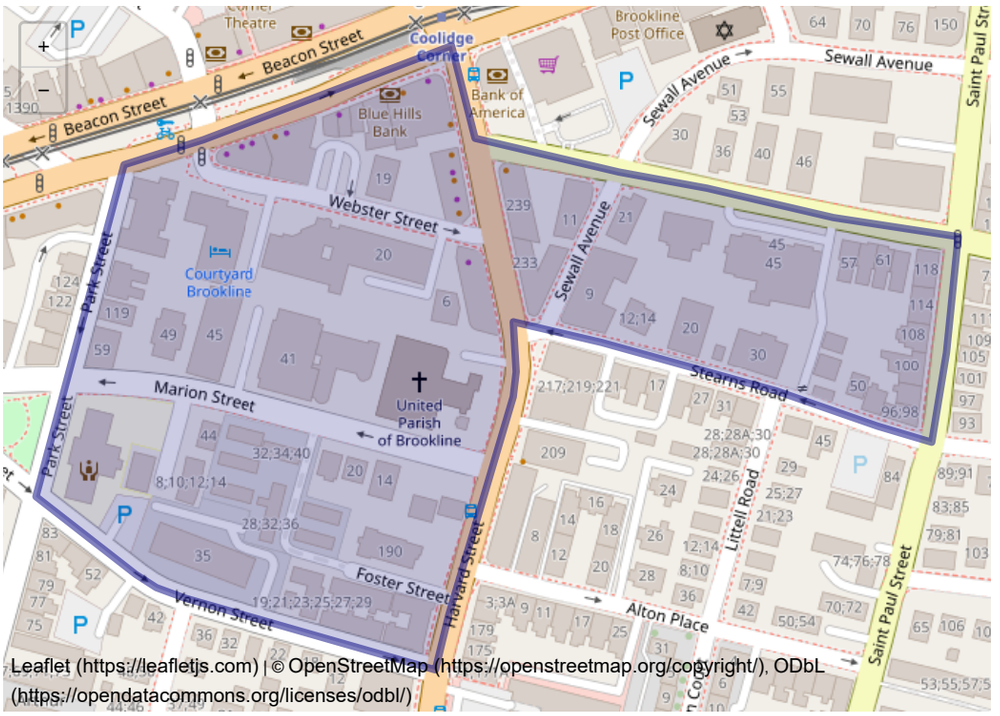
The indexes for a selected area are compared to those for all other locations in the state or nation.

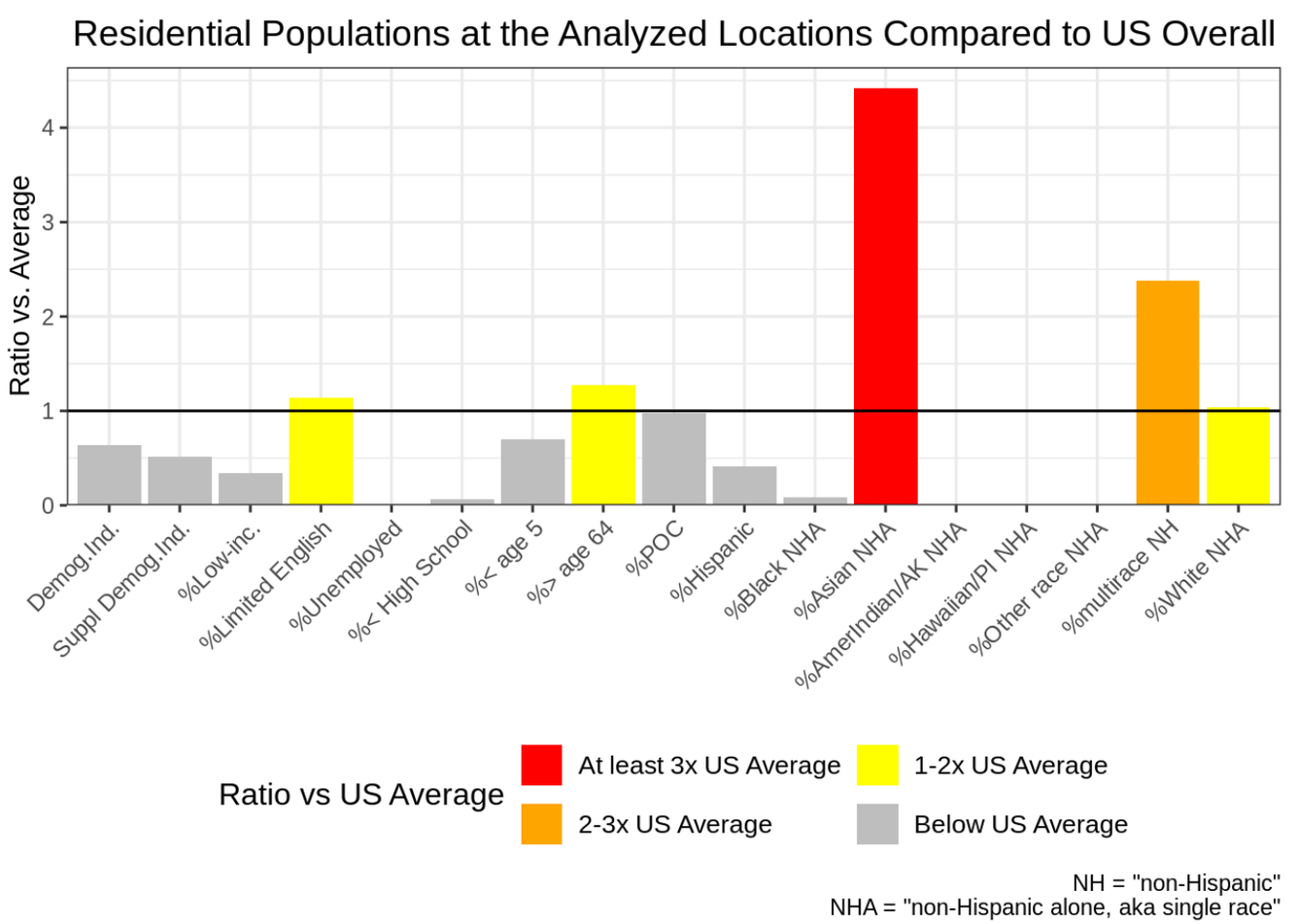
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	63	15
Ozone Summary Index	49	29
Nitrogen Dioxide (NO2) Summary Index	72	65
Diesel Particulate Matter Summary Index	74	64
Toxic Releases to Air Summary Index	76	65
Traffic Proximity and Volume Summary Index	72	66
Lead Paint Summary Index	38	51
Superfund Proximity Summary Index	62	66
RMP Proximity Summary Index	65	51
Hazardous Waste Proximity Summary Index	74	67
Underground Storage Tanks Summary Index	65	61
Wastewater Discharge Summary Index	69	50
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	45	8
Ozone Supplemental Summary Index	30	15
Nitrogen Dioxide (NO2) Supplemental Summary Index	63	59
Diesel Particulate Matter Supplemental Summary Index	63	57
Toxic Releases to Air Supplemental Summary Index	65	52
Traffic Proximity and Volume Supplemental Summary Index	61	61
Lead Paint Supplemental Summary Index	21	35
Superfund Proximity Supplemental Summary Index	45	57
RMP Proximity Supplemental Summary Index	48	37
Hazardous Waste Proximity Supplemental Summary Index	64	61
Underground Storage Tanks Supplemental Summary Index	51	47
Wastewater Discharge Supplemental Summary Index	52	35
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	7%	0.4	0.6
% Black or African American (non-Hispanic, single race)	1%	0.1	0.2
% Asian (non-Hispanic, single race)	22%	4.4	3.3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	8%	2.4	2.1
% White (non-Hispanic, single race)	62%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	30%	NA	NA
% speaking Other Indo-European at home	12%	NA	NA
% speaking Asian and Pacific Island languages at home	15%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	2%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	47%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	53%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	50%	NA	NA
% Females	50%	NA	NA
HEALTH			
% with Disabilities	5%	0.4	0.4
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	9.90	NA	NA
% of Adults with Cancer (excluding skin cancer)	6.30	NA	NA
AGE			
% under Age 5	4%	0.7	0.8
% under age 18	14%	NA	NA
% over Age 64	23%	1.3	1.3
COMMUNITY			
Occupied Housing Units	893	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	86,354	NA	NA
% Owner Occupied households	33%	NA	NA
POVERTY			
% of Households below Poverty Level	9%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	3	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	7%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,938	NA	NA
Count of Population Age 25 up	1,449	NA	NA
Count of Households	893	NA	NA
Universe for % unemployed (denominator, count)	1,688	NA	NA
Count of Housing Units Built Pre 1960	342	NA	NA
Built housing units count (denominator for % pre 1960)	1,145	NA	NA
Count of Population for whom Poverty Status is Determined	1,807	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214008004)
Area in Square Miles: 0.03
Population: 929

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.63	6.52	59	8.45	12	0.8	1.0
Ozone (ppb)	55.7	56.7	37	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	14.2	8.8	90	7.8	94	1.8	1.6
Diesel Particulate Matter (ug/m3)	0.359	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,700	2,800	90	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	14,000,000	6,100,000	89	1,700,000	99	8.2	2.3
Lead Paint Indicator (% pre-1960s housing)	66.13%	0.51	66	0.3	84	2.2	1.3
Superfund Proximity (site count/km distance)	0.11	0.34	46	0.39	60	0.3	0.3
RMP Proximity (facility count/km distance)	0.32	0.37	63	0.57	53	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	44.7	11.2	95	3.5	99	13.0	4.0
Underground Storage Tanks (UST) indicator	4.8	3.3	76	3.6	78	1.3	1.4
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	99	760	71	700,000	55	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.05	1.19	63	1.34	45	0.8	1.0
Supplemental Demographic Index USA	1.40	1.52	60	1.64	41	0.9	1.0
% Low Income	26%	22%	68	30%	50	0.9	1.2
% in limited English-speaking Households	23%	6%	93	5%	94	4.8	3.8
% Unemployed	12%	5%	88	6%	86	2.1	2.2
% with Less Than High School Education	5%	9%	47	11%	36	0.4	0.5
% under Age 5	12%	5%	94	5%	91	2.2	2.5
% over Age 64	22%	18%	70	18%	70	1.2	1.2
% People of Color	27%	31%	55	40%	45	0.7	0.9

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

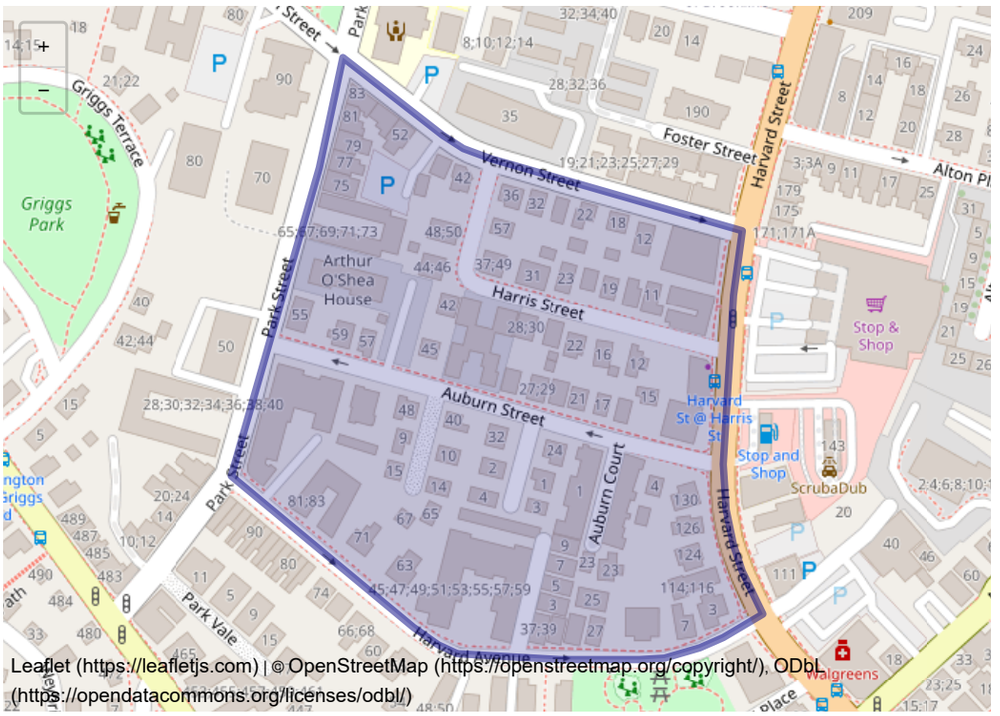
The indexes for a selected area are compared to those for all other locations in the state or nation.

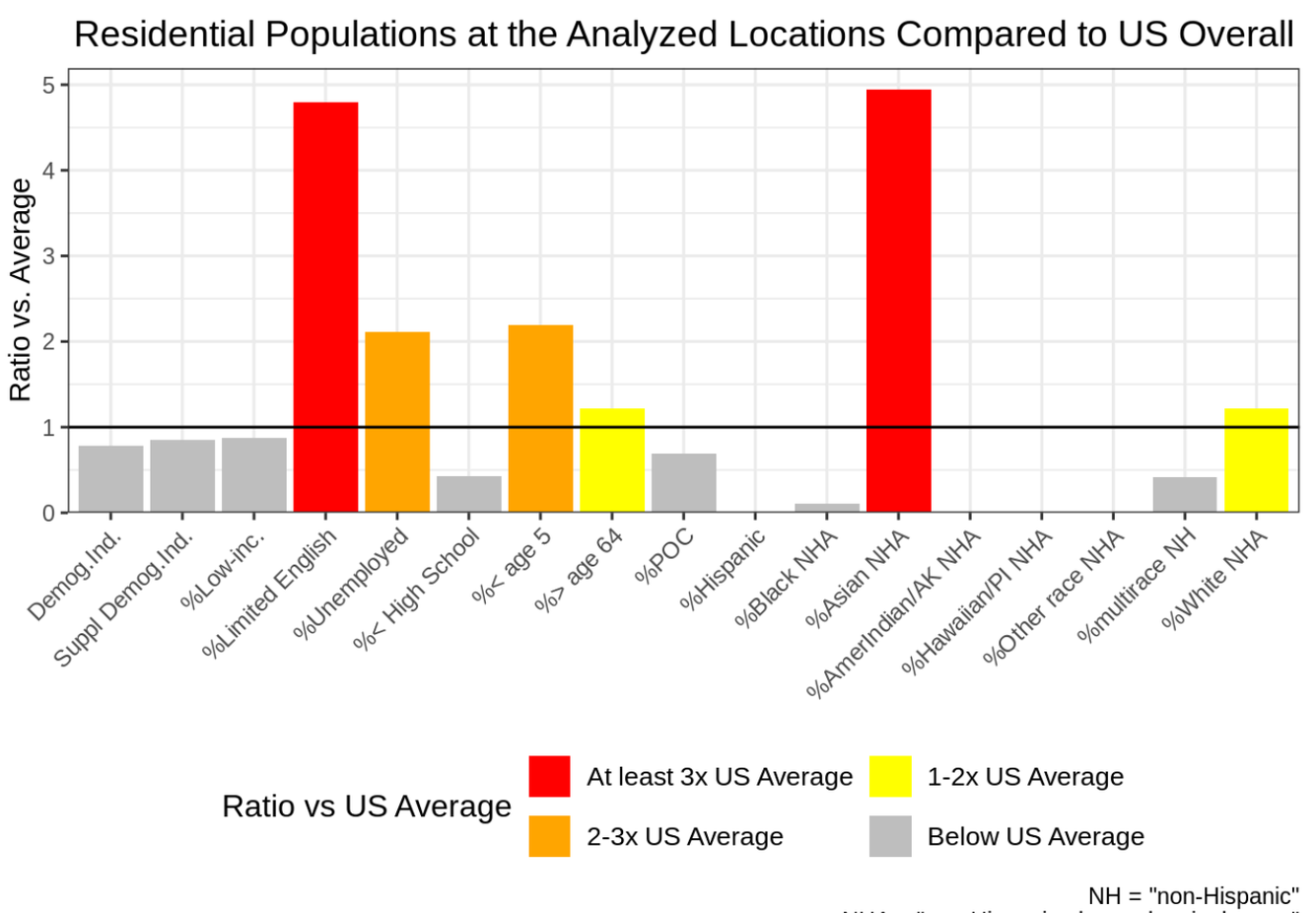
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	71	18
Ozone Summary Index	56	34
Nitrogen Dioxide (NO2) Summary Index	76	71
Diesel Particulate Matter Summary Index	78	70
Toxic Releases to Air Summary Index	82	72
Traffic Proximity and Volume Summary Index	77	73
Lead Paint Summary Index	71	71
Superfund Proximity Summary Index	68	70
RMP Proximity Summary Index	69	56
Hazardous Waste Proximity Summary Index	79	74
Underground Storage Tanks Summary Index	72	68
Wastewater Discharge Summary Index	74	57
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	69	13
Ozone Supplemental Summary Index	44	26
Nitrogen Dioxide (NO2) Supplemental Summary Index	80	79
Diesel Particulate Matter Supplemental Summary Index	83	79
Toxic Releases to Air Supplemental Summary Index	86	76
Traffic Proximity and Volume Supplemental Summary Index	81	83
Lead Paint Supplemental Summary Index	69	73
Superfund Proximity Supplemental Summary Index	59	67
RMP Proximity Supplemental Summary Index	68	54
Hazardous Waste Proximity Supplemental Summary Index	84	82
Underground Storage Tanks Supplemental Summary Index	74	70
Wastewater Discharge Supplemental Summary Index	74	55
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	0%	0	0
% Black or African American (non-Hispanic, single race)	1%	0.1	0.2
% Asian (non-Hispanic, single race)	25%	4.9	3.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	1%	0.4	0.4
% White (non-Hispanic, single race)	73%	1.2	1.1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	30%	NA	NA
% speaking Other Indo-European at home	12%	NA	NA
% speaking Asian and Pacific Island languages at home	15%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	2%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	67%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	33%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	35%	NA	NA
% Females	65%	NA	NA
HEALTH			
% with Disabilities	5%	0.4	0.4
% with Low Life Expectancy	16%	0.8	0.9
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	9.90	NA	NA
% of Adults with Cancer (excluding skin cancer)	6.30	NA	NA
AGE			
% under Age 5	12%	2.2	2.5
% under age 18	19%	NA	NA
% over Age 64	22%	1.2	1.2
COMMUNITY			
Occupied Housing Units	434	NA	NA
Life Expectancy in Years	82	NA	NA
Per Capita Income	64,394	NA	NA
% Owner Occupied households	56%	NA	NA
POVERTY			
% of Households below Poverty Level	35%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	2%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	929	NA	NA
Count of Population Age 25 up	683	NA	NA
Count of Households	434	NA	NA
Universe for % unemployed (denominator, count)	770	NA	NA
Count of Housing Units Built Pre 1960	287	NA	NA
Built housing units count (denominator for % pre 1960)	434	NA	NA
Count of Population for whom Poverty Status is Determined	929	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214009001)
Area in Square Miles: 0.05
Population: 1,448

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.64	6.52	60	8.45	12	0.8	1.0
Ozone (ppb)	55.8	56.7	38	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	13.5	8.8	87	7.8	93	1.7	1.5
Diesel Particulate Matter (ug/m3)	0.360	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,900	2,800	91	4,600	85	1.1	1.8
Traffic Proximity and Volume (daily traffic count/distance to road)	15,000,000	6,100,000	93	1,700,000	99	9.2	2.6
Lead Paint Indicator (% pre-1960s housing)	17.73%	0.51	14	0.3	46	0.6	0.3
Superfund Proximity (site count/km distance)	0.12	0.34	50	0.39	62	0.3	0.3
RMP Proximity (facility count/km distance)	0.35	0.37	66	0.57	55	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	41.5	11.2	94	3.5	99	12.0	3.7
Underground Storage Tanks (UST) indicator	11.8	3.3	94	3.6	91	3.2	3.5
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	94	760	70	700,000	55	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.08	1.19	65	1.34	46	0.8	1.1
Supplemental Demographic Index USA	1.01	1.52	29	1.64	17	0.6	0.7
% Low Income	18%	22%	54	30%	35	0.6	0.8
% in limited English-speaking Households	6%	6%	70	5%	79	1.3	1.0
% Unemployed	3%	5%	43	6%	44	0.5	0.6
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	4%	5%	47	5%	42	0.7	0.8
% over Age 64	18%	18%	56	18%	57	1.0	1.0
% People of Color	41%	31%	70	40%	58	1.0	1.3

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

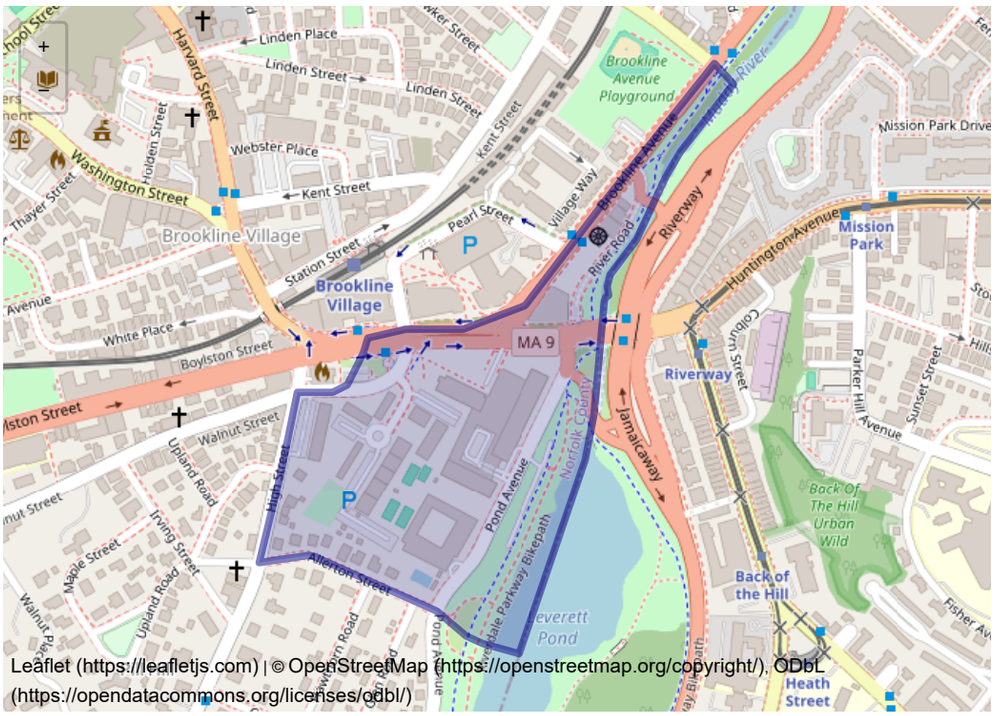
The indexes for a selected area are compared to those for all other locations in the state or nation.

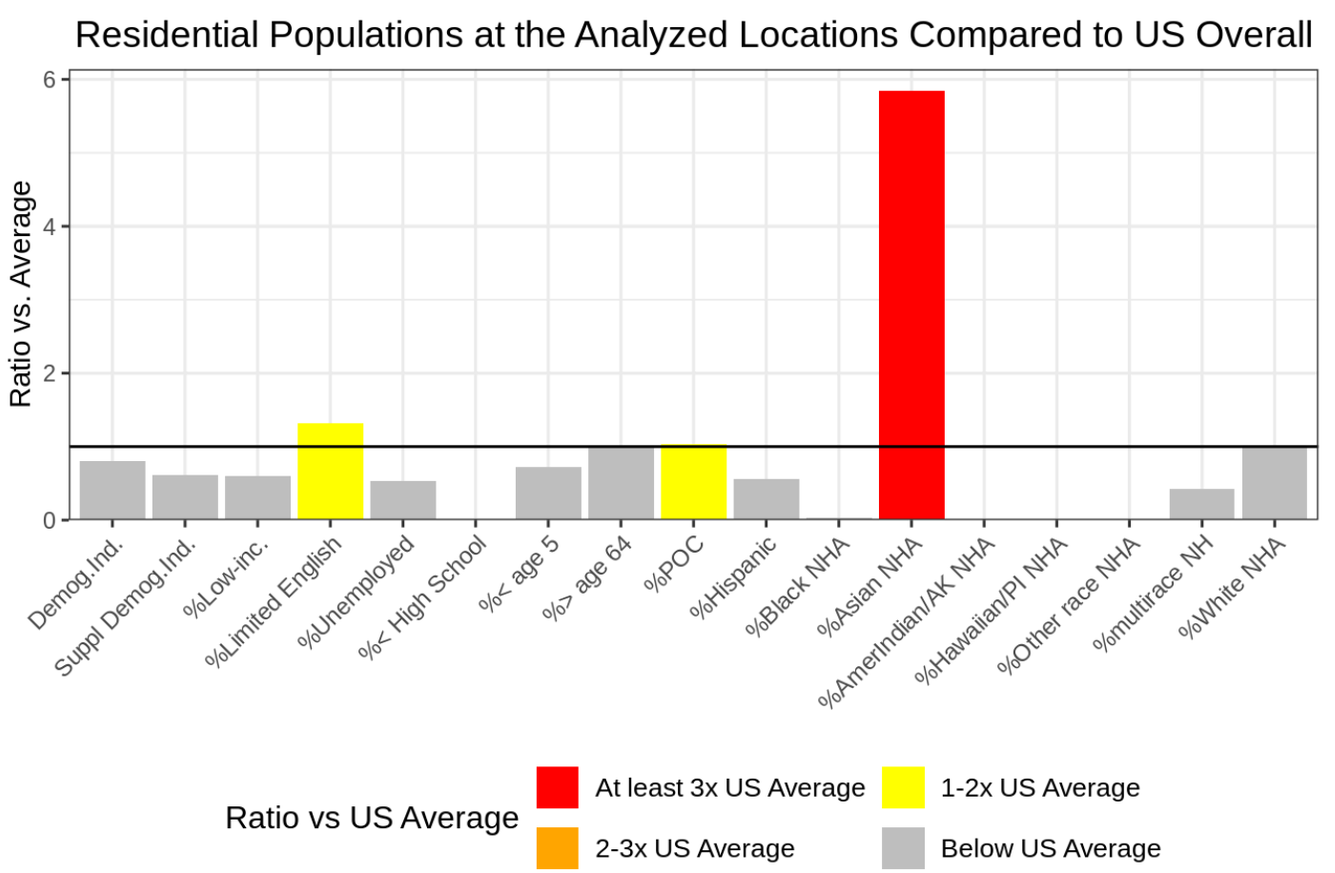
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	73	19
Ozone Summary Index	58	35
Nitrogen Dioxide (NO2) Summary Index	76	72
Diesel Particulate Matter Summary Index	79	71
Toxic Releases to Air Summary Index	83	73
Traffic Proximity and Volume Summary Index	79	74
Lead Paint Summary Index	29	51
Superfund Proximity Summary Index	71	71
RMP Proximity Summary Index	72	58
Hazardous Waste Proximity Summary Index	80	74
Underground Storage Tanks Summary Index	79	73
Wastewater Discharge Summary Index	74	58
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	53	9
Ozone Supplemental Summary Index	35	18
Nitrogen Dioxide (NO2) Supplemental Summary Index	66	65
Diesel Particulate Matter Supplemental Summary Index	70	65
Toxic Releases to Air Supplemental Summary Index	73	61
Traffic Proximity and Volume Supplemental Summary Index	69	69
Lead Paint Supplemental Summary Index	14	33
Superfund Proximity Supplemental Summary Index	50	60
RMP Proximity Supplemental Summary Index	55	43
Hazardous Waste Proximity Supplemental Summary Index	70	69
Underground Storage Tanks Supplemental Summary Index	68	63
Wastewater Discharge Supplemental Summary Index	57	40
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	10%	0.6	0.8
% Black or African American (non-Hispanic, single race)	0%	0	0.1
% Asian (non-Hispanic, single race)	29%	5.8	4.3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	1%	0.4	0.4
% White (non-Hispanic, single race)	59%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	34%	NA	NA
% speaking Other Indo-European at home	10%	NA	NA
% speaking Asian and Pacific Island languages at home	17%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	5%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	15%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	85%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	38%	NA	NA
% Females	62%	NA	NA
HEALTH			
% with Disabilities	11%	0.8	0.9
% with Low Life Expectancy	14%	0.7	0.8
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	10.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	6.00	NA	NA
AGE			
% under Age 5	4%	0.7	0.8
% under age 18	13%	NA	NA
% over Age 64	18%	1	1
COMMUNITY			
Occupied Housing Units	867	NA	NA
Life Expectancy in Years	84	NA	NA
Per Capita Income	60,810	NA	NA
% Owner Occupied households	46%	NA	NA
POVERTY			
% of Households below Poverty Level	18%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	3	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	2	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	38%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	8%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,448	NA	NA
Count of Population Age 25 up	1,223	NA	NA
Count of Households	867	NA	NA
Universe for % unemployed (denominator, count)	1,261	NA	NA
Count of Housing Units Built Pre 1960	172	NA	NA
Built housing units count (denominator for % pre 1960)	970	NA	NA
Count of Population for whom Poverty Status is Determined	1,432	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250214009002)
Area in Square Miles: 0.04
Population: 556

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.64	6.52	60	8.45	12	0.8	1.0
Ozone (ppb)	55.8	56.7	38	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	13.5	8.8	87	7.8	93	1.7	1.5
Diesel Particulate Matter (ug/m3)	0.360	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,700	2,800	90	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	93	1,700,000	99	9.3	2.6
Lead Paint Indicator (% pre-1960s housing)	7.48%	0.51	6	0.3	31	0.2	0.1
Superfund Proximity (site count/km distance)	0.11	0.34	48	0.39	61	0.3	0.3
RMP Proximity (facility count/km distance)	0.37	0.37	66	0.57	56	0.6	1.0
Hazardous Waste Proximity (facility count/km distance)	46.8	11.2	96	3.5	99	13.0	4.2
Underground Storage Tanks (UST) indicator	12.3	3.3	95	3.6	92	3.4	3.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	71	700,000	55	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.45	1.19	92	1.34	87	1.8	2.4
Supplemental Demographic Index USA	2.37	1.52	89	1.64	86	1.4	1.7
% Low Income	77%	22%	98	30%	96	2.5	3.5
% in limited English-speaking Households	37%	6%	97	5%	97	7.7	6.1
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	15%	9%	78	11%	71	1.3	1.6
% under Age 5	6%	5%	70	5%	65	1.2	1.3
% over Age 64	64%	18%	99	18%	99	3.6	3.6
% People of Color	40%	31%	70	40%	58	1.0	1.3

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

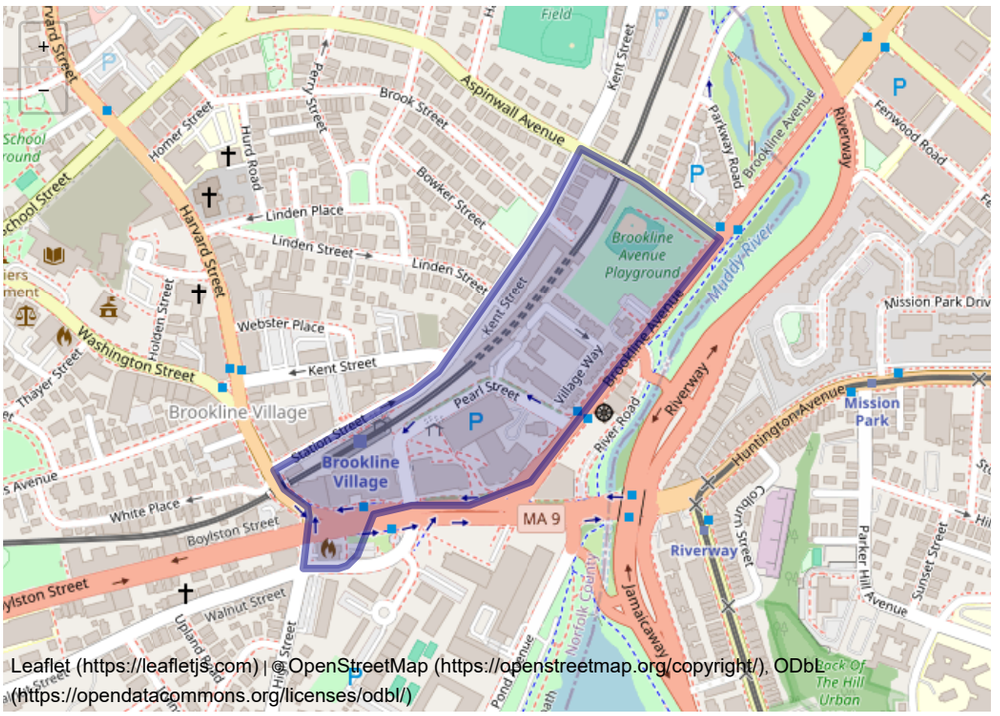
The indexes for a selected area are compared to those for all other locations in the state or nation.

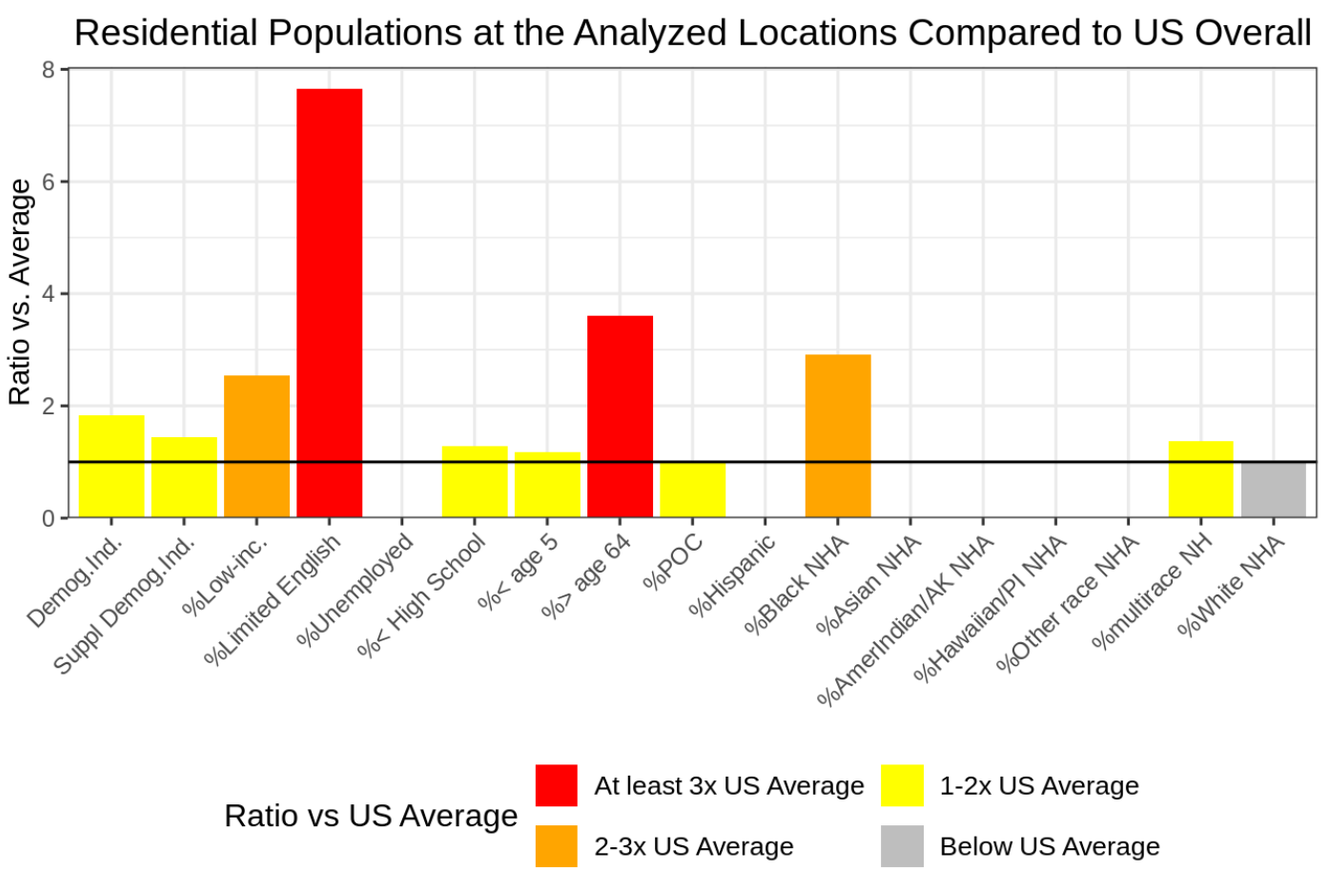
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	92	36
Ozone Summary Index	81	61
Nitrogen Dioxide (NO2) Summary Index	94	94
Diesel Particulate Matter Summary Index	96	94
Toxic Releases to Air Summary Index	97	94
Traffic Proximity and Volume Summary Index	97	96
Lead Paint Summary Index	28	66
Superfund Proximity Summary Index	90	87
RMP Proximity Summary Index	90	82
Hazardous Waste Proximity Summary Index	97	96
Underground Storage Tanks Summary Index	97	95
Wastewater Discharge Summary Index	94	83
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	89	22
Ozone Supplemental Summary Index	67	45
Nitrogen Dioxide (NO2) Supplemental Summary Index	93	95
Diesel Particulate Matter Supplemental Summary Index	96	95
Toxic Releases to Air Supplemental Summary Index	97	94
Traffic Proximity and Volume Supplemental Summary Index	96	97
Lead Paint Supplemental Summary Index	15	50
Superfund Proximity Supplemental Summary Index	85	85
RMP Proximity Supplemental Summary Index	87	79
Hazardous Waste Proximity Supplemental Summary Index	97	97
Underground Storage Tanks Supplemental Summary Index	95	95
Wastewater Discharge Supplemental Summary Index	92	80
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	0%	0	0
% Black or African American (non-Hispanic, single race)	36%	2.9	5.4
% Asian (non-Hispanic, single race)	0%	0	0
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	5%	1.4	1.2
% White (non-Hispanic, single race)	60%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	34%	NA	NA
% speaking Other Indo-European at home	10%	NA	NA
% speaking Asian and Pacific Island languages at home	17%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	5%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	100%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	0%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	26%	NA	NA
% Females	74%	NA	NA
HEALTH			
% with Disabilities	11%	0.8	0.9
% with Low Life Expectancy	14%	0.7	0.8
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	10.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	6.00	NA	NA
AGE			
% under Age 5	6%	1.2	1.3
% under age 18	10%	NA	NA
% over Age 64	64%	3.6	3.6
COMMUNITY			
Occupied Housing Units	372	NA	NA
Life Expectancy in Years	84	NA	NA
Per Capita Income	24,936	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	42%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	1	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	88%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	22%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	556	NA	NA
Count of Population Age 25 up	502	NA	NA
Count of Households	372	NA	NA
Universe for % unemployed (denominator, count)	502	NA	NA
Count of Housing Units Built Pre 1960	33	NA	NA
Built housing units count (denominator for % pre 1960)	441	NA	NA
Count of Population for whom Poverty Status is Determined	556	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214009003)
Area in Square Miles: 0.07
Population: 1,832

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.64	6.52	60	8.45	12	0.8	1.0
Ozone (ppb)	55.8	56.7	38	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	14.2	8.8	90	7.8	94	1.8	1.6
Diesel Particulate Matter (ug/m3)	0.360	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	4,700	2,800	90	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	15,000,000	6,100,000	92	1,700,000	99	8.8	2.4
Lead Paint Indicator (% pre-1960s housing)	86.99%	0.51	90	0.3	95	2.9	1.7
Superfund Proximity (site count/km distance)	0.11	0.34	48	0.39	61	0.3	0.3
RMP Proximity (facility count/km distance)	0.35	0.37	65	0.57	55	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	46.1	11.2	95	3.5	99	13.0	4.1
Underground Storage Tanks (UST) indicator	14.5	3.3	97	3.6	93	4.0	4.3
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	71	700,000	55	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.00	1.19	61	1.34	42	0.7	1.0
Supplemental Demographic Index USA	0.87	1.52	18	1.64	10	0.5	0.6
% Low Income	17%	22%	49	30%	31	0.5	0.7
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	2%	5%	35	6%	37	0.4	0.4
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	8%	5%	83	5%	78	1.5	1.7
% over Age 64	5%	18%	7	18%	8	0.3	0.3
% People of Color	38%	31%	68	40%	56	1.0	1.2

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

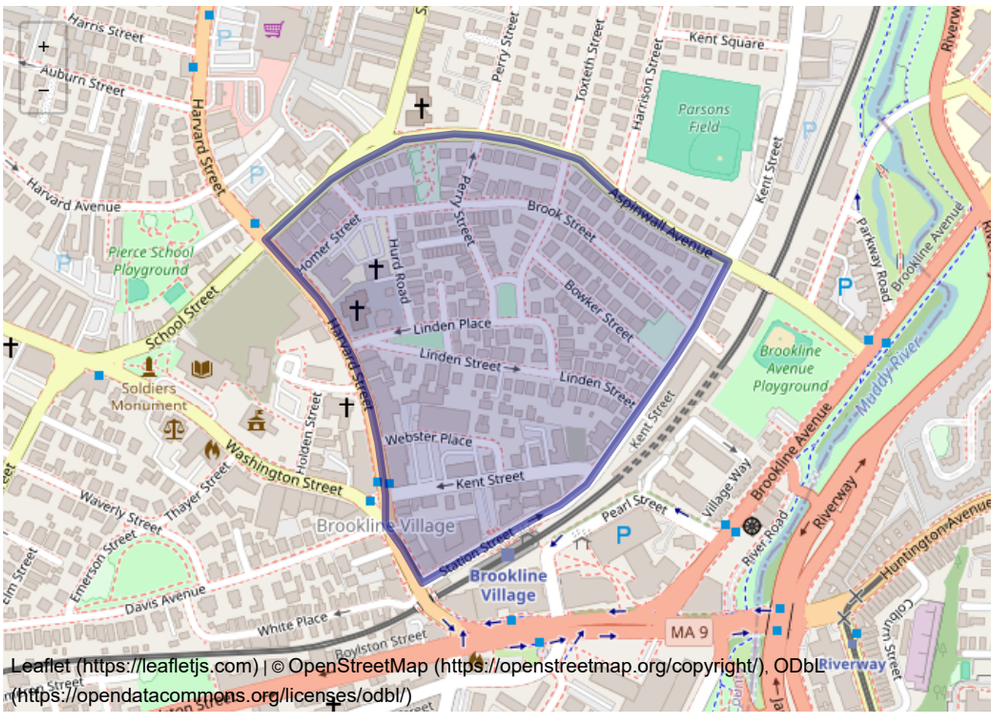
The indexes for a selected area are compared to those for all other locations in the state or nation.

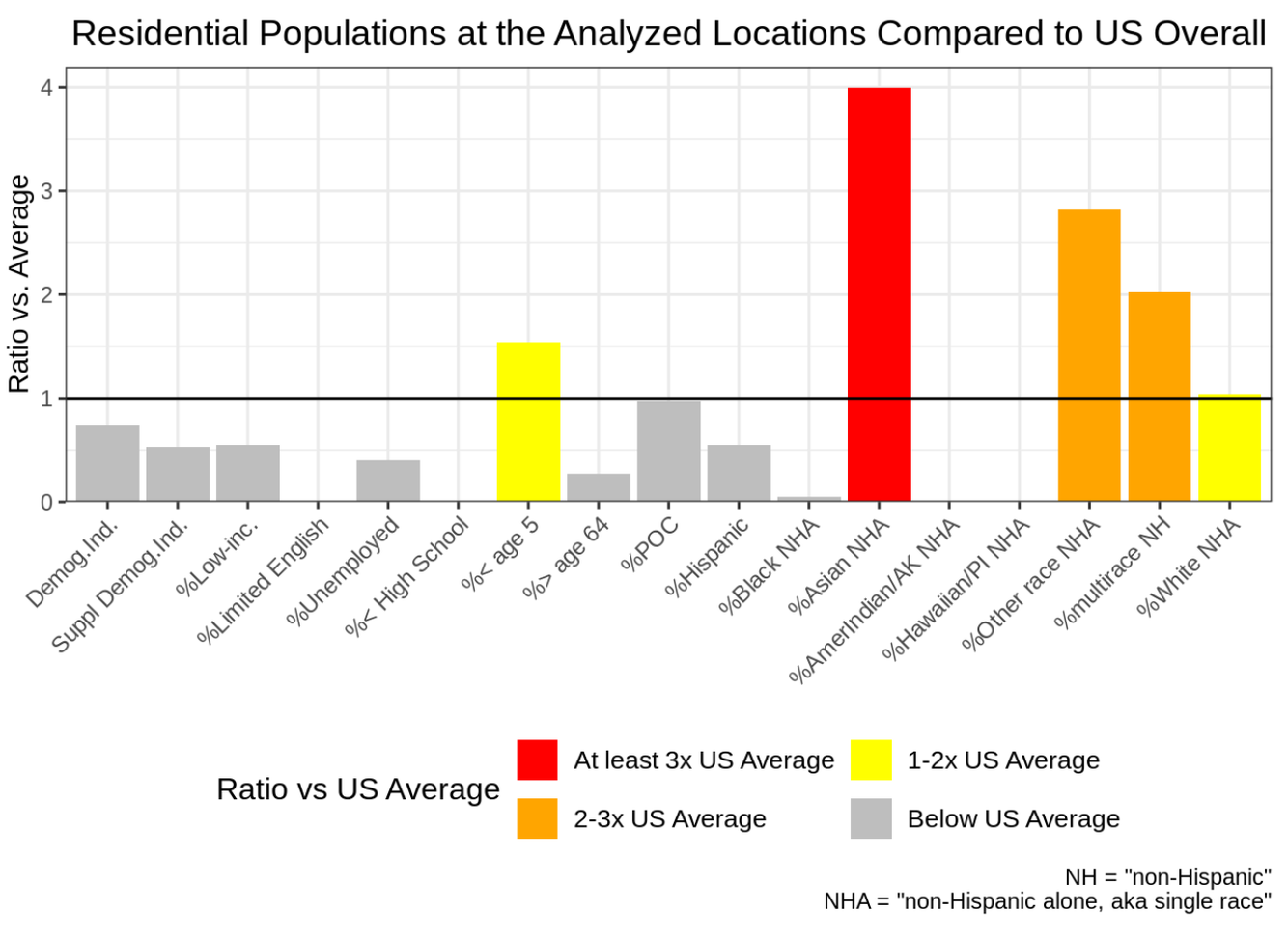
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	70	17
Ozone Summary Index	55	33
Nitrogen Dioxide (NO2) Summary Index	75	69
Diesel Particulate Matter Summary Index	77	69
Toxic Releases to Air Summary Index	81	70
Traffic Proximity and Volume Summary Index	76	71
Lead Paint Summary Index	78	73
Superfund Proximity Summary Index	68	69
RMP Proximity Summary Index	69	56
Hazardous Waste Proximity Summary Index	78	72
Underground Storage Tanks Summary Index	77	72
Wastewater Discharge Summary Index	73	55
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	46	8
Ozone Supplemental Summary Index	31	16
Nitrogen Dioxide (NO2) Supplemental Summary Index	62	59
Diesel Particulate Matter Supplemental Summary Index	64	58
Toxic Releases to Air Supplemental Summary Index	66	54
Traffic Proximity and Volume Supplemental Summary Index	62	63
Lead Paint Supplemental Summary Index	61	56
Superfund Proximity Supplemental Summary Index	46	58
RMP Proximity Supplemental Summary Index	49	38
Hazardous Waste Proximity Supplemental Summary Index	64	62
Underground Storage Tanks Supplemental Summary Index	63	58
Wastewater Discharge Supplemental Summary Index	51	35
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	10%	0.6	0.8
% Black or African American (non-Hispanic, single race)	1%	0	0.1
% Asian (non-Hispanic, single race)	20%	4	3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	1%	2.8	1.1
% Two or more races (non-Hispanic)	7%	2	1.8
% White (non-Hispanic, single race)	62%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	34%	NA	NA
% speaking Other Indo-European at home	10%	NA	NA
% speaking Asian and Pacific Island languages at home	17%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	5%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	63%	NA	NA
% Females	37%	NA	NA
HEALTH			
% with Disabilities	11%	0.8	0.9
% with Low Life Expectancy	14%	0.7	0.8
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	10.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	6.00	NA	NA
AGE			
% under Age 5	8%	1.5	1.7
% under age 18	19%	NA	NA
% over Age 64	5%	0.3	0.3
COMMUNITY			
Occupied Housing Units	692	NA	NA
Life Expectancy in Years	84	NA	NA
Per Capita Income	69,220	NA	NA
% Owner Occupied households	58%	NA	NA
POVERTY			
% of Households below Poverty Level	18%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	1	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	3	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	41%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	6%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,832	NA	NA
Count of Population Age 25 up	1,090	NA	NA
Count of Households	692	NA	NA
Universe for % unemployed (denominator, count)	1,533	NA	NA
Count of Housing Units Built Pre 1960	615	NA	NA
Built housing units count (denominator for % pre 1960)	707	NA	NA
Count of Population for whom Poverty Status is Determined	1,832	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214010001)
Area in Square Miles: 0.07
Population: 1,163

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.65	6.52	62	8.45	12	0.8	1.0
Ozone (ppb)	55.7	56.7	36	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	13.1	8.8	85	7.8	92	1.7	1.5
Diesel Particulate Matter (ug/m3)	0.359	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	5,000	2,800	91	4,600	86	1.1	1.8
Traffic Proximity and Volume (daily traffic count/distance to road)	13,000,000	6,100,000	87	1,700,000	99	7.9	2.2
Lead Paint Indicator (% pre-1960s housing)	94.27%	0.51	96	0.3	98	3.1	1.9
Superfund Proximity (site count/km distance)	0.12	0.34	50	0.39	62	0.3	0.3
RMP Proximity (facility count/km distance)	0.31	0.37	62	0.57	52	0.5	0.8
Hazardous Waste Proximity (facility count/km distance)	35.7	11.2	92	3.5	99	10.0	3.2
Underground Storage Tanks (UST) indicator	18.8	3.3	98	3.6	95	5.2	5.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	88	760	68	700,000	54	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.85	1.19	54	1.34	34	0.6	0.8
Supplemental Demographic Index USA	0.90	1.52	20	1.64	11	0.5	0.6
% Low Income	18%	22%	52	30%	33	0.6	0.8
% in limited English-speaking Households	4%	6%	63	5%	74	0.9	0.7
% Unemployed	3%	5%	38	6%	40	0.5	0.5
% with Less Than High School Education	1%	9%	17	11%	12	0.1	0.1
% under Age 5	6%	5%	71	5%	66	1.2	1.3
% over Age 64	11%	18%	28	18%	29	0.6	0.6
% People of Color	27%	31%	55	40%	46	0.7	0.9

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

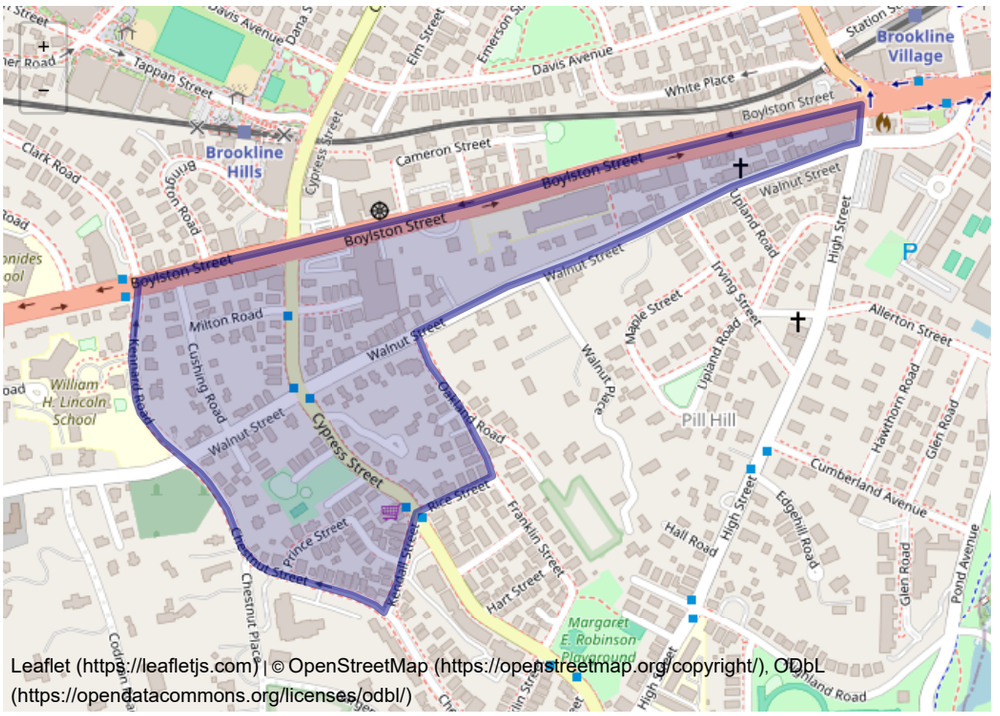
The indexes for a selected area are compared to those for all other locations in the state or nation.

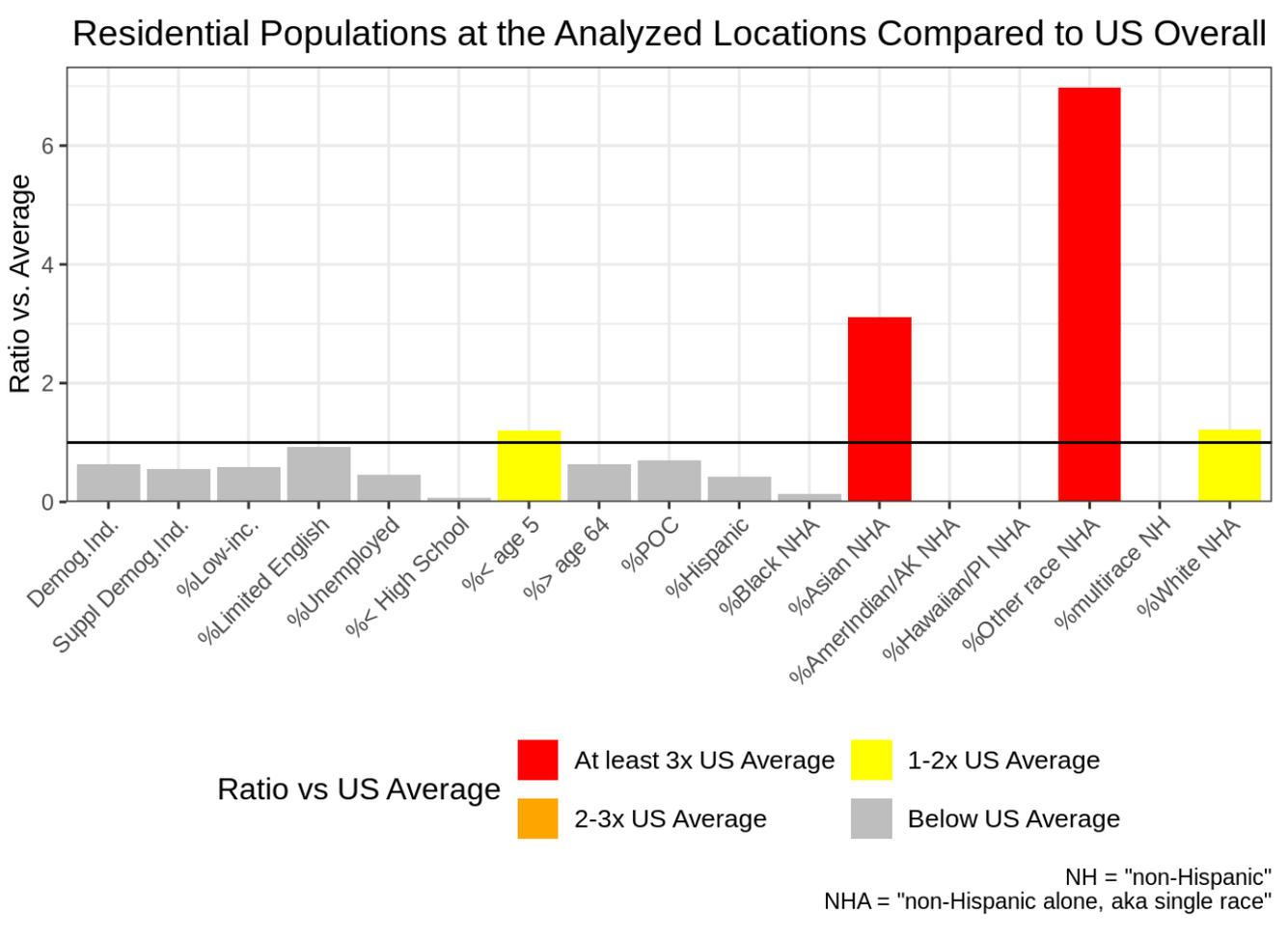
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	64	15
Ozone Summary Index	47	29
Nitrogen Dioxide (NO2) Summary Index	69	64
Diesel Particulate Matter Summary Index	73	64
Toxic Releases to Air Summary Index	76	65
Traffic Proximity and Volume Summary Index	70	66
Lead Paint Summary Index	75	69
Superfund Proximity Summary Index	65	67
RMP Proximity Summary Index	64	50
Hazardous Waste Proximity Summary Index	72	67
Underground Storage Tanks Summary Index	73	68
Wastewater Discharge Summary Index	66	49
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	49	8
Ozone Supplemental Summary Index	30	16
Nitrogen Dioxide (NO2) Supplemental Summary Index	60	59
Diesel Particulate Matter Supplemental Summary Index	65	59
Toxic Releases to Air Supplemental Summary Index	67	56
Traffic Proximity and Volume Supplemental Summary Index	61	64
Lead Paint Supplemental Summary Index	65	59
Superfund Proximity Supplemental Summary Index	47	59
RMP Proximity Supplemental Summary Index	48	38
Hazardous Waste Proximity Supplemental Summary Index	64	64
Underground Storage Tanks Supplemental Summary Index	65	60
Wastewater Discharge Supplemental Summary Index	51	35
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	7%	0.4	0.6
% Black or African American (non-Hispanic, single race)	2%	0.1	0.2
% Asian (non-Hispanic, single race)	15%	3.1	2.3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	3%	7	2.8
% Two or more races (non-Hispanic)	0%	0	0
% White (non-Hispanic, single race)	73%	1.2	1.1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	37%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	6%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	5%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	51%	NA	NA
% Females	49%	NA	NA
HEALTH			
% with Disabilities	10%	0.7	0.8
% with Low Life Expectancy	13%	0.7	0.8
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	10.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.80	NA	NA
AGE			
% under Age 5	6%	1.2	1.3
% under age 18	21%	NA	NA
% over Age 64	11%	0.6	0.6
COMMUNITY			
Occupied Housing Units	384	NA	NA
Life Expectancy in Years	84	NA	NA
Per Capita Income	93,807	NA	NA
% Owner Occupied households	65%	NA	NA
POVERTY			
% of Households below Poverty Level	14%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	29%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,163	NA	NA
Count of Population Age 25 up	748	NA	NA
Count of Households	384	NA	NA
Universe for % unemployed (denominator, count)	935	NA	NA
Count of Housing Units Built Pre 1960	362	NA	NA
Built housing units count (denominator for % pre 1960)	384	NA	NA
Count of Population for whom Poverty Status is Determined	1,163	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250214010002)
Area in Square Miles: 0.09
Population: 613

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.65	6.52	62	8.45	12	0.8	1.0
Ozone (ppb)	55.7	56.7	36	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	13.0	8.8	84	7.8	91	1.7	1.5
Diesel Particulate Matter (ug/m3)	0.360	0.176	92	0.191	89	1.9	2.0
Toxic Releases to Air	5,000	2,800	91	4,600	86	1.1	1.8
Traffic Proximity and Volume (daily traffic count/distance to road)	14,000,000	6,100,000	89	1,700,000	99	8.2	2.3
Lead Paint Indicator (% pre-1960s housing)	96.47%	0.51	98	0.3	99	3.2	1.9
Superfund Proximity (site count/km distance)	0.12	0.34	51	0.39	62	0.3	0.3
RMP Proximity (facility count/km distance)	0.33	0.37	64	0.57	54	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	37.8	11.2	93	3.5	99	11.0	3.4
Underground Storage Tanks (UST) indicator	19.1	3.3	98	3.6	95	5.2	5.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	90	760	69	700,000	54	0.0	0.1
Drinking Water Non-Compliance	0.0	3.17	0	2.2	0	0.0	0.0
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.52	1.19	31	1.34	16	0.4	0.5
Supplemental Demographic Index USA	0.78	1.52	11	1.64	5	0.5	0.5
% Low Income	8%	22%	24	30%	13	0.3	0.4
% in limited English-speaking Households	4%	6%	60	5%	71	0.7	0.6
% Unemployed	7%	5%	70	6%	69	1.2	1.2
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	31%	18%	90	18%	89	1.8	1.8
% People of Color	22%	31%	47	40%	39	0.5	0.7

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

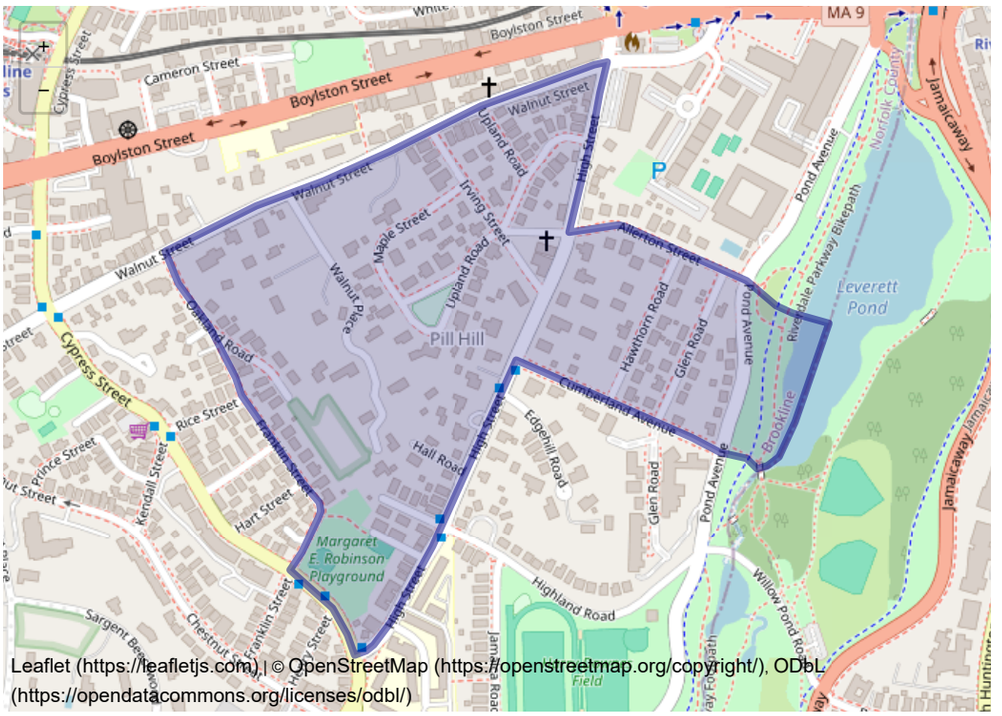
The indexes for a selected area are compared to those for all other locations in the state or nation.

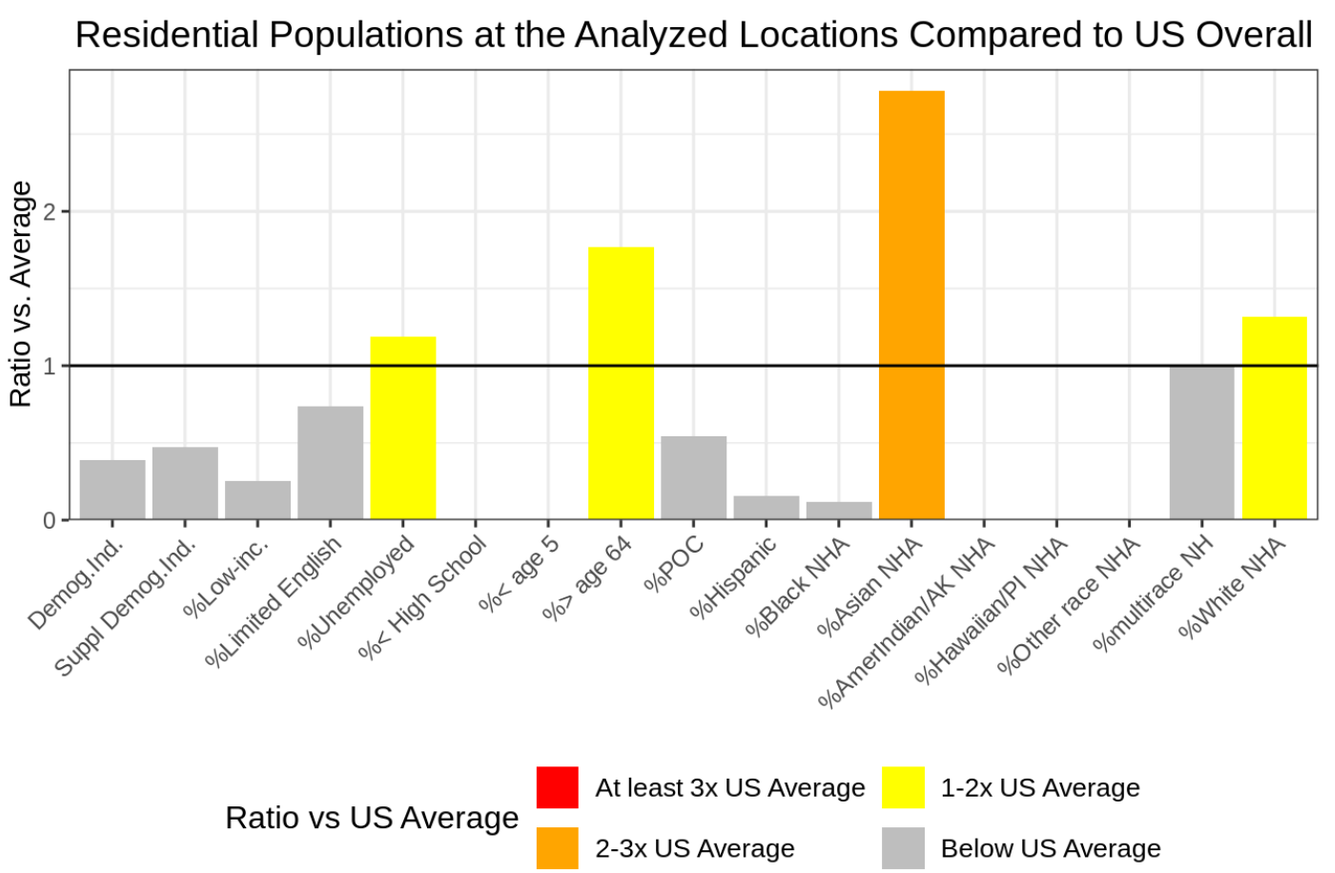
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	46	10
Ozone Summary Index	33	18
Nitrogen Dioxide (NO2) Summary Index	56	49
Diesel Particulate Matter Summary Index	59	50
Toxic Releases to Air Summary Index	62	48
Traffic Proximity and Volume Summary Index	57	52
Lead Paint Summary Index	62	53
Superfund Proximity Summary Index	53	61
RMP Proximity Summary Index	51	40
Hazardous Waste Proximity Summary Index	58	52
Underground Storage Tanks Summary Index	60	55
Wastewater Discharge Summary Index	51	34
Drinking Water Non-Compliance Summary Index	0	0
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	41	7
Ozone Supplemental Summary Index	26	14
Nitrogen Dioxide (NO2) Supplemental Summary Index	54	52
Diesel Particulate Matter Supplemental Summary Index	58	52
Toxic Releases to Air Supplemental Summary Index	60	49
Traffic Proximity and Volume Supplemental Summary Index	55	57
Lead Paint Supplemental Summary Index	59	52
Superfund Proximity Supplemental Summary Index	45	57
RMP Proximity Supplemental Summary Index	44	35
Hazardous Waste Proximity Supplemental Summary Index	57	57
Underground Storage Tanks Supplemental Summary Index	58	53
Wastewater Discharge Supplemental Summary Index	45	31
Drinking Water Non-Compliance Supplemental Summary Index	0	0

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	3%	0.2	0.2
% Black or African American (non-Hispanic, single race)	1%	0.1	0.2
% Asian (non-Hispanic, single race)	14%	2.8	2.1
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	3%	1	0.9
% White (non-Hispanic, single race)	78%	1.3	1.2
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	37%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	6%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	5%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	42%	NA	NA
% Females	58%	NA	NA
HEALTH			
% with Disabilities	10%	0.7	0.8
% with Low Life Expectancy	13%	0.7	0.8
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	10.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.80	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	14%	NA	NA
% over Age 64	31%	1.8	1.8
COMMUNITY			
Occupied Housing Units	255	NA	NA
Life Expectancy in Years	84	NA	NA
Per Capita Income	158,893	NA	NA
% Owner Occupied households	74%	NA	NA
POVERTY			
% of Households below Poverty Level	6%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	5%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	613	NA	NA
Count of Population Age 25 up	522	NA	NA
Count of Households	255	NA	NA
Universe for % unemployed (denominator, count)	529	NA	NA
Count of Housing Units Built Pre 1960	246	NA	NA
Built housing units count (denominator for % pre 1960)	255	NA	NA
Count of Population for whom Poverty Status is Determined	603	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250008071)
Area in Square Miles: 0.08
Population: 3,079

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.61	6.52	56	8.45	11	0.8	1.0
Ozone (ppb)	55.7	56.7	36	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	17.6	8.8	96	7.8	98	2.2	2.0
Diesel Particulate Matter (ug/m3)	0.364	0.176	94	0.191	89	1.9	2.1
Toxic Releases to Air	4,400	2,800	87	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	20,000,000	6,100,000	97	1,700,000	99	12.0	3.3
Lead Paint Indicator (% pre-1960s housing)	N/A	0.51	N/A	0.3	N/A	N/A	N/A
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.34	0.37	64	0.57	54	0.6	0.9
Hazardous Waste Proximity (facility count/km distance)	54.0	11.2	97	3.5	99	15.0	4.8
Underground Storage Tanks (UST) indicator	4.1	3.3	72	3.6	76	1.1	1.2
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	160	760	81	700,000	59	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.47	1.19	93	1.34	87	1.8	2.4
Supplemental Demographic Index USA	1.54	1.52	67	1.64	50	0.9	1.1
% Low Income	76%	22%	98	30%	96	2.5	3.4
% in limited English-speaking Households	N/A	6%	N/A	5%	N/A	N/A	N/A
% Unemployed	11%	5%	85	6%	84	1.9	2.0
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	0%	18%	0	18%	0	0.0	0.0
% People of Color	44%	31%	73	40%	61	1.1	1.4

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

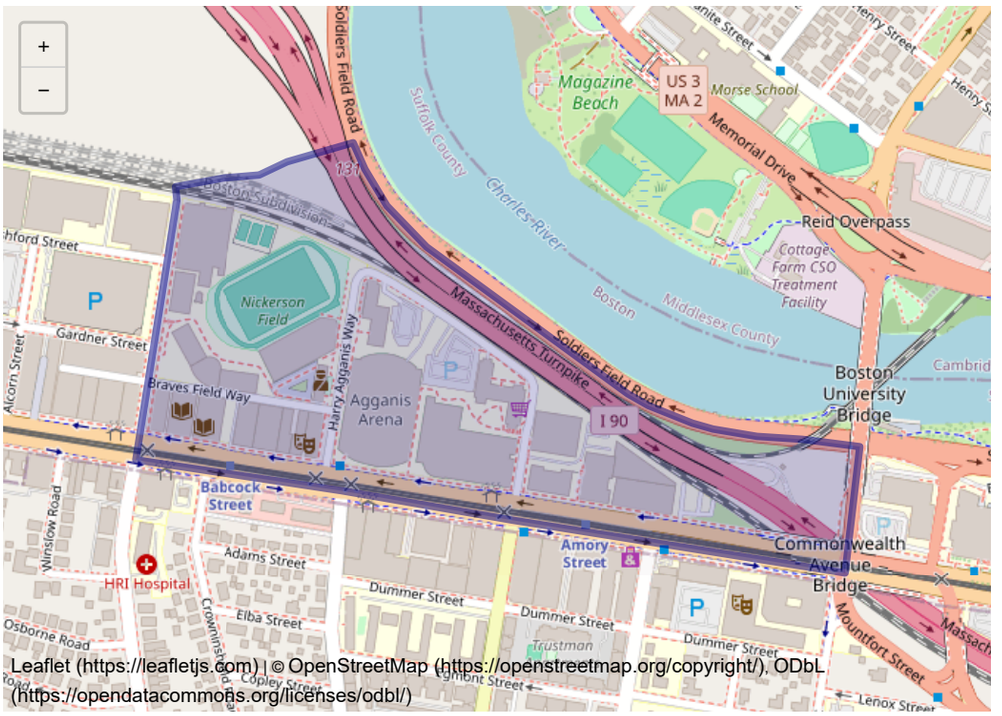
The indexes for a selected area are compared to those for all other locations in the state or nation.

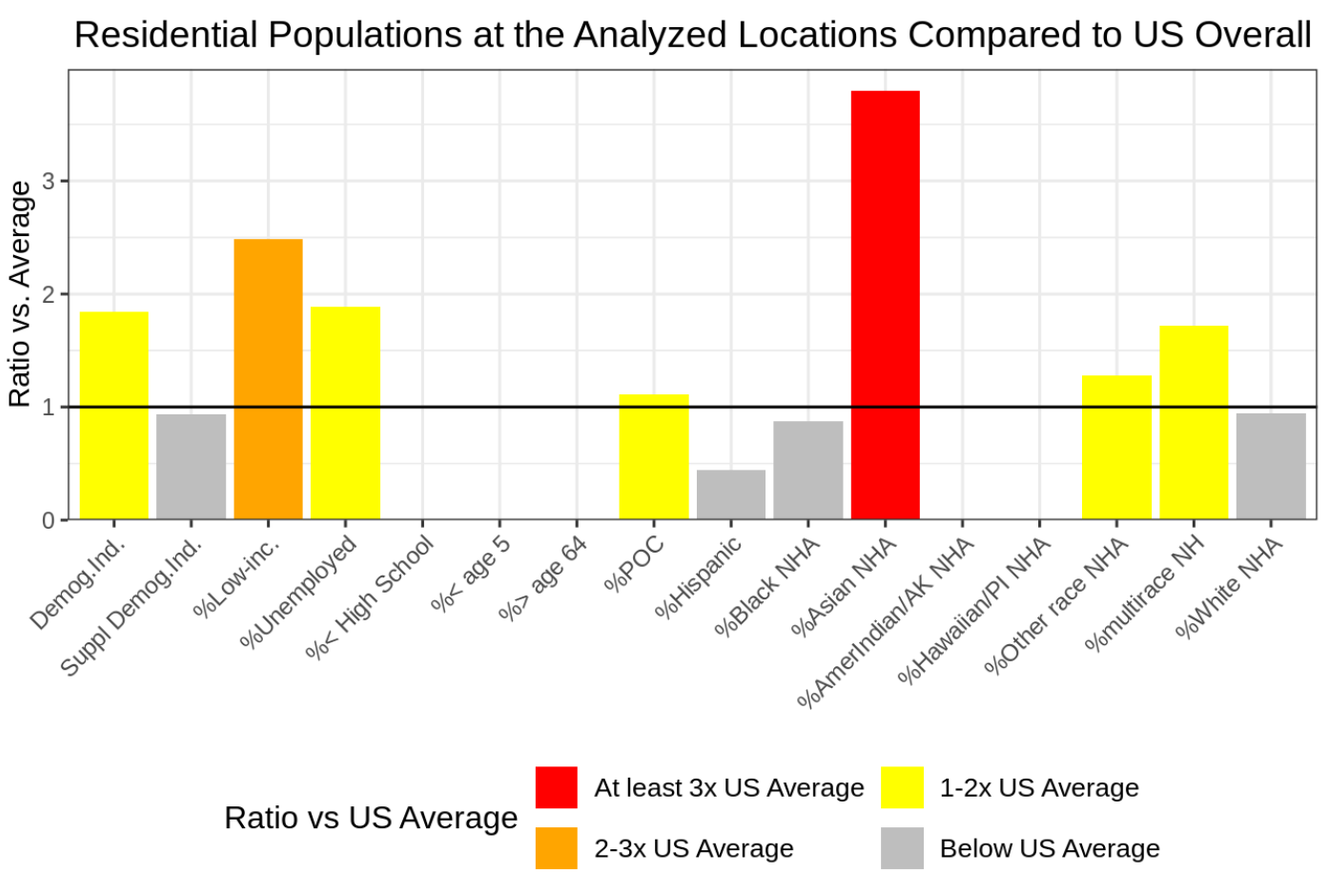
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	91	34
Ozone Summary Index	80	61
Nitrogen Dioxide (NO2) Summary Index	96	95
Diesel Particulate Matter Summary Index	96	94
Toxic Releases to Air Summary Index	97	94
Traffic Proximity and Volume Summary Index	97	96
Lead Paint Summary Index	0	0
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	90	81
Hazardous Waste Proximity Summary Index	97	96
Underground Storage Tanks Summary Index	92	91
Wastewater Discharge Summary Index	96	85
Drinking Water Non-Compliance Summary Index	95	97
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	70	13
Ozone Supplemental Summary Index	46	29
Nitrogen Dioxide (NO2) Supplemental Summary Index	84	85
Diesel Particulate Matter Supplemental Summary Index	86	83
Toxic Releases to Air Supplemental Summary Index	87	80
Traffic Proximity and Volume Supplemental Summary Index	87	86
Lead Paint Supplemental Summary Index	0	0
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	72	59
Hazardous Waste Proximity Supplemental Summary Index	87	86
Underground Storage Tanks Supplemental Summary Index	75	73
Wastewater Discharge Supplemental Summary Index	83	63
Drinking Water Non-Compliance Supplemental Summary Index	87	87

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	8%	0.4	0.6
% Black or African American (non-Hispanic, single race)	11%	0.9	1.6
% Asian (non-Hispanic, single race)	19%	3.8	2.8
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	1%	1.3	0.5
% Two or more races (non-Hispanic)	6%	1.7	1.5
% White (non-Hispanic, single race)	56%	0.9	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	33%	NA	NA
% speaking Other Indo-European at home	9%	NA	NA
% speaking Asian and Pacific Island languages at home	13%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	6%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	43%	NA	NA
% Females	57%	NA	NA
HEALTH			
% with Disabilities	7%	0.5	0.6
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	13.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.20	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	1%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	0	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	5,273	NA	NA
% Owner Occupied households	N/A	NA	NA
POVERTY			
% of Households below Poverty Level	N/A	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	3	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	5	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	N/A	NA	NA
% Households without Health Insurance	N/A	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	3,079	NA	NA
Count of Population Age 25 up	57	NA	NA
Count of Households	0	NA	NA
Universe for % unemployed (denominator, count)	3,079	NA	NA
Count of Housing Units Built Pre 1960	0	NA	NA
Built housing units count (denominator for % pre 1960)	0	NA	NA
Count of Population for whom Poverty Status is Determined	45	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250101031)
Area in Square Miles: 0.04
Population: 770

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	54	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	39	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.0	8.8	97	7.8	99	2.4	2.2
Diesel Particulate Matter (ug/m3)	0.362	0.176	94	0.191	89	1.9	2.1
Toxic Releases to Air	4,300	2,800	85	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	21,000,000	6,100,000	97	1,700,000	99	12.0	3.4
Lead Paint Indicator (% pre-1960s housing)	3.57%	0.51	3	0.3	23	0.1	0.1
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.42	0.37	70	0.57	59	0.7	1.1
Hazardous Waste Proximity (facility count/km distance)	56.3	11.2	97	3.5	99	16.0	5.0
Underground Storage Tanks (UST) indicator	21.5	3.3	99	3.6	96	5.9	6.5
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	160	760	81	700,000	59	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.54	1.19	78	1.34	64	1.1	1.5
Supplemental Demographic Index USA	1.64	1.52	70	1.64	56	1.0	1.1
% Low Income	23%	22%	63	30%	43	0.7	1.0
% in limited English-speaking Households	34%	6%	96	5%	97	7.1	5.6
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	1%	18%	2	18%	2	0.1	0.1
% People of Color	63%	31%	86	40%	74	1.6	2.0

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

The indexes for a selected area are compared to those for all other locations in the state or nation.

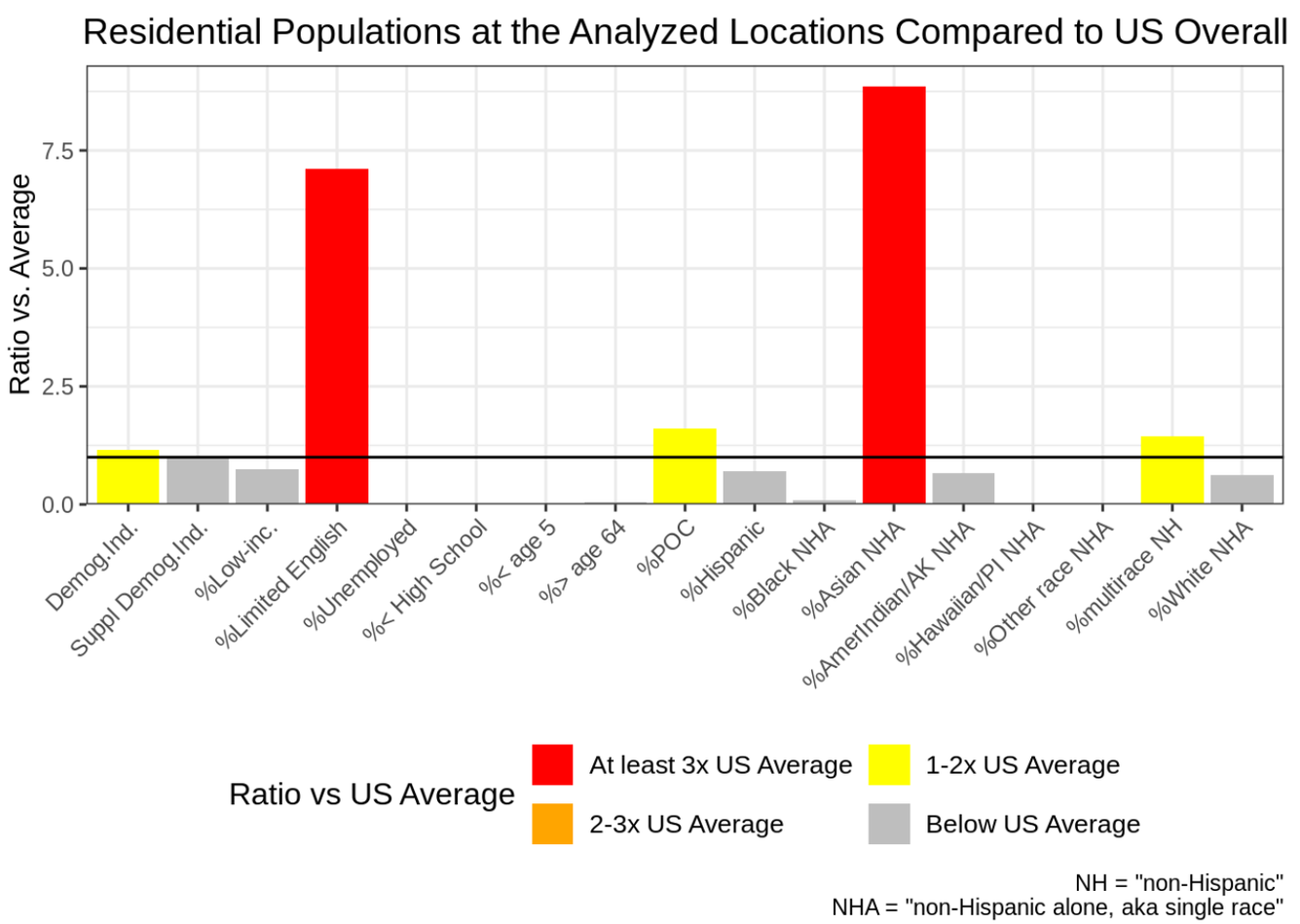
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	81	23
Ozone Summary Index	70	47
Nitrogen Dioxide (NO2) Summary Index	87	84
Diesel Particulate Matter Summary Index	89	81
Toxic Releases to Air Summary Index	90	84
Traffic Proximity and Volume Summary Index	89	84
Lead Paint Summary Index	11	40
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	82	70
Hazardous Waste Proximity Summary Index	89	85
Underground Storage Tanks Summary Index	89	85
Wastewater Discharge Summary Index	87	72
Drinking Water Non-Compliance Summary Index	89	91
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	70	14
Ozone Supplemental Summary Index	50	32
Nitrogen Dioxide (NO2) Supplemental Summary Index	86	87
Diesel Particulate Matter Supplemental Summary Index	87	85
Toxic Releases to Air Supplemental Summary Index	88	82
Traffic Proximity and Volume Supplemental Summary Index	88	88
Lead Paint Supplemental Summary Index	5	28
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	77	66
Hazardous Waste Proximity Supplemental Summary Index	88	88
Underground Storage Tanks Supplemental Summary Index	87	85
Wastewater Discharge Supplemental Summary Index	84	66
Drinking Water Non-Compliance Supplemental Summary Index	88	89

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	13%	0.7	1
% Black or African American (non-Hispanic, single race)	1%	0.1	0.2
% Asian (non-Hispanic, single race)	44%	8.9	6.5
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0.7	3.7
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	5%	1.4	1.3
% White (non-Hispanic, single race)	37%	0.6	0.5
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	45%	NA	NA
% speaking Other Indo-European at home	13%	NA	NA
% speaking Asian and Pacific Island languages at home	19%	NA	NA
% speaking Other and Unspecified languages at home	5%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	9%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	19%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	81%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	54%	NA	NA
% Females	46%	NA	NA
HEALTH			
% with Disabilities	5%	0.4	0.4
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	13.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	0.90	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	2%	NA	NA
% over Age 64	1%	0.1	0.1
COMMUNITY			
Occupied Housing Units	228	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	27,758	NA	NA
% Owner Occupied households	16%	NA	NA
POVERTY			
% of Households below Poverty Level	17%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	47%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	23%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	770	NA	NA
Count of Population Age 25 up	270	NA	NA
Count of Households	228	NA	NA
Universe for % unemployed (denominator, count)	770	NA	NA
Count of Housing Units Built Pre 1960	12	NA	NA
Built housing units count (denominator for % pre 1960)	336	NA	NA
Count of Population for whom Poverty Status is Determined	303	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250101032)
Area in Square Miles: 0.02
Population: 1,085

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	54	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	39	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	18.2	8.8	97	7.8	99	2.3	2.1
Diesel Particulate Matter (ug/m3)	0.381	0.176	97	0.191	90	2.0	2.2
Toxic Releases to Air	4,200	2,800	84	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	20,000,000	6,100,000	97	1,700,000	99	12.0	3.3
Lead Paint Indicator (% pre-1960s housing)	67.44%	0.51	67	0.3	85	2.2	1.3
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.44	0.37	71	0.57	60	0.8	1.2
Hazardous Waste Proximity (facility count/km distance)	56.8	11.2	98	3.5	99	16.0	5.1
Underground Storage Tanks (UST) indicator	28.9	3.3	99	3.6	98	7.9	8.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	170	760	82	700,000	60	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.84	1.19	54	1.34	34	0.6	0.8
Supplemental Demographic Index USA	0.65	1.52	4	1.64	2	0.4	0.4
% Low Income	5%	22%	14	30%	8	0.2	0.2
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	17%	5%	95	6%	93	3.1	3.2
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	0%	18%	0	18%	0	0.0	0.0
% People of Color	45%	31%	75	40%	62	1.1	1.5

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

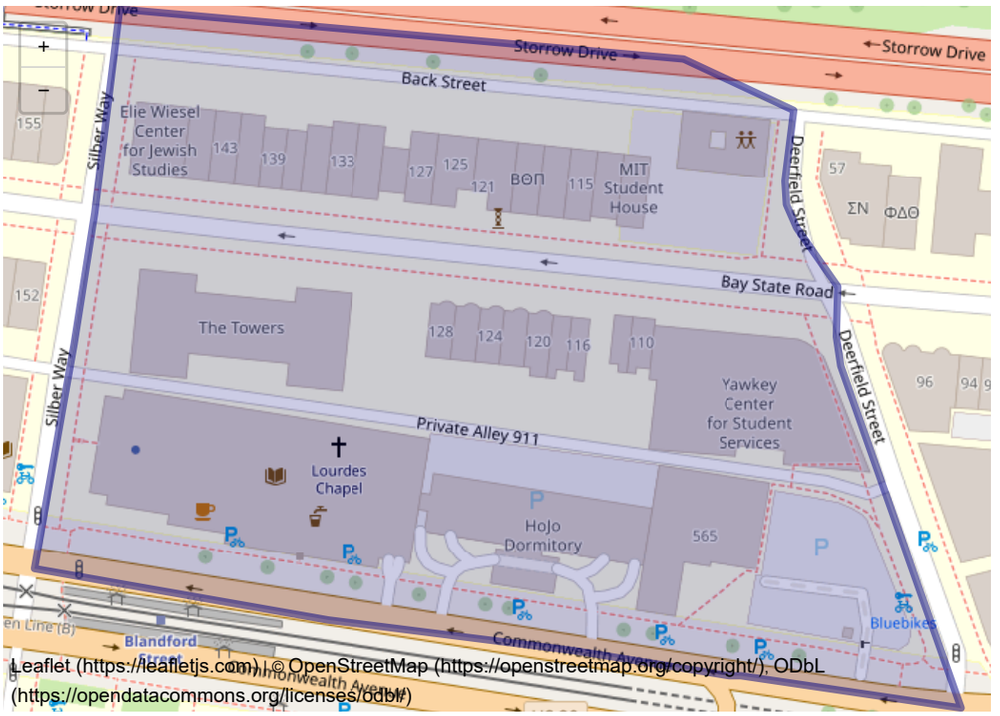
The indexes for a selected area are compared to those for all other locations in the state or nation.

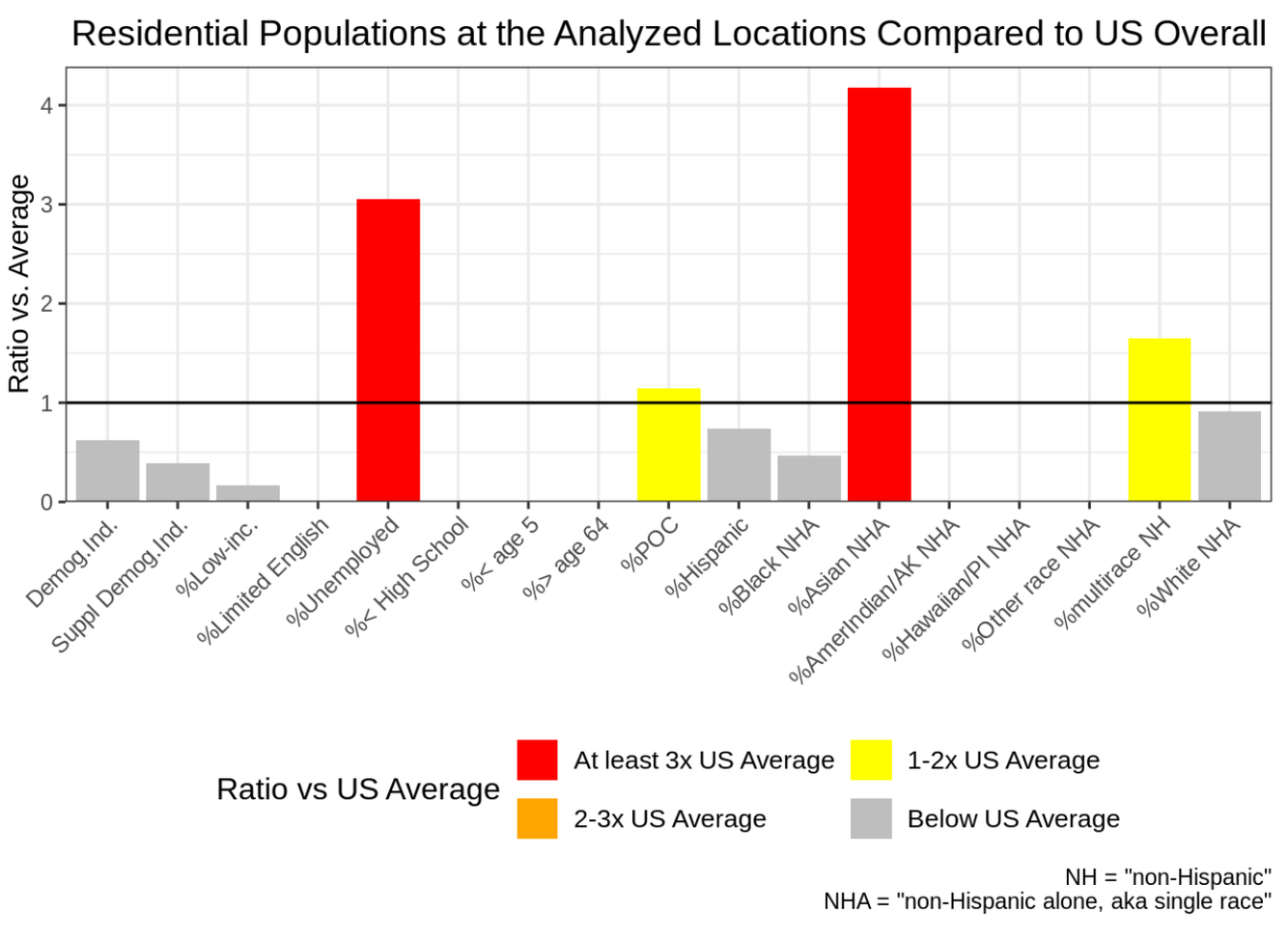
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	59	14
Ozone Summary Index	50	29
Nitrogen Dioxide (NO2) Summary Index	73	66
Diesel Particulate Matter Summary Index	75	64
Toxic Releases to Air Summary Index	74	64
Traffic Proximity and Volume Summary Index	73	66
Lead Paint Summary Index	65	64
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	67	53
Hazardous Waste Proximity Summary Index	74	67
Underground Storage Tanks Summary Index	74	68
Wastewater Discharge Summary Index	72	52
Drinking Water Non-Compliance Summary Index	80	83
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	26	5
Ozone Supplemental Summary Index	23	12
Nitrogen Dioxide (NO2) Supplemental Summary Index	49	48
Diesel Particulate Matter Supplemental Summary Index	49	45
Toxic Releases to Air Supplemental Summary Index	43	40
Traffic Proximity and Volume Supplemental Summary Index	47	49
Lead Paint Supplemental Summary Index	35	38
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	39	33
Hazardous Waste Proximity Supplemental Summary Index	48	48
Underground Storage Tanks Supplemental Summary Index	49	47
Wastewater Discharge Supplemental Summary Index	42	28
Drinking Water Non-Compliance Supplemental Summary Index	59	74

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	13%	0.7	1
% Black or African American (non-Hispanic, single race)	6%	0.5	0.9
% Asian (non-Hispanic, single race)	21%	4.2	3.1
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	6%	1.7	1.5
% White (non-Hispanic, single race)	55%	0.9	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	45%	NA	NA
% speaking Other Indo-European at home	13%	NA	NA
% speaking Asian and Pacific Island languages at home	19%	NA	NA
% speaking Other and Unspecified languages at home	5%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	9%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	53%	NA	NA
% Females	47%	NA	NA
HEALTH			
% with Disabilities	5%	0.4	0.4
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	13.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	0.90	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	69	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	35,532	NA	NA
% Owner Occupied households	3%	NA	NA
POVERTY			
% of Households below Poverty Level	3%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	1	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	92%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,085	NA	NA
Count of Population Age 25 up	179	NA	NA
Count of Households	69	NA	NA
Universe for % unemployed (denominator, count)	1,085	NA	NA
Count of Housing Units Built Pre 1960	58	NA	NA
Built housing units count (denominator for % pre 1960)	86	NA	NA
Count of Population for whom Poverty Status is Determined	138	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250101033)
Area in Square Miles: 0.06
Population: 1,542

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	54	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	39	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.0	8.8	97	7.8	99	2.4	2.2
Diesel Particulate Matter (ug/m3)	0.377	0.176	96	0.191	90	2.0	2.1
Toxic Releases to Air	4,300	2,800	86	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	19,000,000	6,100,000	97	1,700,000	99	12.0	3.2
Lead Paint Indicator (% pre-1960s housing)	62.77%	0.51	62	0.3	82	2.1	1.2
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.42	0.37	70	0.57	59	0.7	1.1
Hazardous Waste Proximity (facility count/km distance)	56.6	11.2	97	3.5	99	16.0	5.1
Underground Storage Tanks (UST) indicator	5.1	3.3	78	3.6	79	1.4	1.5
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	180	760	84	700,000	60	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.70	1.19	95	1.34	91	2.0	2.6
Supplemental Demographic Index USA	1.83	1.52	78	1.64	66	1.1	1.3
% Low Income	88%	22%	99	30%	98	2.9	4.0
% in limited English-speaking Households	9%	6%	77	5%	84	1.9	1.5
% Unemployed	25%	5%	98	6%	97	4.4	4.6
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	0%	18%	0	18%	0	0.0	0.0
% People of Color	40%	31%	69	40%	58	1.0	1.3

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

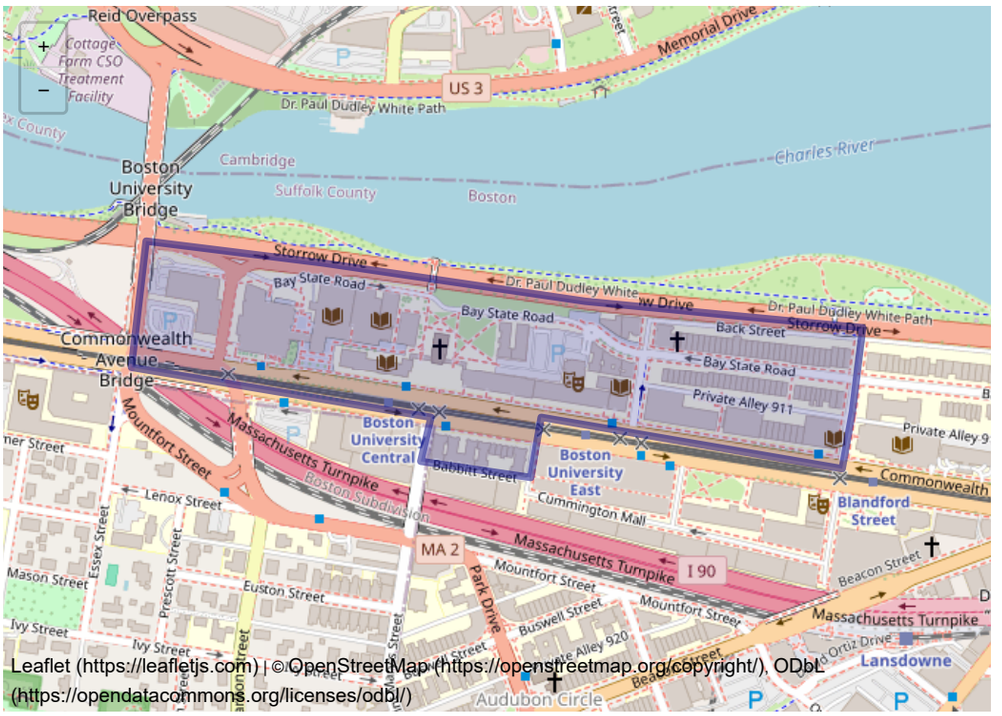
The indexes for a selected area are compared to those for all other locations in the state or nation.

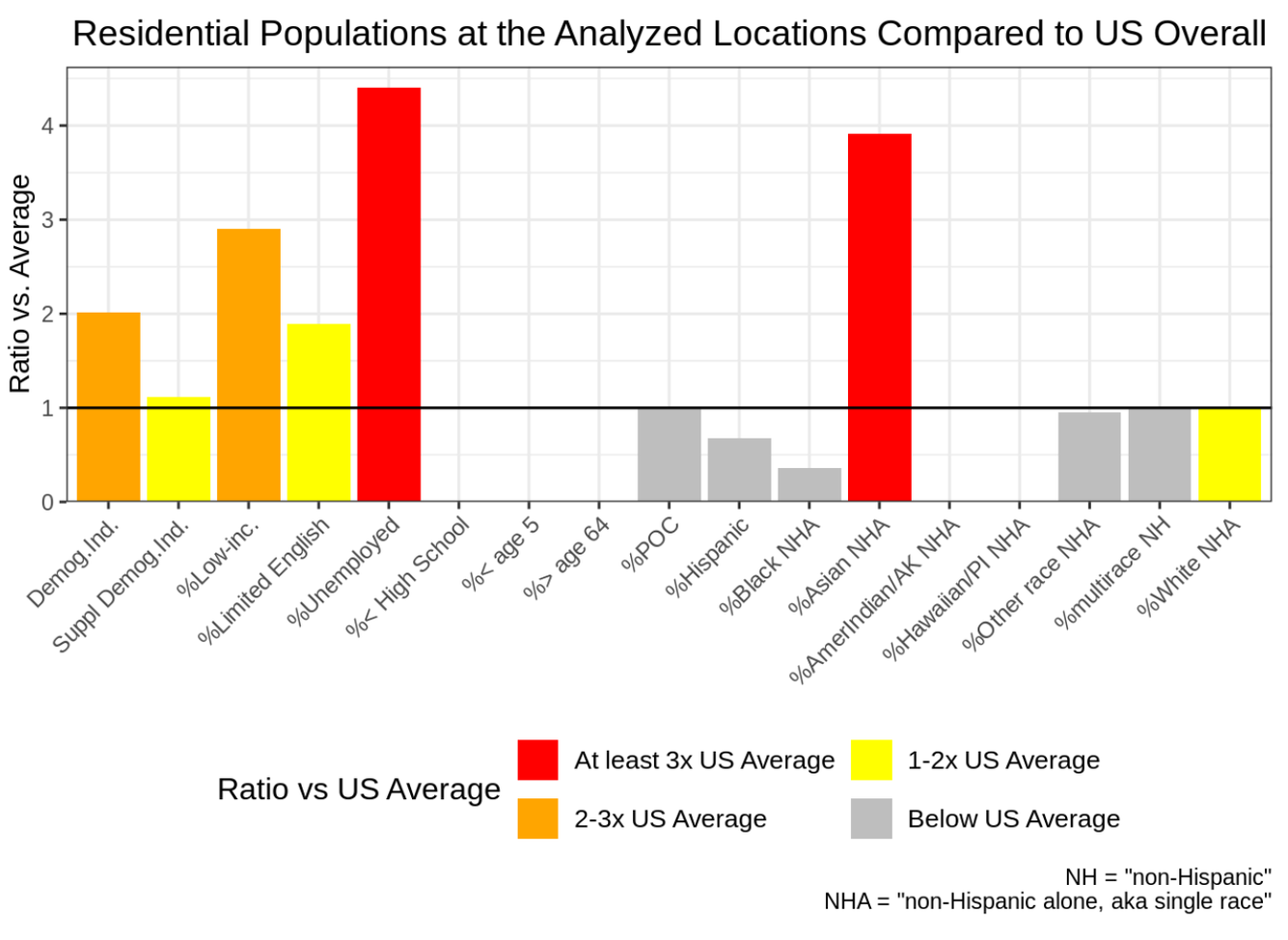
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	92	36
Ozone Summary Index	85	65
Nitrogen Dioxide (NO2) Summary Index	97	97
Diesel Particulate Matter Summary Index	98	96
Toxic Releases to Air Summary Index	98	96
Traffic Proximity and Volume Summary Index	98	98
Lead Paint Summary Index	93	95
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	93	86
Hazardous Waste Proximity Summary Index	98	98
Underground Storage Tanks Summary Index	95	93
Wastewater Discharge Summary Index	98	88
Drinking Water Non-Compliance Summary Index	97	98
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	76	15
Ozone Supplemental Summary Index	55	36
Nitrogen Dioxide (NO2) Supplemental Summary Index	90	90
Diesel Particulate Matter Supplemental Summary Index	91	89
Toxic Releases to Air Supplemental Summary Index	92	86
Traffic Proximity and Volume Supplemental Summary Index	92	91
Lead Paint Supplemental Summary Index	77	84
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	81	70
Hazardous Waste Proximity Supplemental Summary Index	92	91
Underground Storage Tanks Supplemental Summary Index	84	82
Wastewater Discharge Supplemental Summary Index	89	72
Drinking Water Non-Compliance Supplemental Summary Index	91	91

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	12%	0.7	0.9
% Black or African American (non-Hispanic, single race)	4%	0.4	0.7
% Asian (non-Hispanic, single race)	20%	3.9	2.9
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	1	0.4
% Two or more races (non-Hispanic)	3%	1	0.9
% White (non-Hispanic, single race)	60%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	45%	NA	NA
% speaking Other Indo-European at home	13%	NA	NA
% speaking Asian and Pacific Island languages at home	19%	NA	NA
% speaking Other and Unspecified languages at home	5%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	9%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	100%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	0%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	41%	NA	NA
% Females	59%	NA	NA
HEALTH			
% with Disabilities	5%	0.4	0.4
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	13.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	0.90	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	1%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	77	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	5,729	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	87%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	3	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	2	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	42%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	42%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,542	NA	NA
Count of Population Age 25 up	60	NA	NA
Count of Households	77	NA	NA
Universe for % unemployed (denominator, count)	1,542	NA	NA
Count of Housing Units Built Pre 1960	86	NA	NA
Built housing units count (denominator for % pre 1960)	137	NA	NA
Count of Population for whom Poverty Status is Determined	170	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250101041)
Area in Square Miles: 0.04
Population: 1,330

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.58	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	42	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.5	8.8	98	7.8	99	2.5	2.2
Diesel Particulate Matter (ug/m3)	0.427	0.176	98	0.191	93	2.2	2.4
Toxic Releases to Air	4,100	2,800	82	4,600	83	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	25,000,000	6,100,000	98	1,700,000	99	15.0	4.1
Lead Paint Indicator (% pre-1960s housing)	82.30%	0.51	85	0.3	93	2.7	1.6
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.52	0.37	75	0.57	64	0.9	1.4
Hazardous Waste Proximity (facility count/km distance)	56.9	11.2	98	3.5	99	16.0	5.1
Underground Storage Tanks (UST) indicator	23.7	3.3	99	3.6	97	6.5	7.1
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	160	760	81	700,000	59	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.34	1.19	73	1.34	58	1.0	1.3
Supplemental Demographic Index USA	1.13	1.52	37	1.64	23	0.7	0.8
% Low Income	30%	22%	73	30%	56	1.0	1.4
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	4%	5%	49	6%	50	0.7	0.7
% with Less Than High School Education	3%	9%	34	11%	25	0.3	0.3
% under Age 5	5%	5%	57	5%	51	0.9	1.0
% over Age 64	16%	18%	50	18%	51	0.9	0.9
% People of Color	40%	31%	70	40%	58	1.0	1.3

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

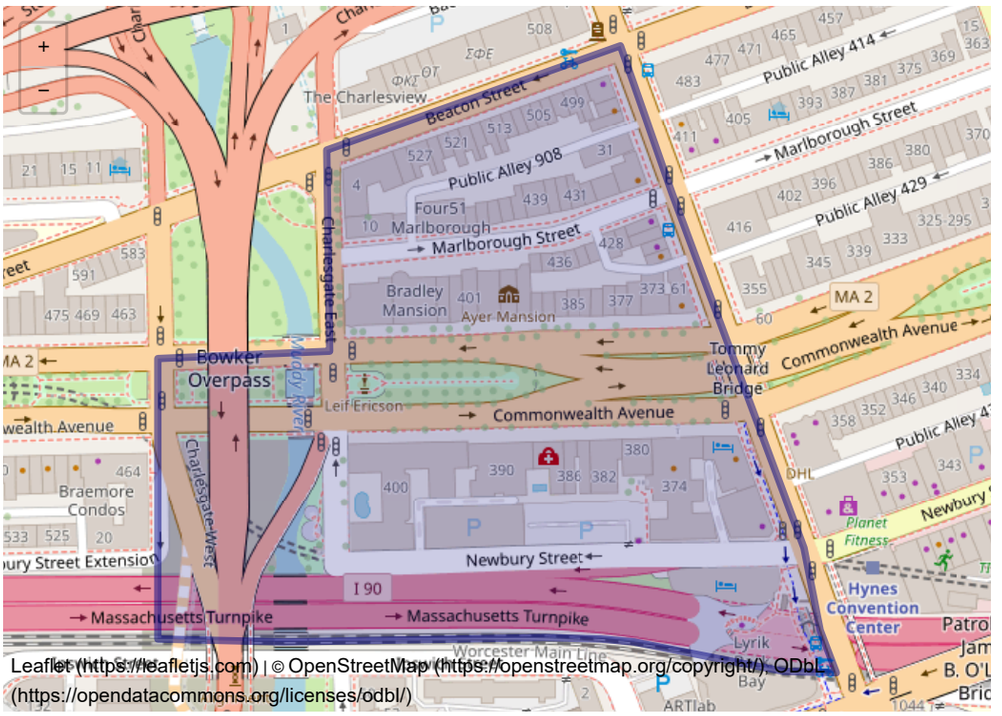
The indexes for a selected area are compared to those for all other locations in the state or nation.

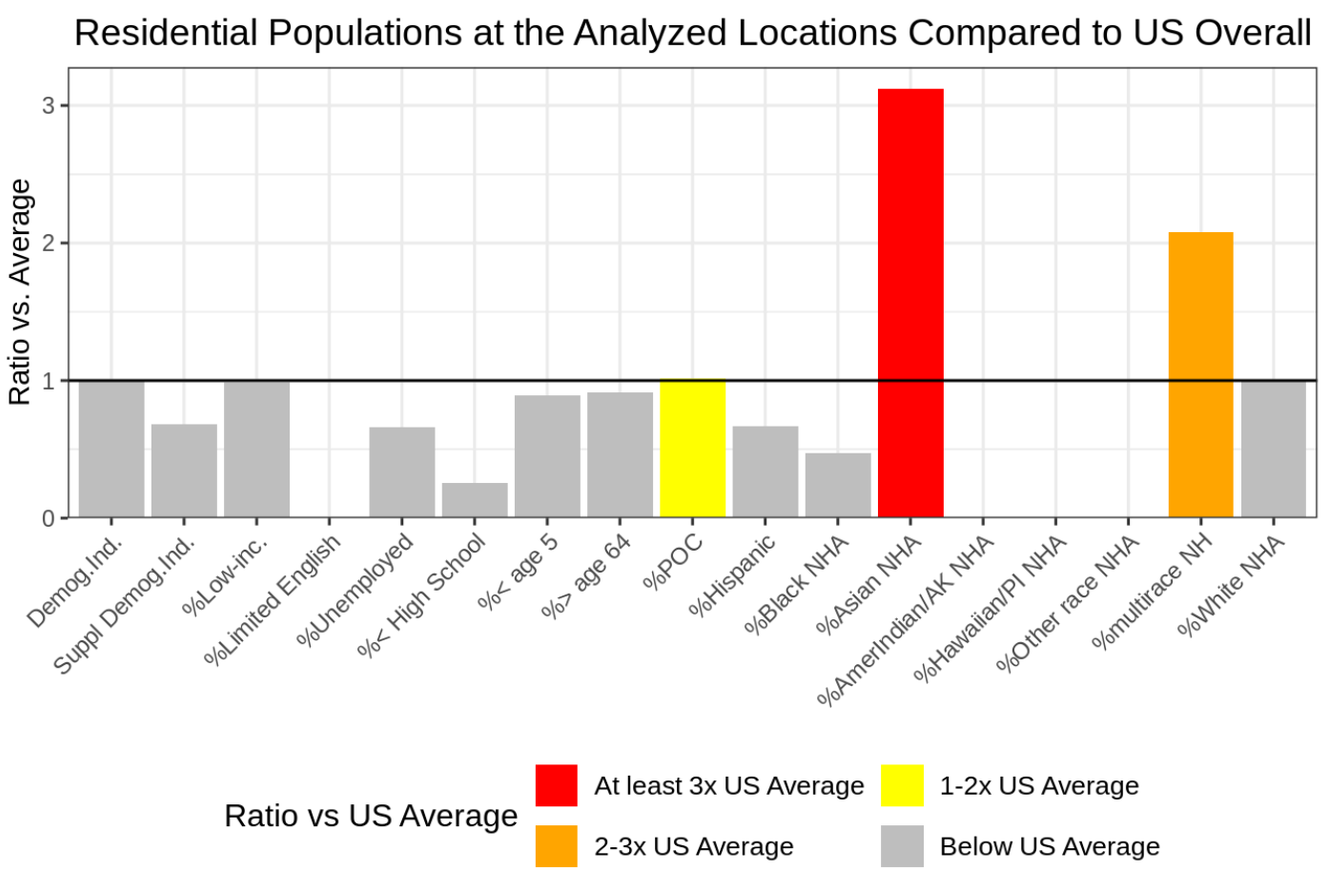
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	76	21
Ozone Summary Index	68	43
Nitrogen Dioxide (NO2) Summary Index	84	80
Diesel Particulate Matter Summary Index	86	79
Toxic Releases to Air Summary Index	86	79
Traffic Proximity and Volume Summary Index	86	80
Lead Paint Summary Index	84	81
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	80	69
Hazardous Waste Proximity Summary Index	86	81
Underground Storage Tanks Summary Index	86	81
Wastewater Discharge Summary Index	84	67
Drinking Water Non-Compliance Summary Index	87	89
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	51	9
Ozone Supplemental Summary Index	40	22
Nitrogen Dioxide (NO2) Supplemental Summary Index	73	73
Diesel Particulate Matter Supplemental Summary Index	76	71
Toxic Releases to Air Supplemental Summary Index	72	65
Traffic Proximity and Volume Supplemental Summary Index	75	74
Lead Paint Supplemental Summary Index	69	67
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	63	53
Hazardous Waste Proximity Supplemental Summary Index	76	74
Underground Storage Tanks Supplemental Summary Index	74	70
Wastewater Discharge Supplemental Summary Index	67	48
Drinking Water Non-Compliance Supplemental Summary Index	76	80

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	12%	0.7	0.9
% Black or African American (non-Hispanic, single race)	6%	0.5	0.9
% Asian (non-Hispanic, single race)	16%	3.1	2.3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	7%	2.1	1.8
% White (non-Hispanic, single race)	60%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	36%	NA	NA
% speaking Other Indo-European at home	14%	NA	NA
% speaking Asian and Pacific Island languages at home	10%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	10%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	34%	NA	NA
% Females	66%	NA	NA
HEALTH			
% with Disabilities	8%	0.6	0.7
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	2	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.90	NA	NA
AGE			
% under Age 5	5%	0.9	1
% under age 18	7%	NA	NA
% over Age 64	16%	0.9	0.9
COMMUNITY			
Occupied Housing Units	688	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	91,589	NA	NA
% Owner Occupied households	29%	NA	NA
POVERTY			
% of Households below Poverty Level	28%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	2	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	1	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	95%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	2%	NA	NA
% Households without Health Insurance	2%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,330	NA	NA
Count of Population Age 25 up	924	NA	NA
Count of Households	688	NA	NA
Universe for % unemployed (denominator, count)	1,240	NA	NA
Count of Housing Units Built Pre 1960	693	NA	NA
Built housing units count (denominator for % pre 1960)	842	NA	NA
Count of Population for whom Poverty Status is Determined	1,221	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250101042)
Area in Square Miles: 0.03
Population: 2,464

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.58	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	42	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	17.8	8.8	96	7.8	99	2.3	2.0
Diesel Particulate Matter (ug/m3)	0.390	0.176	97	0.191	91	2.0	2.2
Toxic Releases to Air	4,200	2,800	84	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	22,000,000	6,100,000	98	1,700,000	99	13.0	3.7
Lead Paint Indicator (% pre-1960s housing)	79.91%	0.51	83	0.3	92	2.7	1.6
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.48	0.37	73	0.57	62	0.8	1.3
Hazardous Waste Proximity (facility count/km distance)	57.2	11.2	98	3.5	99	16.0	5.1
Underground Storage Tanks (UST) indicator	20.8	3.3	99	3.6	96	5.7	6.2
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	170	760	83	700,000	60	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.41	1.19	75	1.34	60	1.1	1.4
Supplemental Demographic Index USA	1.16	1.52	40	1.64	26	0.7	0.8
% Low Income	33%	22%	76	30%	60	1.1	1.5
% in limited English-speaking Households	3%	6%	57	5%	68	0.6	0.5
% Unemployed	12%	5%	88	6%	86	2.1	2.2
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	1%	5%	15	5%	14	0.2	0.2
% over Age 64	2%	18%	2	18%	3	0.1	0.1
% People of Color	41%	31%	70	40%	58	1.0	1.3

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

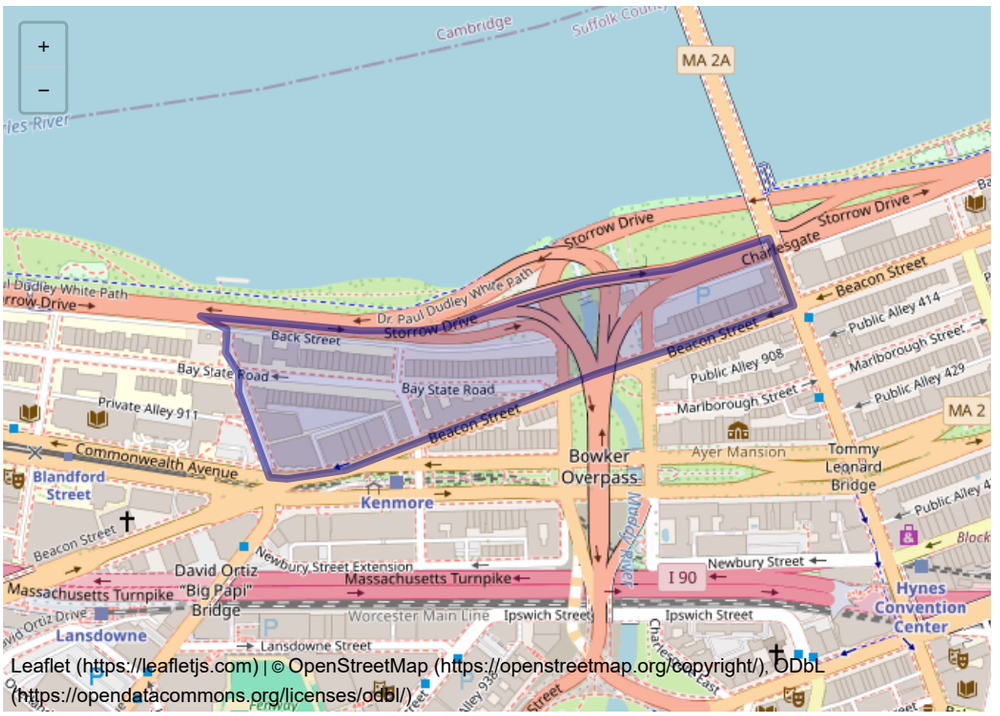
The indexes for a selected area are compared to those for all other locations in the state or nation.

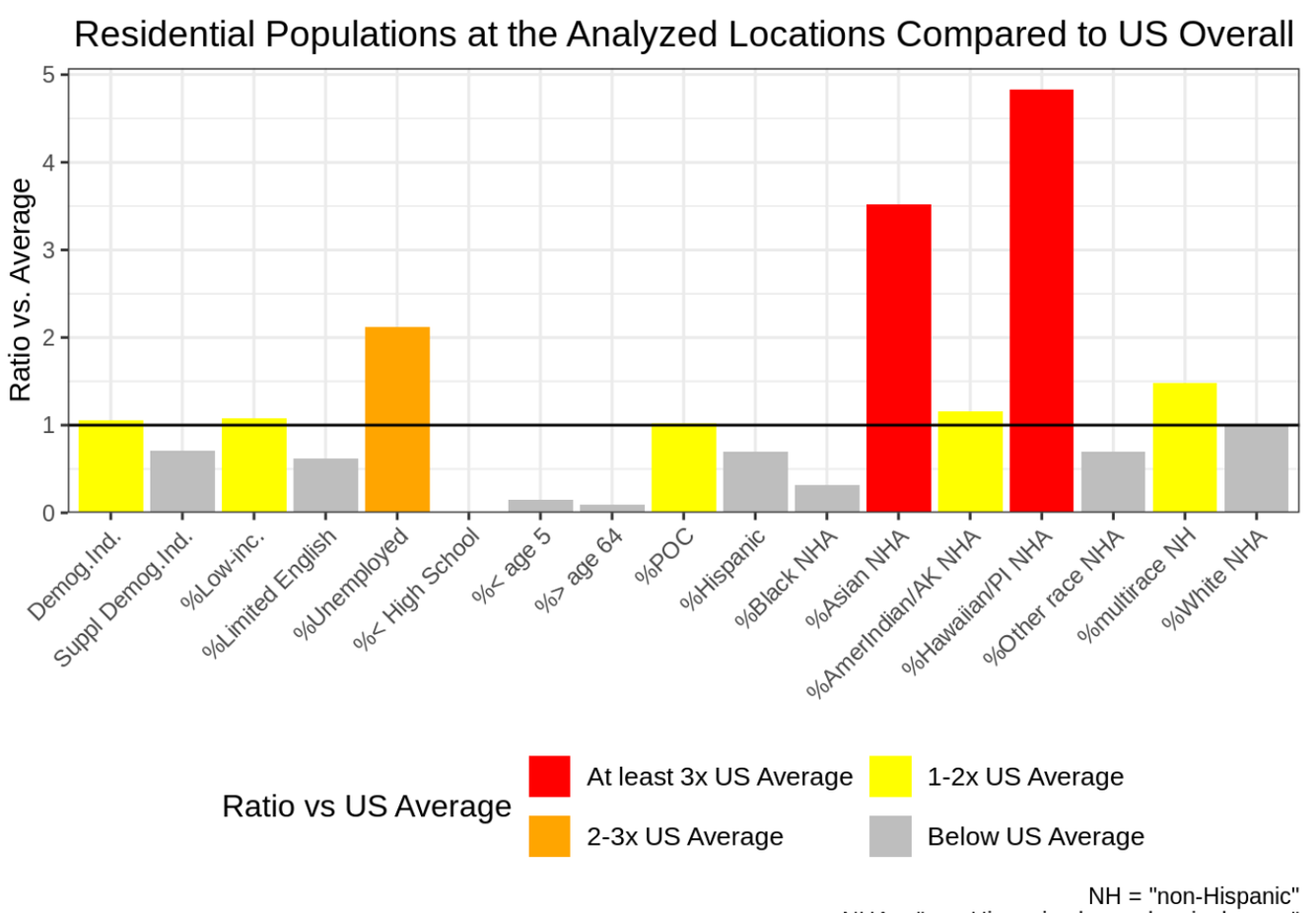
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	77	22
Ozone Summary Index	69	44
Nitrogen Dioxide (NO2) Summary Index	85	81
Diesel Particulate Matter Summary Index	87	80
Toxic Releases to Air Summary Index	87	81
Traffic Proximity and Volume Summary Index	87	82
Lead Paint Summary Index	85	82
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	81	69
Hazardous Waste Proximity Summary Index	87	82
Underground Storage Tanks Summary Index	87	82
Wastewater Discharge Summary Index	85	69
Drinking Water Non-Compliance Summary Index	88	90
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	53	10
Ozone Supplemental Summary Index	41	22
Nitrogen Dioxide (NO2) Supplemental Summary Index	74	74
Diesel Particulate Matter Supplemental Summary Index	77	72
Toxic Releases to Air Supplemental Summary Index	75	67
Traffic Proximity and Volume Supplemental Summary Index	77	75
Lead Paint Supplemental Summary Index	69	68
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	64	53
Hazardous Waste Proximity Supplemental Summary Index	77	75
Underground Storage Tanks Supplemental Summary Index	75	71
Wastewater Discharge Supplemental Summary Index	70	50
Drinking Water Non-Compliance Supplemental Summary Index	77	81

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	12%	0.7	1
% Black or African American (non-Hispanic, single race)	4%	0.3	0.6
% Asian (non-Hispanic, single race)	18%	3.5	2.6
% American Indian and Alaska Native (non-Hispanic, single race)	1%	1.2	6.6
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	1%	4.8	22
% Other race (non-Hispanic, single race)	0%	0.7	0.3
% Two or more races (non-Hispanic)	5%	1.5	1.3
% White (non-Hispanic, single race)	59%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	36%	NA	NA
% speaking Other Indo-European at home	14%	NA	NA
% speaking Asian and Pacific Island languages at home	10%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	10%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	50%	NA	NA
% Females	50%	NA	NA
HEALTH			
% with Disabilities	8%	0.6	0.7
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	2	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.90	NA	NA
AGE			
% under Age 5	1%	0.2	0.2
% under age 18	1%	NA	NA
% over Age 64	2%	0.1	0.1
COMMUNITY			
Occupied Housing Units	433	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	19,718	NA	NA
% Owner Occupied households	9%	NA	NA
POVERTY			
% of Households below Poverty Level	22%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	1	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	99%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	8%	NA	NA
% Households without Health Insurance	2%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	2,464	NA	NA
Count of Population Age 25 up	595	NA	NA
Count of Households	433	NA	NA
Universe for % unemployed (denominator, count)	2,434	NA	NA
Count of Housing Units Built Pre 1960	374	NA	NA
Built housing units count (denominator for % pre 1960)	468	NA	NA
Count of Population for whom Poverty Status is Determined	684	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250101043)
Area in Square Miles: 0.04
Population: 997

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.58	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	42	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.9	8.8	98	7.8	99	2.5	2.3
Diesel Particulate Matter (ug/m3)	0.379	0.176	97	0.191	90	2.0	2.1
Toxic Releases to Air	4,200	2,800	84	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	24,000,000	6,100,000	98	1,700,000	99	14.0	4.0
Lead Paint Indicator (% pre-1960s housing)	87.14%	0.51	90	0.3	95	2.9	1.7
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.49	0.37	73	0.57	63	0.9	1.3
Hazardous Waste Proximity (facility count/km distance)	57.6	11.2	98	3.5	99	16.0	5.1
Underground Storage Tanks (UST) indicator	22.6	3.3	99	3.6	96	6.2	6.8
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	160	760	81	700,000	59	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.87	1.19	84	1.34	74	1.4	1.8
Supplemental Demographic Index USA	2.08	1.52	83	1.64	77	1.3	1.5
% Low Income	56%	22%	93	30%	86	1.9	2.5
% in limited English-speaking Households	22%	6%	92	5%	94	4.5	3.6
% Unemployed	4%	5%	51	6%	52	0.7	0.7
% with Less Than High School Education	10%	9%	67	11%	58	0.9	1.1
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	12%	18%	31	18%	33	0.7	0.7
% People of Color	35%	31%	64	40%	53	0.9	1.1

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

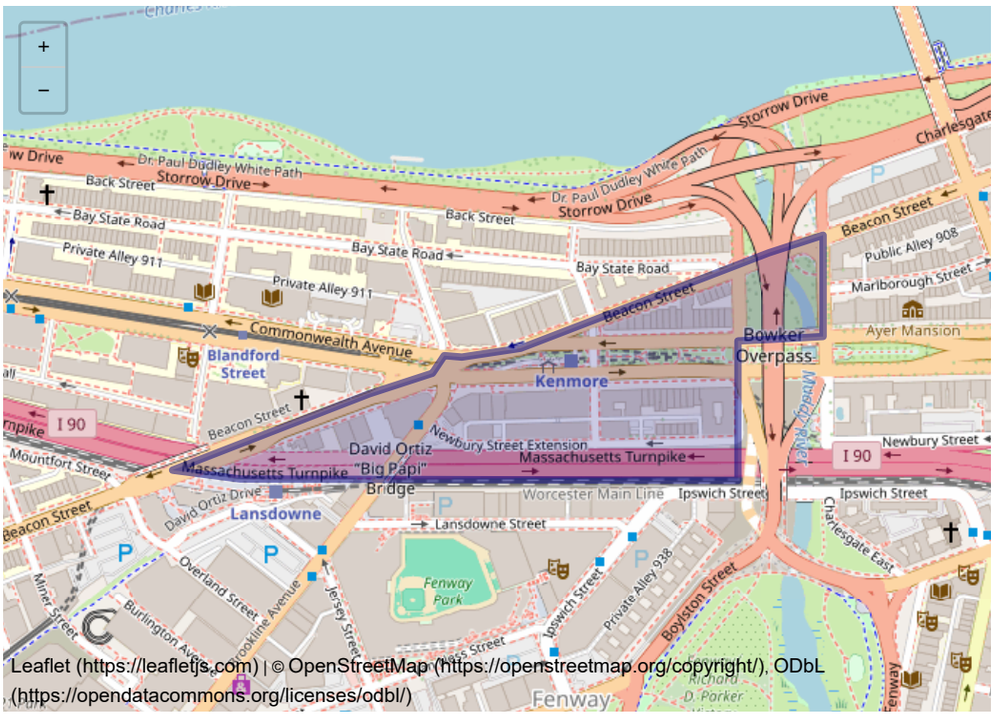
The indexes for a selected area are compared to those for all other locations in the state or nation.

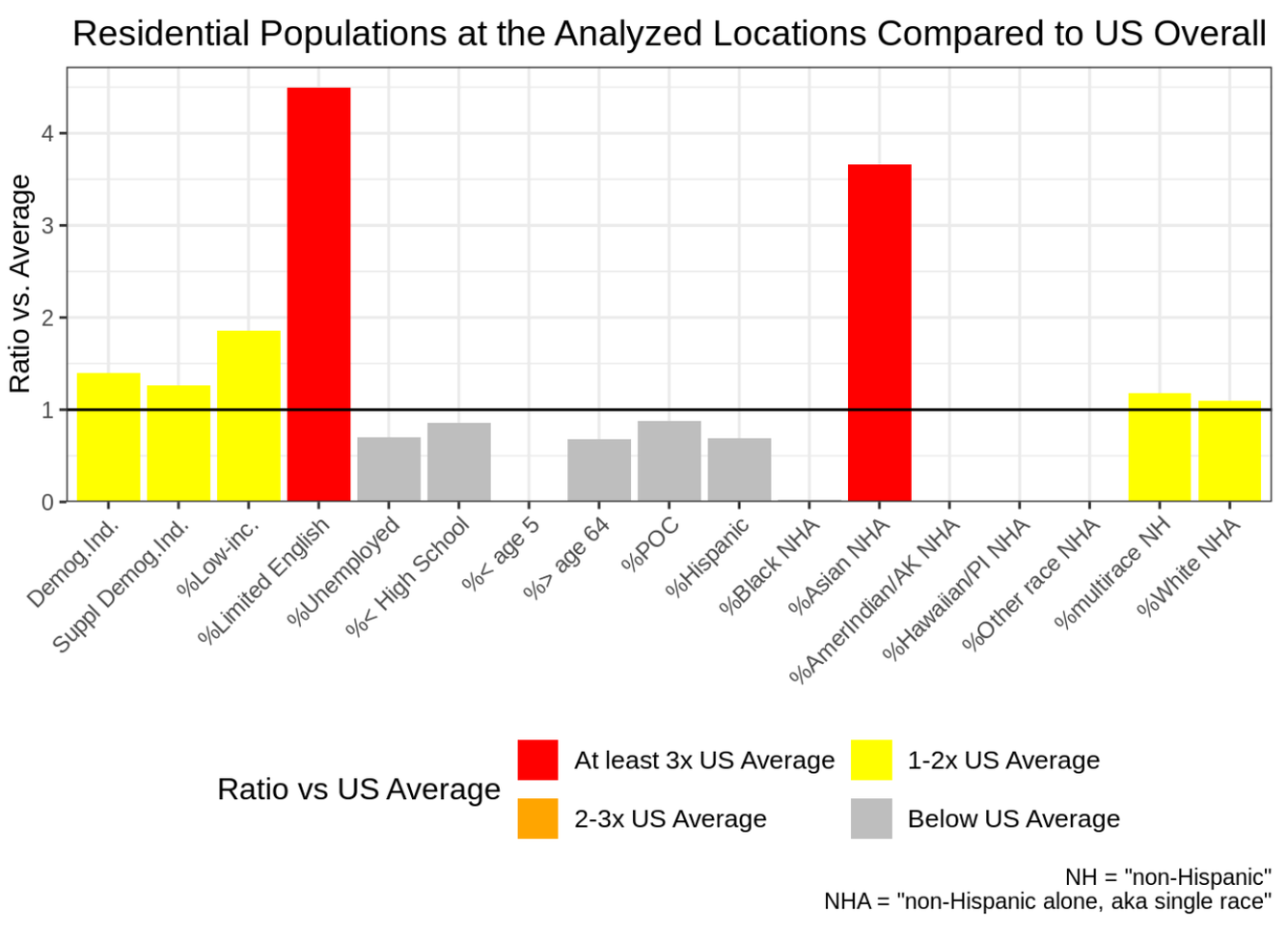
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	84	27
Ozone Summary Index	77	53
Nitrogen Dioxide (NO2) Summary Index	91	89
Diesel Particulate Matter Summary Index	93	87
Toxic Releases to Air Summary Index	92	89
Traffic Proximity and Volume Summary Index	93	90
Lead Paint Summary Index	93	91
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	87	78
Hazardous Waste Proximity Summary Index	93	90
Underground Storage Tanks Summary Index	93	90
Wastewater Discharge Summary Index	91	78
Drinking Water Non-Compliance Summary Index	92	93
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	81	18
Ozone Supplemental Summary Index	65	41
Nitrogen Dioxide (NO2) Supplemental Summary Index	92	93
Diesel Particulate Matter Supplemental Summary Index	94	92
Toxic Releases to Air Supplemental Summary Index	94	90
Traffic Proximity and Volume Supplemental Summary Index	94	94
Lead Paint Supplemental Summary Index	92	93
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	86	78
Hazardous Waste Proximity Supplemental Summary Index	95	94
Underground Storage Tanks Supplemental Summary Index	93	93
Wastewater Discharge Supplemental Summary Index	92	77
Drinking Water Non-Compliance Supplemental Summary Index	93	94

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	12%	0.7	1
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	18%	3.7	2.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	4%	1.2	1
% White (non-Hispanic, single race)	65%	1.1	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	36%	NA	NA
% speaking Other Indo-European at home	14%	NA	NA
% speaking Asian and Pacific Island languages at home	10%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	10%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	11%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	57%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	32%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	27%	NA	NA
% Females	73%	NA	NA
HEALTH			
% with Disabilities	8%	0.6	0.7
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	2	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.90	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	12%	0.7	0.7
COMMUNITY			
Occupied Housing Units	541	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	46,570	NA	NA
% Owner Occupied households	10%	NA	NA
POVERTY			
% of Households below Poverty Level	50%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	5	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	58%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	17%	NA	NA
% Households without Health Insurance	2%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	997	NA	NA
Count of Population Age 25 up	567	NA	NA
Count of Households	541	NA	NA
Universe for % unemployed (denominator, count)	997	NA	NA
Count of Housing Units Built Pre 1960	508	NA	NA
Built housing units count (denominator for % pre 1960)	583	NA	NA
Count of Population for whom Poverty Status is Determined	776	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250102041)
Area in Square Miles: 0.02
Population: 1,046

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	54	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	39	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	19.2	8.8	98	7.8	99	2.4	2.2
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,300	2,800	86	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	20,000,000	6,100,000	97	1,700,000	99	12.0	3.4
Lead Paint Indicator (% pre-1960s housing)	74.68%	0.51	76	0.3	89	2.5	1.5
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.42	0.37	70	0.57	59	0.7	1.1
Hazardous Waste Proximity (facility count/km distance)	56.3	11.2	97	3.5	99	16.0	5.0
Underground Storage Tanks (UST) indicator	9.8	3.3	92	3.6	89	2.7	2.9
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	140	760	79	700,000	59	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.04	1.19	87	1.34	78	1.5	2.0
Supplemental Demographic Index USA	1.54	1.52	66	1.64	50	0.9	1.1
% Low Income	59%	22%	94	30%	88	1.9	2.6
% in limited English-speaking Households	9%	6%	77	5%	84	1.9	1.5
% Unemployed	20%	5%	97	6%	96	3.6	3.8
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	0%	18%	0	18%	0	0.0	0.0
% People of Color	42%	31%	72	40%	59	1.1	1.3

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

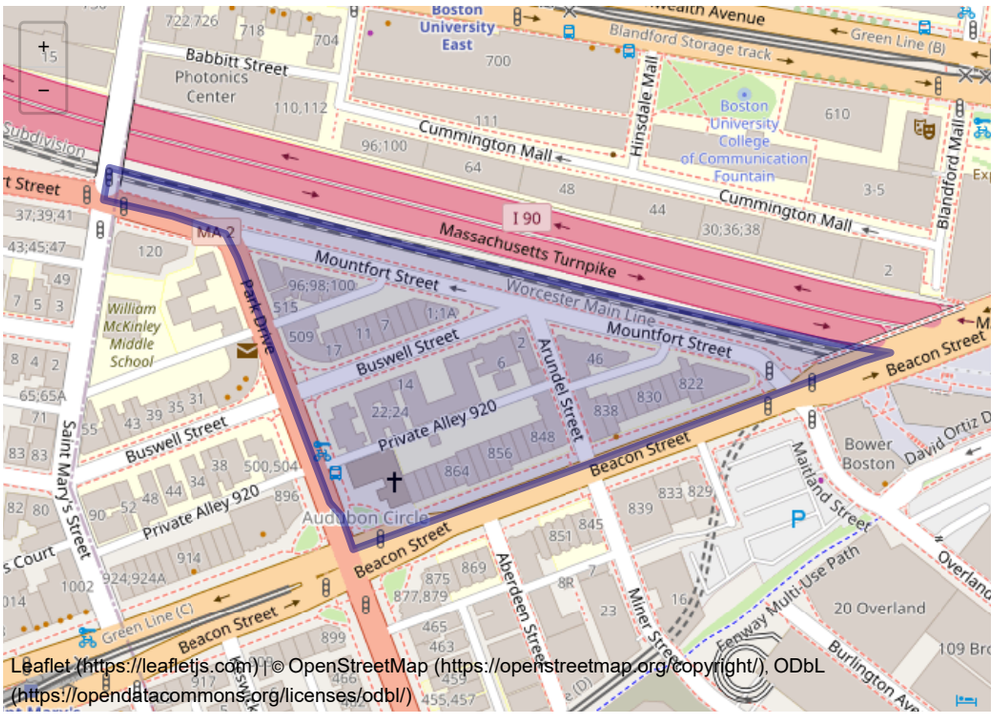
The indexes for a selected area are compared to those for all other locations in the state or nation.

	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	86	29
Ozone Summary Index	77	55
Nitrogen Dioxide (NO2) Summary Index	93	91
Diesel Particulate Matter Summary Index	94	89
Toxic Releases to Air Summary Index	94	90
Traffic Proximity and Volume Summary Index	94	92
Lead Paint Summary Index	91	91
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	88	78
Hazardous Waste Proximity Summary Index	95	92
Underground Storage Tanks Summary Index	93	90
Wastewater Discharge Summary Index	92	80
Drinking Water Non-Compliance Summary Index	93	94
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	68	13
Ozone Supplemental Summary Index	48	29
Nitrogen Dioxide (NO2) Supplemental Summary Index	84	85
Diesel Particulate Matter Supplemental Summary Index	85	82
Toxic Releases to Air Supplemental Summary Index	87	80
Traffic Proximity and Volume Supplemental Summary Index	86	86
Lead Paint Supplemental Summary Index	78	80
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	75	63
Hazardous Waste Proximity Supplemental Summary Index	87	86
Underground Storage Tanks Supplemental Summary Index	83	80
Wastewater Discharge Supplemental Summary Index	81	63
Drinking Water Non-Compliance Supplemental Summary Index	87	87

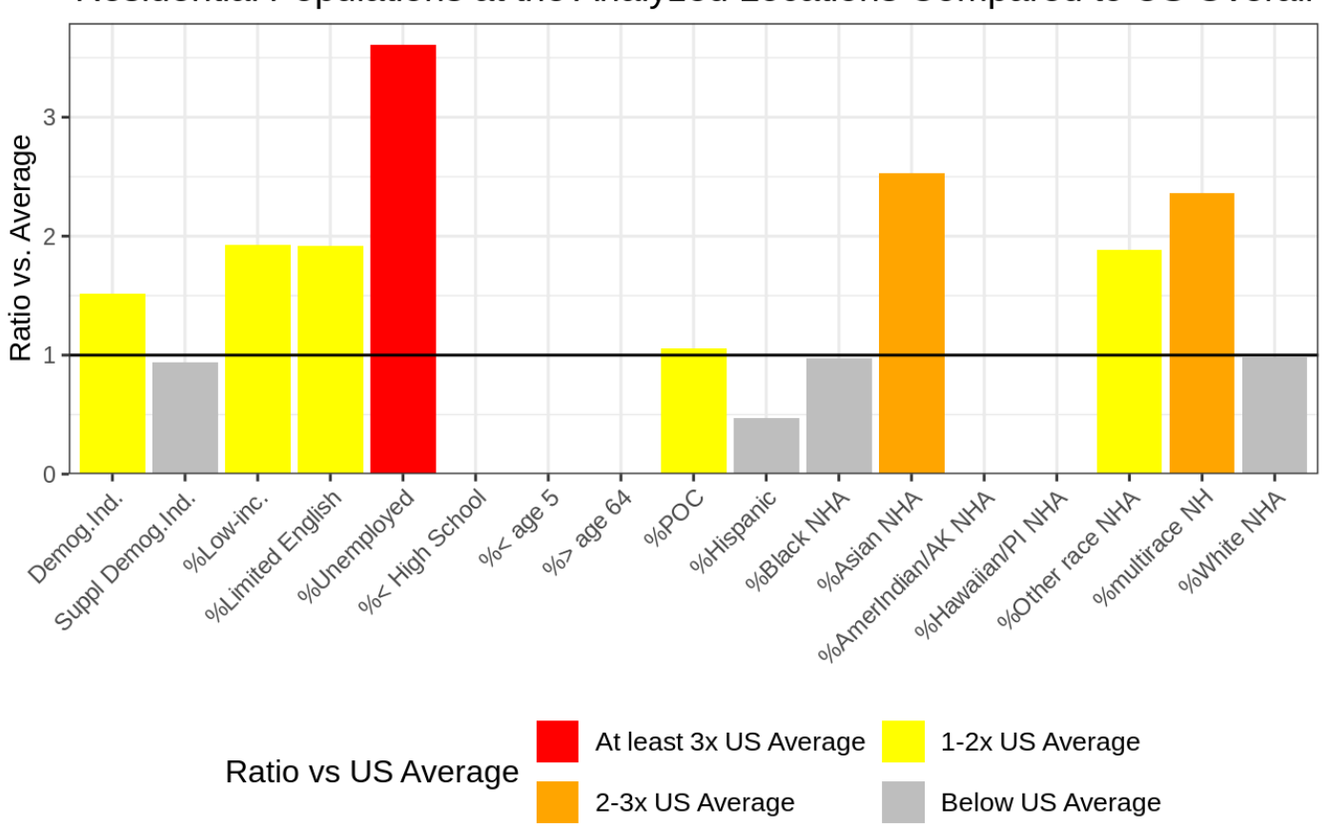
ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	8%	0.5	0.7
% Black or African American (non-Hispanic, single race)	12%	1	1.8
% Asian (non-Hispanic, single race)	13%	2.5	1.9
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	1%	1.9	0.8
% Two or more races (non-Hispanic)	8%	2.4	2.1
% White (non-Hispanic, single race)	58%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	33%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	6%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	100%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	0%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	38%	NA	NA
% Females	62%	NA	NA
HEALTH			
% with Disabilities	6%	0.5	0.5
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.50	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	119	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	7,383	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	65%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	29%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,046	NA	NA
Count of Population Age 25 up	38	NA	NA
Count of Households	119	NA	NA
Universe for % unemployed (denominator, count)	1,046	NA	NA
Count of Housing Units Built Pre 1960	118	NA	NA
Built housing units count (denominator for % pre 1960)	158	NA	NA
Count of Population for whom Poverty Status is Determined	145	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)



Residential Populations at the Analyzed Locations Compared to US Overall



NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250102042)
Area in Square Miles: 0.03
Population: 1,388

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	54	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	39	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	20.6	8.8	99	7.8	99	2.6	2.3
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,400	2,800	87	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	19,000,000	6,100,000	97	1,700,000	99	11.0	3.1
Lead Paint Indicator (% pre-1960s housing)	75.25%	0.51	77	0.3	89	2.5	1.5
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.41	0.37	69	0.57	59	0.7	1.1
Hazardous Waste Proximity (facility count/km distance)	56.5	11.2	97	3.5	99	16.0	5.0
Underground Storage Tanks (UST) indicator	10.7	3.3	93	3.6	90	2.9	3.2
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	140	760	78	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.41	1.19	74	1.34	60	1.0	1.4
Supplemental Demographic Index USA	1.19	1.52	42	1.64	27	0.7	0.8
% Low Income	37%	22%	80	30%	65	1.2	1.6
% in limited English-speaking Households	4%	6%	64	5%	74	0.9	0.7
% Unemployed	20%	5%	96	6%	95	3.5	3.6
% with Less Than High School Education	1%	9%	18	11%	12	0.1	0.1
% under Age 5	0%	5%	13	5%	12	0.1	0.1
% over Age 64	3%	18%	3	18%	4	0.1	0.1
% People of Color	35%	31%	64	40%	53	0.9	1.1

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

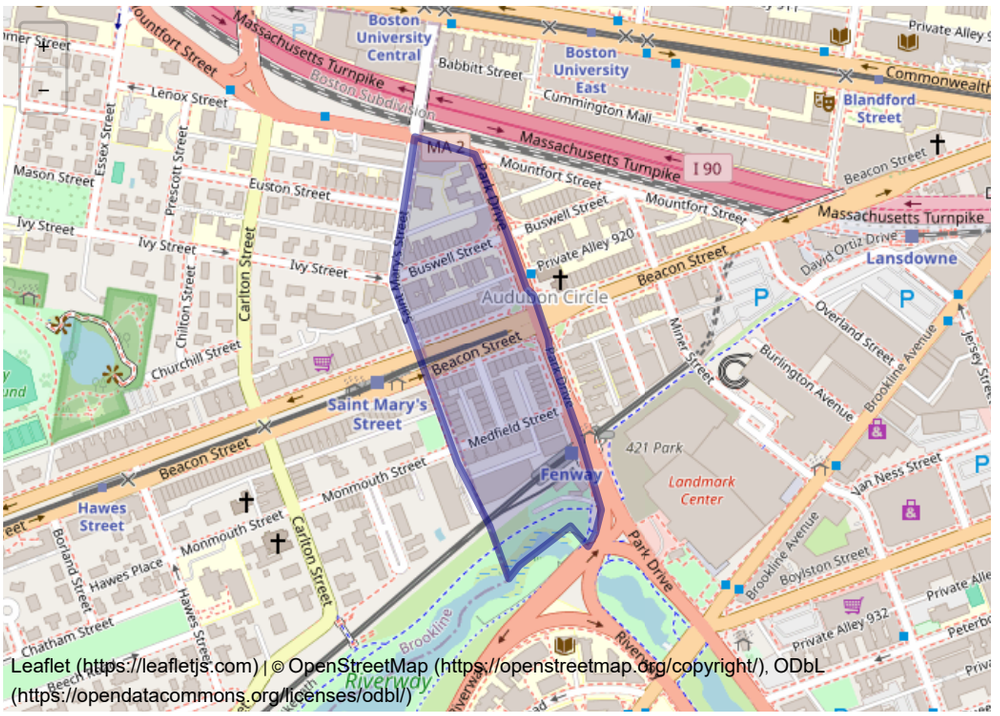
The indexes for a selected area are compared to those for all other locations in the state or nation.

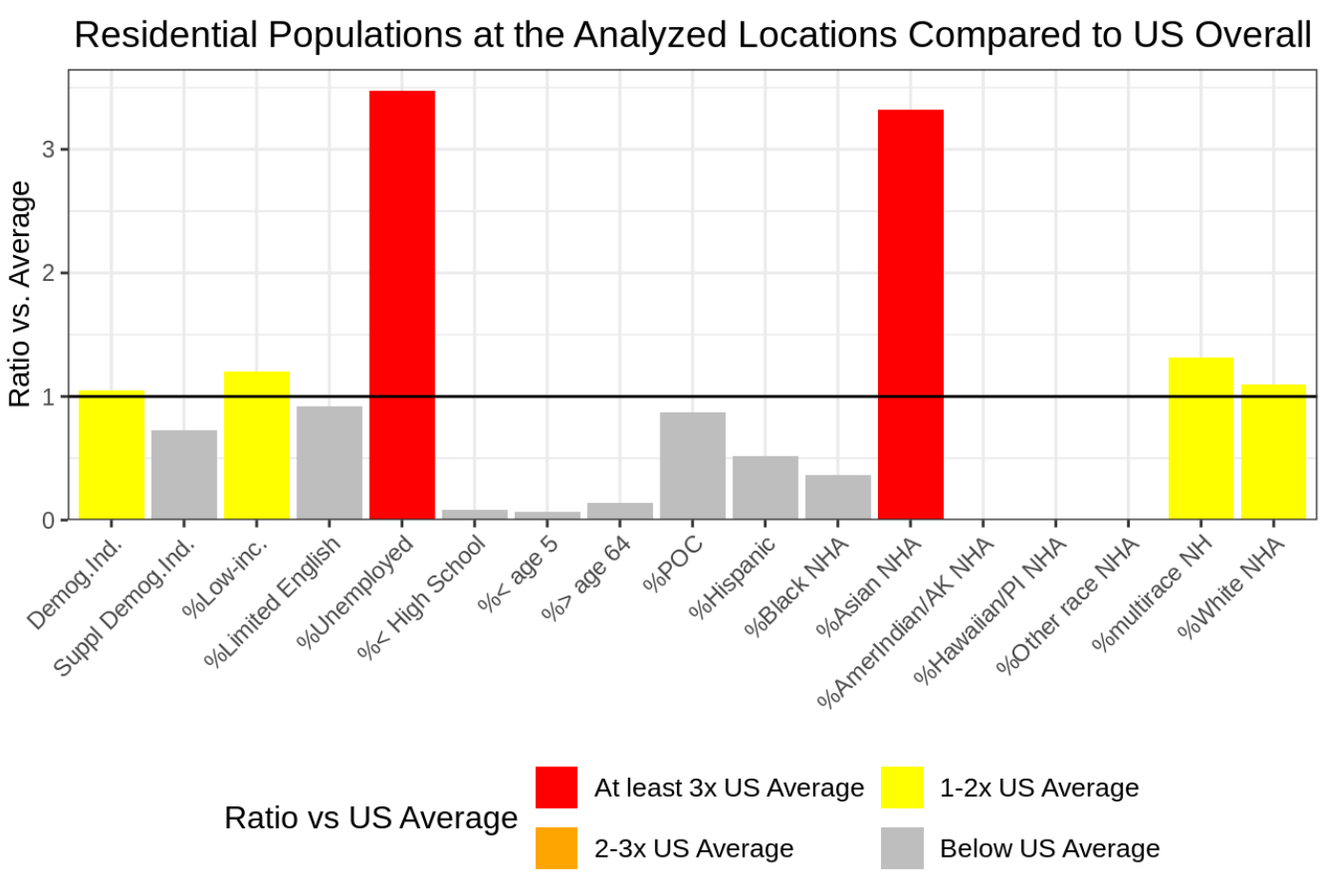
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	77	22
Ozone Summary Index	67	43
Nitrogen Dioxide (NO2) Summary Index	85	81
Diesel Particulate Matter Summary Index	86	79
Toxic Releases to Air Summary Index	88	81
Traffic Proximity and Volume Summary Index	87	82
Lead Paint Summary Index	83	81
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	79	68
Hazardous Waste Proximity Summary Index	87	82
Underground Storage Tanks Summary Index	85	80
Wastewater Discharge Summary Index	84	68
Drinking Water Non-Compliance Summary Index	88	90
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	54	10
Ozone Supplemental Summary Index	40	22
Nitrogen Dioxide (NO2) Supplemental Summary Index	76	75
Diesel Particulate Matter Supplemental Summary Index	76	72
Toxic Releases to Air Supplemental Summary Index	77	68
Traffic Proximity and Volume Supplemental Summary Index	77	76
Lead Paint Supplemental Summary Index	67	68
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	62	51
Hazardous Waste Proximity Supplemental Summary Index	78	76
Underground Storage Tanks Supplemental Summary Index	74	70
Wastewater Discharge Supplemental Summary Index	68	50
Drinking Water Non-Compliance Supplemental Summary Index	78	81

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	9%	0.5	0.7
% Black or African American (non-Hispanic, single race)	4%	0.4	0.7
% Asian (non-Hispanic, single race)	17%	3.3	2.5
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	4%	1.3	1.2
% White (non-Hispanic, single race)	65%	1.1	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	33%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	6%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	40%	NA	NA
% Females	60%	NA	NA
HEALTH			
% with Disabilities	6%	0.5	0.5
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.50	NA	NA
AGE			
% under Age 5	0%	0.1	0.1
% under age 18	2%	NA	NA
% over Age 64	3%	0.1	0.1
COMMUNITY			
Occupied Housing Units	383	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	37,183	NA	NA
% Owner Occupied households	25%	NA	NA
POVERTY			
% of Households below Poverty Level	25%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	80%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	7%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,388	NA	NA
Count of Population Age 25 up	419	NA	NA
Count of Households	383	NA	NA
Universe for % unemployed (denominator, count)	1,375	NA	NA
Count of Housing Units Built Pre 1960	377	NA	NA
Built housing units count (denominator for % pre 1960)	501	NA	NA
Count of Population for whom Poverty Status is Determined	709	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250102043)
Area in Square Miles: 0.06
Population: 920

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	54	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	39	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	19.2	8.8	98	7.8	99	2.4	2.2
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,300	2,800	85	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	20,000,000	6,100,000	97	1,700,000	99	12.0	3.3
Lead Paint Indicator (% pre-1960s housing)	53.39%	0.51	50	0.3	76	1.8	1.1
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.43	0.37	70	0.57	60	0.8	1.1
Hazardous Waste Proximity (facility count/km distance)	57.9	11.2	98	3.5	99	16.0	5.2
Underground Storage Tanks (UST) indicator	30.1	3.3	99	3.6	98	8.3	9.0
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	140	760	78	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.87	1.19	84	1.34	74	1.4	1.8
Supplemental Demographic Index USA	1.60	1.52	69	1.64	53	1.0	1.1
% Low Income	47%	22%	88	30%	78	1.6	2.1
% in limited English-speaking Households	8%	6%	74	5%	81	1.6	1.3
% Unemployed	9%	5%	79	6%	78	1.6	1.6
% with Less Than High School Education	11%	9%	70	11%	61	1.0	1.2
% under Age 5	2%	5%	28	5%	25	0.4	0.5
% over Age 64	5%	18%	8	18%	9	0.3	0.3
% People of Color	48%	31%	77	40%	64	1.2	1.5

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

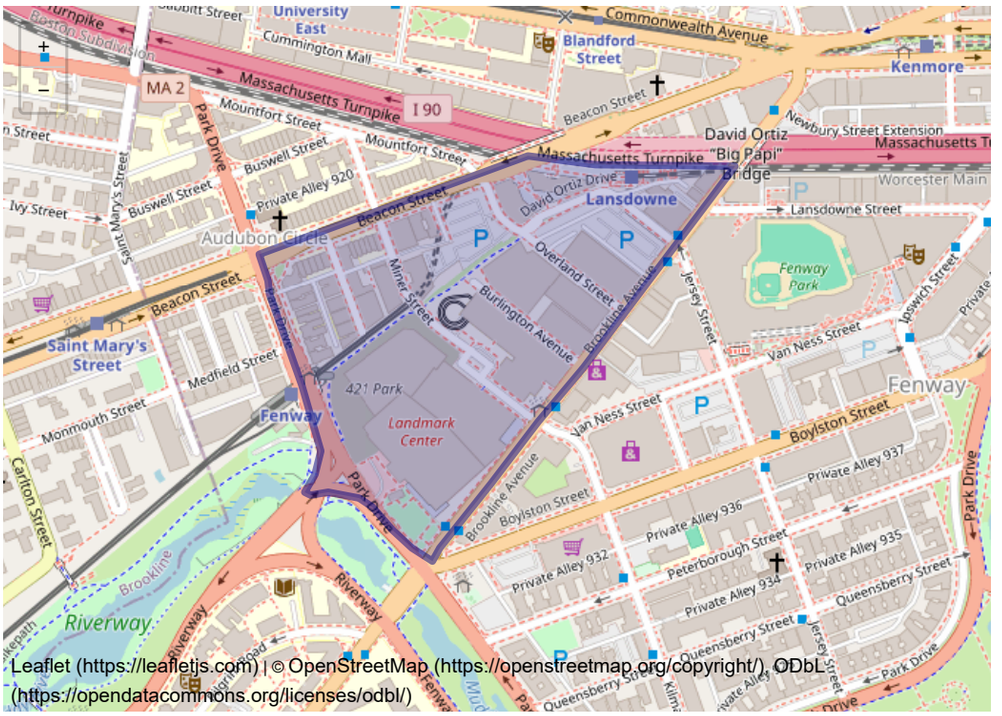
The indexes for a selected area are compared to those for all other locations in the state or nation.

	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	85	27
Ozone Summary Index	75	52
Nitrogen Dioxide (NO2) Summary Index	91	89
Diesel Particulate Matter Summary Index	92	87
Toxic Releases to Air Summary Index	93	89
Traffic Proximity and Volume Summary Index	93	90
Lead Paint Summary Index	79	85
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	86	76
Hazardous Waste Proximity Summary Index	93	90
Underground Storage Tanks Summary Index	93	90
Wastewater Discharge Summary Index	90	77
Drinking Water Non-Compliance Summary Index	92	93
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	70	13
Ozone Supplemental Summary Index	49	30
Nitrogen Dioxide (NO2) Supplemental Summary Index	86	86
Diesel Particulate Matter Supplemental Summary Index	86	84
Toxic Releases to Air Supplemental Summary Index	87	81
Traffic Proximity and Volume Supplemental Summary Index	87	87
Lead Paint Supplemental Summary Index	62	75
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	76	65
Hazardous Waste Proximity Supplemental Summary Index	88	87
Underground Storage Tanks Supplemental Summary Index	86	85
Wastewater Discharge Supplemental Summary Index	82	64
Drinking Water Non-Compliance Supplemental Summary Index	88	88

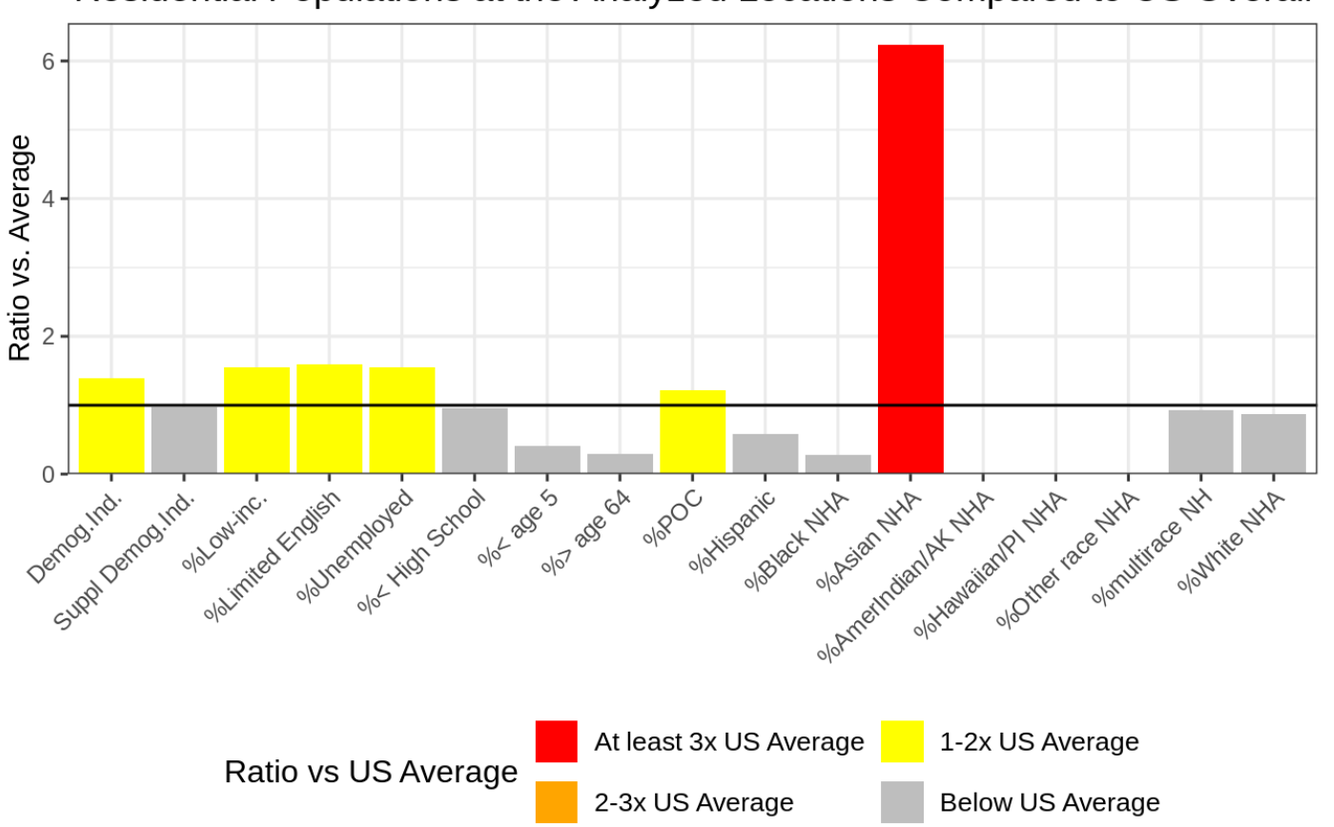
ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	10%	0.6	0.8
% Black or African American (non-Hispanic, single race)	3%	0.3	0.5
% Asian (non-Hispanic, single race)	31%	6.2	4.6
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	3%	0.9	0.8
% White (non-Hispanic, single race)	52%	0.9	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	33%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	6%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	41%	NA	NA
% Females	59%	NA	NA
HEALTH			
% with Disabilities	6%	0.5	0.5
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.50	NA	NA
AGE			
% under Age 5	2%	0.4	0.5
% under age 18	2%	NA	NA
% over Age 64	5%	0.3	0.3
COMMUNITY			
Occupied Housing Units	546	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	39,679	NA	NA
% Owner Occupied households	10%	NA	NA
POVERTY			
% of Households below Poverty Level	37%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	5	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	6	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	1	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	97%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	920	NA	NA
Count of Population Age 25 up	592	NA	NA
Count of Households	546	NA	NA
Universe for % unemployed (denominator, count)	900	NA	NA
Count of Housing Units Built Pre 1960	307	NA	NA
Built housing units count (denominator for % pre 1960)	575	NA	NA
Count of Population for whom Poverty Status is Determined	884	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)



Residential Populations at the Analyzed Locations Compared to US Overall



NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250102051)
Area in Square Miles: 0.02
Population: 680

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.60	6.52	55	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	40	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.6	8.8	98	7.8	99	2.5	2.2
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,300	2,800	86	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	19,000,000	6,100,000	96	1,700,000	99	11.0	3.1
Lead Paint Indicator (% pre-1960s housing)	64.32%	0.51	64	0.3	83	2.1	1.3
Superfund Proximity (site count/km distance)	0.10	0.34	43	0.39	58	0.2	0.3
RMP Proximity (facility count/km distance)	0.49	0.37	73	0.57	63	0.9	1.3
Hazardous Waste Proximity (facility count/km distance)	62.1	11.2	99	3.5	99	18.0	5.5
Underground Storage Tanks (UST) indicator	37.2	3.3	99	3.6	99	10.0	11.0
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	76	700,000	57	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.08	1.19	88	1.34	79	1.6	2.0
Supplemental Demographic Index USA	1.75	1.52	77	1.64	62	1.1	1.3
% Low Income	53%	22%	91	30%	83	1.7	2.4
% in limited English-speaking Households	23%	6%	93	5%	94	4.7	3.7
% Unemployed	6%	5%	66	6%	65	1.0	1.1
% with Less Than High School Education	6%	9%	52	11%	40	0.5	0.6
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	27%	18%	83	18%	82	1.5	1.5
% People of Color	53%	31%	80	40%	68	1.3	1.7

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

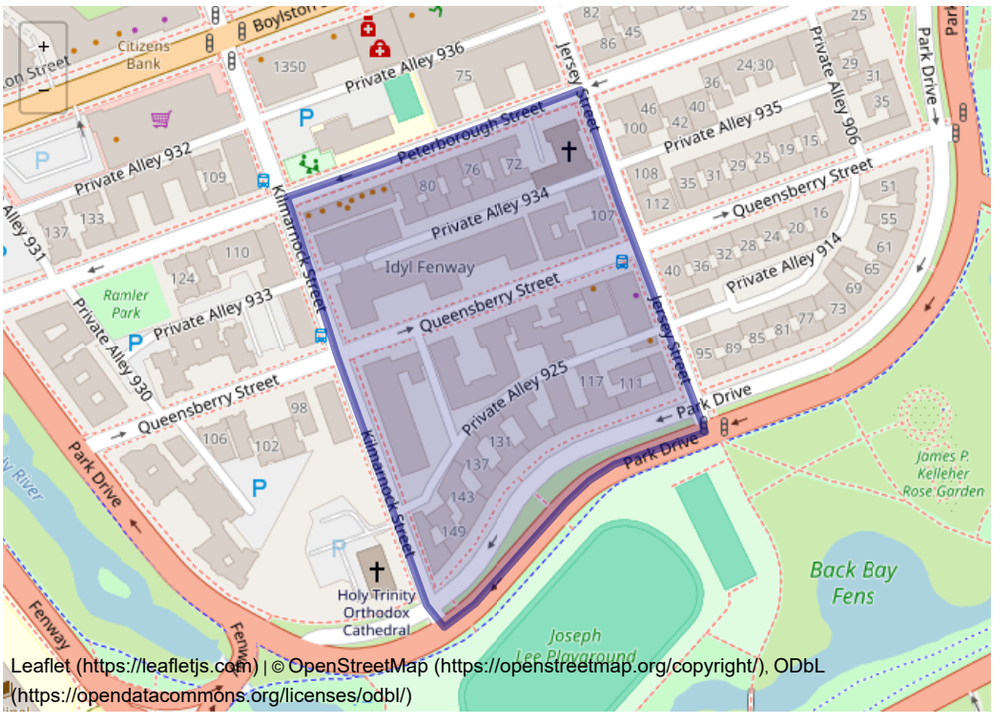
The indexes for a selected area are compared to those for all other locations in the state or nation.

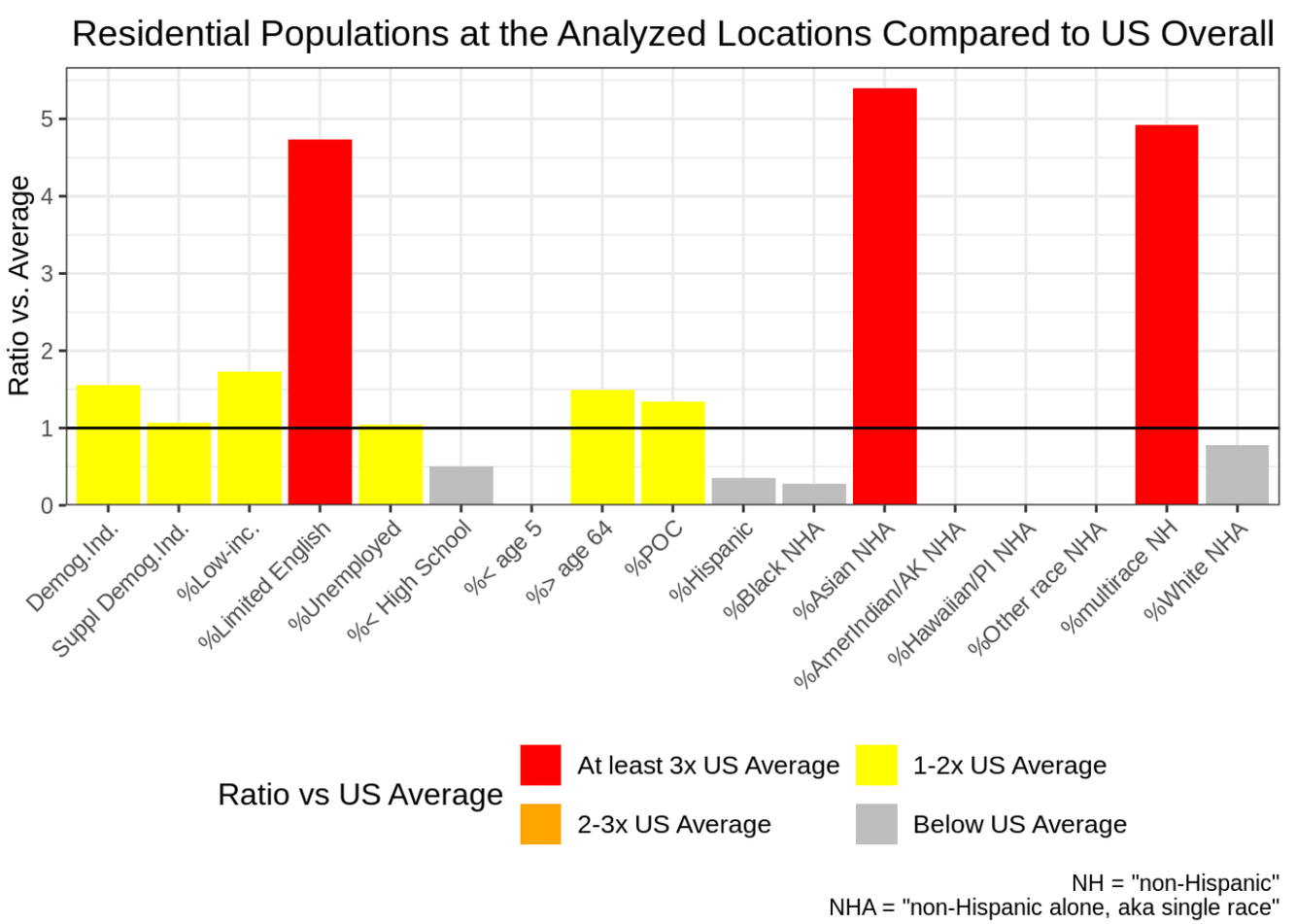
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	87	30
Ozone Summary Index	79	57
Nitrogen Dioxide (NO2) Summary Index	94	92
Diesel Particulate Matter Summary Index	94	90
Toxic Releases to Air Summary Index	94	91
Traffic Proximity and Volume Summary Index	95	93
Lead Paint Summary Index	88	90
Superfund Proximity Summary Index	85	82
RMP Proximity Summary Index	89	81
Hazardous Waste Proximity Summary Index	96	93
Underground Storage Tanks Summary Index	95	93
Wastewater Discharge Summary Index	92	80
Drinking Water Non-Compliance Summary Index	93	95
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	77	15
Ozone Supplemental Summary Index	56	35
Nitrogen Dioxide (NO2) Supplemental Summary Index	90	89
Diesel Particulate Matter Supplemental Summary Index	90	87
Toxic Releases to Air Supplemental Summary Index	91	85
Traffic Proximity and Volume Supplemental Summary Index	91	90
Lead Paint Supplemental Summary Index	78	82
Superfund Proximity Supplemental Summary Index	67	74
RMP Proximity Supplemental Summary Index	82	71
Hazardous Waste Proximity Supplemental Summary Index	92	90
Underground Storage Tanks Supplemental Summary Index	90	89
Wastewater Discharge Supplemental Summary Index	86	68
Drinking Water Non-Compliance Supplemental Summary Index	91	90

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	6%	0.4	0.5
% Black or African American (non-Hispanic, single race)	3%	0.3	0.5
% Asian (non-Hispanic, single race)	27%	5.4	4
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	17%	4.9	4.3
% White (non-Hispanic, single race)	47%	0.8	0.7
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	39%	NA	NA
% speaking Other Indo-European at home	6%	NA	NA
% speaking Asian and Pacific Island languages at home	20%	NA	NA
% speaking Other and Unspecified languages at home	6%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	7%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	9%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	61%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	31%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	63%	NA	NA
% Females	37%	NA	NA
HEALTH			
% with Disabilities	4%	0.3	0.4
% with Low Life Expectancy	19%	1	1.1
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.90	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	27%	1.5	1.5
COMMUNITY			
Occupied Housing Units	514	NA	NA
Life Expectancy in Years	79	NA	NA
Per Capita Income	53,223	NA	NA
% Owner Occupied households	11%	NA	NA
POVERTY			
% of Households below Poverty Level	47%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	100%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	10%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	680	NA	NA
Count of Population Age 25 up	644	NA	NA
Count of Households	514	NA	NA
Universe for % unemployed (denominator, count)	680	NA	NA
Count of Housing Units Built Pre 1960	357	NA	NA
Built housing units count (denominator for % pre 1960)	555	NA	NA
Count of Population for whom Poverty Status is Determined	642	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250102052)
Area in Square Miles: 0.02
Population: 999

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.60	6.52	55	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	40	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.6	8.8	98	7.8	99	2.5	2.2
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,300	2,800	86	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	18,000,000	6,100,000	96	1,700,000	99	11.0	3.0
Lead Paint Indicator (% pre-1960s housing)	72.14%	0.51	73	0.3	87	2.4	1.4
Superfund Proximity (site count/km distance)	0.10	0.34	43	0.39	59	0.3	0.3
RMP Proximity (facility count/km distance)	0.47	0.37	72	0.57	62	0.8	1.2
Hazardous Waste Proximity (facility count/km distance)	64.4	11.2	99	3.5	99	18.0	5.7
Underground Storage Tanks (UST) indicator	14.5	3.3	97	3.6	93	4.0	4.4
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	120	760	76	700,000	57	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.13	1.19	66	1.34	48	0.8	1.1
Supplemental Demographic Index USA	1.02	1.52	34	1.64	17	0.6	0.7
% Low Income	22%	22%	61	30%	41	0.7	1.0
% in limited English-speaking Households	4%	6%	62	5%	73	0.9	0.7
% Unemployed	4%	5%	49	6%	50	0.7	0.7
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	6%	18%	9	18%	11	0.3	0.3
% People of Color	39%	31%	69	40%	57	1.0	1.3

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

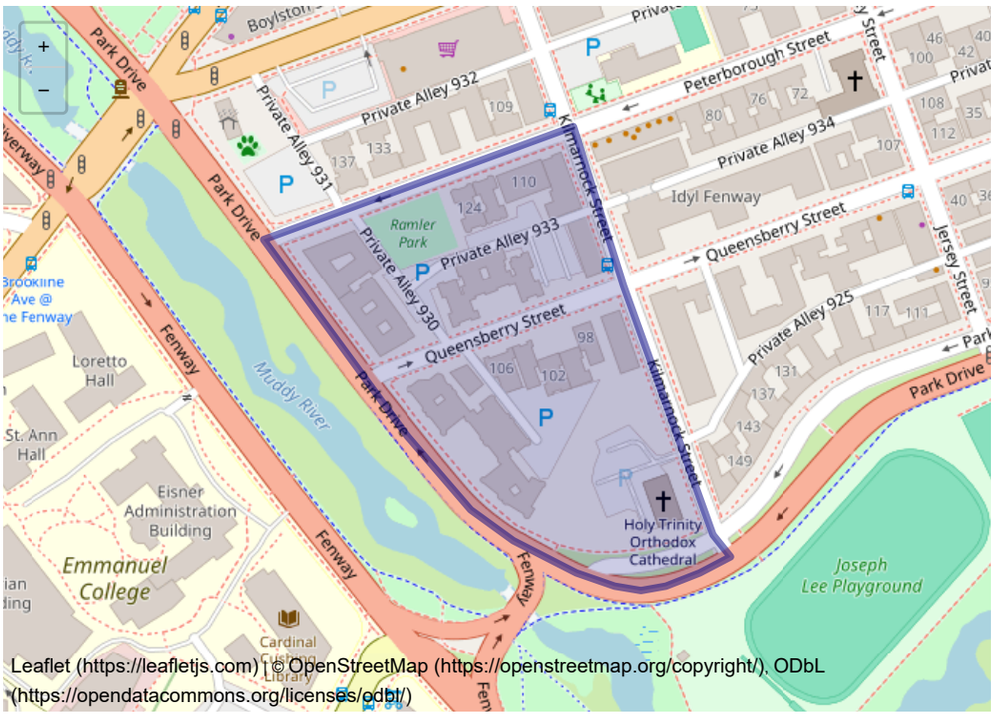
The indexes for a selected area are compared to those for all other locations in the state or nation.

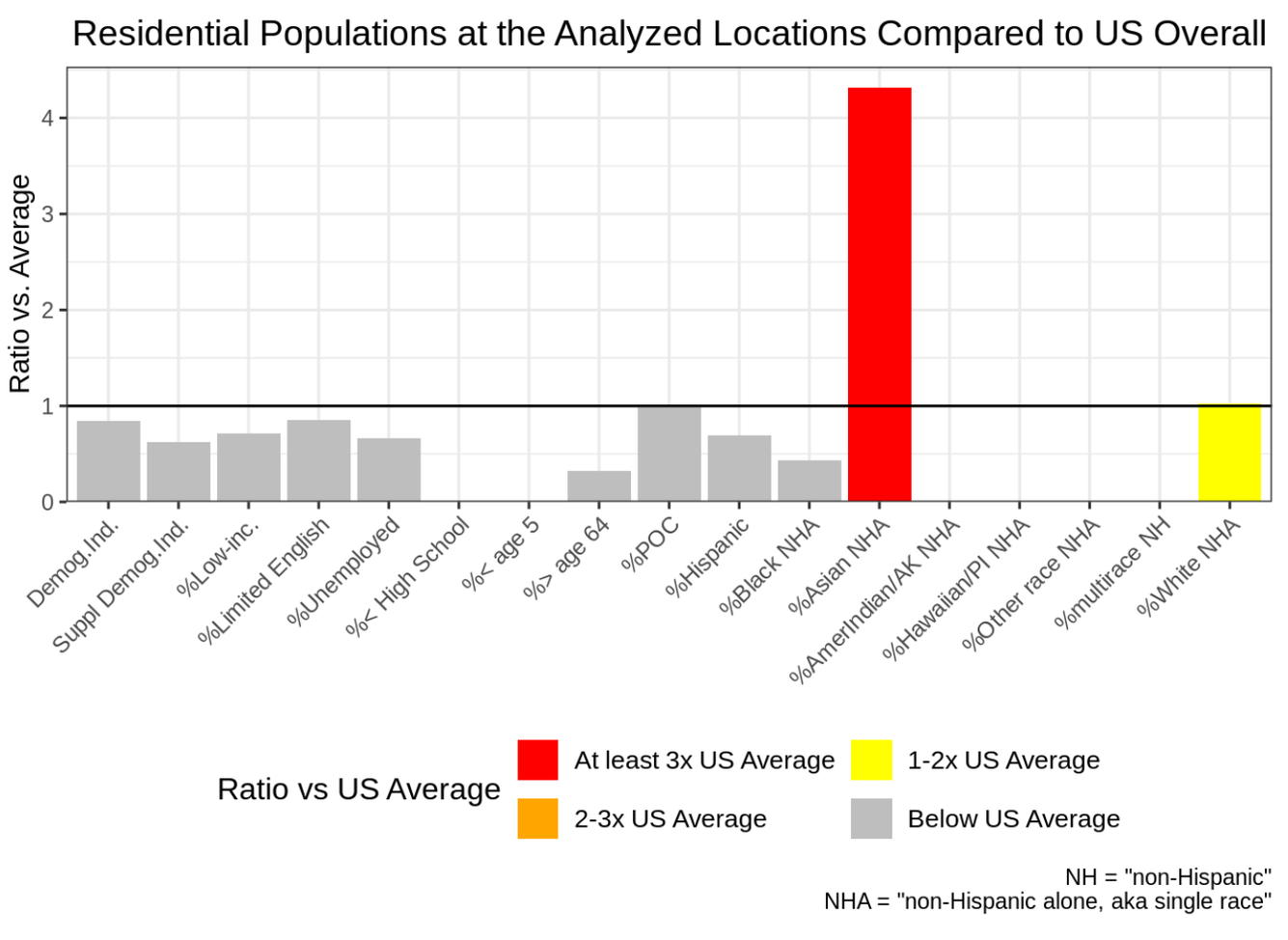
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	71	18
Ozone Summary Index	61	37
Nitrogen Dioxide (NO2) Summary Index	80	75
Diesel Particulate Matter Summary Index	81	72
Toxic Releases to Air Summary Index	83	74
Traffic Proximity and Volume Summary Index	81	75
Lead Paint Summary Index	76	74
Superfund Proximity Summary Index	68	70
RMP Proximity Summary Index	75	63
Hazardous Waste Proximity Summary Index	82	76
Underground Storage Tanks Summary Index	80	75
Wastewater Discharge Summary Index	77	60
Drinking Water Non-Compliance Summary Index	85	87
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	52	8
Ozone Supplemental Summary Index	38	19
Nitrogen Dioxide (NO2) Supplemental Summary Index	72	68
Diesel Particulate Matter Supplemental Summary Index	72	65
Toxic Releases to Air Supplemental Summary Index	73	60
Traffic Proximity and Volume Supplemental Summary Index	73	70
Lead Paint Supplemental Summary Index	60	59
Superfund Proximity Supplemental Summary Index	48	60
RMP Proximity Supplemental Summary Index	60	47
Hazardous Waste Proximity Supplemental Summary Index	75	69
Underground Storage Tanks Supplemental Summary Index	71	64
Wastewater Discharge Supplemental Summary Index	63	42
Drinking Water Non-Compliance Supplemental Summary Index	75	78

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	12%	0.7	1
% Black or African American (non-Hispanic, single race)	5%	0.4	0.8
% Asian (non-Hispanic, single race)	22%	4.3	3.2
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	0%	0	0
% White (non-Hispanic, single race)	61%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	39%	NA	NA
% speaking Other Indo-European at home	6%	NA	NA
% speaking Asian and Pacific Island languages at home	20%	NA	NA
% speaking Other and Unspecified languages at home	6%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	7%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	100%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	0%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	43%	NA	NA
% Females	57%	NA	NA
HEALTH			
% with Disabilities	4%	0.3	0.4
% with Low Life Expectancy	19%	1	1.1
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.90	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	6%	0.3	0.3
COMMUNITY			
Occupied Housing Units	707	NA	NA
Life Expectancy in Years	79	NA	NA
Per Capita Income	87,590	NA	NA
% Owner Occupied households	3%	NA	NA
POVERTY			
% of Households below Poverty Level	10%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	100%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	3%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	999	NA	NA
Count of Population Age 25 up	856	NA	NA
Count of Households	707	NA	NA
Universe for % unemployed (denominator, count)	999	NA	NA
Count of Housing Units Built Pre 1960	510	NA	NA
Built housing units count (denominator for % pre 1960)	707	NA	NA
Count of Population for whom Poverty Status is Determined	919	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250102053)
Area in Square Miles: 0.01
Population: 1,247

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.60	6.52	55	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	40	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.2	8.8	98	7.8	99	2.4	2.2
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,300	2,800	86	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	19,000,000	6,100,000	97	1,700,000	99	11.0	3.2
Lead Paint Indicator (% pre-1960s housing)	20.95%	0.51	17	0.3	49	0.7	0.4
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.45	0.37	72	0.57	61	0.8	1.2
Hazardous Waste Proximity (facility count/km distance)	65.5	11.2	99	3.5	99	18.0	5.9
Underground Storage Tanks (UST) indicator	20.9	3.3	99	3.6	96	5.7	6.3
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	76	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.54	1.19	78	1.34	64	1.1	1.5
Supplemental Demographic Index USA	1.27	1.52	54	1.64	33	0.8	0.9
% Low Income	37%	22%	80	30%	66	1.2	1.7
% in limited English-speaking Households	10%	6%	79	5%	85	2.2	1.7
% Unemployed	4%	5%	54	6%	54	0.7	0.8
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	3%	5%	40	5%	35	0.6	0.7
% over Age 64	0%	18%	0	18%	0	0.0	0.0
% People of Color	43%	31%	72	40%	60	1.1	1.4

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

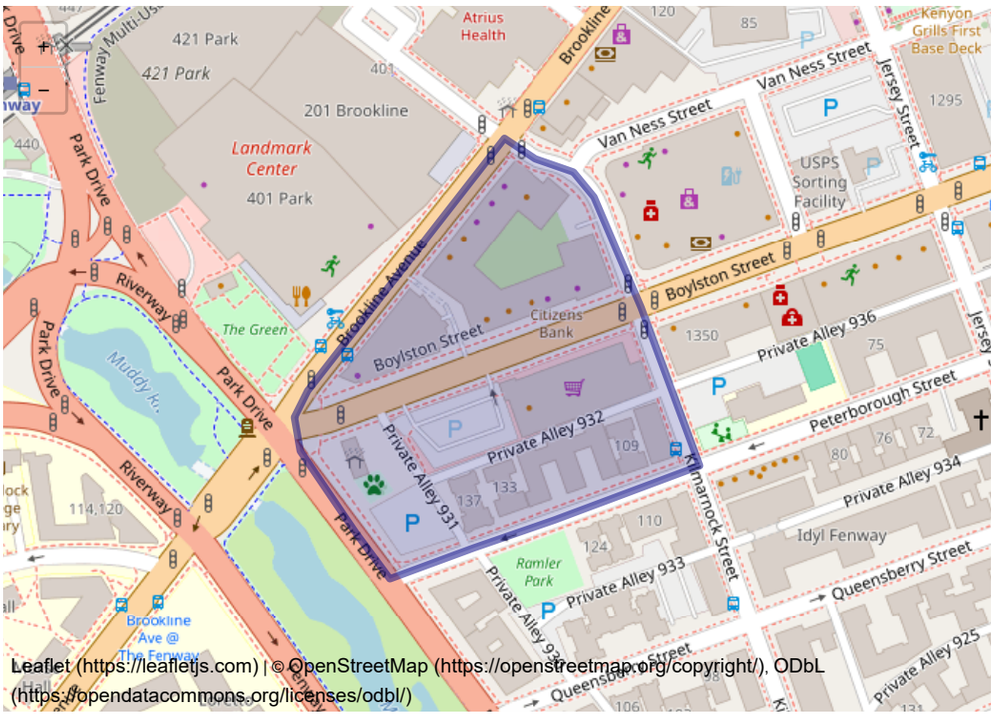
The indexes for a selected area are compared to those for all other locations in the state or nation.

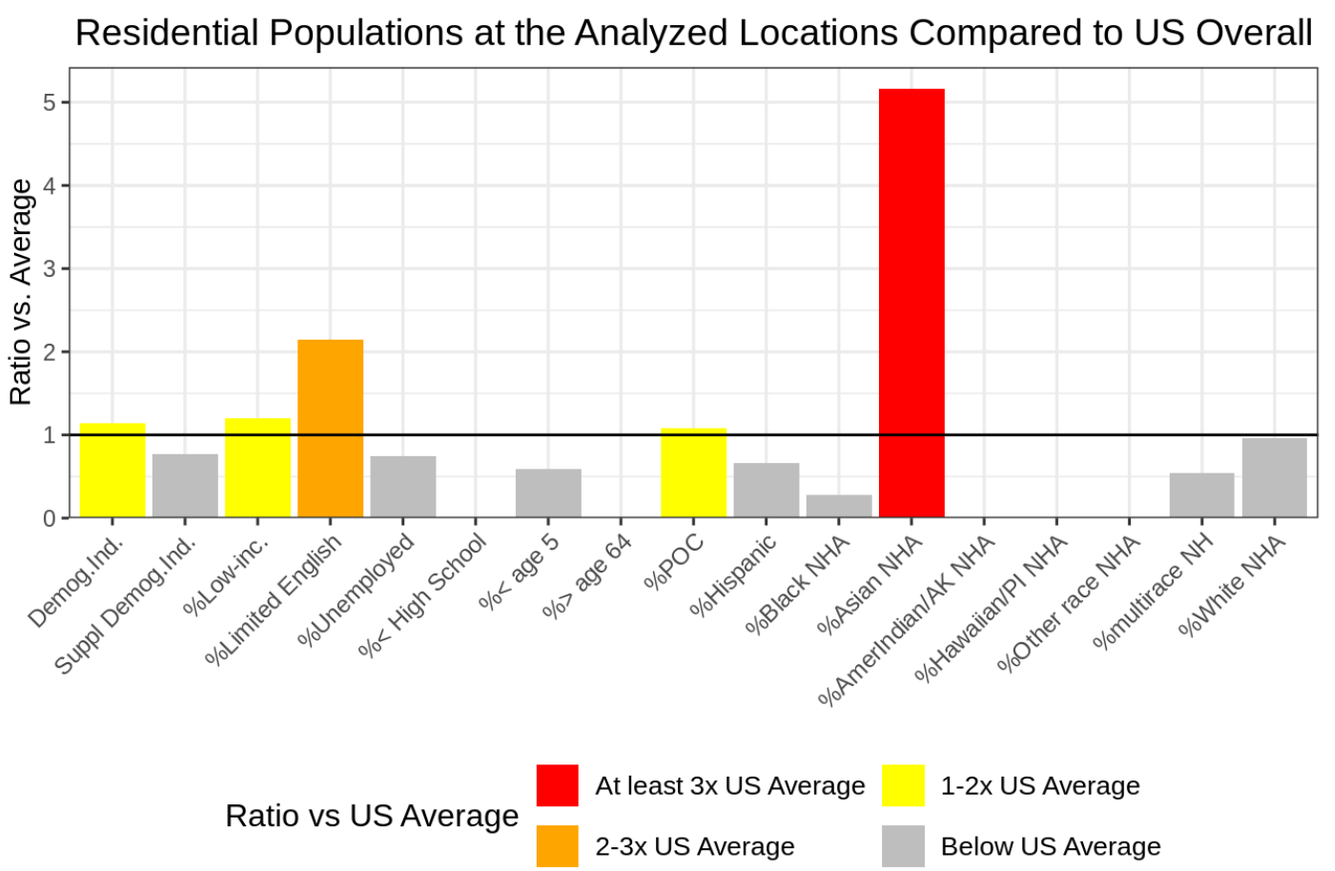
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	81	23
Ozone Summary Index	70	47
Nitrogen Dioxide (NO2) Summary Index	87	84
Diesel Particulate Matter Summary Index	88	81
Toxic Releases to Air Summary Index	90	84
Traffic Proximity and Volume Summary Index	89	84
Lead Paint Summary Index	42	66
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	82	71
Hazardous Waste Proximity Summary Index	89	85
Underground Storage Tanks Summary Index	89	84
Wastewater Discharge Summary Index	85	71
Drinking Water Non-Compliance Summary Index	89	91
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	62	10
Ozone Supplemental Summary Index	44	25
Nitrogen Dioxide (NO2) Supplemental Summary Index	80	78
Diesel Particulate Matter Supplemental Summary Index	81	75
Toxic Releases to Air Supplemental Summary Index	82	71
Traffic Proximity and Volume Supplemental Summary Index	82	79
Lead Paint Supplemental Summary Index	21	43
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	70	56
Hazardous Waste Proximity Supplemental Summary Index	83	79
Underground Storage Tanks Supplemental Summary Index	81	75
Wastewater Discharge Supplemental Summary Index	74	53
Drinking Water Non-Compliance Supplemental Summary Index	83	83

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	12%	0.7	0.9
% Black or African American (non-Hispanic, single race)	3%	0.3	0.5
% Asian (non-Hispanic, single race)	26%	5.2	3.8
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	2%	0.5	0.5
% White (non-Hispanic, single race)	57%	1	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	39%	NA	NA
% speaking Other Indo-European at home	6%	NA	NA
% speaking Asian and Pacific Island languages at home	20%	NA	NA
% speaking Other and Unspecified languages at home	6%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	7%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	43%	NA	NA
% Females	57%	NA	NA
HEALTH			
% with Disabilities	4%	0.3	0.4
% with Low Life Expectancy	19%	1	1.1
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.90	NA	NA
AGE			
% under Age 5	3%	0.6	0.7
% under age 18	6%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	773	NA	NA
Life Expectancy in Years	79	NA	NA
Per Capita Income	53,634	NA	NA
% Owner Occupied households	5%	NA	NA
POVERTY			
% of Households below Poverty Level	30%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	1	NA	NA
Number of Water Discharge Facilities	2	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	100%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	13%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,247	NA	NA
Count of Population Age 25 up	917	NA	NA
Count of Households	773	NA	NA
Universe for % unemployed (denominator, count)	1,169	NA	NA
Count of Housing Units Built Pre 1960	177	NA	NA
Built housing units count (denominator for % pre 1960)	845	NA	NA
Count of Population for whom Poverty Status is Determined	1,247	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
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Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250102054)
Area in Square Miles: 0.02
Population: 1,110

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.60	6.52	55	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	40	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.2	8.8	98	7.8	99	2.4	2.2
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,300	2,800	85	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	20,000,000	6,100,000	97	1,700,000	99	12.0	3.2
Lead Paint Indicator (% pre-1960s housing)	8.31%	0.51	6	0.3	33	0.3	0.2
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.47	0.37	72	0.57	62	0.8	1.3
Hazardous Waste Proximity (facility count/km distance)	67.7	11.2	99	3.5	99	19.0	6.0
Underground Storage Tanks (UST) indicator	36.7	3.3	99	3.6	99	10.0	11.0
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	77	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.12	1.19	89	1.34	80	1.6	2.1
Supplemental Demographic Index USA	1.50	1.52	67	1.64	47	0.9	1.1
% Low Income	44%	22%	86	30%	75	1.4	2.0
% in limited English-speaking Households	19%	6%	90	5%	92	3.9	3.1
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	4%	5%	51	5%	45	0.8	0.9
% over Age 64	1%	18%	2	18%	2	0.1	0.1
% People of Color	69%	31%	88	40%	77	1.7	2.2

EJ Indexes

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For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

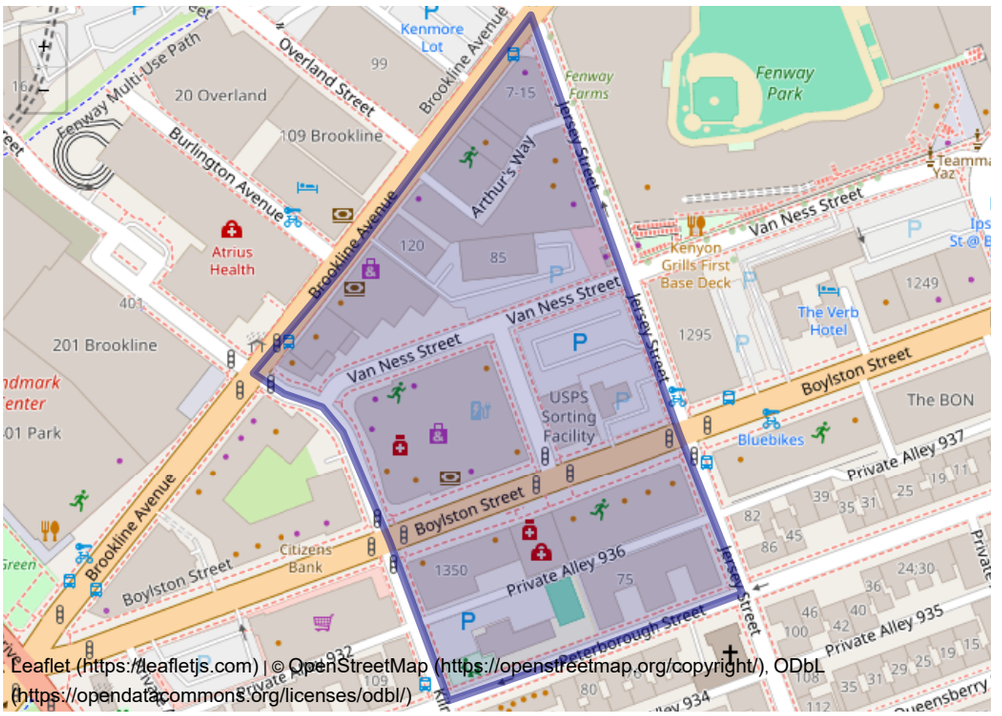
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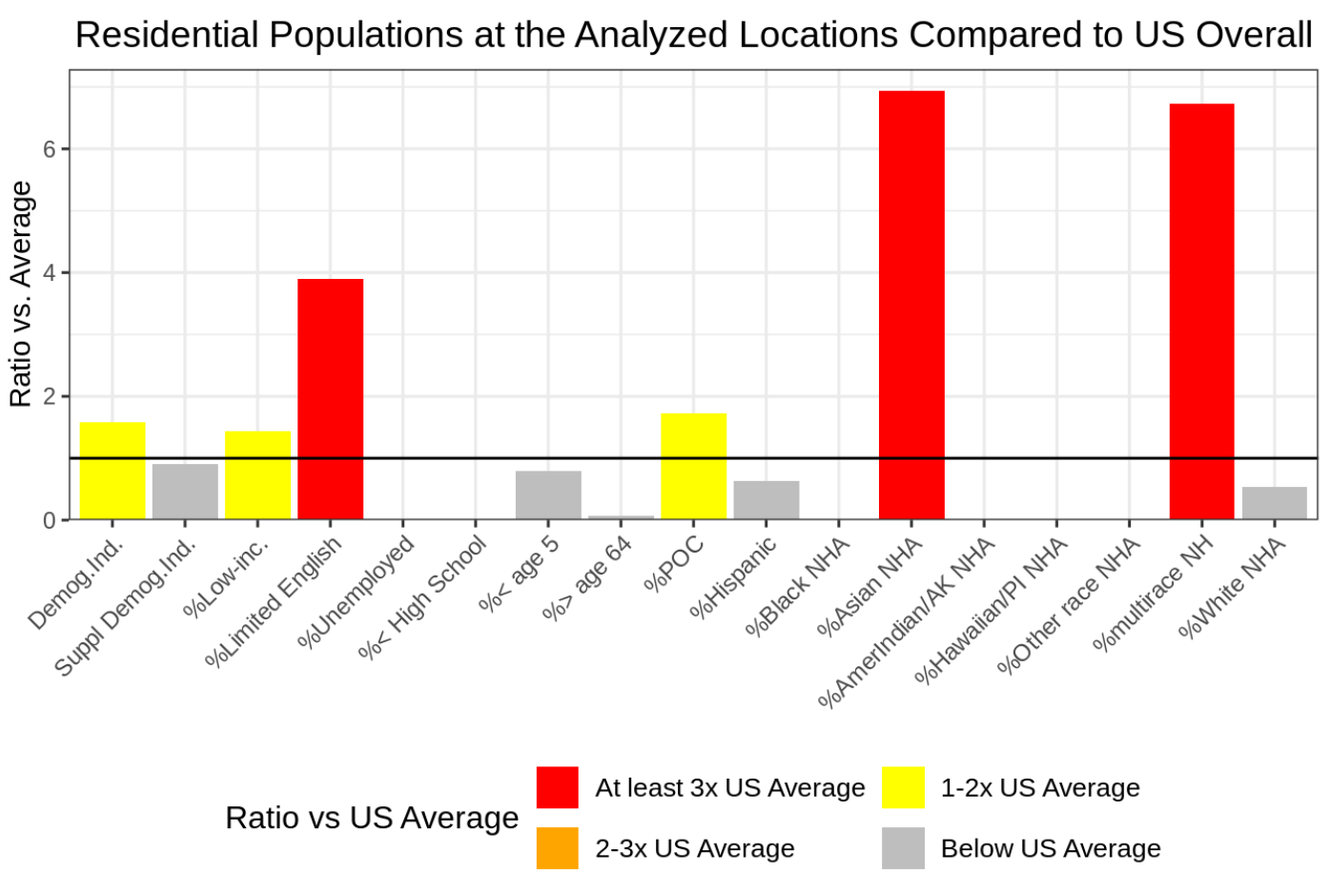
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	88	30
Ozone Summary Index	79	57
Nitrogen Dioxide (NO2) Summary Index	94	92
Diesel Particulate Matter Summary Index	94	90
Toxic Releases to Air Summary Index	95	91
Traffic Proximity and Volume Summary Index	96	93
Lead Paint Summary Index	25	63
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	89	81
Hazardous Waste Proximity Summary Index	96	93
Underground Storage Tanks Summary Index	95	93
Wastewater Discharge Summary Index	93	81
Drinking Water Non-Compliance Summary Index	94	95
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	70	12
Ozone Supplemental Summary Index	49	29
Nitrogen Dioxide (NO2) Supplemental Summary Index	85	84
Diesel Particulate Matter Supplemental Summary Index	86	81
Toxic Releases to Air Supplemental Summary Index	87	79
Traffic Proximity and Volume Supplemental Summary Index	87	85
Lead Paint Supplemental Summary Index	9	35
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	76	64
Hazardous Waste Proximity Supplemental Summary Index	88	85
Underground Storage Tanks Supplemental Summary Index	86	83
Wastewater Discharge Supplemental Summary Index	81	61
Drinking Water Non-Compliance Supplemental Summary Index	87	86

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	11%	0.6	0.9
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	35%	6.9	5.1
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	23%	6.7	5.9
% White (non-Hispanic, single race)	31%	0.5	0.5
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	39%	NA	NA
% speaking Other Indo-European at home	6%	NA	NA
% speaking Asian and Pacific Island languages at home	20%	NA	NA
% speaking Other and Unspecified languages at home	6%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	7%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	11%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	89%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	45%	NA	NA
% Females	55%	NA	NA
HEALTH			
% with Disabilities	4%	0.3	0.4
% with Low Life Expectancy	19%	1	1.1
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.90	NA	NA
AGE			
% under Age 5	4%	0.8	0.9
% under age 18	15%	NA	NA
% over Age 64	1%	0.1	0.1
COMMUNITY			
Occupied Housing Units	608	NA	NA
Life Expectancy in Years	79	NA	NA
Per Capita Income	55,493	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	29%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	1	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	1	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	83%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,110	NA	NA
Count of Population Age 25 up	752	NA	NA
Count of Households	608	NA	NA
Universe for % unemployed (denominator, count)	947	NA	NA
Count of Housing Units Built Pre 1960	52	NA	NA
Built housing units count (denominator for % pre 1960)	626	NA	NA
Count of Population for whom Poverty Status is Determined	1,110	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250102061)
Area in Square Miles: 0.04
Population: 1,552

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	54	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	41	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.5	8.8	98	7.8	99	2.5	2.2
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,200	2,800	84	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	21,000,000	6,100,000	97	1,700,000	99	12.0	3.4
Lead Paint Indicator (% pre-1960s housing)	48.17%	0.51	45	0.3	73	1.6	0.9
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.49	0.37	73	0.57	63	0.9	1.3
Hazardous Waste Proximity (facility count/km distance)	66.6	11.2	99	3.5	99	19.0	6.0
Underground Storage Tanks (UST) indicator	28.7	3.3	99	3.6	98	7.9	8.6
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	77	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.50	1.19	77	1.34	63	1.1	1.5
Supplemental Demographic Index USA	0.96	1.52	30	1.64	14	0.6	0.7
% Low Income	30%	22%	73	30%	55	1.0	1.3
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	5%	5%	58	6%	58	0.8	0.9
% with Less Than High School Education	2%	9%	27	11%	19	0.2	0.2
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	2%	18%	3	18%	3	0.1	0.1
% People of Color	51%	31%	79	40%	66	1.3	1.6

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

The indexes for a selected area are compared to those for all other locations in the state or nation.

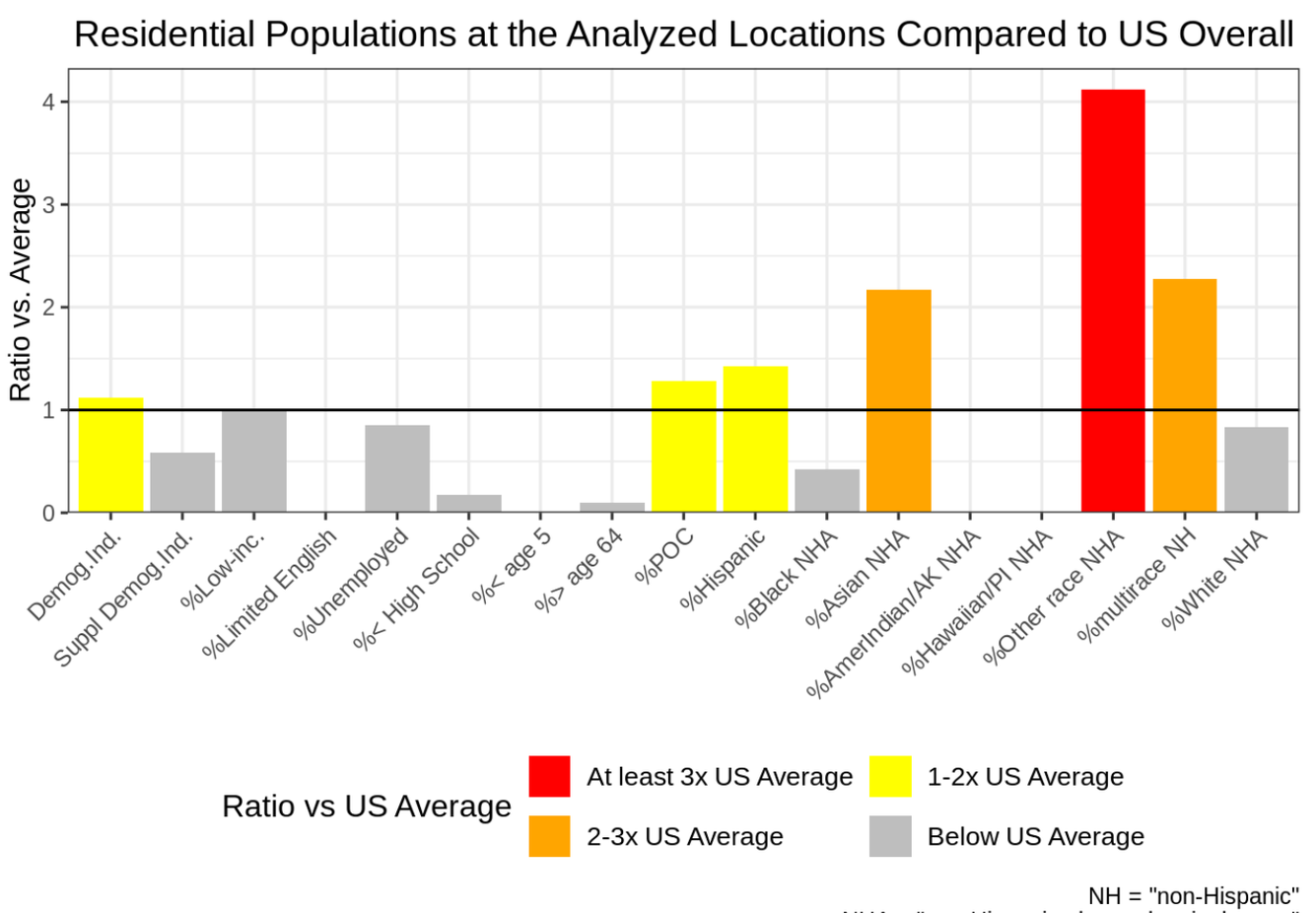
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	80	23
Ozone Summary Index	71	46
Nitrogen Dioxide (NO2) Summary Index	87	83
Diesel Particulate Matter Summary Index	88	81
Toxic Releases to Air Summary Index	89	83
Traffic Proximity and Volume Summary Index	88	84
Lead Paint Summary Index	70	78
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	82	72
Hazardous Waste Proximity Summary Index	89	84
Underground Storage Tanks Summary Index	89	84
Wastewater Discharge Summary Index	85	70
Drinking Water Non-Compliance Summary Index	89	90
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	48	8
Ozone Supplemental Summary Index	37	18
Nitrogen Dioxide (NO2) Supplemental Summary Index	70	66
Diesel Particulate Matter Supplemental Summary Index	71	62
Toxic Releases to Air Supplemental Summary Index	69	58
Traffic Proximity and Volume Supplemental Summary Index	71	67
Lead Paint Supplemental Summary Index	39	48
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	59	46
Hazardous Waste Proximity Supplemental Summary Index	73	67
Underground Storage Tanks Supplemental Summary Index	70	64
Wastewater Discharge Supplemental Summary Index	62	41
Drinking Water Non-Compliance Supplemental Summary Index	74	77

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	25%	1.4	2
% Black or African American (non-Hispanic, single race)	5%	0.4	0.8
% Asian (non-Hispanic, single race)	11%	2.2	1.6
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	2%	4.1	1.7
% Two or more races (non-Hispanic)	8%	2.3	2
% White (non-Hispanic, single race)	49%	0.8	0.7
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	45%	NA	NA
% speaking Other Indo-European at home	16%	NA	NA
% speaking Asian and Pacific Island languages at home	12%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	15%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	55%	NA	NA
% Females	45%	NA	NA
HEALTH			
% with Disabilities	2%	0.1	0.1
% with Low Life Expectancy	19%	1	1.1
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.90	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	4%	NA	NA
% over Age 64	2%	0.1	0.1
COMMUNITY			
Occupied Housing Units	818	NA	NA
Life Expectancy in Years	79	NA	NA
Per Capita Income	73,267	NA	NA
% Owner Occupied households	5%	NA	NA
POVERTY			
% of Households below Poverty Level	6%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	1	NA	NA
Number of Air Pollution Facilities	2	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	2	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	100%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	3%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,552	NA	NA
Count of Population Age 25 up	1,310	NA	NA
Count of Households	818	NA	NA
Universe for % unemployed (denominator, count)	1,496	NA	NA
Count of Housing Units Built Pre 1960	394	NA	NA
Built housing units count (denominator for % pre 1960)	818	NA	NA
Count of Population for whom Poverty Status is Determined	1,552	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250102062)
Area in Square Miles: 0.03
Population: 666

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	54	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	41	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.5	8.8	98	7.8	99	2.5	2.2
Diesel Particulate Matter (ug/m3)	0.373	0.176	96	0.191	90	2.0	2.1
Toxic Releases to Air	4,100	2,800	83	4,600	83	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	24,000,000	6,100,000	98	1,700,000	99	14.0	4.0
Lead Paint Indicator (% pre-1960s housing)	65.50%	0.51	65	0.3	83	2.2	1.3
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.51	0.37	74	0.57	64	0.9	1.4
Hazardous Waste Proximity (facility count/km distance)	58.7	11.2	98	3.5	99	17.0	5.2
Underground Storage Tanks (UST) indicator	22.6	3.3	99	3.6	96	6.2	6.8
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	140	760	79	700,000	59	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.60	1.19	94	1.34	89	1.9	2.5
Supplemental Demographic Index USA	1.49	1.52	68	1.64	46	0.9	1.1
% Low Income	74%	22%	97	30%	95	2.4	3.3
% in limited English-speaking Households	8%	6%	74	5%	82	1.6	1.3
% Unemployed	0%	5%	20	6%	23	0.1	0.1
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	0%	18%	0	18%	0	0.0	0.0
% People of Color	55%	31%	81	40%	69	1.4	1.8

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

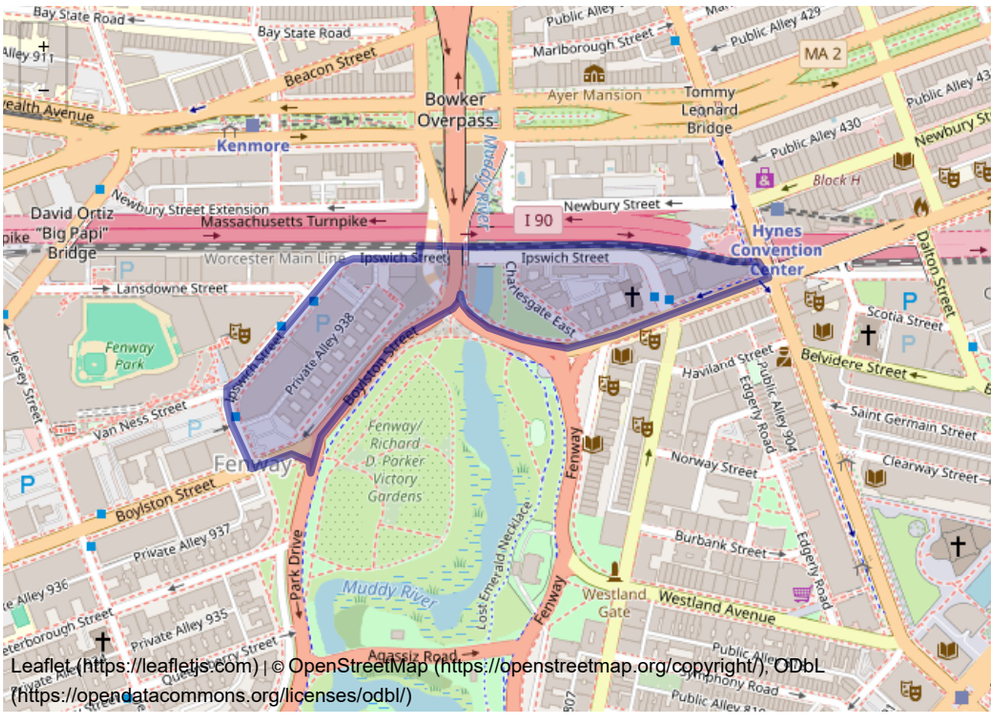
The indexes for a selected area are compared to those for all other locations in the state or nation.

	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	91	35
Ozone Summary Index	85	64
Nitrogen Dioxide (NO2) Summary Index	97	97
Diesel Particulate Matter Summary Index	97	95
Toxic Releases to Air Summary Index	97	95
Traffic Proximity and Volume Summary Index	98	97
Lead Paint Summary Index	93	95
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	93	87
Hazardous Waste Proximity Summary Index	98	97
Underground Storage Tanks Summary Index	98	96
Wastewater Discharge Summary Index	97	87
Drinking Water Non-Compliance Summary Index	96	97
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	69	12
Ozone Supplemental Summary Index	51	29
Nitrogen Dioxide (NO2) Supplemental Summary Index	85	84
Diesel Particulate Matter Supplemental Summary Index	87	82
Toxic Releases to Air Supplemental Summary Index	86	78
Traffic Proximity and Volume Supplemental Summary Index	87	85
Lead Paint Supplemental Summary Index	72	75
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	77	65
Hazardous Waste Proximity Supplemental Summary Index	88	85
Underground Storage Tanks Supplemental Summary Index	86	81
Wastewater Discharge Supplemental Summary Index	82	61
Drinking Water Non-Compliance Supplemental Summary Index	87	86

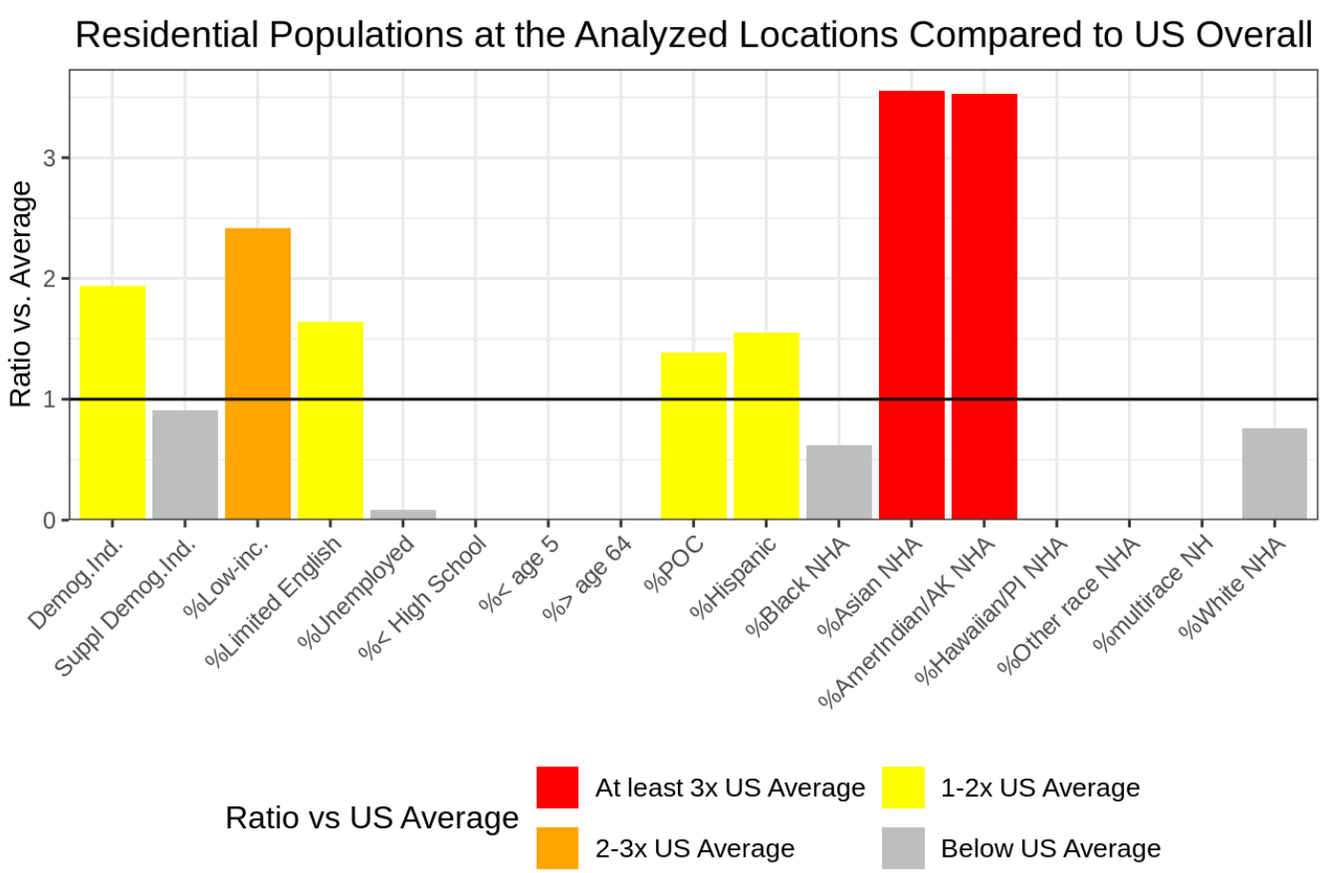
ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	27%	1.5	2.2
% Black or African American (non-Hispanic, single race)	8%	0.6	1.1
% Asian (non-Hispanic, single race)	18%	3.6	2.6
% American Indian and Alaska Native (non-Hispanic, single race)	2%	3.5	20
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	0%	0	0
% White (non-Hispanic, single race)	45%	0.8	0.7
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	45%	NA	NA
% speaking Other Indo-European at home	16%	NA	NA
% speaking Asian and Pacific Island languages at home	12%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	15%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	21%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	79%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	51%	NA	NA
% Females	49%	NA	NA
HEALTH			
% with Disabilities	2%	0.1	0.1
% with Low Life Expectancy	19%	1	1.1
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.90	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	430	NA	NA
Life Expectancy in Years	79	NA	NA
Per Capita Income	23,000	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	47%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	2	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	88%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	5%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	666	NA	NA
Count of Population Age 25 up	162	NA	NA
Count of Households	430	NA	NA
Universe for % unemployed (denominator, count)	664	NA	NA
Count of Housing Units Built Pre 1960	319	NA	NA
Built housing units count (denominator for % pre 1960)	487	NA	NA
Count of Population for whom Poverty Status is Determined	666	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)



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NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250103001)
Area in Square Miles: 0.06
Population: 1,332

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.61	6.52	56	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	40	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	18.5	8.8	97	7.8	99	2.4	2.1
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,300	2,800	85	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	19,000,000	6,100,000	96	1,700,000	99	11.0	3.1
Lead Paint Indicator (% pre-1960s housing)	88.80%	0.51	92	0.3	96	3.0	1.7
Superfund Proximity (site count/km distance)	0.10	0.34	46	0.39	60	0.3	0.3
RMP Proximity (facility count/km distance)	0.51	0.37	74	0.57	64	0.9	1.4
Hazardous Waste Proximity (facility count/km distance)	58.2	11.2	98	3.5	99	16.0	5.2
Underground Storage Tanks (UST) indicator	8.2	3.3	89	3.6	87	2.2	2.4
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	120	760	75	700,000	57	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.56	1.19	78	1.34	65	1.2	1.5
Supplemental Demographic Index USA	2.19	1.52	85	1.64	81	1.3	1.5
% Low Income	35%	22%	78	30%	64	1.2	1.6
% in limited English-speaking Households	12%	6%	83	5%	88	2.6	2.0
% Unemployed	14%	5%	91	6%	90	2.5	2.6
% with Less Than High School Education	28%	9%	92	11%	90	2.4	3.0
% under Age 5	4%	5%	49	5%	44	0.8	0.8
% over Age 64	2%	18%	3	18%	3	0.1	0.1
% People of Color	46%	31%	75	40%	62	1.2	1.5

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

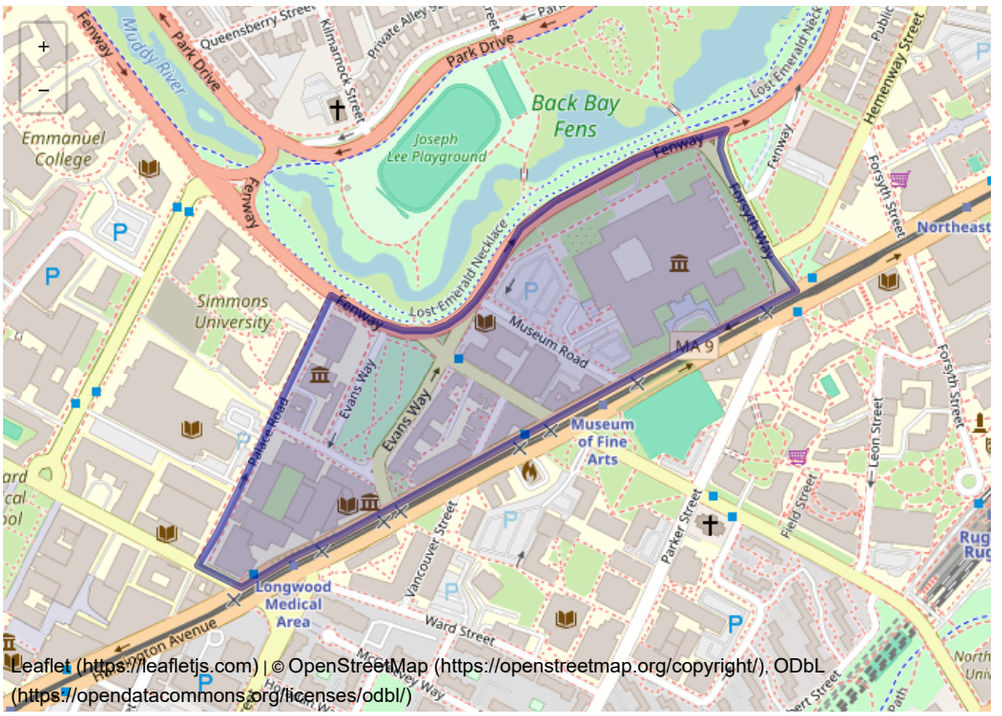
The indexes for a selected area are compared to those for all other locations in the state or nation.

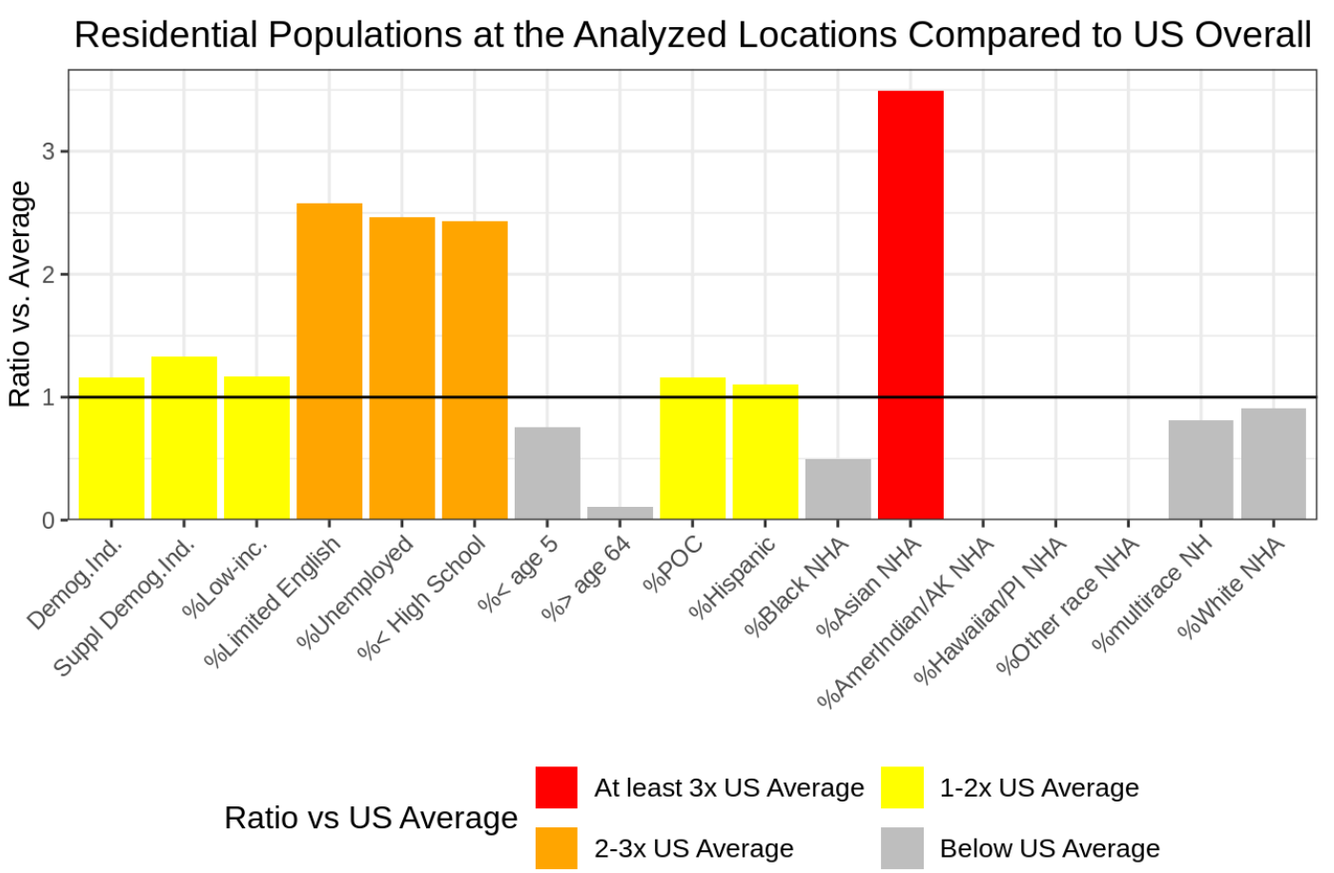
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	82	23
Ozone Summary Index	71	47
Nitrogen Dioxide (NO2) Summary Index	87	84
Diesel Particulate Matter Summary Index	89	82
Toxic Releases to Air Summary Index	90	84
Traffic Proximity and Volume Summary Index	89	85
Lead Paint Summary Index	90	86
Superfund Proximity Summary Index	79	77
RMP Proximity Summary Index	84	73
Hazardous Waste Proximity Summary Index	89	85
Underground Storage Tanks Summary Index	87	82
Wastewater Discharge Summary Index	85	71
Drinking Water Non-Compliance Summary Index	89	91
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	84	18
Ozone Supplemental Summary Index	65	43
Nitrogen Dioxide (NO2) Supplemental Summary Index	93	94
Diesel Particulate Matter Supplemental Summary Index	94	93
Toxic Releases to Air Supplemental Summary Index	95	92
Traffic Proximity and Volume Supplemental Summary Index	95	95
Lead Paint Supplemental Summary Index	94	94
Superfund Proximity Supplemental Summary Index	79	82
RMP Proximity Supplemental Summary Index	87	81
Hazardous Waste Proximity Supplemental Summary Index	96	95
Underground Storage Tanks Supplemental Summary Index	92	91
Wastewater Discharge Supplemental Summary Index	91	78
Drinking Water Non-Compliance Supplemental Summary Index	94	95

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	20%	1.1	1.5
% Black or African American (non-Hispanic, single race)	6%	0.5	0.9
% Asian (non-Hispanic, single race)	17%	3.5	2.6
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	3%	0.8	0.7
% White (non-Hispanic, single race)	54%	0.9	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	26%	NA	NA
% speaking Other Indo-European at home	7%	NA	NA
% speaking Asian and Pacific Island languages at home	9%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	8%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	85%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	15%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	57%	NA	NA
% Females	43%	NA	NA
HEALTH			
% with Disabilities	13%	0.9	1.1
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.10	NA	NA
AGE			
% under Age 5	4%	0.8	0.8
% under age 18	5%	NA	NA
% over Age 64	2%	0.1	0.1
COMMUNITY			
Occupied Housing Units	105	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	10,398	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	36%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	73%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	15%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,332	NA	NA
Count of Population Age 25 up	138	NA	NA
Count of Households	105	NA	NA
Universe for % unemployed (denominator, count)	1,278	NA	NA
Count of Housing Units Built Pre 1960	111	NA	NA
Built housing units count (denominator for % pre 1960)	125	NA	NA
Count of Population for whom Poverty Status is Determined	220	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250103002)
Area in Square Miles: 0.14
Population: 3,437

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.61	6.52	56	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	40	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	18.5	8.8	97	7.8	99	2.4	2.1
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,400	2,800	87	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	18,000,000	6,100,000	96	1,700,000	99	10.0	2.9
Lead Paint Indicator (% pre-1960s housing)	64.54%	0.51	64	0.3	83	2.2	1.3
Superfund Proximity (site count/km distance)	0.10	0.34	44	0.39	59	0.3	0.3
RMP Proximity (facility count/km distance)	0.44	0.37	71	0.57	60	0.8	1.2
Hazardous Waste Proximity (facility count/km distance)	74.7	11.2	99	3.5	99	21.0	6.7
Underground Storage Tanks (UST) indicator	15.5	3.3	97	3.6	94	4.3	4.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	120	760	75	700,000	57	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.83	1.19	53	1.34	33	0.6	0.8
Supplemental Demographic Index USA	1.24	1.52	45	1.64	31	0.8	0.8
% Low Income	14%	22%	43	30%	26	0.5	0.6
% in limited English-speaking Households	8%	6%	73	5%	81	1.6	1.2
% Unemployed	6%	5%	69	6%	68	1.1	1.2
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	1%	5%	14	5%	13	0.1	0.1
% over Age 64	0%	18%	0	18%	0	0.0	0.0
% People of Color	32%	31%	60	40%	50	0.8	1.0

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

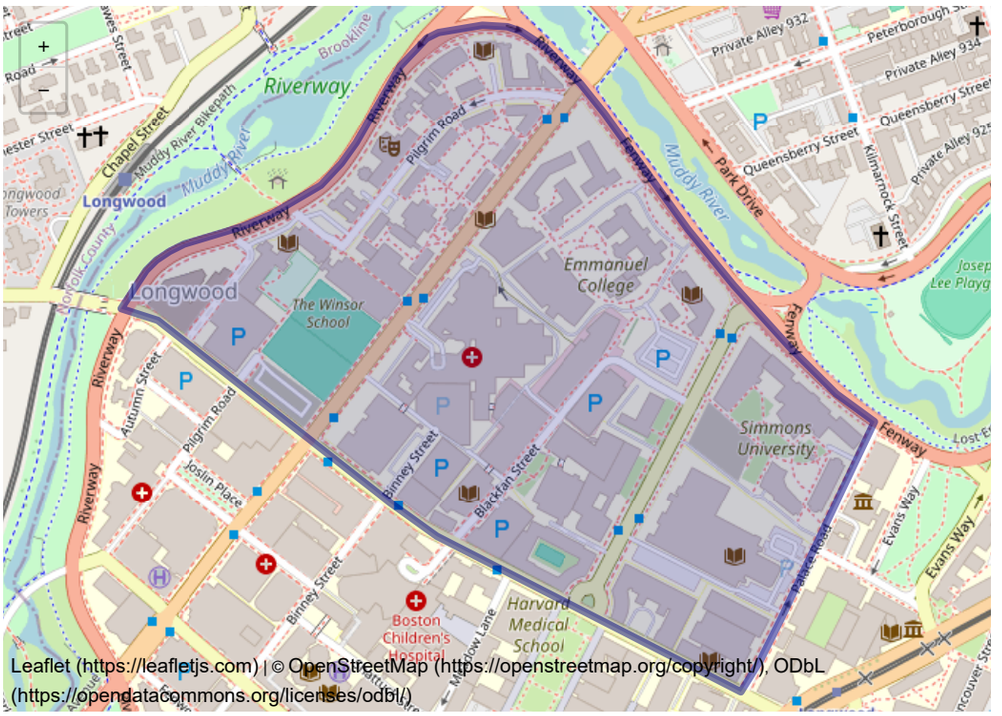
The indexes for a selected area are compared to those for all other locations in the state or nation.

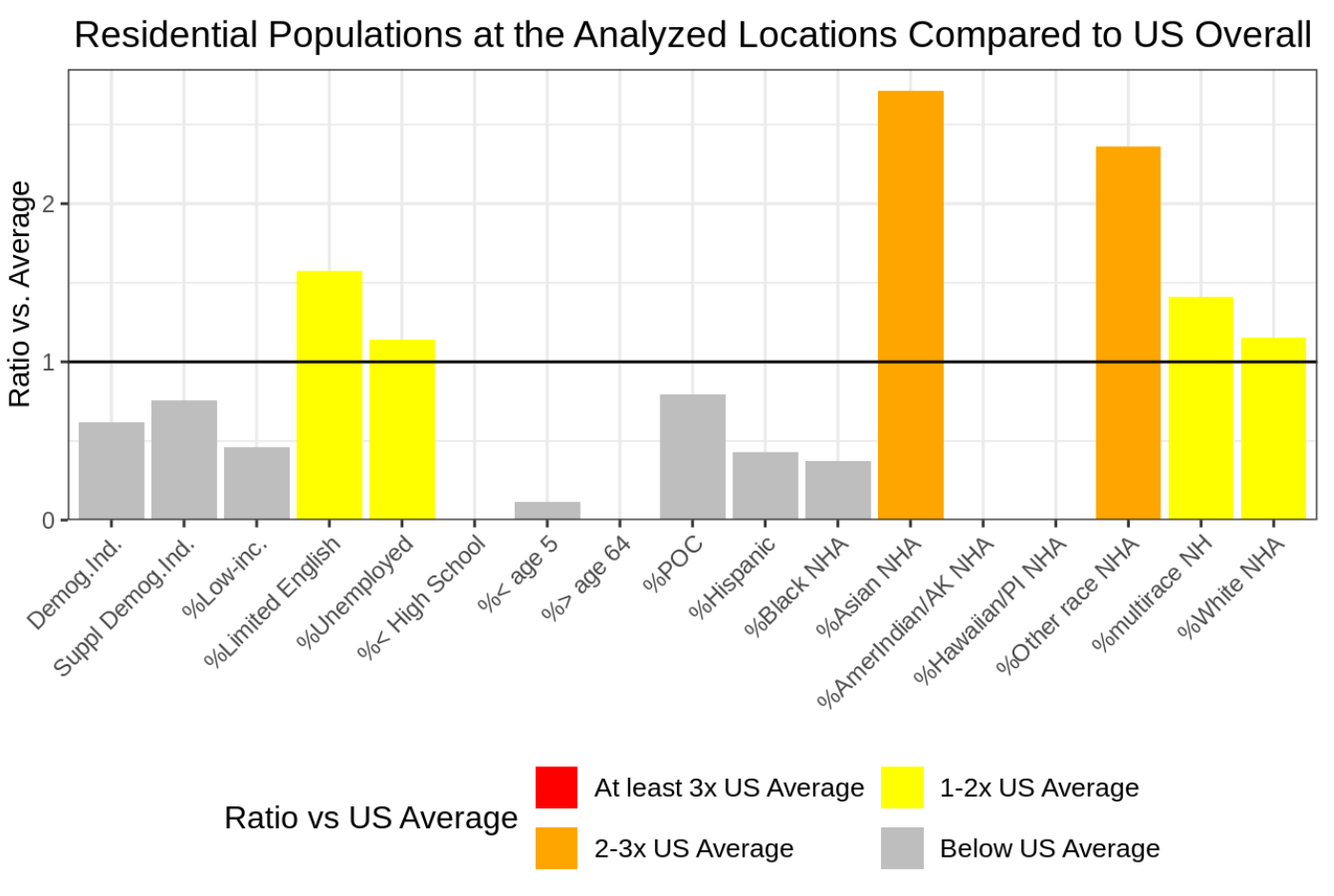
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	60	14
Ozone Summary Index	50	29
Nitrogen Dioxide (NO2) Summary Index	72	65
Diesel Particulate Matter Summary Index	73	63
Toxic Releases to Air Summary Index	74	64
Traffic Proximity and Volume Summary Index	72	66
Lead Paint Summary Index	63	63
Superfund Proximity Summary Index	61	66
RMP Proximity Summary Index	67	53
Hazardous Waste Proximity Summary Index	74	66
Underground Storage Tanks Summary Index	72	67
Wastewater Discharge Summary Index	69	50
Drinking Water Non-Compliance Summary Index	80	83
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	58	10
Ozone Supplemental Summary Index	41	24
Nitrogen Dioxide (NO2) Supplemental Summary Index	76	77
Diesel Particulate Matter Supplemental Summary Index	77	74
Toxic Releases to Air Supplemental Summary Index	79	70
Traffic Proximity and Volume Supplemental Summary Index	78	78
Lead Paint Supplemental Summary Index	60	66
Superfund Proximity Supplemental Summary Index	51	64
RMP Proximity Supplemental Summary Index	65	54
Hazardous Waste Proximity Supplemental Summary Index	80	78
Underground Storage Tanks Supplemental Summary Index	76	73
Wastewater Discharge Supplemental Summary Index	68	51
Drinking Water Non-Compliance Supplemental Summary Index	79	82

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	8%	0.4	0.6
% Black or African American (non-Hispanic, single race)	5%	0.4	0.7
% Asian (non-Hispanic, single race)	14%	2.7	2
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	1%	2.4	1
% Two or more races (non-Hispanic)	5%	1.4	1.2
% White (non-Hispanic, single race)	68%	1.2	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	26%	NA	NA
% speaking Other Indo-European at home	7%	NA	NA
% speaking Asian and Pacific Island languages at home	9%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	8%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	32%	NA	NA
% Females	68%	NA	NA
HEALTH			
% with Disabilities	13%	0.9	1.1
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.10	NA	NA
AGE			
% under Age 5	1%	0.1	0.1
% under age 18	2%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	132	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	9,931	NA	NA
% Owner Occupied households	14%	NA	NA
POVERTY			
% of Households below Poverty Level	4%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	8	NA	NA
Number of Air Pollution Facilities	12	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	9	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	5	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	15%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	8%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	3,437	NA	NA
Count of Population Age 25 up	278	NA	NA
Count of Households	132	NA	NA
Universe for % unemployed (denominator, count)	3,416	NA	NA
Count of Housing Units Built Pre 1960	91	NA	NA
Built housing units count (denominator for % pre 1960)	141	NA	NA
Count of Population for whom Poverty Status is Determined	206	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250104031)
Area in Square Miles: 0.01
Population: 1,128

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.58	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	43	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	21.3	8.8	99	7.8	99	2.7	2.4
Diesel Particulate Matter (ug/m3)	0.365	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,000	2,800	81	4,600	83	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	23,000,000	6,100,000	98	1,700,000	99	14.0	3.8
Lead Paint Indicator (% pre-1960s housing)	52.54%	0.51	50	0.3	75	1.8	1.0
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.58	0.37	78	0.57	67	1.0	1.5
Hazardous Waste Proximity (facility count/km distance)	58.9	11.2	98	3.5	99	17.0	5.3
Underground Storage Tanks (UST) indicator	31.3	3.3	99	3.6	98	8.6	9.4
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	140	760	78	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.59	1.19	94	1.34	89	1.9	2.5
Supplemental Demographic Index USA	2.24	1.52	86	1.64	82	1.4	1.6
% Low Income	71%	22%	97	30%	94	2.3	3.2
% in limited English-speaking Households	27%	6%	94	5%	95	5.6	4.4
% Unemployed	7%	5%	70	6%	69	1.2	1.2
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	20%	18%	64	18%	63	1.1	1.1
% People of Color	58%	31%	83	40%	71	1.5	1.9

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

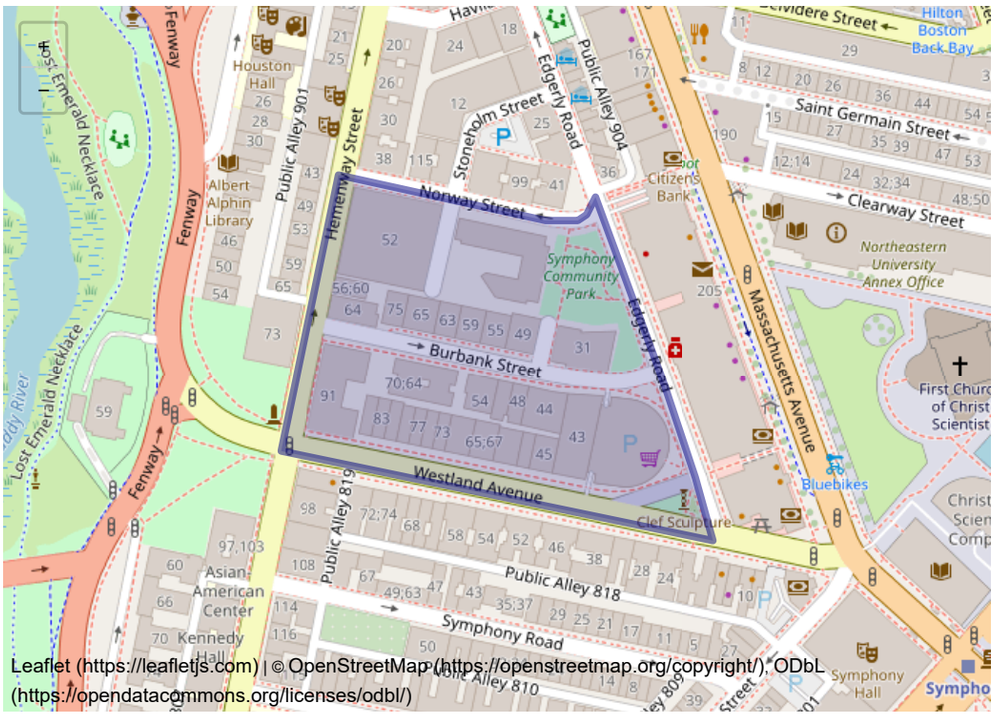
The indexes for a selected area are compared to those for all other locations in the state or nation.

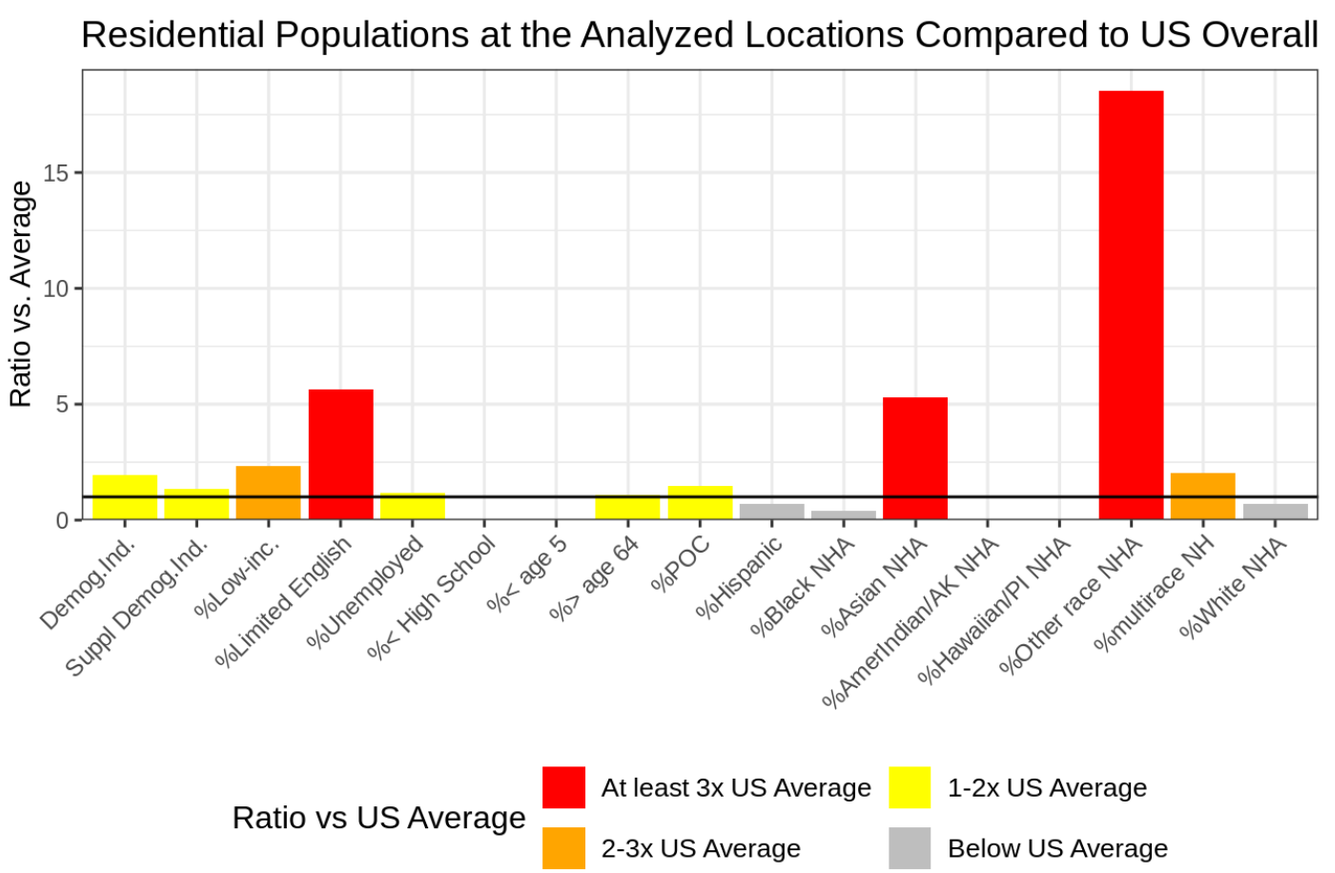
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	91	35
Ozone Summary Index	87	65
Nitrogen Dioxide (NO2) Summary Index	97	97
Diesel Particulate Matter Summary Index	97	95
Toxic Releases to Air Summary Index	97	95
Traffic Proximity and Volume Summary Index	98	97
Lead Paint Summary Index	87	93
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	94	88
Hazardous Waste Proximity Summary Index	98	97
Underground Storage Tanks Summary Index	98	97
Wastewater Discharge Summary Index	97	86
Drinking Water Non-Compliance Summary Index	96	97
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	83	19
Ozone Supplemental Summary Index	70	46
Nitrogen Dioxide (NO2) Supplemental Summary Index	94	95
Diesel Particulate Matter Supplemental Summary Index	95	94
Toxic Releases to Air Supplemental Summary Index	94	92
Traffic Proximity and Volume Supplemental Summary Index	96	96
Lead Paint Supplemental Summary Index	77	88
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	89	83
Hazardous Waste Proximity Supplemental Summary Index	96	96
Underground Storage Tanks Supplemental Summary Index	94	95
Wastewater Discharge Supplemental Summary Index	93	80
Drinking Water Non-Compliance Supplemental Summary Index	94	96

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	12%	0.7	1
% Black or African American (non-Hispanic, single race)	5%	0.4	0.7
% Asian (non-Hispanic, single race)	26%	5.3	3.9
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	8%	18	7.6
% Two or more races (non-Hispanic)	7%	2	1.8
% White (non-Hispanic, single race)	42%	0.7	0.6
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	51%	NA	NA
% speaking Other Indo-European at home	26%	NA	NA
% speaking Asian and Pacific Island languages at home	16%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	0	NA	NA
% speaking Spanish at home	6%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	5%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	36%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	59%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	48%	NA	NA
% Females	52%	NA	NA
HEALTH			
% with Disabilities	10%	0.7	0.8
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.10	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	5%	NA	NA
% over Age 64	20%	1.1	1.1
COMMUNITY			
Occupied Housing Units	836	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	39,775	NA	NA
% Owner Occupied households	5%	NA	NA
POVERTY			
% of Households below Poverty Level	54%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	11%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,128	NA	NA
Count of Population Age 25 up	666	NA	NA
Count of Households	836	NA	NA
Universe for % unemployed (denominator, count)	1,069	NA	NA
Count of Housing Units Built Pre 1960	558	NA	NA
Built housing units count (denominator for % pre 1960)	1,062	NA	NA
Count of Population for whom Poverty Status is Determined	1,128	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250104032)
Area in Square Miles: 0.01
Population: 1,071

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.58	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	43	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	21.3	8.8	99	7.8	99	2.7	2.4
Diesel Particulate Matter (ug/m3)	0.379	0.176	97	0.191	90	2.0	2.2
Toxic Releases to Air	4,000	2,800	81	4,600	83	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	24,000,000	6,100,000	98	1,700,000	99	14.0	4.0
Lead Paint Indicator (% pre-1960s housing)	55.69%	0.51	53	0.3	77	1.9	1.1
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.56	0.37	77	0.57	66	1.0	1.5
Hazardous Waste Proximity (facility count/km distance)	58.0	11.2	98	3.5	99	16.0	5.2
Underground Storage Tanks (UST) indicator	0.0	3.3	0	3.6	0	0.0	0.0
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	140	760	79	700,000	59	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.31	1.19	91	1.34	84	1.7	2.3
Supplemental Demographic Index USA	1.80	1.52	76	1.64	64	1.1	1.3
% Low Income	71%	22%	97	30%	94	2.3	3.2
% in limited English-speaking Households	6%	6%	69	5%	78	1.3	1.0
% Unemployed	6%	5%	68	6%	68	1.1	1.2
% with Less Than High School Education	2%	9%	30	11%	21	0.2	0.3
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	7%	18%	13	18%	15	0.4	0.4
% People of Color	41%	31%	71	40%	59	1.0	1.3

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

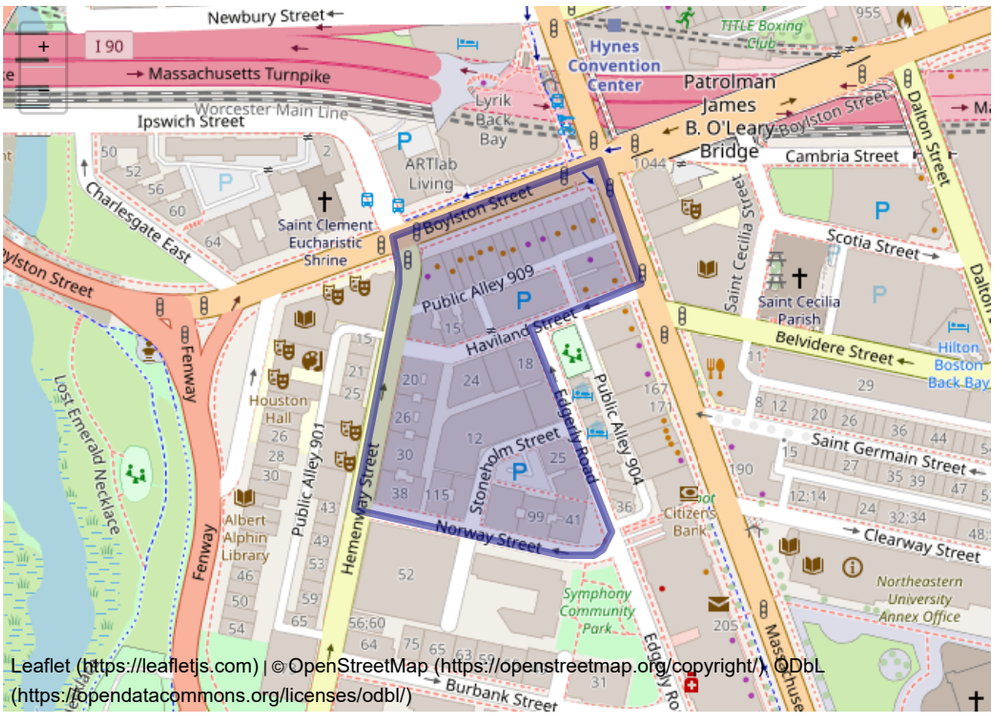
The indexes for a selected area are compared to those for all other locations in the state or nation.

	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	89	32
Ozone Summary Index	83	61
Nitrogen Dioxide (NO2) Summary Index	95	94
Diesel Particulate Matter Summary Index	96	93
Toxic Releases to Air Summary Index	95	93
Traffic Proximity and Volume Summary Index	97	95
Lead Paint Summary Index	86	91
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	92	85
Hazardous Waste Proximity Summary Index	97	95
Underground Storage Tanks Summary Index	0	0
Wastewater Discharge Summary Index	95	84
Drinking Water Non-Compliance Summary Index	95	96
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	75	15
Ozone Supplemental Summary Index	58	37
Nitrogen Dioxide (NO2) Supplemental Summary Index	89	90
Diesel Particulate Matter Supplemental Summary Index	91	88
Toxic Releases to Air Supplemental Summary Index	89	85
Traffic Proximity and Volume Supplemental Summary Index	91	91
Lead Paint Supplemental Summary Index	70	80
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	83	74
Hazardous Waste Proximity Supplemental Summary Index	92	91
Underground Storage Tanks Supplemental Summary Index	0	0
Wastewater Discharge Supplemental Summary Index	87	71
Drinking Water Non-Compliance Supplemental Summary Index	91	91

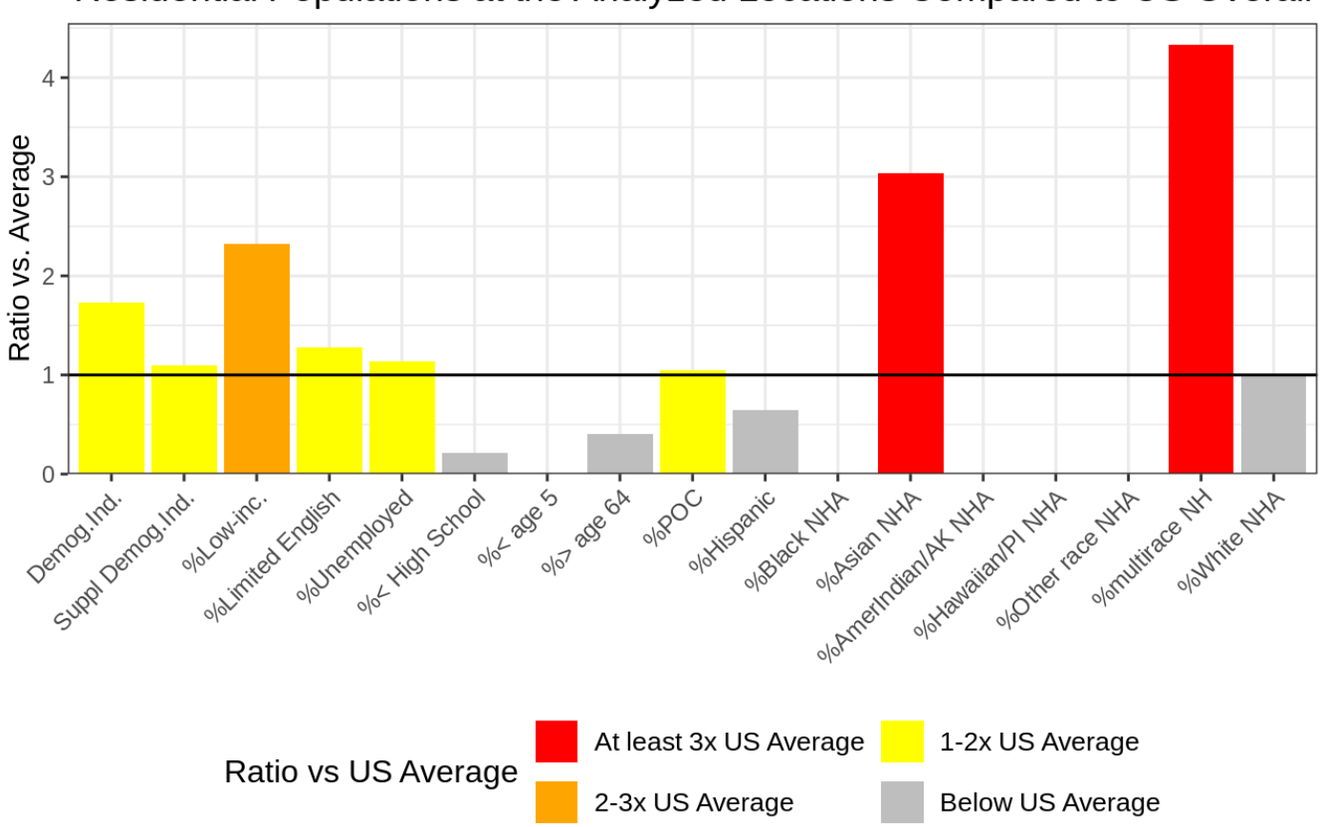
ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	11%	0.6	0.9
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	15%	3	2.2
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	15%	4.3	3.8
% White (non-Hispanic, single race)	59%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	51%	NA	NA
% speaking Other Indo-European at home	26%	NA	NA
% speaking Asian and Pacific Island languages at home	16%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	0	NA	NA
% speaking Spanish at home	6%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	73%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	27%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	70%	NA	NA
% Females	30%	NA	NA
HEALTH			
% with Disabilities	10%	0.7	0.8
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.10	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	7%	0.4	0.4
COMMUNITY			
Occupied Housing Units	600	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	23,076	NA	NA
% Owner Occupied households	11%	NA	NA
POVERTY			
% of Households below Poverty Level	49%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	19%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,071	NA	NA
Count of Population Age 25 up	628	NA	NA
Count of Households	600	NA	NA
Universe for % unemployed (denominator, count)	1,071	NA	NA
Count of Housing Units Built Pre 1960	362	NA	NA
Built housing units count (denominator for % pre 1960)	650	NA	NA
Count of Population for whom Poverty Status is Determined	1,071	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)



Residential Populations at the Analyzed Locations Compared to US Overall



NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250104033)
Area in Square Miles: 0.01
Population: 466

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.58	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	43	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	20.6	8.8	99	7.8	99	2.6	2.3
Diesel Particulate Matter (ug/m3)	0.365	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,000	2,800	81	4,600	83	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	24,000,000	6,100,000	98	1,700,000	99	14.0	4.0
Lead Paint Indicator (% pre-1960s housing)	11.92%	0.51	9	0.3	38	0.4	0.2
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.59	0.37	78	0.57	68	1.0	1.6
Hazardous Waste Proximity (facility count/km distance)	61.9	11.2	99	3.5	99	18.0	5.5
Underground Storage Tanks (UST) indicator	22.3	3.3	99	3.6	96	6.1	6.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	140	760	79	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.11	1.19	66	1.34	48	0.8	1.1
Supplemental Demographic Index USA	1.22	1.52	44	1.64	30	0.7	0.8
% Low Income	21%	22%	59	30%	39	0.7	0.9
% in limited English-speaking Households	8%	6%	73	5%	81	1.6	1.2
% Unemployed	4%	5%	50	6%	51	0.7	0.7
% with Less Than High School Education	1%	9%	20	11%	14	0.1	0.1
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	26%	18%	82	18%	82	1.5	1.5
% People of Color	39%	31%	69	40%	57	1.0	1.3

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

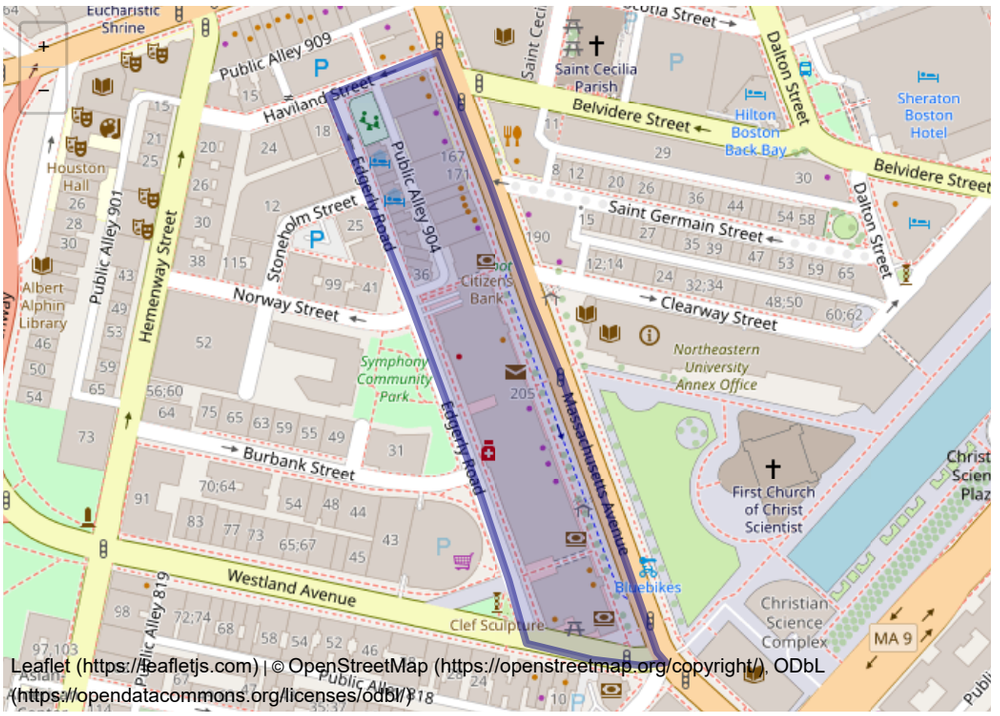
The indexes for a selected area are compared to those for all other locations in the state or nation.

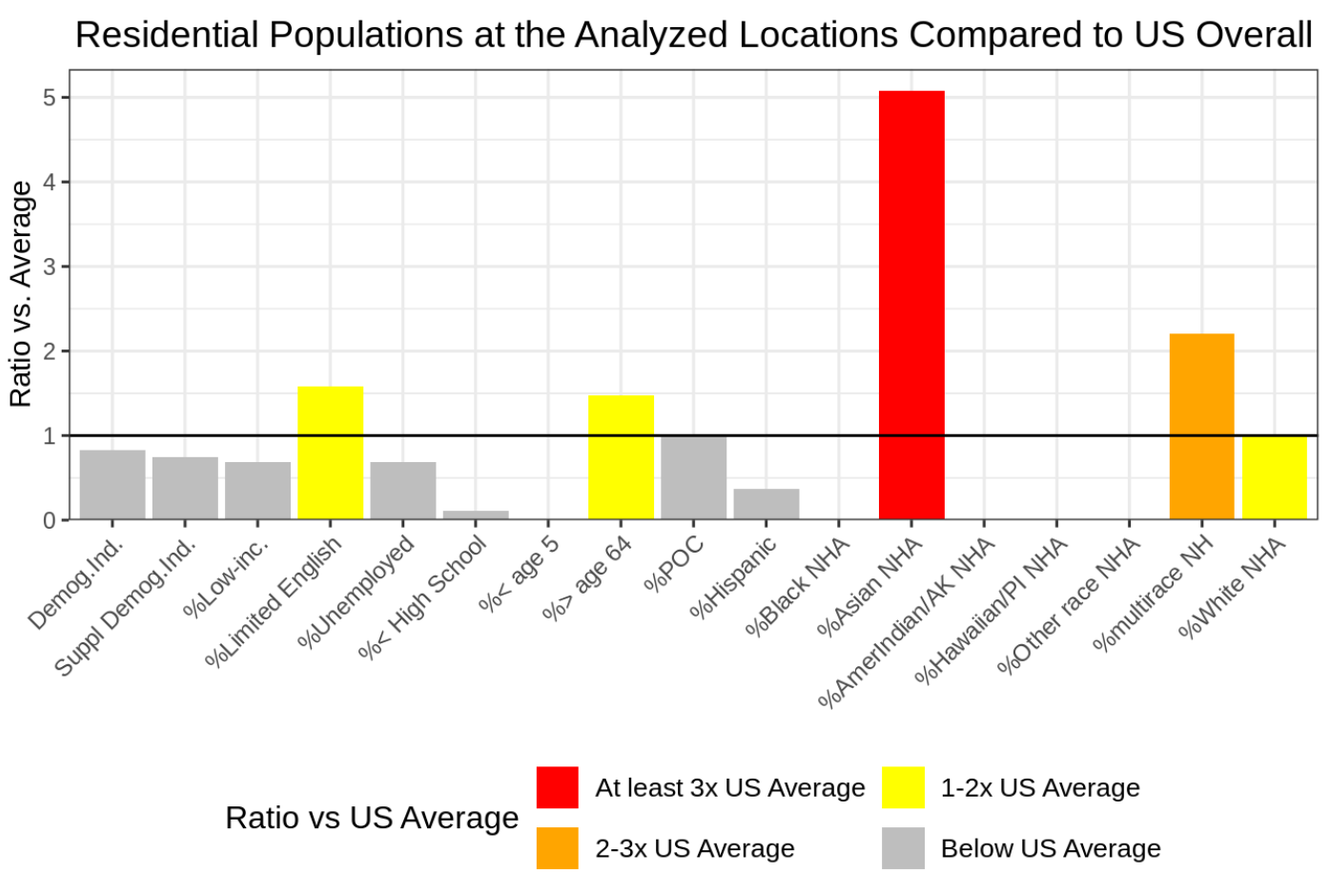
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	69	18
Ozone Summary Index	63	38
Nitrogen Dioxide (NO2) Summary Index	80	74
Diesel Particulate Matter Summary Index	81	72
Toxic Releases to Air Summary Index	81	73
Traffic Proximity and Volume Summary Index	81	75
Lead Paint Summary Index	21	46
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	77	65
Hazardous Waste Proximity Summary Index	82	75
Underground Storage Tanks Summary Index	81	76
Wastewater Discharge Summary Index	78	60
Drinking Water Non-Compliance Summary Index	85	87
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	54	10
Ozone Supplemental Summary Index	43	25
Nitrogen Dioxide (NO2) Supplemental Summary Index	77	76
Diesel Particulate Matter Supplemental Summary Index	78	73
Toxic Releases to Air Supplemental Summary Index	75	69
Traffic Proximity and Volume Supplemental Summary Index	78	78
Lead Paint Supplemental Summary Index	11	33
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	69	59
Hazardous Waste Proximity Supplemental Summary Index	80	77
Underground Storage Tanks Supplemental Summary Index	77	73
Wastewater Discharge Supplemental Summary Index	70	51
Drinking Water Non-Compliance Supplemental Summary Index	79	82

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	6%	0.4	0.5
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	25%	5.1	3.8
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	8%	2.2	1.9
% White (non-Hispanic, single race)	61%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	51%	NA	NA
% speaking Other Indo-European at home	26%	NA	NA
% speaking Asian and Pacific Island languages at home	16%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	0	NA	NA
% speaking Spanish at home	6%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	22%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	78%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	50%	NA	NA
% Females	50%	NA	NA
HEALTH			
% with Disabilities	10%	0.7	0.8
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.10	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	26%	1.5	1.5
COMMUNITY			
Occupied Housing Units	303	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	103,483	NA	NA
% Owner Occupied households	15%	NA	NA
POVERTY			
% of Households below Poverty Level	16%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	7%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	466	NA	NA
Count of Population Age 25 up	416	NA	NA
Count of Households	303	NA	NA
Universe for % unemployed (denominator, count)	466	NA	NA
Count of Housing Units Built Pre 1960	41	NA	NA
Built housing units count (denominator for % pre 1960)	344	NA	NA
Count of Population for whom Poverty Status is Determined	466	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250104041)
Area in Square Miles: 0.01
Population: 1,479

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	56.1	56.7	45	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	19.6	8.8	98	7.8	99	2.5	2.2
Diesel Particulate Matter (ug/m3)	0.366	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,100	2,800	83	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	22,000,000	6,100,000	98	1,700,000	99	13.0	3.7
Lead Paint Indicator (% pre-1960s housing)	82.14%	0.51	85	0.3	93	2.7	1.6
Superfund Proximity (site count/km distance)	0.10	0.34	43	0.39	58	0.2	0.3
RMP Proximity (facility count/km distance)	0.60	0.37	79	0.57	68	1.1	1.6
Hazardous Waste Proximity (facility count/km distance)	55.5	11.2	97	3.5	99	16.0	5.0
Underground Storage Tanks (UST) indicator	4.3	3.3	73	3.6	76	1.2	1.3
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	76	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.51	1.19	77	1.34	64	1.1	1.5
Supplemental Demographic Index USA	1.16	1.52	40	1.64	26	0.7	0.8
% Low Income	35%	22%	78	30%	63	1.1	1.6
% in limited English-speaking Households	3%	6%	59	5%	70	0.7	0.6
% Unemployed	15%	5%	93	6%	91	2.7	2.8
% with Less Than High School Education	6%	9%	54	11%	42	0.5	0.7
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	0%	18%	0	18%	0	0.0	0.0
% People of Color	44%	31%	73	40%	61	1.1	1.4

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

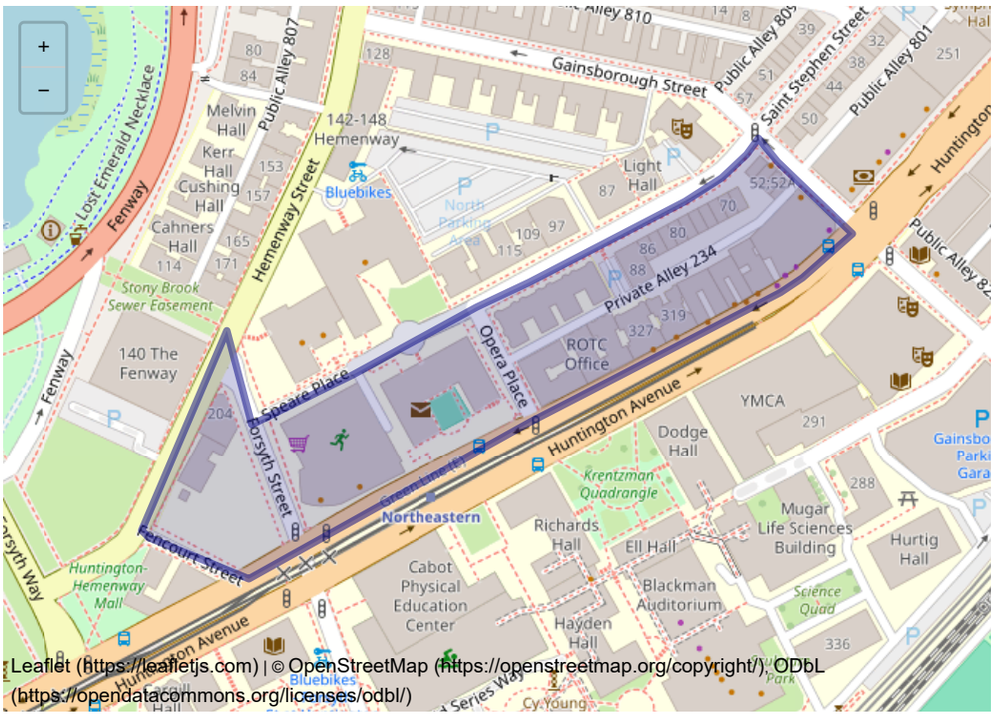
The indexes for a selected area are compared to those for all other locations in the state or nation.

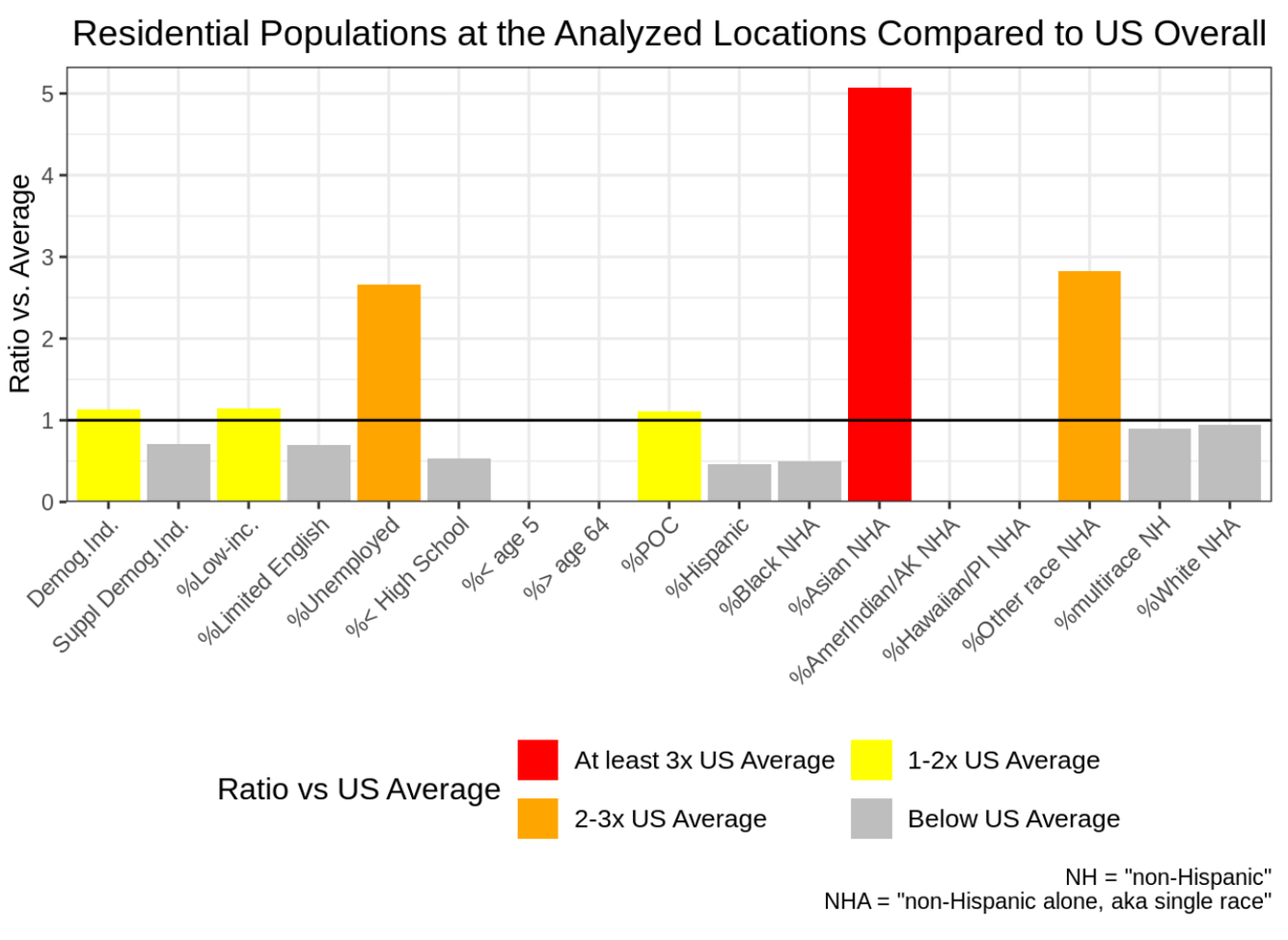
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	79	23
Ozone Summary Index	73	48
Nitrogen Dioxide (NO2) Summary Index	87	83
Diesel Particulate Matter Summary Index	89	81
Toxic Releases to Air Summary Index	89	83
Traffic Proximity and Volume Summary Index	89	84
Lead Paint Summary Index	87	85
Superfund Proximity Summary Index	76	75
RMP Proximity Summary Index	84	74
Hazardous Waste Proximity Summary Index	89	84
Underground Storage Tanks Summary Index	81	78
Wastewater Discharge Summary Index	85	70
Drinking Water Non-Compliance Summary Index	89	91
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	53	10
Ozone Supplemental Summary Index	43	23
Nitrogen Dioxide (NO2) Supplemental Summary Index	75	74
Diesel Particulate Matter Supplemental Summary Index	76	71
Toxic Releases to Air Supplemental Summary Index	74	67
Traffic Proximity and Volume Supplemental Summary Index	77	75
Lead Paint Supplemental Summary Index	70	69
Superfund Proximity Supplemental Summary Index	49	62
RMP Proximity Supplemental Summary Index	67	57
Hazardous Waste Proximity Supplemental Summary Index	77	75
Underground Storage Tanks Supplemental Summary Index	62	61
Wastewater Discharge Supplemental Summary Index	66	49
Drinking Water Non-Compliance Supplemental Summary Index	78	81

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	8%	0.5	0.6
% Black or African American (non-Hispanic, single race)	6%	0.5	0.9
% Asian (non-Hispanic, single race)	25%	5.1	3.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	1%	2.8	1.2
% Two or more races (non-Hispanic)	3%	0.9	0.8
% White (non-Hispanic, single race)	56%	0.9	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	33%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	8%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	52%	NA	NA
% Females	48%	NA	NA
HEALTH			
% with Disabilities	4%	0.3	0.3
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	2	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.30	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	2%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	179	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	18,755	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	11%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	3%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,479	NA	NA
Count of Population Age 25 up	296	NA	NA
Count of Households	179	NA	NA
Universe for % unemployed (denominator, count)	1,479	NA	NA
Count of Housing Units Built Pre 1960	184	NA	NA
Built housing units count (denominator for % pre 1960)	224	NA	NA
Count of Population for whom Poverty Status is Determined	345	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250104042)
Area in Square Miles: 0.01
Population: 1,404

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	56.1	56.7	45	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	19.2	8.8	97	7.8	99	2.4	2.2
Diesel Particulate Matter (ug/m3)	0.365	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,100	2,800	83	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	22,000,000	6,100,000	97	1,700,000	99	13.0	3.6
Lead Paint Indicator (% pre-1960s housing)	72.93%	0.51	74	0.3	88	2.4	1.4
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.59	0.37	78	0.57	67	1.0	1.6
Hazardous Waste Proximity (facility count/km distance)	55.7	11.2	97	3.5	99	16.0	5.0
Underground Storage Tanks (UST) indicator	1.8	3.3	49	3.6	61	0.5	0.5
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	77	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.38	1.19	92	1.34	86	1.8	2.3
Supplemental Demographic Index USA	1.92	1.52	80	1.64	70	1.2	1.4
% Low Income	73%	22%	97	30%	95	2.4	3.3
% in limited English-speaking Households	6%	6%	67	5%	77	1.2	0.9
% Unemployed	22%	5%	97	6%	96	4.0	4.2
% with Less Than High School Education	18%	9%	84	11%	79	1.6	2.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	0%	18%	2	18%	2	0.0	0.0
% People of Color	43%	31%	73	40%	60	1.1	1.4

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

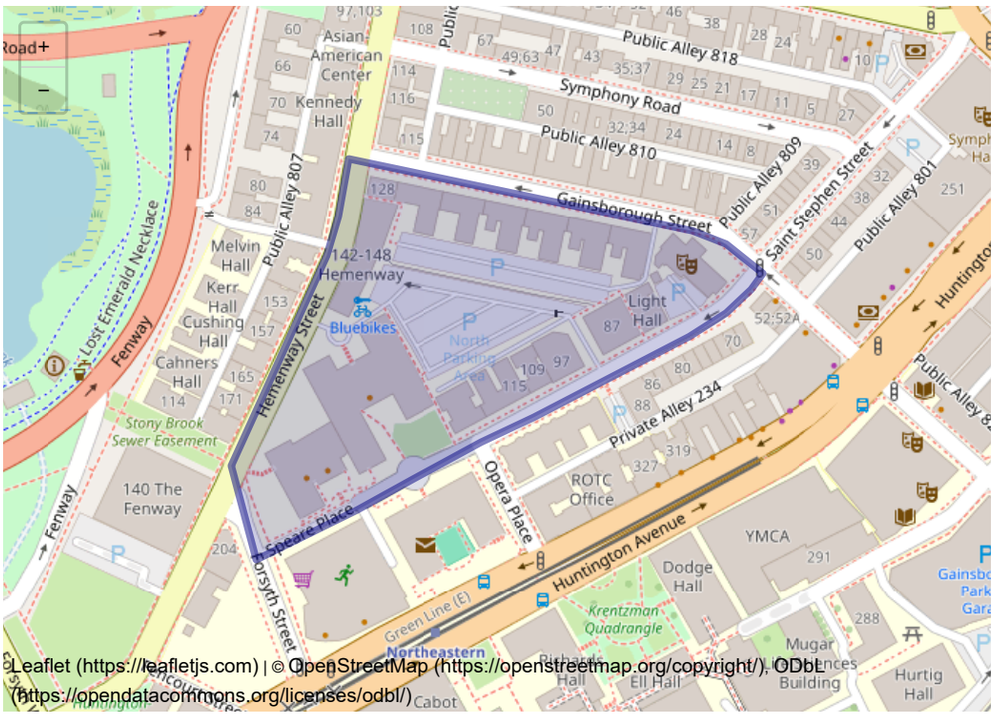
The indexes for a selected area are compared to those for all other locations in the state or nation.

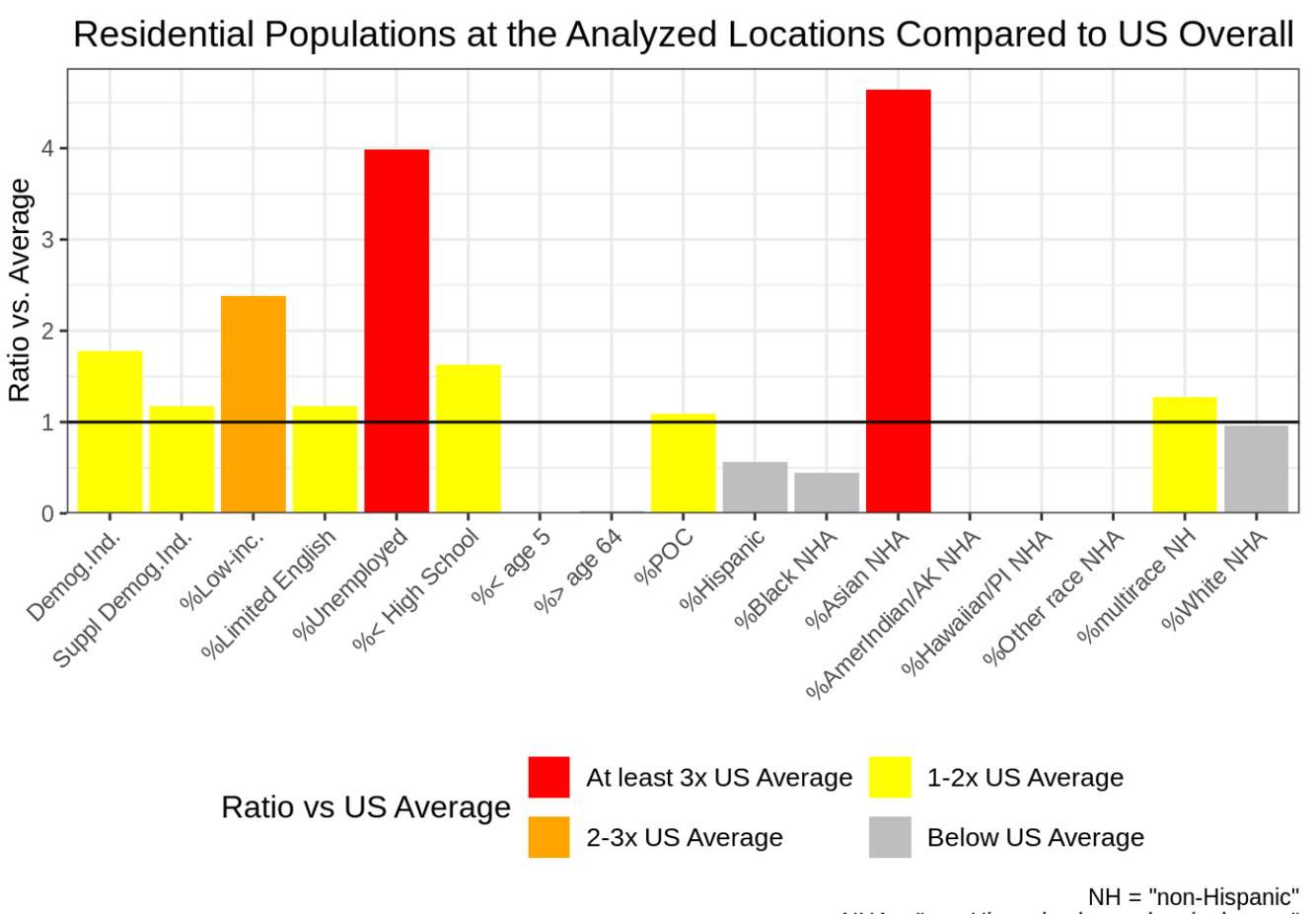
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	89	33
Ozone Summary Index	86	62
Nitrogen Dioxide (NO2) Summary Index	96	95
Diesel Particulate Matter Summary Index	96	93
Toxic Releases to Air Summary Index	96	94
Traffic Proximity and Volume Summary Index	97	96
Lead Paint Summary Index	94	94
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	93	86
Hazardous Waste Proximity Summary Index	97	96
Underground Storage Tanks Summary Index	82	84
Wastewater Discharge Summary Index	95	84
Drinking Water Non-Compliance Summary Index	95	96
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	77	16
Ozone Supplemental Summary Index	64	40
Nitrogen Dioxide (NO2) Supplemental Summary Index	91	91
Diesel Particulate Matter Supplemental Summary Index	92	90
Toxic Releases to Air Supplemental Summary Index	92	88
Traffic Proximity and Volume Supplemental Summary Index	93	92
Lead Paint Supplemental Summary Index	85	88
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	85	78
Hazardous Waste Proximity Supplemental Summary Index	93	92
Underground Storage Tanks Supplemental Summary Index	68	73
Wastewater Discharge Supplemental Summary Index	89	73
Drinking Water Non-Compliance Supplemental Summary Index	92	93

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	10%	0.6	0.8
% Black or African American (non-Hispanic, single race)	5%	0.4	0.8
% Asian (non-Hispanic, single race)	23%	4.6	3.4
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	4%	1.3	1.1
% White (non-Hispanic, single race)	57%	1	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	33%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	8%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	47%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	53%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	40%	NA	NA
% Females	60%	NA	NA
HEALTH			
% with Disabilities	4%	0.3	0.3
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	2	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.30	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	1%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	266	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	12,630	NA	NA
% Owner Occupied households	24%	NA	NA
POVERTY			
% of Households below Poverty Level	39%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	13%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,404	NA	NA
Count of Population Age 25 up	125	NA	NA
Count of Households	266	NA	NA
Universe for % unemployed (denominator, count)	1,404	NA	NA
Count of Housing Units Built Pre 1960	229	NA	NA
Built housing units count (denominator for % pre 1960)	314	NA	NA
Count of Population for whom Poverty Status is Determined	441	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250104043)
Area in Square Miles: 0.01
Population: 1,003

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	56.1	56.7	45	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	20.6	8.8	99	7.8	99	2.6	2.3
Diesel Particulate Matter (ug/m3)	0.365	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,000	2,800	81	4,600	83	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	23,000,000	6,100,000	98	1,700,000	99	14.0	3.8
Lead Paint Indicator (% pre-1960s housing)	76.73%	0.51	79	0.3	90	2.6	1.5
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.59	0.37	78	0.57	68	1.0	1.6
Hazardous Waste Proximity (facility count/km distance)	57.7	11.2	98	3.5	99	16.0	5.2
Underground Storage Tanks (UST) indicator	25.6	3.3	99	3.6	97	7.0	7.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	140	760	78	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.56	1.19	94	1.34	89	1.9	2.5
Supplemental Demographic Index USA	1.56	1.52	67	1.64	51	0.9	1.1
% Low Income	70%	22%	97	30%	94	2.3	3.2
% in limited English-speaking Households	8%	6%	75	5%	82	1.7	1.3
% Unemployed	4%	5%	51	6%	52	0.7	0.7
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	7%	18%	12	18%	14	0.4	0.4
% People of Color	57%	31%	82	40%	70	1.5	1.8

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

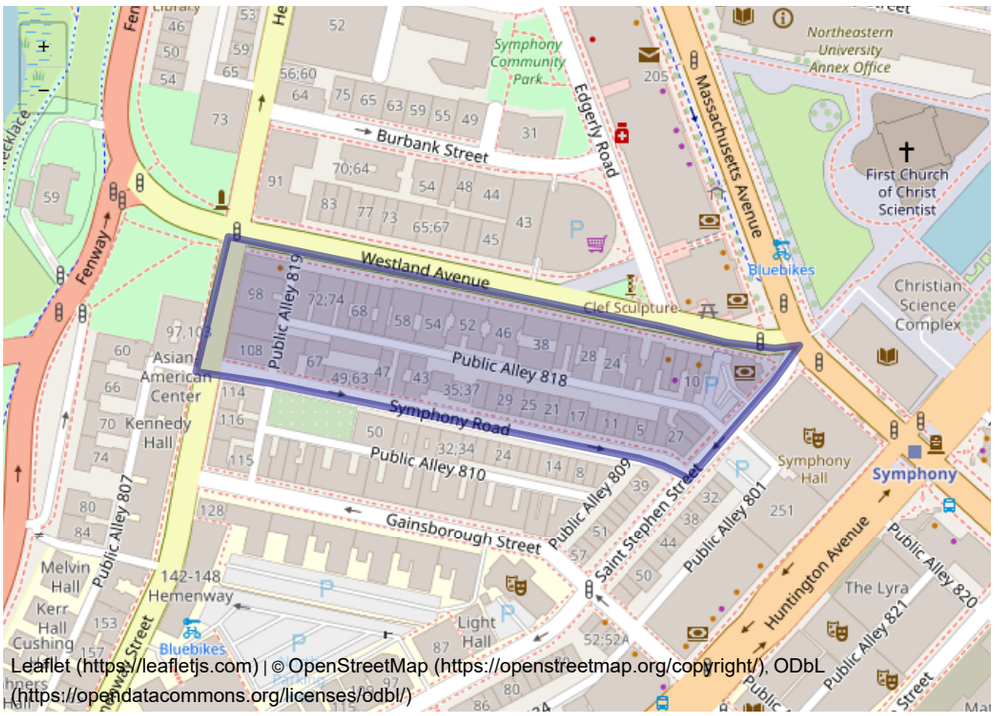
The indexes for a selected area are compared to those for all other locations in the state or nation.

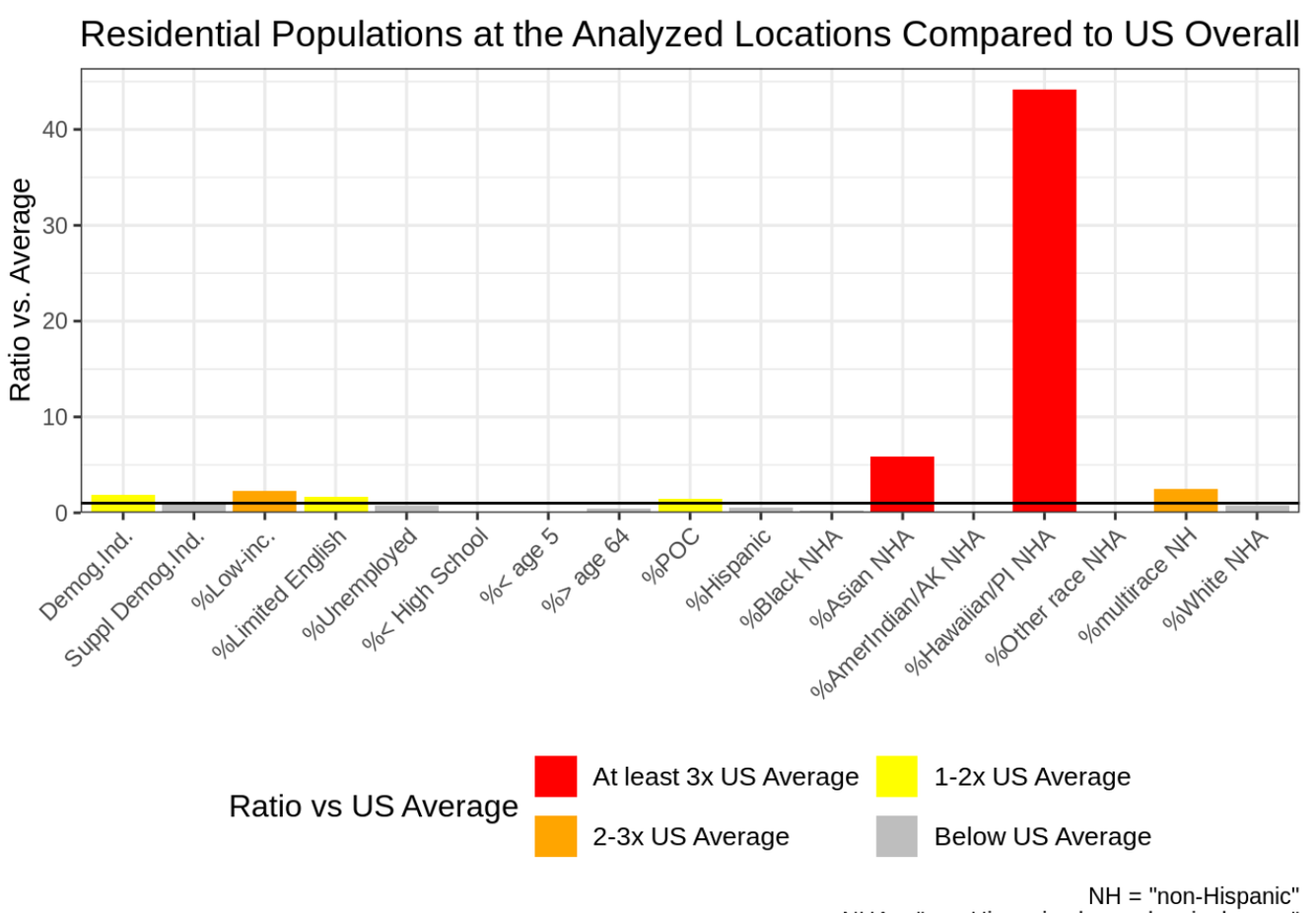
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	90	35
Ozone Summary Index	87	65
Nitrogen Dioxide (NO2) Summary Index	97	96
Diesel Particulate Matter Summary Index	97	95
Toxic Releases to Air Summary Index	96	95
Traffic Proximity and Volume Summary Index	98	97
Lead Paint Summary Index	96	96
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	94	88
Hazardous Waste Proximity Summary Index	98	97
Underground Storage Tanks Summary Index	98	96
Wastewater Discharge Summary Index	96	86
Drinking Water Non-Compliance Summary Index	96	97
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	68	13
Ozone Supplemental Summary Index	54	32
Nitrogen Dioxide (NO2) Supplemental Summary Index	85	85
Diesel Particulate Matter Supplemental Summary Index	87	83
Toxic Releases to Air Supplemental Summary Index	86	80
Traffic Proximity and Volume Supplemental Summary Index	87	86
Lead Paint Supplemental Summary Index	80	81
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	79	70
Hazardous Waste Proximity Supplemental Summary Index	88	86
Underground Storage Tanks Supplemental Summary Index	86	84
Wastewater Discharge Supplemental Summary Index	81	63
Drinking Water Non-Compliance Supplemental Summary Index	87	88

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	10%	0.6	0.8
% Black or African American (non-Hispanic, single race)	3%	0.2	0.4
% Asian (non-Hispanic, single race)	29%	5.9	4.3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	7%	44	200
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	8%	2.5	2.2
% White (non-Hispanic, single race)	43%	0.7	0.6
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	33%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	8%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	20%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	22%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	57%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	43%	NA	NA
% Females	57%	NA	NA
HEALTH			
% with Disabilities	4%	0.3	0.3
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	2	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.30	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	7%	0.4	0.4
COMMUNITY			
Occupied Housing Units	501	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	22,219	NA	NA
% Owner Occupied households	2%	NA	NA
POVERTY			
% of Households below Poverty Level	41%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	98%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	5%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,003	NA	NA
Count of Population Age 25 up	341	NA	NA
Count of Households	501	NA	NA
Universe for % unemployed (denominator, count)	1,001	NA	NA
Count of Housing Units Built Pre 1960	488	NA	NA
Built housing units count (denominator for % pre 1960)	636	NA	NA
Count of Population for whom Poverty Status is Determined	829	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250104044)
Area in Square Miles: 0.01
Population: 699

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	53	8.45	11	0.8	1.0
Ozone (ppb)	56.1	56.7	45	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	19.4	8.8	98	7.8	99	2.5	2.2
Diesel Particulate Matter (ug/m3)	0.365	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,100	2,800	83	4,600	83	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	23,000,000	6,100,000	98	1,700,000	99	14.0	3.8
Lead Paint Indicator (% pre-1960s housing)	67.49%	0.51	67	0.3	85	2.3	1.3
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.60	0.37	78	0.57	68	1.0	1.6
Hazardous Waste Proximity (facility count/km distance)	56.3	11.2	97	3.5	99	16.0	5.0
Underground Storage Tanks (UST) indicator	23.9	3.3	99	3.6	97	6.6	7.2
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	77	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.63	1.19	79	1.34	67	1.2	1.6
Supplemental Demographic Index USA	1.52	1.52	65	1.64	49	0.9	1.1
% Low Income	49%	22%	89	30%	80	1.6	2.2
% in limited English-speaking Households	5%	6%	64	5%	74	0.9	0.8
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	14%	9%	77	11%	70	1.2	1.5
% under Age 5	11%	5%	91	5%	88	2.0	2.2
% over Age 64	3%	18%	4	18%	4	0.2	0.2
% People of Color	31%	31%	59	40%	49	0.8	1.0

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

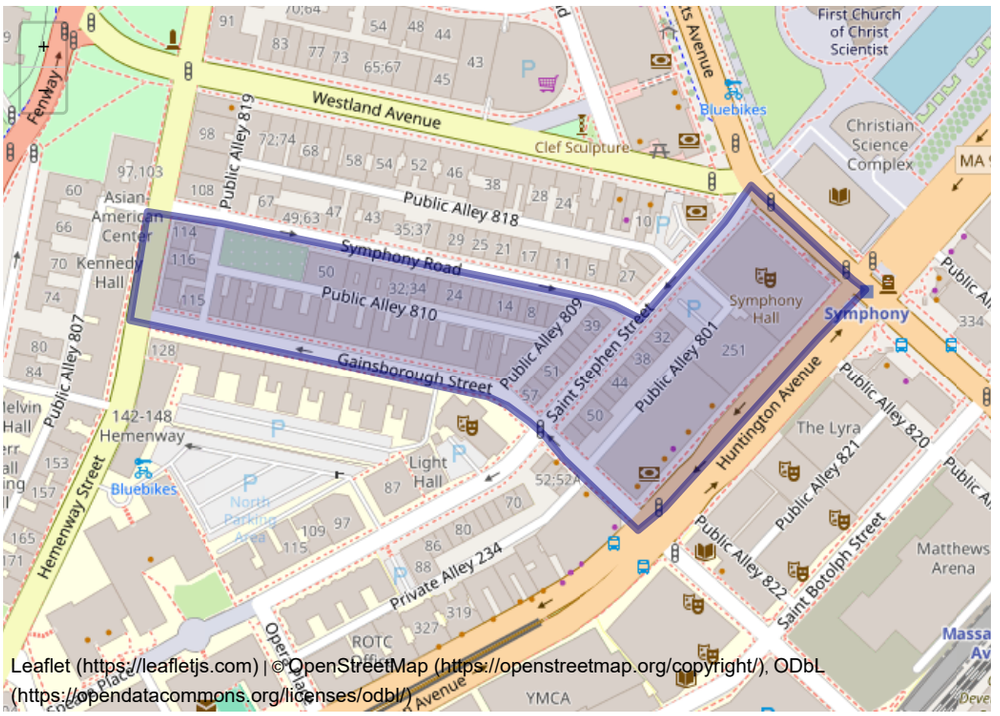
The indexes for a selected area are compared to those for all other locations in the state or nation.

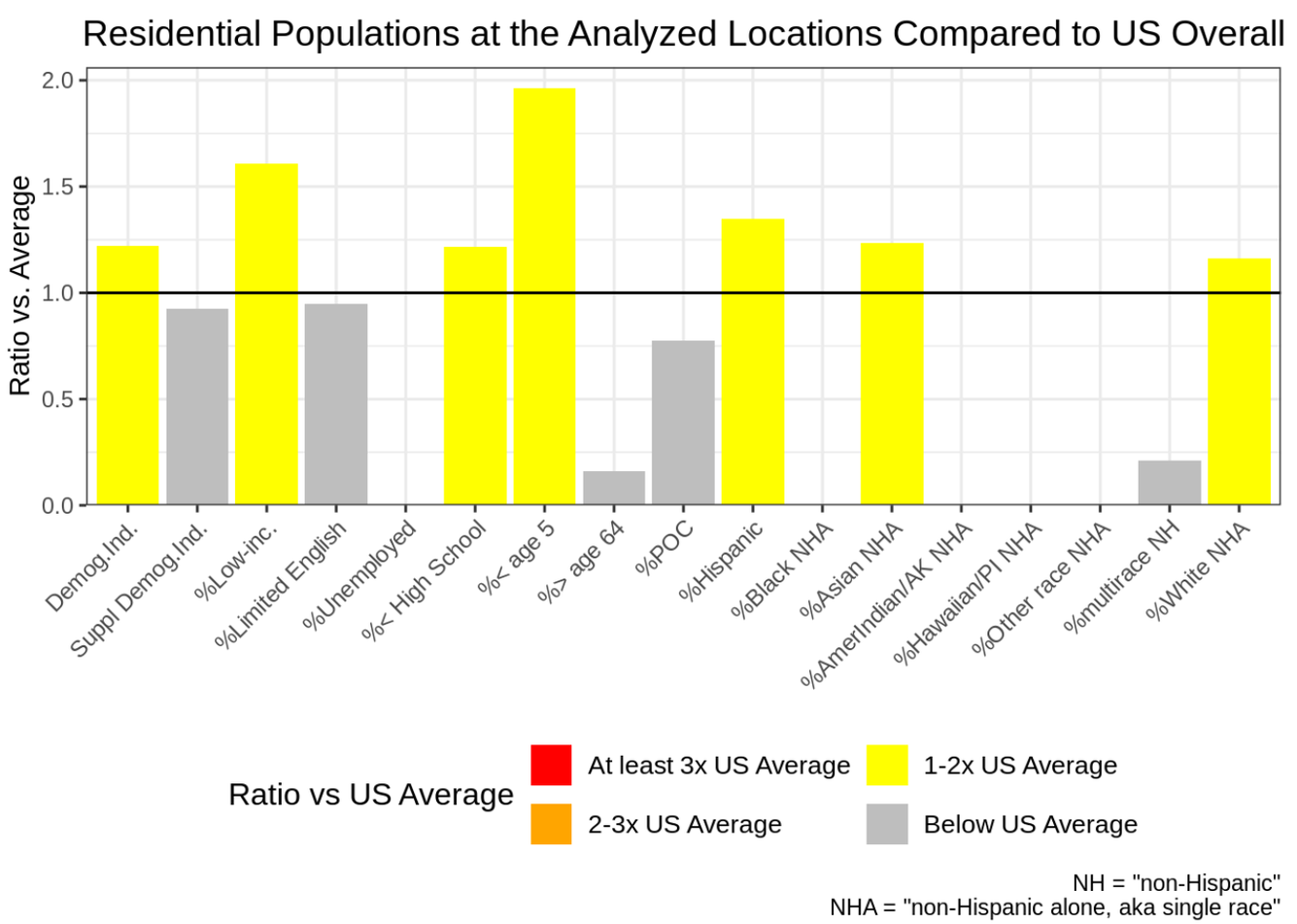
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	81	24
Ozone Summary Index	75	50
Nitrogen Dioxide (NO2) Summary Index	88	86
Diesel Particulate Matter Summary Index	90	83
Toxic Releases to Air Summary Index	90	85
Traffic Proximity and Volume Summary Index	90	86
Lead Paint Summary Index	83	84
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	86	76
Hazardous Waste Proximity Summary Index	90	86
Underground Storage Tanks Summary Index	90	86
Wastewater Discharge Summary Index	87	73
Drinking Water Non-Compliance Summary Index	90	92
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	67	13
Ozone Supplemental Summary Index	53	31
Nitrogen Dioxide (NO2) Supplemental Summary Index	84	84
Diesel Particulate Matter Supplemental Summary Index	86	82
Toxic Releases to Air Supplemental Summary Index	85	79
Traffic Proximity and Volume Supplemental Summary Index	86	86
Lead Paint Supplemental Summary Index	72	77
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	78	68
Hazardous Waste Proximity Supplemental Summary Index	87	85
Underground Storage Tanks Supplemental Summary Index	85	83
Wastewater Discharge Supplemental Summary Index	79	62
Drinking Water Non-Compliance Supplemental Summary Index	86	87

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	24%	1.3	1.9
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	6%	1.2	0.9
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	1%	0.2	0.2
% White (non-Hispanic, single race)	69%	1.2	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	33%	NA	NA
% speaking Other Indo-European at home	11%	NA	NA
% speaking Asian and Pacific Island languages at home	14%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	8%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	34%	NA	NA
% Females	66%	NA	NA
HEALTH			
% with Disabilities	4%	0.3	0.3
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	2	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.30	NA	NA
AGE			
% under Age 5	11%	2	2.2
% under age 18	18%	NA	NA
% over Age 64	3%	0.2	0.2
COMMUNITY			
Occupied Housing Units	285	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	37,707	NA	NA
% Owner Occupied households	19%	NA	NA
POVERTY			
% of Households below Poverty Level	37%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	2%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	699	NA	NA
Count of Population Age 25 up	262	NA	NA
Count of Households	285	NA	NA
Universe for % unemployed (denominator, count)	576	NA	NA
Count of Housing Units Built Pre 1960	272	NA	NA
Built housing units count (denominator for % pre 1960)	403	NA	NA
Count of Population for whom Poverty Status is Determined	699	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250104051)
Area in Square Miles: 0.09
Population: 3,127

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.60	6.52	55	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	43	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	19.4	8.8	98	7.8	99	2.5	2.2
Diesel Particulate Matter (ug/m3)	0.366	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,100	2,800	83	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	22,000,000	6,100,000	97	1,700,000	99	13.0	3.6
Lead Paint Indicator (% pre-1960s housing)	0.00%	0.51	0	0.3	0	0.0	0.0
Superfund Proximity (site count/km distance)	0.10	0.34	45	0.39	59	0.3	0.3
RMP Proximity (facility count/km distance)	0.60	0.37	78	0.57	68	1.0	1.6
Hazardous Waste Proximity (facility count/km distance)	57.6	11.2	98	3.5	99	16.0	5.1
Underground Storage Tanks (UST) indicator	8.7	3.3	90	3.6	87	2.4	2.6
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	120	760	76	700,000	57	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.80	1.19	96	1.34	92	2.1	2.7
Supplemental Demographic Index USA	1.81	1.52	77	1.64	65	1.1	1.3
% Low Income	81%	22%	99	30%	97	2.7	3.7
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	26%	5%	98	6%	98	4.6	4.8
% with Less Than High School Education	3%	9%	33	11%	24	0.2	0.3
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	2%	18%	3	18%	3	0.1	0.1
% People of Color	57%	31%	82	40%	70	1.4	1.8

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

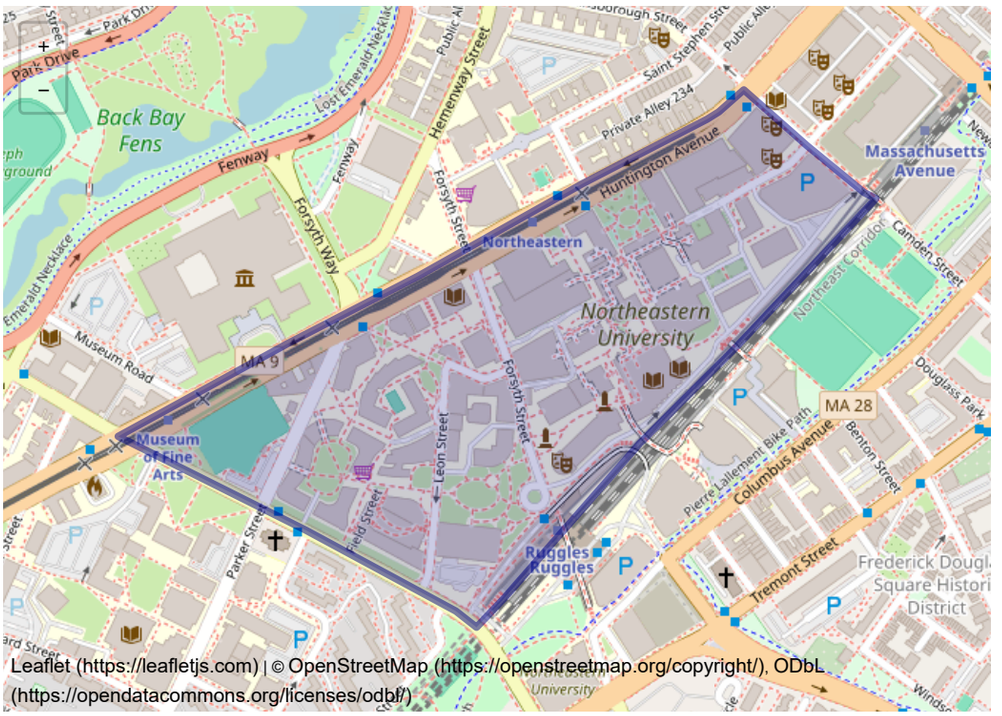
The indexes for a selected area are compared to those for all other locations in the state or nation.

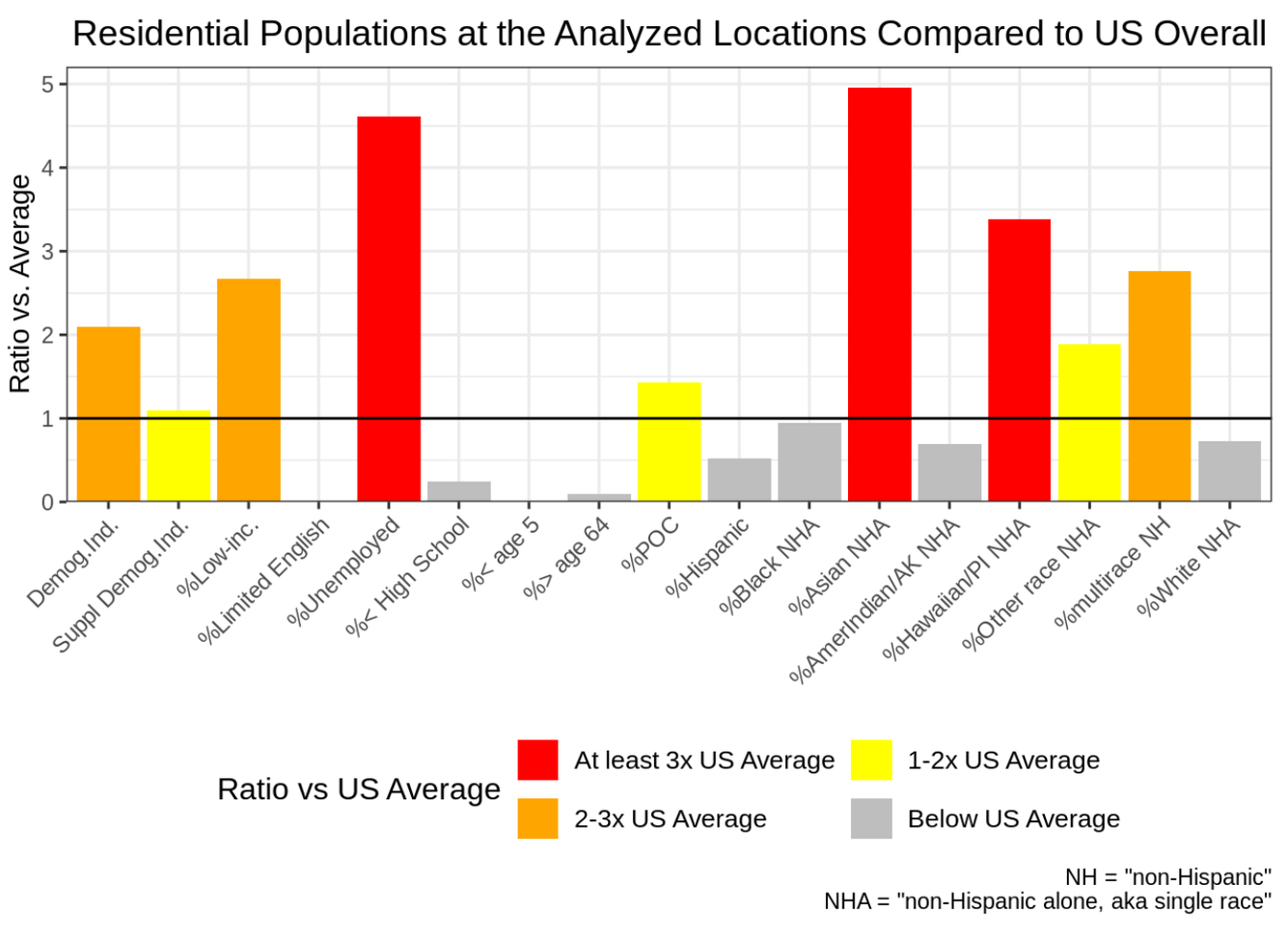
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	93	37
Ozone Summary Index	89	68
Nitrogen Dioxide (NO2) Summary Index	98	98
Diesel Particulate Matter Summary Index	98	97
Toxic Releases to Air Summary Index	98	96
Traffic Proximity and Volume Summary Index	99	98
Lead Paint Summary Index	0	0
Superfund Proximity Summary Index	91	89
RMP Proximity Summary Index	95	90
Hazardous Waste Proximity Summary Index	99	98
Underground Storage Tanks Summary Index	98	96
Wastewater Discharge Summary Index	97	88
Drinking Water Non-Compliance Summary Index	97	98
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	76	15
Ozone Supplemental Summary Index	59	37
Nitrogen Dioxide (NO2) Supplemental Summary Index	89	90
Diesel Particulate Matter Supplemental Summary Index	91	88
Toxic Releases to Air Supplemental Summary Index	90	86
Traffic Proximity and Volume Supplemental Summary Index	91	91
Lead Paint Supplemental Summary Index	0	0
Superfund Proximity Supplemental Summary Index	69	75
RMP Proximity Supplemental Summary Index	84	76
Hazardous Waste Proximity Supplemental Summary Index	92	91
Underground Storage Tanks Supplemental Summary Index	87	85
Wastewater Discharge Supplemental Summary Index	86	69
Drinking Water Non-Compliance Supplemental Summary Index	91	91

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	9%	0.5	0.7
% Black or African American (non-Hispanic, single race)	12%	0.9	1.7
% Asian (non-Hispanic, single race)	25%	5	3.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0.7	4
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	1%	3.4	15
% Other race (non-Hispanic, single race)	1%	1.9	0.8
% Two or more races (non-Hispanic)	9%	2.8	2.4
% White (non-Hispanic, single race)	43%	0.7	0.6
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	38%	NA	NA
% speaking Other Indo-European at home	13%	NA	NA
% speaking Asian and Pacific Island languages at home	13%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	9%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	43%	NA	NA
% Females	57%	NA	NA
HEALTH			
% with Disabilities	10%	0.8	0.8
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.20	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	2%	0.1	0.1
COMMUNITY			
Occupied Housing Units	47	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	6,833	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	100%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	1	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	1	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	89%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	100%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	3,127	NA	NA
Count of Population Age 25 up	250	NA	NA
Count of Households	47	NA	NA
Universe for % unemployed (denominator, count)	3,127	NA	NA
Count of Housing Units Built Pre 1960	0	NA	NA
Built housing units count (denominator for % pre 1960)	47	NA	NA
Count of Population for whom Poverty Status is Determined	203	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250104052)
Area in Square Miles: 0.03
Population: 2,285

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.60	6.52	55	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	43	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	19.2	8.8	98	7.8	99	2.4	2.2
Diesel Particulate Matter (ug/m3)	0.365	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,100	2,800	82	4,600	83	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	22,000,000	6,100,000	97	1,700,000	99	13.0	3.6
Lead Paint Indicator (% pre-1960s housing)	76.55%	0.51	78	0.3	90	2.6	1.5
Superfund Proximity (site count/km distance)	0.10	0.34	42	0.39	58	0.2	0.3
RMP Proximity (facility count/km distance)	0.56	0.37	77	0.57	66	1.0	1.5
Hazardous Waste Proximity (facility count/km distance)	56.8	11.2	97	3.5	99	16.0	5.1
Underground Storage Tanks (UST) indicator	20.7	3.3	98	3.6	96	5.7	6.2
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	77	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.63	1.19	94	1.34	90	2.0	2.6
Supplemental Demographic Index USA	2.13	1.52	84	1.64	79	1.3	1.5
% Low Income	76%	22%	98	30%	96	2.5	3.4
% in limited English-speaking Households	12%	6%	83	5%	88	2.6	2.1
% Unemployed	15%	5%	93	6%	92	2.7	2.9
% with Less Than High School Education	7%	9%	59	11%	48	0.7	0.8
% under Age 5	5%	5%	59	5%	53	0.9	1.0
% over Age 64	5%	18%	8	18%	9	0.3	0.3
% People of Color	53%	31%	80	40%	68	1.3	1.7

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

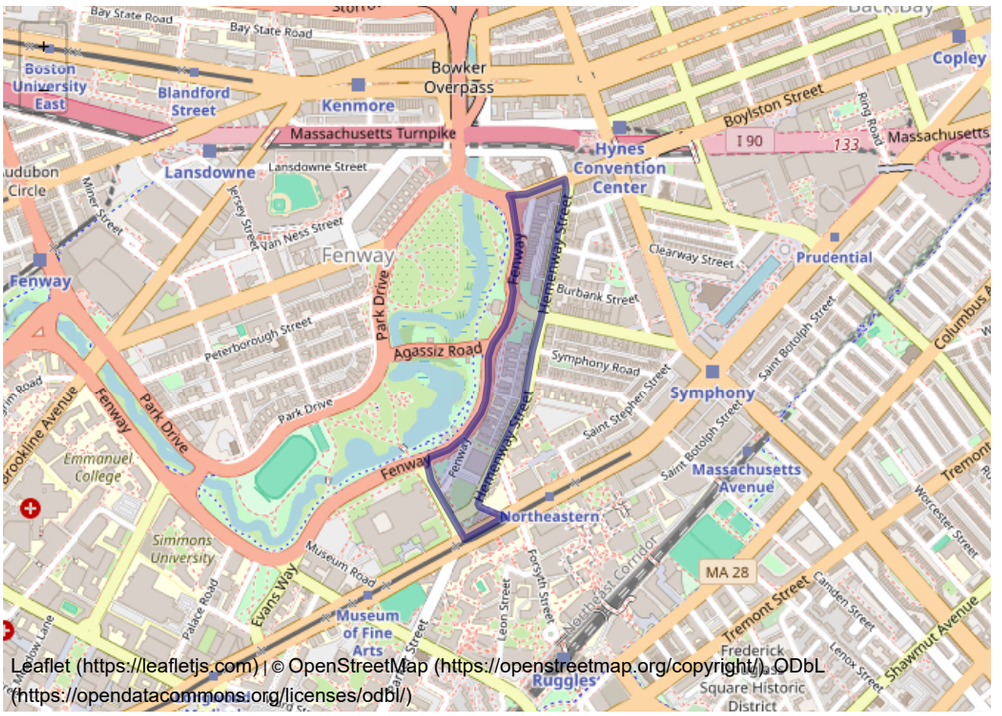
The indexes for a selected area are compared to those for all other locations in the state or nation.

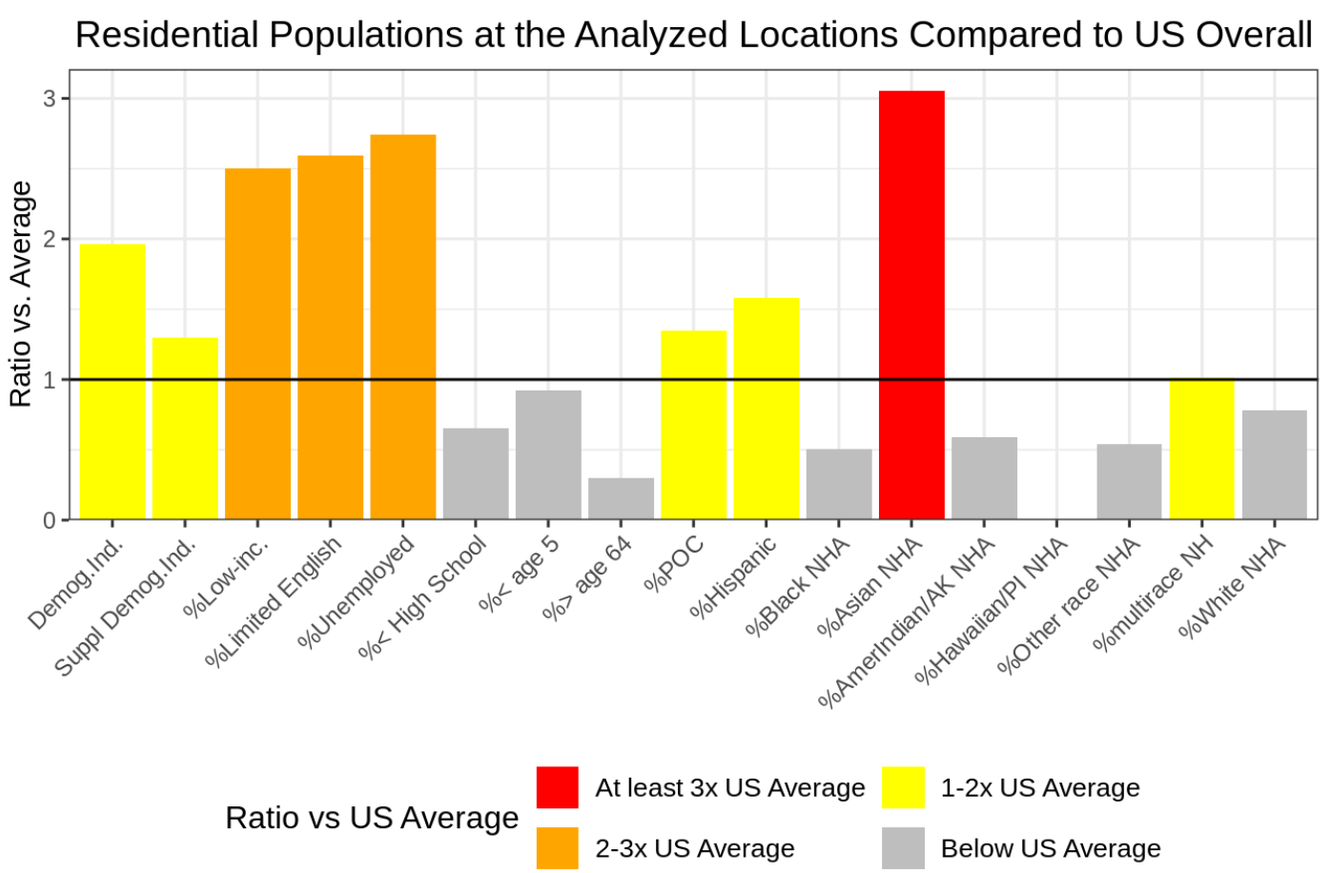
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	92	35
Ozone Summary Index	87	66
Nitrogen Dioxide (NO2) Summary Index	97	97
Diesel Particulate Matter Summary Index	97	96
Toxic Releases to Air Summary Index	97	95
Traffic Proximity and Volume Summary Index	98	97
Lead Paint Summary Index	96	96
Superfund Proximity Summary Index	88	87
RMP Proximity Summary Index	94	88
Hazardous Waste Proximity Summary Index	98	98
Underground Storage Tanks Summary Index	98	97
Wastewater Discharge Summary Index	97	87
Drinking Water Non-Compliance Summary Index	97	97
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	83	18
Ozone Supplemental Summary Index	67	44
Nitrogen Dioxide (NO2) Supplemental Summary Index	93	94
Diesel Particulate Matter Supplemental Summary Index	94	93
Toxic Releases to Air Supplemental Summary Index	94	91
Traffic Proximity and Volume Supplemental Summary Index	95	95
Lead Paint Supplemental Summary Index	89	92
Superfund Proximity Supplemental Summary Index	73	80
RMP Proximity Supplemental Summary Index	88	81
Hazardous Waste Proximity Supplemental Summary Index	95	95
Underground Storage Tanks Supplemental Summary Index	93	93
Wastewater Discharge Supplemental Summary Index	91	78
Drinking Water Non-Compliance Supplemental Summary Index	94	95

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	28%	1.6	2.2
% Black or African American (non-Hispanic, single race)	6%	0.5	0.9
% Asian (non-Hispanic, single race)	15%	3.1	2.3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0.6	3.3
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0.5	0.2
% Two or more races (non-Hispanic)	3%	1	0.9
% White (non-Hispanic, single race)	47%	0.8	0.7
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	38%	NA	NA
% speaking Other Indo-European at home	13%	NA	NA
% speaking Asian and Pacific Island languages at home	13%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	9%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	25%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	20%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	40%	NA	NA
% speaking Other languages (as % of limited English households)	15%	NA	NA
BREAKDOWN BY SEX			
% Males	36%	NA	NA
% Females	64%	NA	NA
HEALTH			
% with Disabilities	10%	0.8	0.8
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.20	NA	NA
AGE			
% under Age 5	5%	0.9	1
% under age 18	13%	NA	NA
% over Age 64	5%	0.3	0.3
COMMUNITY			
Occupied Housing Units	521	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	14,522	NA	NA
% Owner Occupied households	12%	NA	NA
POVERTY			
% of Households below Poverty Level	39%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	1	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	36%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	14%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	2,285	NA	NA
Count of Population Age 25 up	583	NA	NA
Count of Households	521	NA	NA
Universe for % unemployed (denominator, count)	2,059	NA	NA
Count of Housing Units Built Pre 1960	470	NA	NA
Built housing units count (denominator for % pre 1960)	614	NA	NA
Count of Population for whom Poverty Status is Determined	1,321	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250104053)
Area in Square Miles: 0.02
Population: 509

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.60	6.52	55	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	43	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	19.2	8.8	98	7.8	99	2.4	2.2
Diesel Particulate Matter (ug/m3)	0.367	0.176	95	0.191	90	1.9	2.1
Toxic Releases to Air	4,100	2,800	83	4,600	83	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	26,000,000	6,100,000	99	1,700,000	99	15.0	4.3
Lead Paint Indicator (% pre-1960s housing)	53.10%	0.51	50	0.3	76	1.8	1.0
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.66	0.37	81	0.57	70	1.2	1.8
Hazardous Waste Proximity (facility count/km distance)	55.1	11.2	97	3.5	99	16.0	4.9
Underground Storage Tanks (UST) indicator	7.6	3.3	87	3.6	86	2.1	2.3
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	77	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.85	1.19	97	1.34	93	2.1	2.8
Supplemental Demographic Index USA	3.50	1.52	98	1.64	98	2.1	2.5
% Low Income	74%	22%	98	30%	95	2.4	3.4
% in limited English-speaking Households	41%	6%	98	5%	97	8.5	6.8
% Unemployed	13%	5%	89	6%	88	2.3	2.4
% with Less Than High School Education	41%	9%	97	11%	96	3.6	4.5
% under Age 5	2%	5%	30	5%	27	0.4	0.5
% over Age 64	42%	18%	96	18%	96	2.4	2.4
% People of Color	70%	31%	88	40%	77	1.8	2.2

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

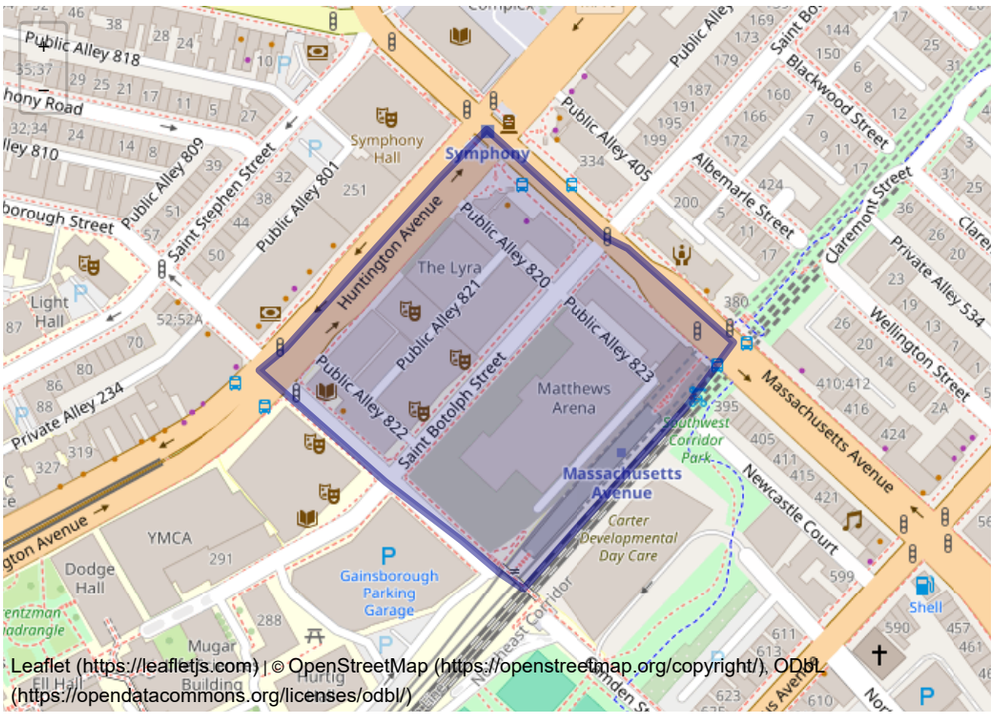
The indexes for a selected area are compared to those for all other locations in the state or nation.

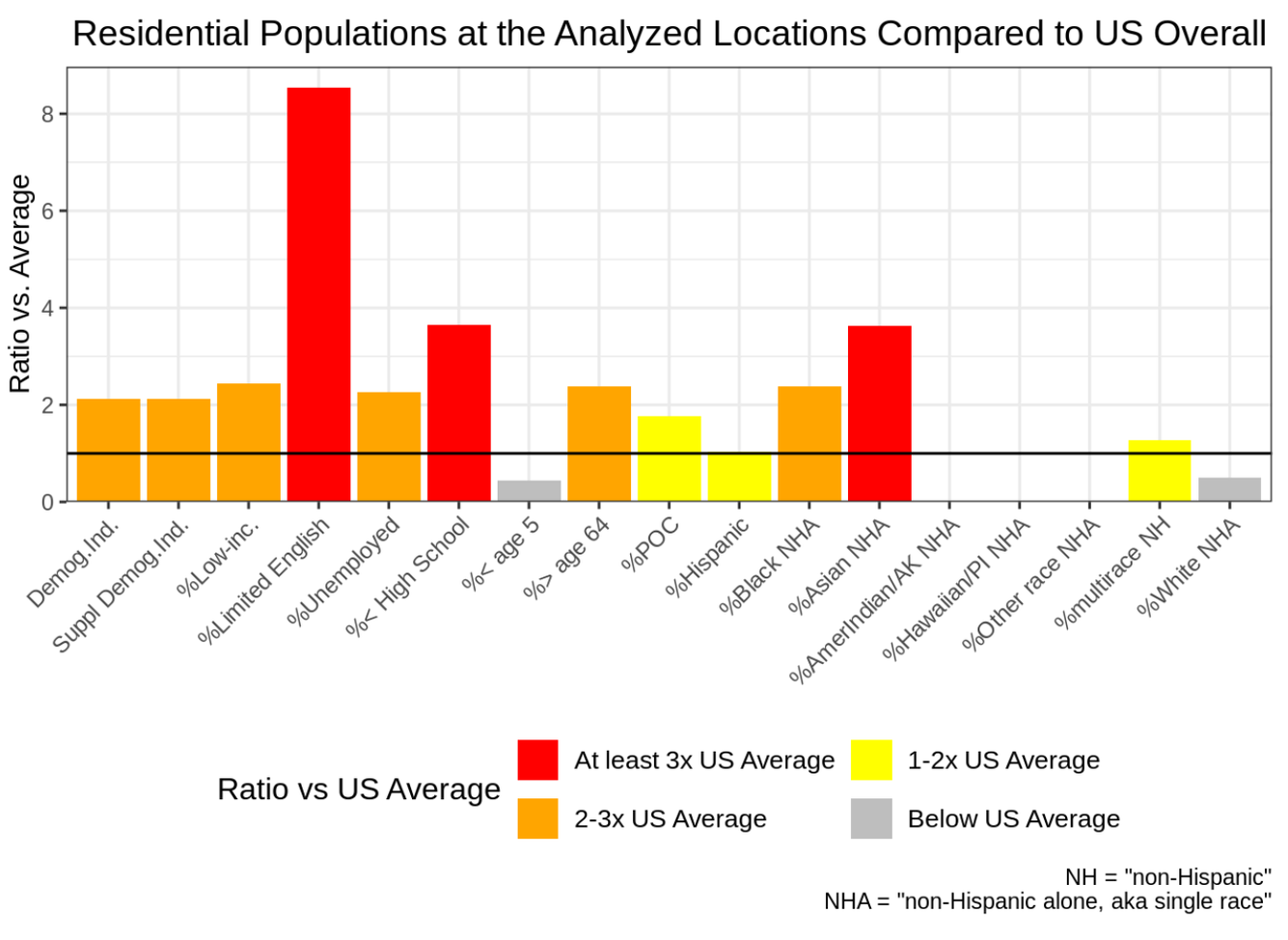
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	93	37
Ozone Summary Index	89	68
Nitrogen Dioxide (NO2) Summary Index	98	98
Diesel Particulate Matter Summary Index	99	97
Toxic Releases to Air Summary Index	98	96
Traffic Proximity and Volume Summary Index	99	98
Lead Paint Summary Index	90	95
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	96	91
Hazardous Waste Proximity Summary Index	99	98
Underground Storage Tanks Summary Index	97	96
Wastewater Discharge Summary Index	98	89
Drinking Water Non-Compliance Summary Index	98	98
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	95	29
Ozone Supplemental Summary Index	89	69
Nitrogen Dioxide (NO2) Supplemental Summary Index	99	99
Diesel Particulate Matter Supplemental Summary Index	99	99
Toxic Releases to Air Supplemental Summary Index	99	99
Traffic Proximity and Volume Supplemental Summary Index	99	99
Lead Paint Supplemental Summary Index	91	98
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	97	96
Hazardous Waste Proximity Supplemental Summary Index	99	99
Underground Storage Tanks Supplemental Summary Index	98	99
Wastewater Discharge Supplemental Summary Index	99	94
Drinking Water Non-Compliance Supplemental Summary Index	99	99

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	18%	1	1.4
% Black or African American (non-Hispanic, single race)	29%	2.4	4.4
% Asian (non-Hispanic, single race)	18%	3.6	2.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	4%	1.3	1.1
% White (non-Hispanic, single race)	30%	0.5	0.4
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	38%	NA	NA
% speaking Other Indo-European at home	13%	NA	NA
% speaking Asian and Pacific Island languages at home	13%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	9%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	29%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	25%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	45%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	43%	NA	NA
% Females	57%	NA	NA
HEALTH			
% with Disabilities	10%	0.8	0.8
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.20	NA	NA
AGE			
% under Age 5	2%	0.4	0.5
% under age 18	8%	NA	NA
% over Age 64	42%	2.4	2.4
COMMUNITY			
Occupied Housing Units	258	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	13,828	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	42%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	1	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	33%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	36%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	509	NA	NA
Count of Population Age 25 up	347	NA	NA
Count of Households	258	NA	NA
Universe for % unemployed (denominator, count)	470	NA	NA
Count of Housing Units Built Pre 1960	137	NA	NA
Built housing units count (denominator for % pre 1960)	258	NA	NA
Count of Population for whom Poverty Status is Determined	356	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250104081)
Area in Square Miles: 0.02
Population: 1,349

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.59	6.52	54	8.45	11	0.8	1.0
Ozone (ppb)	55.9	56.7	40	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.9	8.8	98	7.8	99	2.5	2.3
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,300	2,800	86	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	20,000,000	6,100,000	97	1,700,000	99	12.0	3.3
Lead Paint Indicator (% pre-1960s housing)	74.18%	0.51	75	0.3	88	2.5	1.5
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.50	0.37	74	0.57	63	0.9	1.3
Hazardous Waste Proximity (facility count/km distance)	61.3	11.2	99	3.5	99	17.0	5.5
Underground Storage Tanks (UST) indicator	37.7	3.3	100	3.6	99	10.0	11.0
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	130	760	77	700,000	58	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.49	1.19	77	1.34	63	1.1	1.5
Supplemental Demographic Index USA	1.14	1.52	38	1.64	24	0.7	0.8
% Low Income	38%	22%	81	30%	67	1.2	1.7
% in limited English-speaking Households	4%	6%	60	5%	71	0.7	0.6
% Unemployed	5%	5%	59	6%	59	0.9	0.9
% with Less Than High School Education	2%	9%	30	11%	21	0.2	0.3
% under Age 5	1%	5%	17	5%	15	0.2	0.2
% over Age 64	2%	18%	3	18%	4	0.1	0.1
% People of Color	38%	31%	67	40%	56	1.0	1.2

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

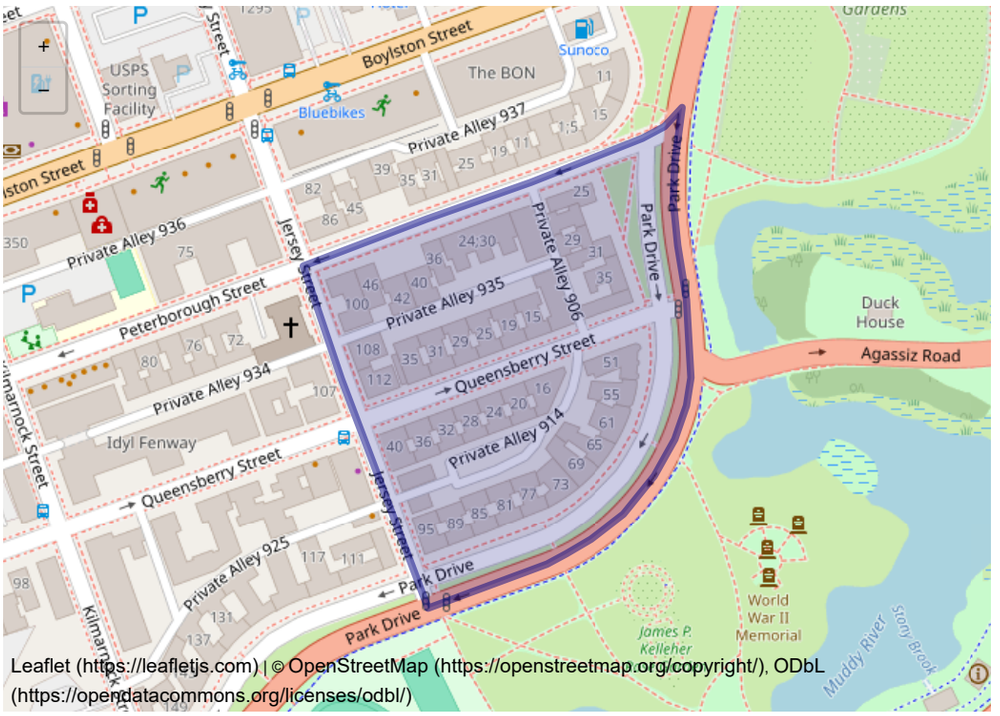
The indexes for a selected area are compared to those for all other locations in the state or nation.

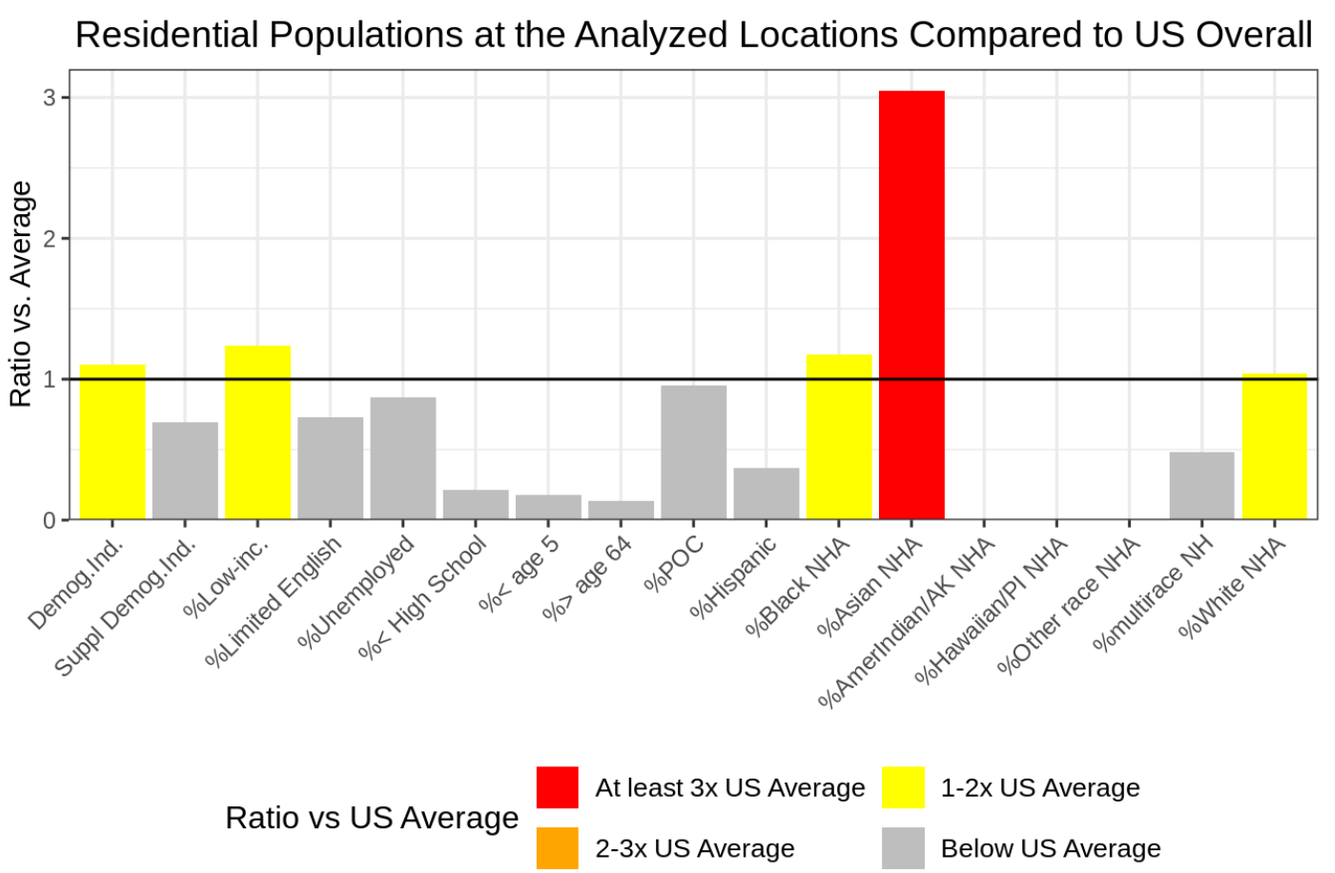
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	79	23
Ozone Summary Index	69	46
Nitrogen Dioxide (NO2) Summary Index	86	83
Diesel Particulate Matter Summary Index	87	80
Toxic Releases to Air Summary Index	89	83
Traffic Proximity and Volume Summary Index	88	83
Lead Paint Summary Index	83	83
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	82	71
Hazardous Waste Proximity Summary Index	89	84
Underground Storage Tanks Summary Index	88	84
Wastewater Discharge Summary Index	85	70
Drinking Water Non-Compliance Summary Index	89	90
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	53	9
Ozone Supplemental Summary Index	39	22
Nitrogen Dioxide (NO2) Supplemental Summary Index	74	73
Diesel Particulate Matter Supplemental Summary Index	75	70
Toxic Releases to Air Supplemental Summary Index	75	66
Traffic Proximity and Volume Supplemental Summary Index	75	75
Lead Paint Supplemental Summary Index	64	65
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	63	52
Hazardous Waste Proximity Supplemental Summary Index	77	74
Underground Storage Tanks Supplemental Summary Index	75	72
Wastewater Discharge Supplemental Summary Index	66	48
Drinking Water Non-Compliance Supplemental Summary Index	77	80

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	7%	0.4	0.5
% Black or African American (non-Hispanic, single race)	14%	1.2	2.2
% Asian (non-Hispanic, single race)	15%	3	2.3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	2%	0.5	0.4
% White (non-Hispanic, single race)	62%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	31%	NA	NA
% speaking Other Indo-European at home	13%	NA	NA
% speaking Asian and Pacific Island languages at home	9%	NA	NA
% speaking Other and Unspecified languages at home	2%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	7%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	35%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	65%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	47%	NA	NA
% Females	53%	NA	NA
HEALTH			
% with Disabilities	4%	0.3	0.4
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	1	NA	NA
% of Adults with Asthma	10.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.20	NA	NA
AGE			
% under Age 5	1%	0.2	0.2
% under age 18	3%	NA	NA
% over Age 64	2%	0.1	0.1
COMMUNITY			
Occupied Housing Units	880	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	53,954	NA	NA
% Owner Occupied households	13%	NA	NA
POVERTY			
% of Households below Poverty Level	29%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	100%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	5%	NA	NA
% Households without Health Insurance	2%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,349	NA	NA
Count of Population Age 25 up	967	NA	NA
Count of Households	880	NA	NA
Universe for % unemployed (denominator, count)	1,312	NA	NA
Count of Housing Units Built Pre 1960	698	NA	NA
Built housing units count (denominator for % pre 1960)	941	NA	NA
Count of Population for whom Poverty Status is Determined	1,349	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250105001)
Area in Square Miles: 0.05
Population: 1,221

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.58	6.52	52	8.45	11	0.8	1.0
Ozone (ppb)	56.1	56.7	44	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	20.6	8.8	99	7.8	99	2.6	2.3
Diesel Particulate Matter (ug/m3)	0.376	0.176	96	0.191	90	2.0	2.1
Toxic Releases to Air	4,000	2,800	81	4,600	83	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	25,000,000	6,100,000	99	1,700,000	99	15.0	4.2
Lead Paint Indicator (% pre-1960s housing)	25.90%	0.51	22	0.3	54	0.9	0.5
Superfund Proximity (site count/km distance)	0.00	0.34	0	0.39	0	0.0	0.0
RMP Proximity (facility count/km distance)	0.59	0.37	78	0.57	67	1.0	1.6
Hazardous Waste Proximity (facility count/km distance)	60.0	11.2	98	3.5	99	17.0	5.4
Underground Storage Tanks (UST) indicator	2.7	3.3	59	3.6	68	0.7	0.8
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	150	760	79	700,000	59	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.04	1.19	87	1.34	78	1.5	2.0
Supplemental Demographic Index USA	1.51	1.52	68	1.64	48	0.9	1.1
% Low Income	57%	22%	93	30%	87	1.9	2.6
% in limited English-speaking Households	2%	6%	51	5%	64	0.4	0.3
% Unemployed	17%	5%	95	6%	94	3.1	3.2
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	2%	18%	3	18%	3	0.1	0.1
% People of Color	44%	31%	74	40%	61	1.1	1.4

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

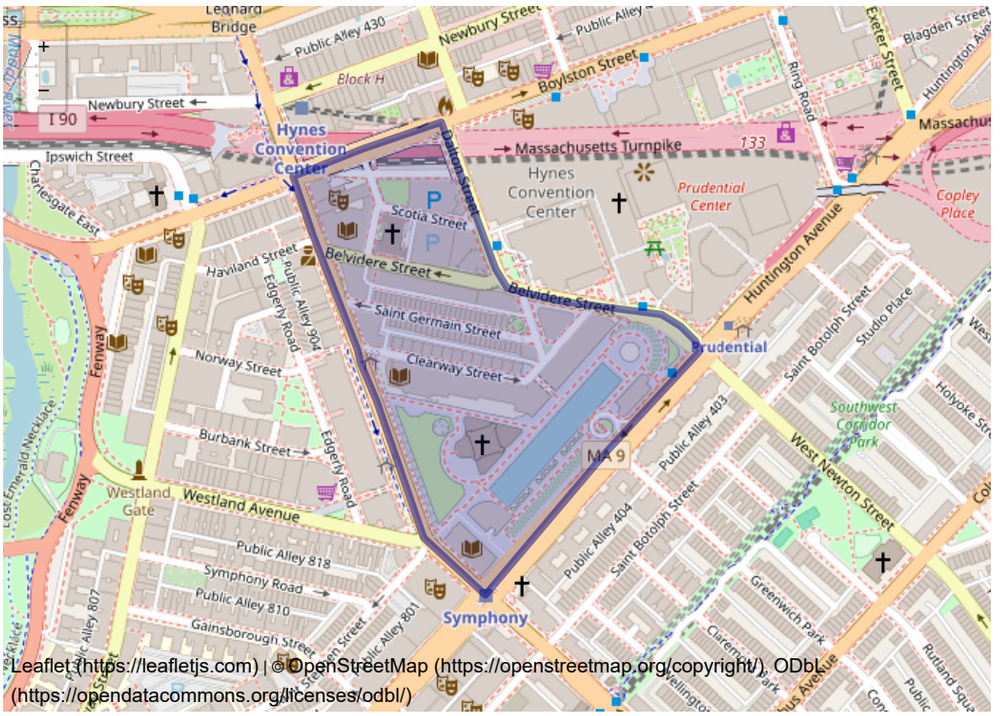
The indexes for a selected area are compared to those for all other locations in the state or nation.

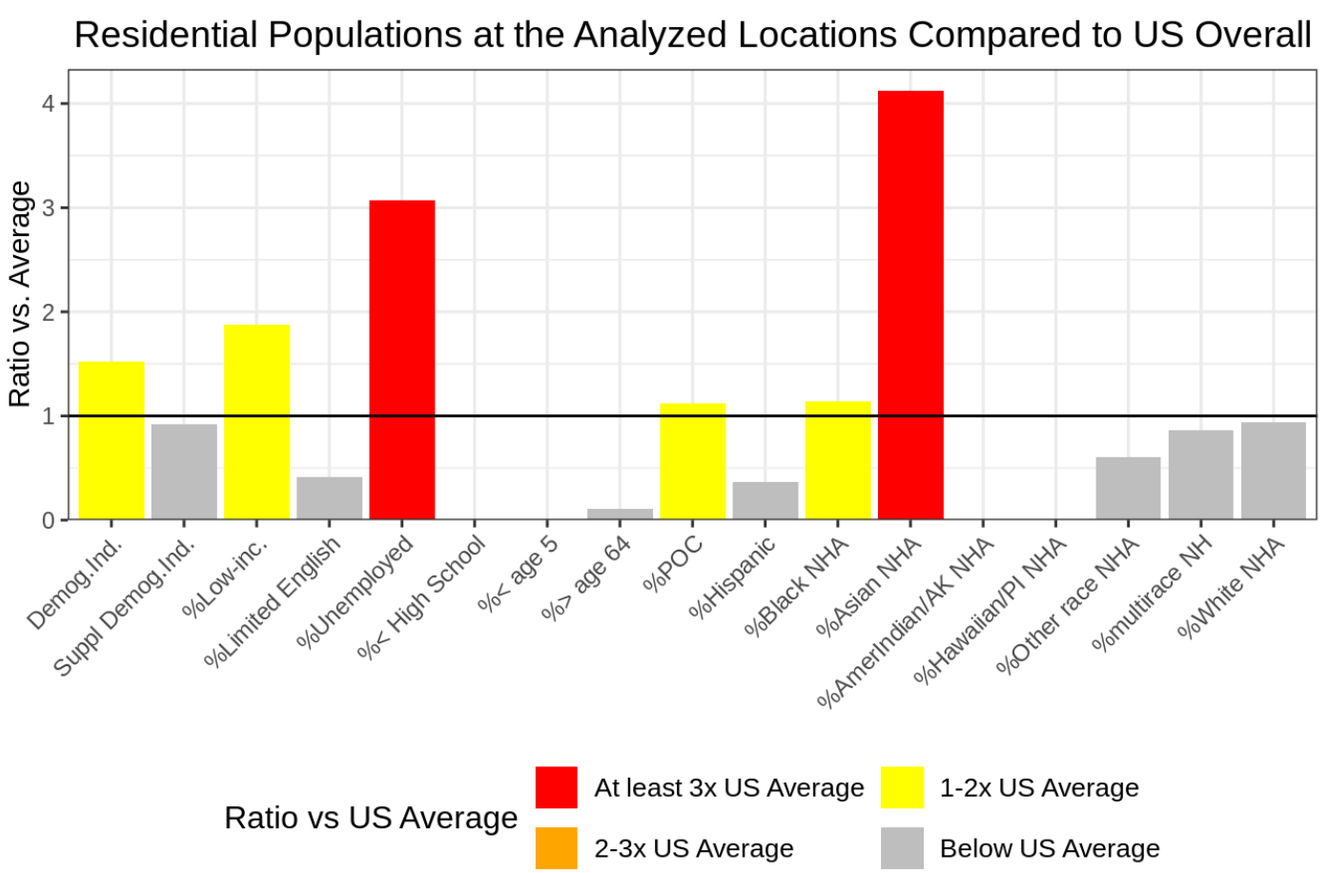
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	86	29
Ozone Summary Index	80	57
Nitrogen Dioxide (NO2) Summary Index	93	91
Diesel Particulate Matter Summary Index	94	90
Toxic Releases to Air Summary Index	93	90
Traffic Proximity and Volume Summary Index	95	92
Lead Paint Summary Index	57	78
Superfund Proximity Summary Index	0	0
RMP Proximity Summary Index	90	82
Hazardous Waste Proximity Summary Index	95	92
Underground Storage Tanks Summary Index	83	83
Wastewater Discharge Summary Index	92	80
Drinking Water Non-Compliance Summary Index	93	94
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	67	12
Ozone Supplemental Summary Index	53	31
Nitrogen Dioxide (NO2) Supplemental Summary Index	85	84
Diesel Particulate Matter Supplemental Summary Index	87	82
Toxic Releases to Air Supplemental Summary Index	86	79
Traffic Proximity and Volume Supplemental Summary Index	88	85
Lead Paint Supplemental Summary Index	31	55
Superfund Proximity Supplemental Summary Index	0	0
RMP Proximity Supplemental Summary Index	79	67
Hazardous Waste Proximity Supplemental Summary Index	88	85
Underground Storage Tanks Supplemental Summary Index	68	68
Wastewater Discharge Supplemental Summary Index	82	62
Drinking Water Non-Compliance Supplemental Summary Index	87	87

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	7%	0.4	0.5
% Black or African American (non-Hispanic, single race)	14%	1.1	2.1
% Asian (non-Hispanic, single race)	21%	4.1	3
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0.6	0.2
% Two or more races (non-Hispanic)	3%	0.9	0.8
% White (non-Hispanic, single race)	56%	0.9	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	36%	NA	NA
% speaking Other Indo-European at home	7%	NA	NA
% speaking Asian and Pacific Island languages at home	8%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	18%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	48%	NA	NA
% Females	52%	NA	NA
HEALTH			
% with Disabilities	12%	0.9	1
% with Low Life Expectancy	18%	0.9	1
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.20	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	2%	0.1	0.1
COMMUNITY			
Occupied Housing Units	456	NA	NA
Life Expectancy in Years	80	NA	NA
Per Capita Income	60,461	NA	NA
% Owner Occupied households	6%	NA	NA
POVERTY			
% of Households below Poverty Level	38%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	1	NA	NA
Number of Air Pollution Facilities	3	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	4	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	2	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	1%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	20%	NA	NA
% Households without Health Insurance	2%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,221	NA	NA
Count of Population Age 25 up	443	NA	NA
Count of Households	456	NA	NA
Universe for % unemployed (denominator, count)	1,221	NA	NA
Count of Housing Units Built Pre 1960	159	NA	NA
Built housing units count (denominator for % pre 1960)	614	NA	NA
Count of Population for whom Poverty Status is Determined	717	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250806011)
Area in Square Miles: 0.09
Population: 3,047

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.60	6.52	55	8.45	11	0.8	1.0
Ozone (ppb)	56.1	56.7	44	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	18.2	8.8	97	7.8	99	2.3	2.1
Diesel Particulate Matter (ug/m3)	0.367	0.176	95	0.191	90	1.9	2.1
Toxic Releases to Air	4,200	2,800	84	4,600	84	0.9	1.5
Traffic Proximity and Volume (daily traffic count/distance to road)	27,000,000	6,100,000	99	1,700,000	99	16.0	4.4
Lead Paint Indicator (% pre-1960s housing)	38.21%	0.51	34	0.3	65	1.3	0.8
Superfund Proximity (site count/km distance)	0.10	0.34	45	0.39	59	0.3	0.3
RMP Proximity (facility count/km distance)	0.70	0.37	82	0.57	72	1.2	1.9
Hazardous Waste Proximity (facility count/km distance)	52.0	11.2	96	3.5	99	15.0	4.6
Underground Storage Tanks (UST) indicator	4.0	3.3	71	3.6	75	1.1	1.2
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	120	760	75	700,000	57	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.53	1.19	93	1.34	88	1.9	2.5
Supplemental Demographic Index USA	2.77	1.52	95	1.64	93	1.7	2.0
% Low Income	65%	22%	95	30%	91	2.1	2.9
% in limited English-speaking Households	20%	6%	91	5%	93	4.2	3.3
% Unemployed	23%	5%	98	6%	97	4.1	4.3
% with Less Than High School Education	33%	9%	95	11%	93	2.9	3.6
% under Age 5	0%	5%	13	5%	13	0.1	0.1
% over Age 64	5%	18%	7	18%	8	0.3	0.3
% People of Color	64%	31%	86	40%	74	1.6	2.1

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

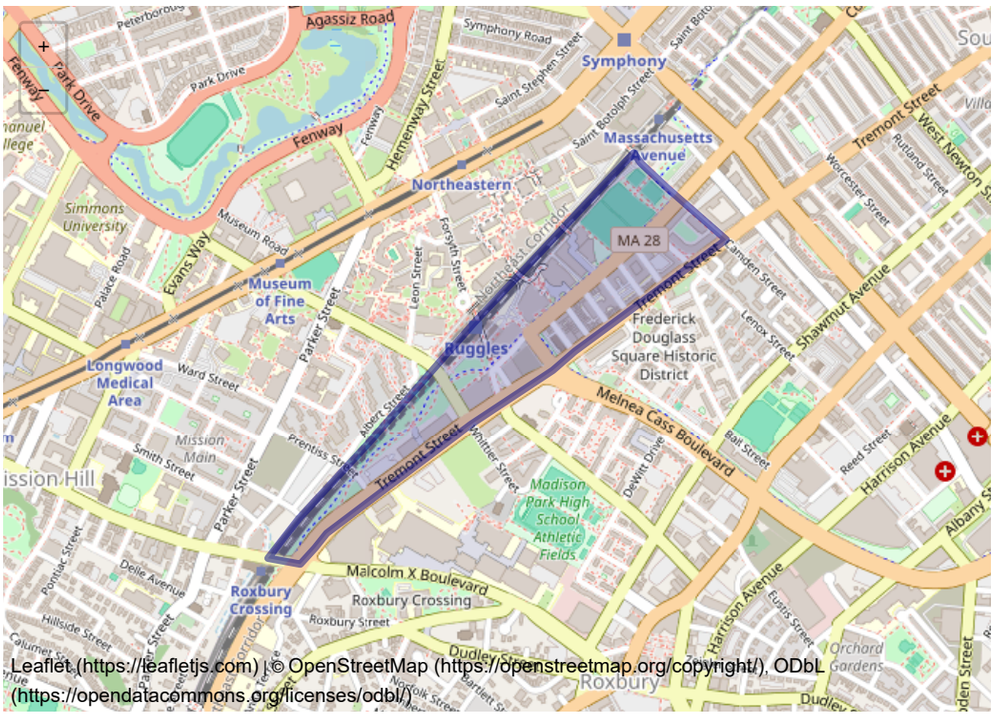
The indexes for a selected area are compared to those for all other locations in the state or nation.

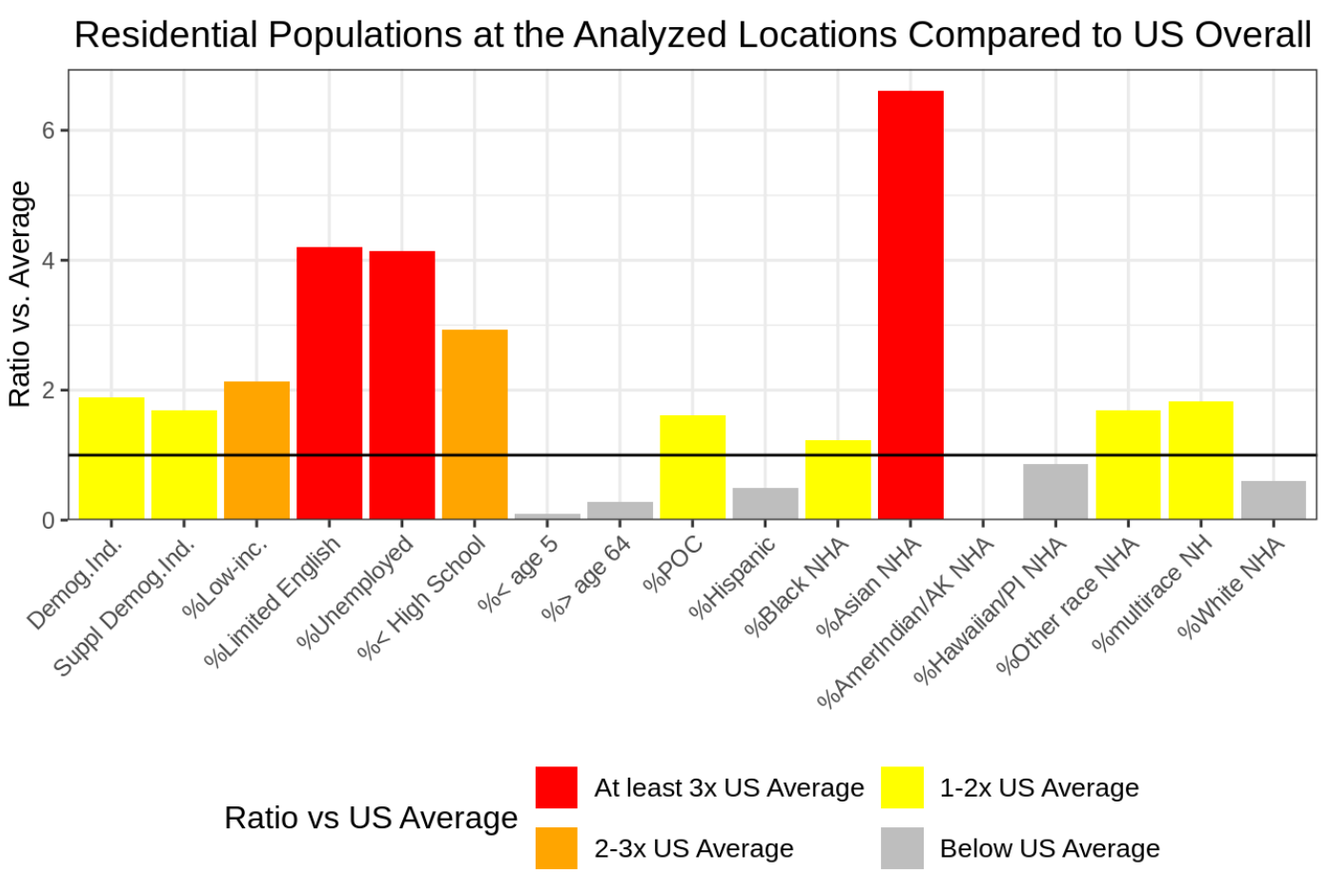
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	91	34
Ozone Summary Index	87	64
Nitrogen Dioxide (NO2) Summary Index	97	96
Diesel Particulate Matter Summary Index	97	95
Toxic Releases to Air Summary Index	97	95
Traffic Proximity and Volume Summary Index	98	97
Lead Paint Summary Index	77	89
Superfund Proximity Summary Index	89	86
RMP Proximity Summary Index	95	89
Hazardous Waste Proximity Summary Index	98	97
Underground Storage Tanks Summary Index	92	91
Wastewater Discharge Summary Index	96	85
Drinking Water Non-Compliance Summary Index	96	97
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	91	23
Ozone Supplemental Summary Index	83	56
Nitrogen Dioxide (NO2) Supplemental Summary Index	97	98
Diesel Particulate Matter Supplemental Summary Index	98	97
Toxic Releases to Air Supplemental Summary Index	98	96
Traffic Proximity and Volume Supplemental Summary Index	99	98
Lead Paint Supplemental Summary Index	71	90
Superfund Proximity Supplemental Summary Index	89	89
RMP Proximity Supplemental Summary Index	95	92
Hazardous Waste Proximity Supplemental Summary Index	99	98
Underground Storage Tanks Supplemental Summary Index	93	94
Wastewater Discharge Supplemental Summary Index	96	87
Drinking Water Non-Compliance Supplemental Summary Index	98	98

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	9%	0.5	0.7
% Black or African American (non-Hispanic, single race)	15%	1.2	2.3
% Asian (non-Hispanic, single race)	33%	6.6	4.9
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0.9	3.9
% Other race (non-Hispanic, single race)	1%	1.7	0.7
% Two or more races (non-Hispanic)	6%	1.8	1.6
% White (non-Hispanic, single race)	36%	0.6	0.5
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	43%	NA	NA
% speaking Other Indo-European at home	9%	NA	NA
% speaking Asian and Pacific Island languages at home	21%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	9%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	35%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	53%	NA	NA
% speaking Other languages (as % of limited English households)	12%	NA	NA
BREAKDOWN BY SEX			
% Males	46%	NA	NA
% Females	54%	NA	NA
HEALTH			
% with Disabilities	13%	1	1.1
% with Low Life Expectancy	23%	1.2	1.3
% with Heart Diseases	2	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.90	NA	NA
AGE			
% under Age 5	0%	0.1	0.1
% under age 18	6%	NA	NA
% over Age 64	5%	0.3	0.3
COMMUNITY			
Occupied Housing Units	400	NA	NA
Life Expectancy in Years	75	NA	NA
Per Capita Income	10,654	NA	NA
% Owner Occupied households	29%	NA	NA
POVERTY			
% of Households below Poverty Level	55%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	4	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	7%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	19%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	3,047	NA	NA
Count of Population Age 25 up	617	NA	NA
Count of Households	400	NA	NA
Universe for % unemployed (denominator, count)	2,888	NA	NA
Count of Housing Units Built Pre 1960	188	NA	NA
Built housing units count (denominator for % pre 1960)	492	NA	NA
Count of Population for whom Poverty Status is Determined	1,137	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
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Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250806012)
Area in Square Miles: 0.08
Population: 131

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.60	6.52	55	8.45	11	0.8	1.0
Ozone (ppb)	56.1	56.7	44	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	17.2	8.8	96	7.8	98	2.2	2.0
Diesel Particulate Matter (ug/m3)	0.366	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,300	2,800	86	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	21,000,000	6,100,000	97	1,700,000	99	13.0	3.5
Lead Paint Indicator (% pre-1960s housing)	21.92%	0.51	18	0.3	50	0.7	0.4
Superfund Proximity (site count/km distance)	0.11	0.34	47	0.39	60	0.3	0.3
RMP Proximity (facility count/km distance)	0.68	0.37	81	0.57	71	1.2	1.8
Hazardous Waste Proximity (facility count/km distance)	46.8	11.2	96	3.5	99	13.0	4.2
Underground Storage Tanks (UST) indicator	1.1	3.3	37	3.6	53	0.3	0.3
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	120	760	75	700,000	57	0.0	0.2
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	3.00	1.19	98	1.34	95	2.2	3.0
Supplemental Demographic Index USA	2.52	1.52	93	1.64	89	1.5	1.8
% Low Income	60%	22%	94	30%	89	2.0	2.7
% in limited English-speaking Households	29%	6%	95	5%	96	6.1	4.8
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	11%	9%	71	11%	63	1.0	1.2
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	18%	18%	59	18%	59	1.0	1.0
% People of Color	100%	31%	100	40%	98	2.5	3.2

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

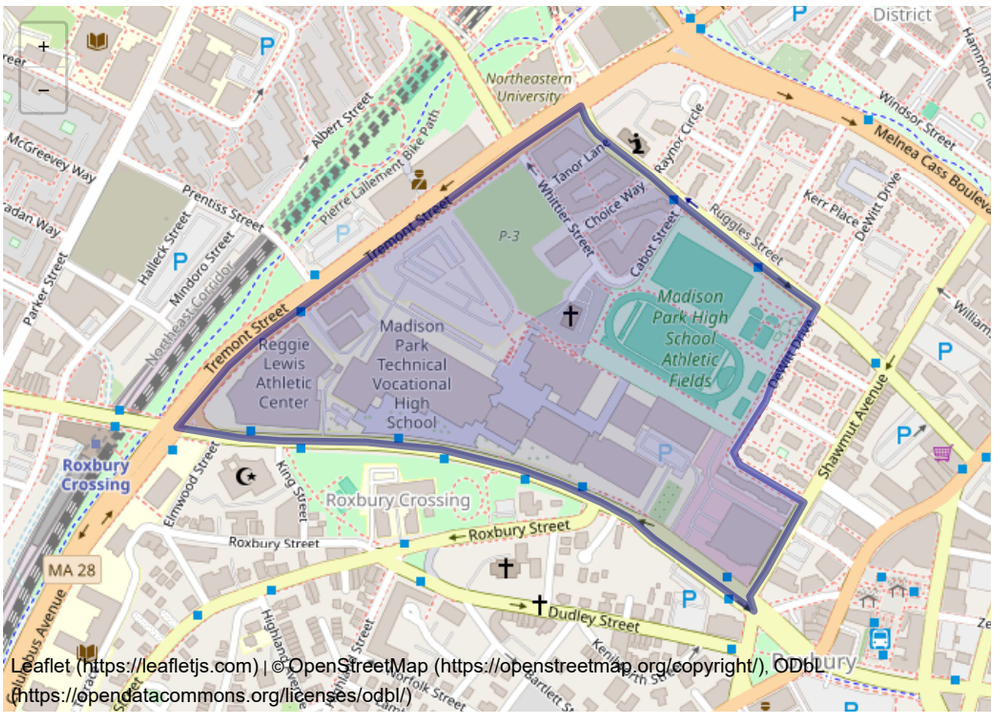
The indexes for a selected area are compared to those for all other locations in the state or nation.

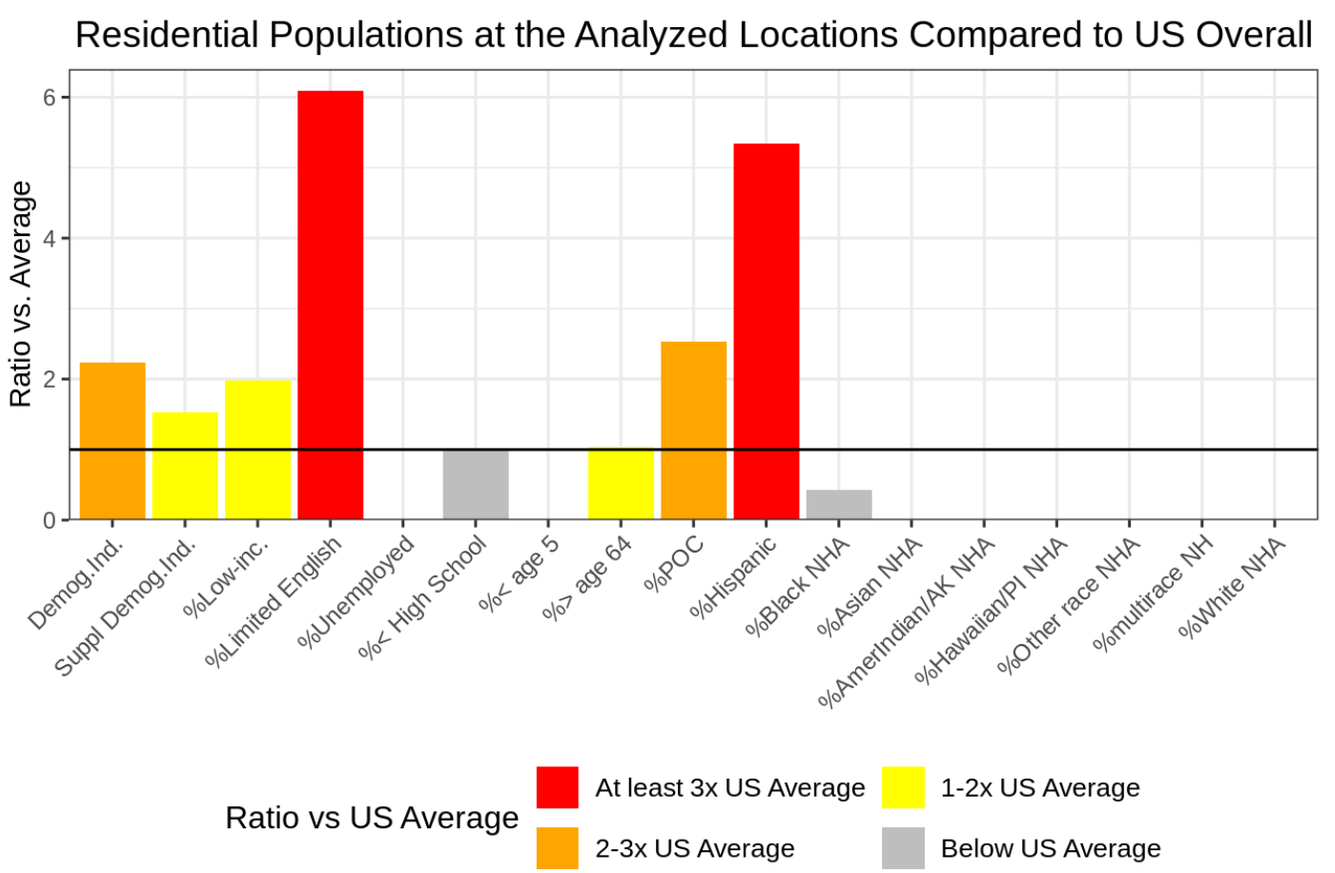
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	94	39
Ozone Summary Index	91	70
Nitrogen Dioxide (NO2) Summary Index	99	98
Diesel Particulate Matter Summary Index	99	98
Toxic Releases to Air Summary Index	99	97
Traffic Proximity and Volume Summary Index	99	99
Lead Paint Summary Index	63	86
Superfund Proximity Summary Index	94	91
RMP Proximity Summary Index	97	93
Hazardous Waste Proximity Summary Index	99	99
Underground Storage Tanks Summary Index	81	86
Wastewater Discharge Summary Index	98	90
Drinking Water Non-Compliance Summary Index	98	99
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	89	21
Ozone Supplemental Summary Index	79	52
Nitrogen Dioxide (NO2) Supplemental Summary Index	96	97
Diesel Particulate Matter Supplemental Summary Index	97	96
Toxic Releases to Air Supplemental Summary Index	98	95
Traffic Proximity and Volume Supplemental Summary Index	98	97
Lead Paint Supplemental Summary Index	41	76
Superfund Proximity Supplemental Summary Index	88	87
RMP Proximity Supplemental Summary Index	93	89
Hazardous Waste Proximity Supplemental Summary Index	98	97
Underground Storage Tanks Supplemental Summary Index	70	79
Wastewater Discharge Supplemental Summary Index	95	84
Drinking Water Non-Compliance Supplemental Summary Index	97	97

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	95%	5.3	7.5
% Black or African American (non-Hispanic, single race)	5%	0.4	0.8
% Asian (non-Hispanic, single race)	0%	0	0
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	0%	0	0
% White (non-Hispanic, single race)	0%	0	0
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	43%	NA	NA
% speaking Other Indo-European at home	9%	NA	NA
% speaking Asian and Pacific Island languages at home	21%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	9%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	100%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	0%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	27%	NA	NA
% Females	73%	NA	NA
HEALTH			
% with Disabilities	13%	1	1.1
% with Low Life Expectancy	23%	1.2	1.3
% with Heart Diseases	2	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	1.90	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	18%	1	1
COMMUNITY			
Occupied Housing Units	58	NA	NA
Life Expectancy in Years	75	NA	NA
Per Capita Income	15,347	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	38%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	2	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	2	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	61%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	62%	NA	NA
% Households without Health Insurance	3%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	131	NA	NA
Count of Population Age 25 up	80	NA	NA
Count of Households	58	NA	NA
Universe for % unemployed (denominator, count)	131	NA	NA
Count of Housing Units Built Pre 1960	16	NA	NA
Built housing units count (denominator for % pre 1960)	73	NA	NA
Count of Population for whom Poverty Status is Determined	131	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250808011)
Area in Square Miles: 0.08
Population: 2,743

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.61	6.52	57	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	42	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	18.3	8.8	97	7.8	99	2.3	2.1
Diesel Particulate Matter (ug/m3)	0.365	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,300	2,800	86	4,600	84	0.9	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	19,000,000	6,100,000	96	1,700,000	99	11.0	3.1
Lead Paint Indicator (% pre-1960s housing)	61.16%	0.51	60	0.3	81	2.0	1.2
Superfund Proximity (site count/km distance)	0.11	0.34	46	0.39	60	0.3	0.3
RMP Proximity (facility count/km distance)	0.54	0.37	75	0.57	65	0.9	1.4
Hazardous Waste Proximity (facility count/km distance)	54.4	11.2	97	3.5	99	15.0	4.9
Underground Storage Tanks (UST) indicator	7.5	3.3	87	3.6	85	2.1	2.3
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	110	760	74	700,000	57	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.94	1.19	97	1.34	94	2.2	2.9
Supplemental Demographic Index USA	3.80	1.52	99	1.64	98	2.3	2.7
% Low Income	80%	22%	98	30%	97	2.6	3.6
% in limited English-speaking Households	28%	6%	95	5%	96	5.8	4.6
% Unemployed	11%	5%	86	6%	84	1.9	2.0
% with Less Than High School Education	42%	9%	98	11%	97	3.7	4.6
% under Age 5	3%	5%	42	5%	38	0.6	0.7
% over Age 64	2%	18%	3	18%	3	0.1	0.1
% People of Color	68%	31%	88	40%	76	1.7	2.2

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

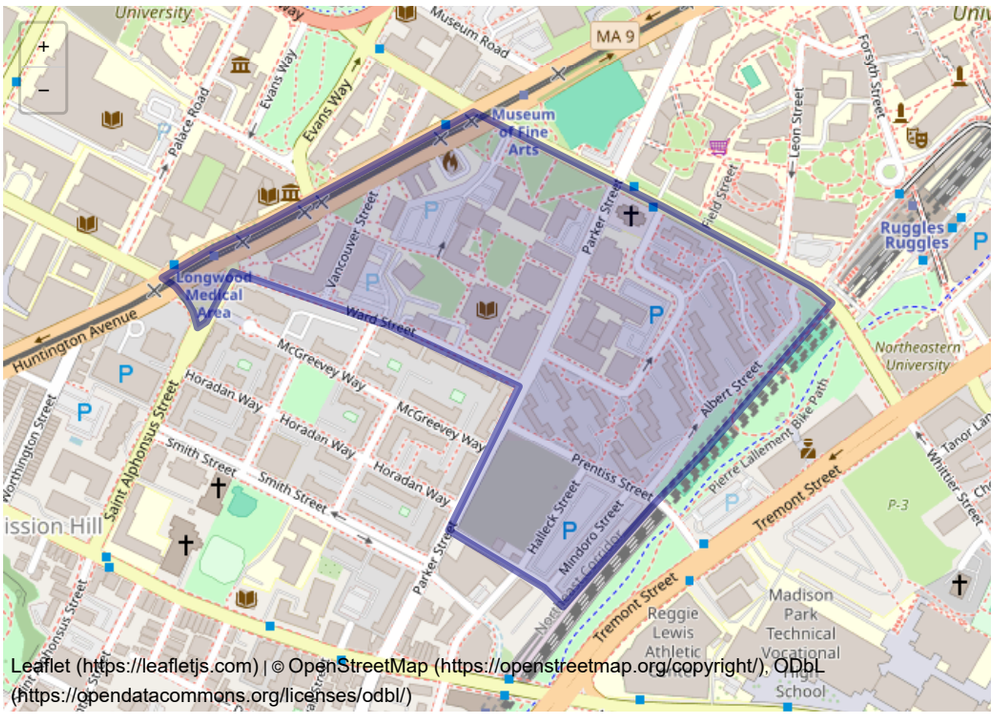
The indexes for a selected area are compared to those for all other locations in the state or nation.

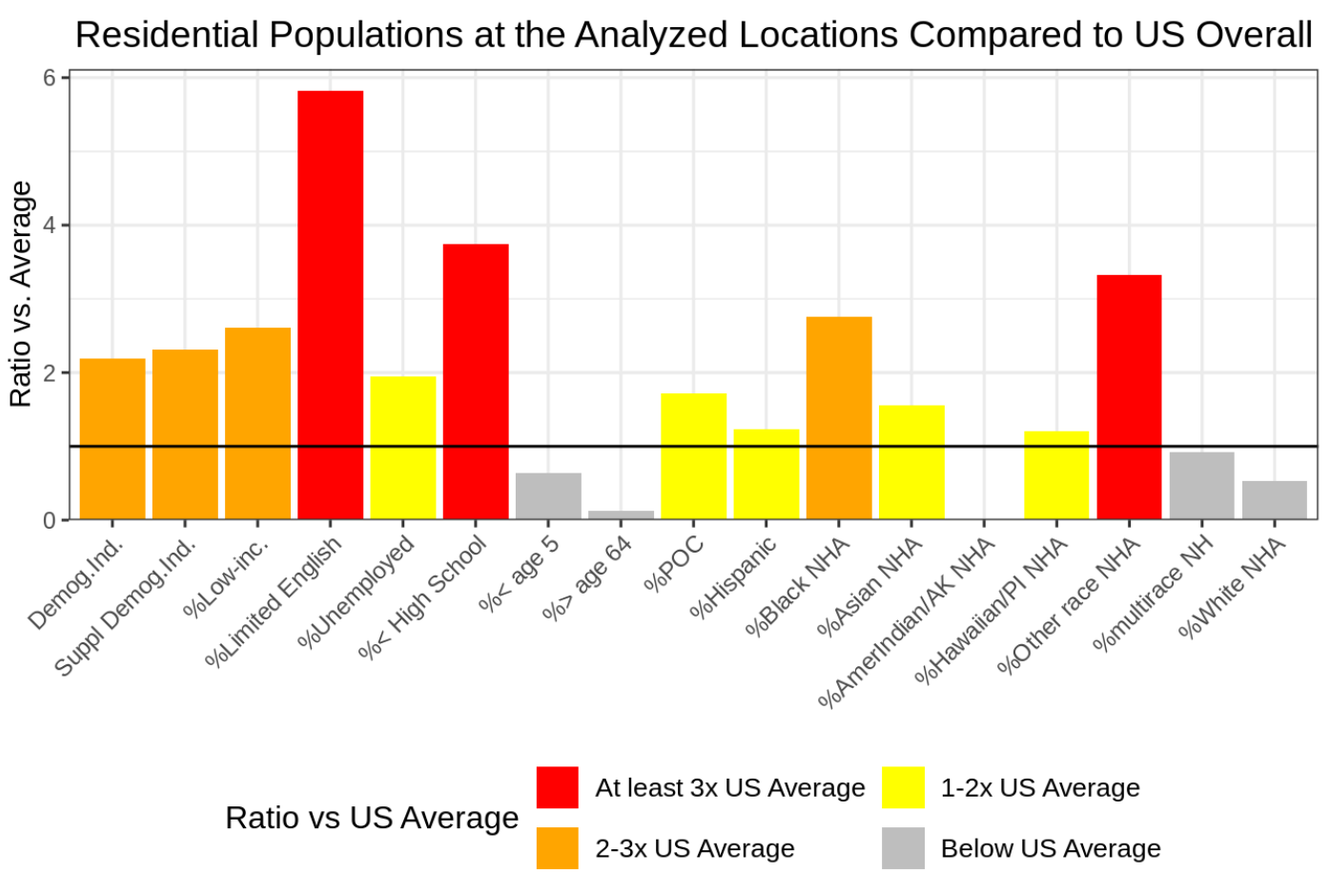
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	94	38
Ozone Summary Index	89	68
Nitrogen Dioxide (NO2) Summary Index	99	98
Diesel Particulate Matter Summary Index	99	97
Toxic Releases to Air Summary Index	99	97
Traffic Proximity and Volume Summary Index	99	99
Lead Paint Summary Index	94	97
Superfund Proximity Summary Index	93	90
RMP Proximity Summary Index	96	90
Hazardous Waste Proximity Summary Index	99	99
Underground Storage Tanks Summary Index	98	96
Wastewater Discharge Summary Index	98	89
Drinking Water Non-Compliance Summary Index	98	98
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	96	31
Ozone Supplemental Summary Index	91	71
Nitrogen Dioxide (NO2) Supplemental Summary Index	99	99
Diesel Particulate Matter Supplemental Summary Index	99	99
Toxic Releases to Air Supplemental Summary Index	99	99
Traffic Proximity and Volume Supplemental Summary Index	99	99
Lead Paint Supplemental Summary Index	97	99
Superfund Proximity Supplemental Summary Index	96	96
RMP Proximity Supplemental Summary Index	97	96
Hazardous Waste Proximity Supplemental Summary Index	99	99
Underground Storage Tanks Supplemental Summary Index	99	99
Wastewater Discharge Supplemental Summary Index	99	96
Drinking Water Non-Compliance Supplemental Summary Index	99	99

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	22%	1.2	1.7
% Black or African American (non-Hispanic, single race)	34%	2.8	5.1
% Asian (non-Hispanic, single race)	8%	1.6	1.1
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	1.2	5.4
% Other race (non-Hispanic, single race)	1%	3.3	1.4
% Two or more races (non-Hispanic)	3%	0.9	0.8
% White (non-Hispanic, single race)	32%	0.5	0.5
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	44%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	7%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	24%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	68%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	24%	NA	NA
% speaking Other languages (as % of limited English households)	8%	NA	NA
BREAKDOWN BY SEX			
% Males	48%	NA	NA
% Females	52%	NA	NA
HEALTH			
% with Disabilities	23%	1.7	1.9
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.60	NA	NA
AGE			
% under Age 5	3%	0.6	0.7
% under age 18	17%	NA	NA
% over Age 64	2%	0.1	0.1
COMMUNITY			
Occupied Housing Units	464	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	8,794	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	73%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	2	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	2	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	2	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	25%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	35%	NA	NA
% Households without Health Insurance	5%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	2,743	NA	NA
Count of Population Age 25 up	644	NA	NA
Count of Households	464	NA	NA
Universe for % unemployed (denominator, count)	2,337	NA	NA
Count of Housing Units Built Pre 1960	296	NA	NA
Built housing units count (denominator for % pre 1960)	484	NA	NA
Count of Population for whom Poverty Status is Determined	1,377	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250808012)
Area in Square Miles: 0.07
Population: 1,390

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.61	6.52	57	8.45	11	0.8	1.0
Ozone (ppb)	56.0	56.7	42	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	18.7	8.8	97	7.8	99	2.4	2.1
Diesel Particulate Matter (ug/m3)	0.363	0.176	94	0.191	89	1.9	2.1
Toxic Releases to Air	4,400	2,800	87	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	18,000,000	6,100,000	96	1,700,000	99	10.0	2.9
Lead Paint Indicator (% pre-1960s housing)	0.00%	0.51	0	0.3	0	0.0	0.0
Superfund Proximity (site count/km distance)	0.11	0.34	47	0.39	61	0.3	0.3
RMP Proximity (facility count/km distance)	0.51	0.37	74	0.57	64	0.9	1.4
Hazardous Waste Proximity (facility count/km distance)	51.9	11.2	96	3.5	99	15.0	4.6
Underground Storage Tanks (UST) indicator	7.4	3.3	86	3.6	85	2.0	2.2
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	110	760	73	700,000	56	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.75	1.19	96	1.34	92	2.1	2.7
Supplemental Demographic Index USA	3.11	1.52	96	1.64	96	1.9	2.2
% Low Income	51%	22%	90	30%	82	1.7	2.3
% in limited English-speaking Households	21%	6%	91	5%	93	4.4	3.5
% Unemployed	24%	5%	98	6%	97	4.3	4.5
% with Less Than High School Education	33%	9%	95	11%	93	2.9	3.6
% under Age 5	3%	5%	33	5%	29	0.5	0.5
% over Age 64	9%	18%	18	18%	19	0.5	0.5
% People of Color	98%	31%	98	40%	95	2.5	3.1

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

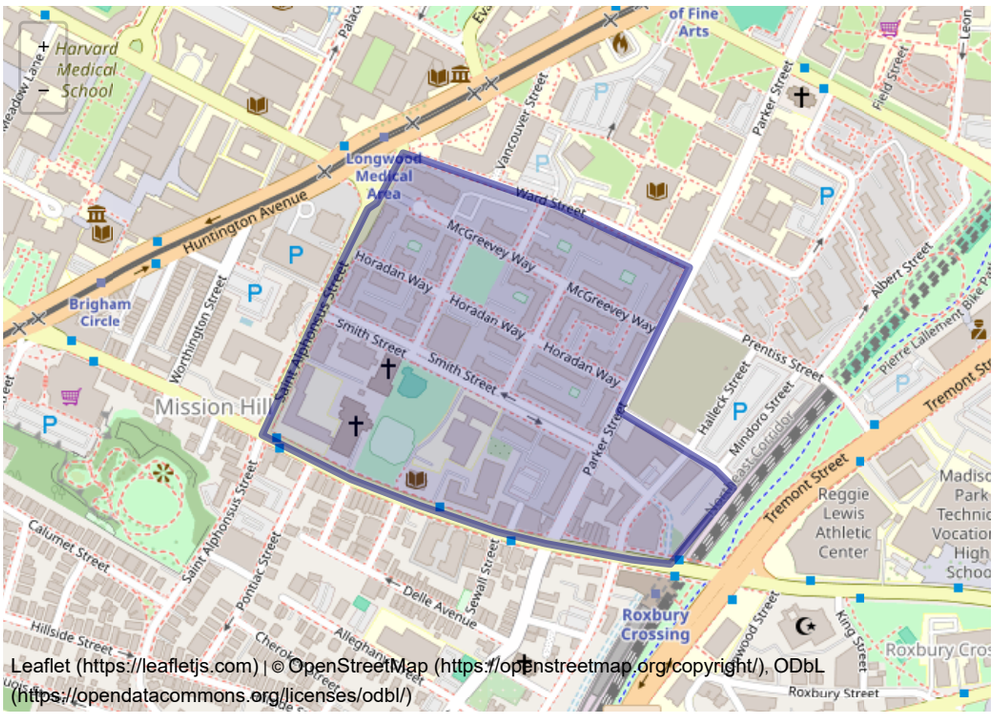
The indexes for a selected area are compared to those for all other locations in the state or nation.

	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	93	36
Ozone Summary Index	88	66
Nitrogen Dioxide (NO2) Summary Index	98	98
Diesel Particulate Matter Summary Index	98	96
Toxic Releases to Air Summary Index	99	96
Traffic Proximity and Volume Summary Index	99	98
Lead Paint Summary Index	0	0
Superfund Proximity Summary Index	92	89
RMP Proximity Summary Index	95	88
Hazardous Waste Proximity Summary Index	99	98
Underground Storage Tanks Summary Index	97	95
Wastewater Discharge Summary Index	97	87
Drinking Water Non-Compliance Summary Index	97	98
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	93	26
Ozone Supplemental Summary Index	84	60
Nitrogen Dioxide (NO2) Supplemental Summary Index	98	99
Diesel Particulate Matter Supplemental Summary Index	99	98
Toxic Releases to Air Supplemental Summary Index	99	98
Traffic Proximity and Volume Supplemental Summary Index	99	99
Lead Paint Supplemental Summary Index	0	0
Superfund Proximity Supplemental Summary Index	92	93
RMP Proximity Supplemental Summary Index	94	92
Hazardous Waste Proximity Supplemental Summary Index	99	99
Underground Storage Tanks Supplemental Summary Index	97	98
Wastewater Discharge Supplemental Summary Index	97	90
Drinking Water Non-Compliance Supplemental Summary Index	98	99

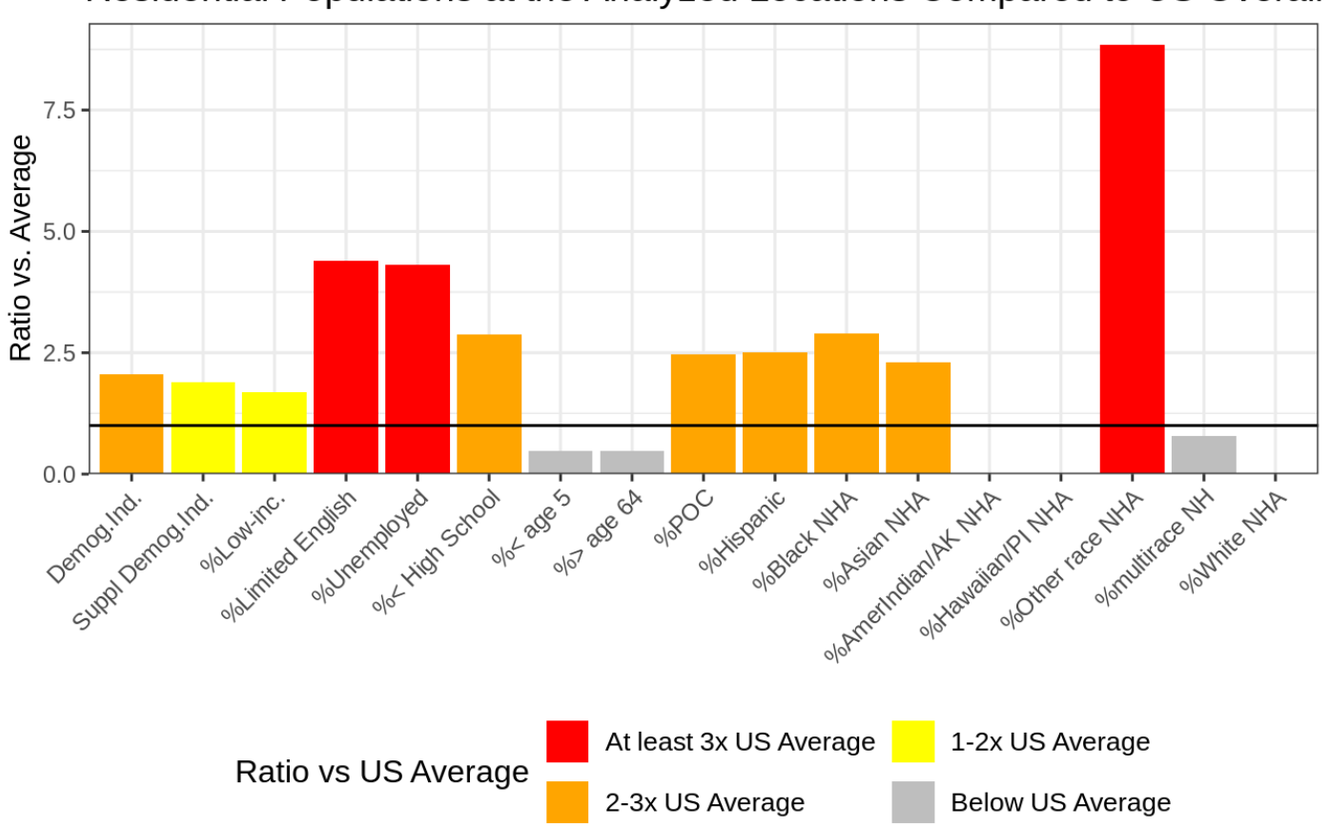
ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	44%	2.5	3.5
% Black or African American (non-Hispanic, single race)	36%	2.9	5.4
% Asian (non-Hispanic, single race)	12%	2.3	1.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	4%	8.8	3.6
% Two or more races (non-Hispanic)	3%	0.8	0.7
% White (non-Hispanic, single race)	2%	0	0
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	44%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	7%	NA	NA
% speaking Other and Unspecified languages at home	4%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	24%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	80%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	9%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	11%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	49%	NA	NA
% Females	51%	NA	NA
HEALTH			
% with Disabilities	23%	1.7	1.9
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	14.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	2.60	NA	NA
AGE			
% under Age 5	3%	0.5	0.5
% under age 18	14%	NA	NA
% over Age 64	9%	0.5	0.5
COMMUNITY			
Occupied Housing Units	704	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	23,464	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	43%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	2	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	4	NA	NA
Number of Brownfields	1	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	4%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	10%	NA	NA
% Households without Health Insurance	5%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,390	NA	NA
Count of Population Age 25 up	1,005	NA	NA
Count of Households	704	NA	NA
Universe for % unemployed (denominator, count)	1,221	NA	NA
Count of Housing Units Built Pre 1960	0	NA	NA
Built housing units count (denominator for % pre 1960)	704	NA	NA
Count of Population for whom Poverty Status is Determined	1,390	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)



Residential Populations at the Analyzed Locations Compared to US Overall



NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250809001)
Area in Square Miles: 0.02
Population: 1,303

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	58	8.45	12	0.8	1.0
Ozone (ppb)	56.0	56.7	41	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	19.2	8.8	98	7.8	99	2.4	2.2
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,400	2,800	87	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	17,000,000	6,100,000	95	1,700,000	99	10.0	2.8
Lead Paint Indicator (% pre-1960s housing)	11.70%	0.51	9	0.3	38	0.4	0.2
Superfund Proximity (site count/km distance)	0.11	0.34	47	0.39	61	0.3	0.3
RMP Proximity (facility count/km distance)	0.47	0.37	72	0.57	62	0.8	1.3
Hazardous Waste Proximity (facility count/km distance)	57.2	11.2	98	3.5	99	16.0	5.1
Underground Storage Tanks (UST) indicator	11.6	3.3	94	3.6	91	3.2	3.5
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	110	760	73	700,000	56	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.64	1.19	80	1.34	68	1.2	1.6
Supplemental Demographic Index USA	1.27	1.52	49	1.64	33	0.8	0.9
% Low Income	36%	22%	79	30%	65	1.2	1.6
% in limited English-speaking Households	4%	6%	60	5%	71	0.7	0.6
% Unemployed	6%	5%	64	6%	63	1.0	1.0
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	18%	18%	57	18%	58	1.0	1.0
% People of Color	50%	31%	78	40%	65	1.3	1.6

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

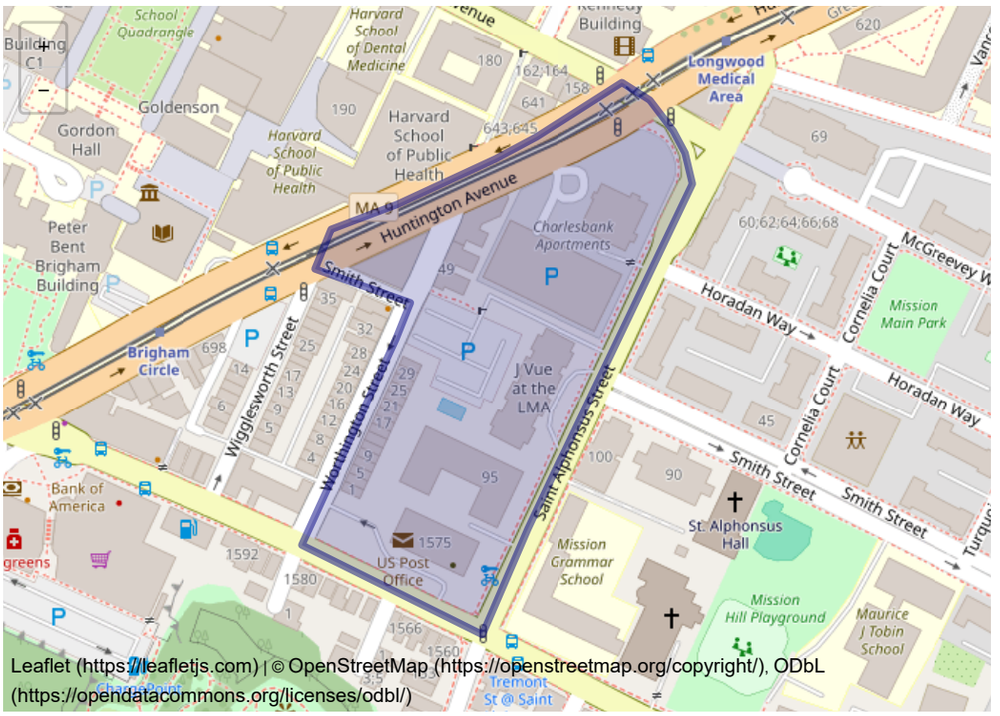
The indexes for a selected area are compared to those for all other locations in the state or nation.

	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	84	26
Ozone Summary Index	73	49
Nitrogen Dioxide (NO2) Summary Index	88	86
Diesel Particulate Matter Summary Index	90	83
Toxic Releases to Air Summary Index	91	85
Traffic Proximity and Volume Summary Index	90	86
Lead Paint Summary Index	29	59
Superfund Proximity Summary Index	81	78
RMP Proximity Summary Index	84	74
Hazardous Waste Proximity Summary Index	91	87
Underground Storage Tanks Summary Index	89	85
Wastewater Discharge Summary Index	86	72
Drinking Water Non-Compliance Summary Index	90	92
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	62	11
Ozone Supplemental Summary Index	43	25
Nitrogen Dioxide (NO2) Supplemental Summary Index	78	78
Diesel Particulate Matter Supplemental Summary Index	79	75
Toxic Releases to Air Supplemental Summary Index	80	71
Traffic Proximity and Volume Supplemental Summary Index	79	79
Lead Paint Supplemental Summary Index	11	34
Superfund Proximity Supplemental Summary Index	55	65
RMP Proximity Supplemental Summary Index	67	57
Hazardous Waste Proximity Supplemental Summary Index	81	79
Underground Storage Tanks Supplemental Summary Index	77	73
Wastewater Discharge Supplemental Summary Index	69	51
Drinking Water Non-Compliance Supplemental Summary Index	81	83

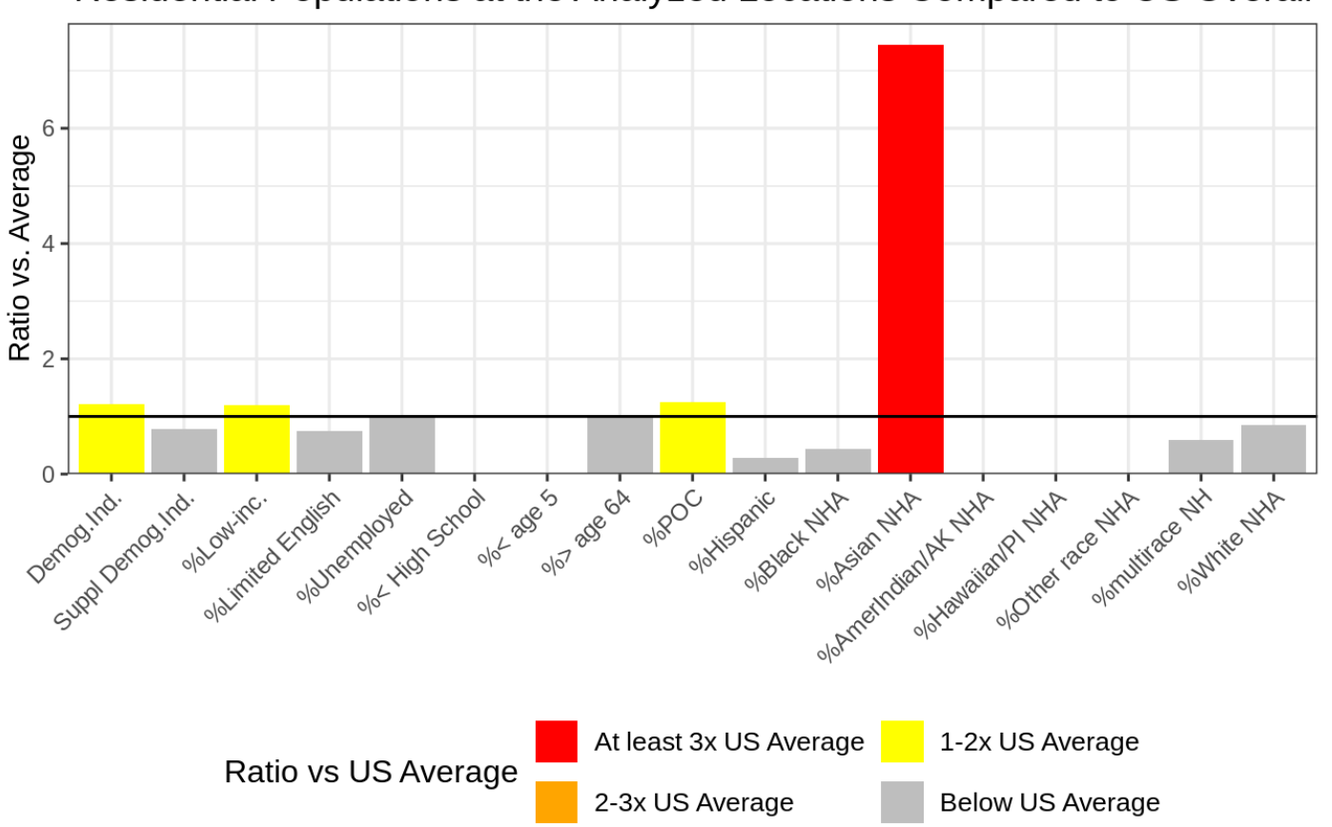
ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	5%	0.3	0.4
% Black or African American (non-Hispanic, single race)	5%	0.4	0.8
% Asian (non-Hispanic, single race)	37%	7.5	5.5
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	2%	0.6	0.5
% White (non-Hispanic, single race)	50%	0.8	0.7
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	30%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	12%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	9%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	44%	NA	NA
% Females	56%	NA	NA
HEALTH			
% with Disabilities	9%	0.7	0.8
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	3.10	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	18%	1	1
COMMUNITY			
Occupied Housing Units	835	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	69,719	NA	NA
% Owner Occupied households	10%	NA	NA
POVERTY			
% of Households below Poverty Level	18%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	8%	NA	NA
% Households without Health Insurance	4%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,303	NA	NA
Count of Population Age 25 up	1,100	NA	NA
Count of Households	835	NA	NA
Universe for % unemployed (denominator, count)	1,303	NA	NA
Count of Housing Units Built Pre 1960	100	NA	NA
Built housing units count (denominator for % pre 1960)	855	NA	NA
Count of Population for whom Poverty Status is Determined	1,303	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)



Residential Populations at the Analyzed Locations Compared to US Overall



NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250809002)
Area in Square Miles: 0.04
Population: 1,490

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	58	8.45	12	0.8	1.0
Ozone (ppb)	56.0	56.7	41	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	16.0	8.8	94	7.8	97	2.0	1.8
Diesel Particulate Matter (ug/m3)	0.362	0.176	93	0.191	89	1.9	2.1
Toxic Releases to Air	4,500	2,800	87	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	94	1,700,000	99	9.7	2.7
Lead Paint Indicator (% pre-1960s housing)	31.40%	0.51	27	0.3	60	1.0	0.6
Superfund Proximity (site count/km distance)	0.11	0.34	49	0.39	61	0.3	0.3
RMP Proximity (facility count/km distance)	0.48	0.37	73	0.57	62	0.8	1.3
Hazardous Waste Proximity (facility count/km distance)	46.3	11.2	96	3.5	99	13.0	4.1
Underground Storage Tanks (UST) indicator	9.1	3.3	90	3.6	88	2.5	2.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	72	700,000	56	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.82	1.19	83	1.34	73	1.4	1.8
Supplemental Demographic Index USA	1.48	1.52	63	1.64	46	0.9	1.0
% Low Income	52%	22%	91	30%	83	1.7	2.4
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	2%	5%	30	6%	32	0.3	0.3
% with Less Than High School Education	5%	9%	47	11%	36	0.4	0.5
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	8%	18%	15	18%	17	0.4	0.4
% People of Color	38%	31%	67	40%	56	0.9	1.2

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

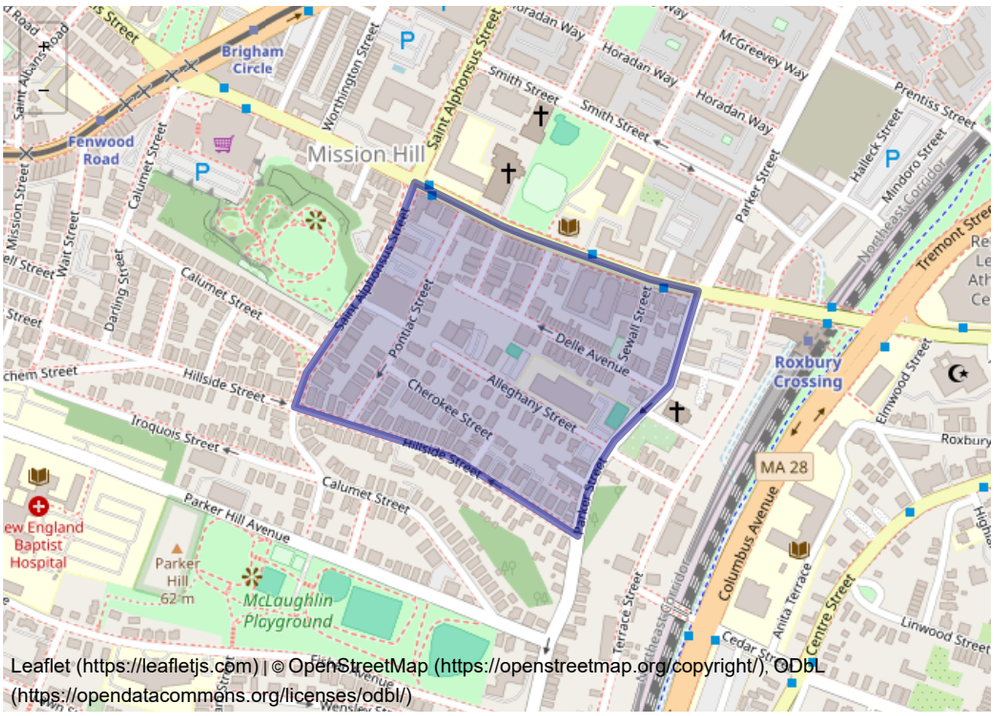
The indexes for a selected area are compared to those for all other locations in the state or nation.

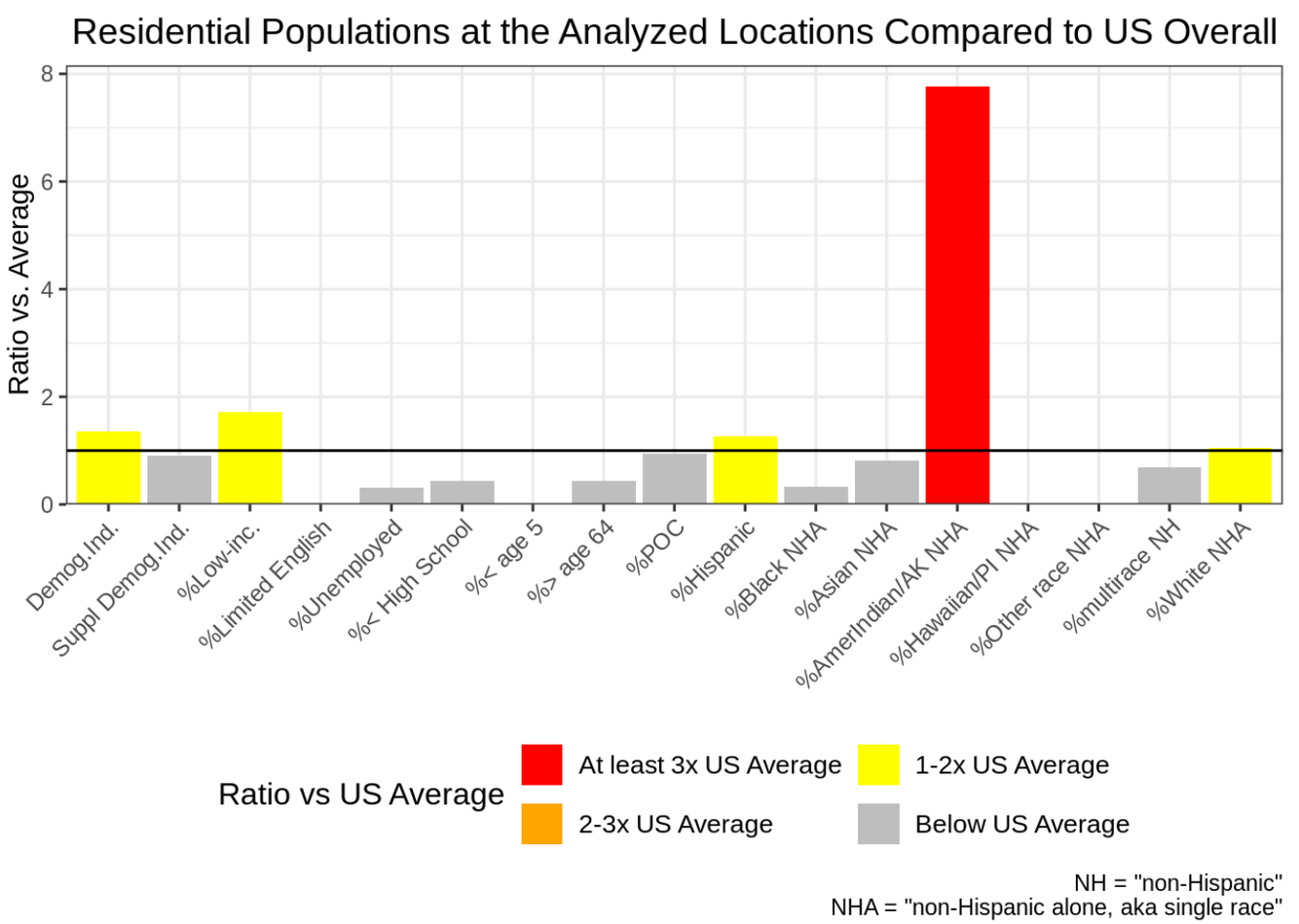
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	86	28
Ozone Summary Index	75	52
Nitrogen Dioxide (NO2) Summary Index	90	88
Diesel Particulate Matter Summary Index	92	86
Toxic Releases to Air Summary Index	93	88
Traffic Proximity and Volume Summary Index	92	89
Lead Paint Summary Index	60	78
Superfund Proximity Summary Index	85	80
RMP Proximity Summary Index	86	77
Hazardous Waste Proximity Summary Index	92	89
Underground Storage Tanks Summary Index	90	87
Wastewater Discharge Summary Index	88	75
Drinking Water Non-Compliance Summary Index	91	93
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	69	14
Ozone Supplemental Summary Index	48	29
Nitrogen Dioxide (NO2) Supplemental Summary Index	82	83
Diesel Particulate Matter Supplemental Summary Index	84	81
Toxic Releases to Air Supplemental Summary Index	86	78
Traffic Proximity and Volume Supplemental Summary Index	84	85
Lead Paint Supplemental Summary Index	35	59
Superfund Proximity Supplemental Summary Index	63	70
RMP Proximity Supplemental Summary Index	75	63
Hazardous Waste Proximity Supplemental Summary Index	86	85
Underground Storage Tanks Supplemental Summary Index	81	78
Wastewater Discharge Supplemental Summary Index	76	59
Drinking Water Non-Compliance Supplemental Summary Index	86	86

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	22%	1.3	1.8
% Black or African American (non-Hispanic, single race)	4%	0.3	0.6
% Asian (non-Hispanic, single race)	4%	0.8	0.6
% American Indian and Alaska Native (non-Hispanic, single race)	5%	7.8	44
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	2%	0.7	0.6
% White (non-Hispanic, single race)	62%	1	0.9
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	30%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	12%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	9%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	65%	NA	NA
% Females	35%	NA	NA
HEALTH			
% with Disabilities	9%	0.7	0.8
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	3.10	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	2%	NA	NA
% over Age 64	8%	0.4	0.4
COMMUNITY			
Occupied Housing Units	502	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	31,472	NA	NA
% Owner Occupied households	6%	NA	NA
POVERTY			
% of Households below Poverty Level	35%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	2%	NA	NA
% Households without Health Insurance	4%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,490	NA	NA
Count of Population Age 25 up	451	NA	NA
Count of Households	502	NA	NA
Universe for % unemployed (denominator, count)	1,475	NA	NA
Count of Housing Units Built Pre 1960	173	NA	NA
Built housing units count (denominator for % pre 1960)	551	NA	NA
Count of Population for whom Poverty Status is Determined	1,475	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250809003)
Area in Square Miles: 0.04
Population: 591

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	58	8.45	12	0.8	1.0
Ozone (ppb)	56.0	56.7	41	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	17.6	8.8	96	7.8	98	2.2	2.0
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,400	2,800	87	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	94	1,700,000	99	9.5	2.6
Lead Paint Indicator (% pre-1960s housing)	68.67%	0.51	69	0.3	85	2.3	1.4
Superfund Proximity (site count/km distance)	0.11	0.34	48	0.39	61	0.3	0.3
RMP Proximity (facility count/km distance)	0.45	0.37	71	0.57	61	0.8	1.2
Hazardous Waste Proximity (facility count/km distance)	51.9	11.2	96	3.5	99	15.0	4.6
Underground Storage Tanks (UST) indicator	9.2	3.3	90	3.6	88	2.5	2.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	72	700,000	56	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.74	1.19	82	1.34	71	1.3	1.7
Supplemental Demographic Index USA	1.79	1.52	76	1.64	64	1.1	1.3
% Low Income	60%	22%	94	30%	88	2.0	2.7
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	15%	9%	80	11%	73	1.4	1.7
% under Age 5	3%	5%	33	5%	28	0.5	0.5
% over Age 64	13%	18%	36	18%	38	0.7	0.7
% People of Color	22%	31%	47	40%	39	0.6	0.7

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

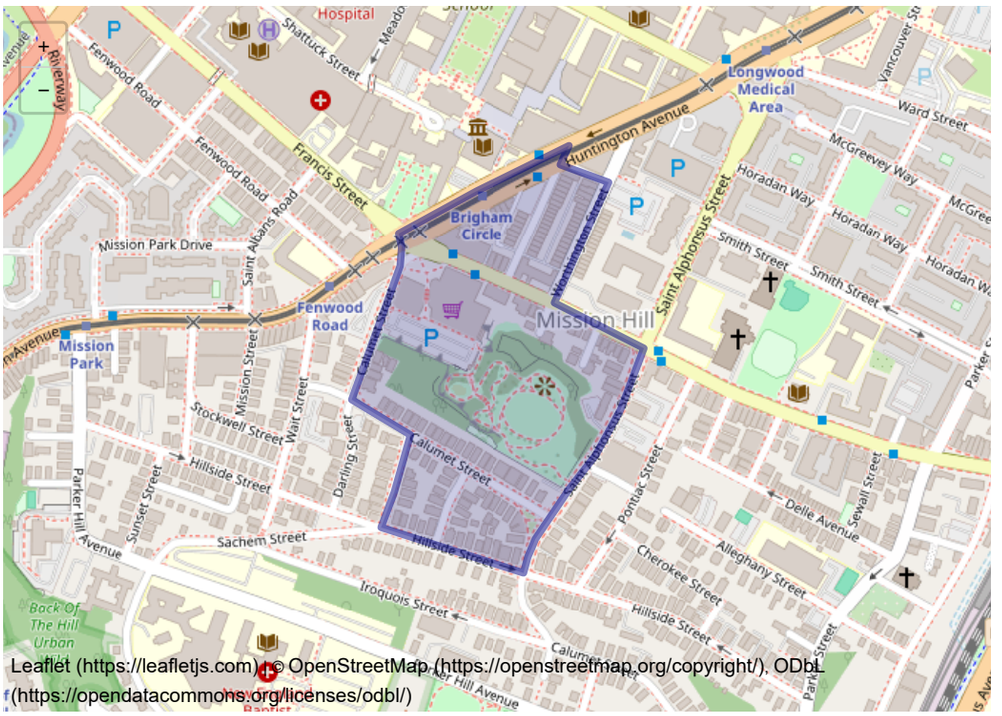
The indexes for a selected area are compared to those for all other locations in the state or nation.

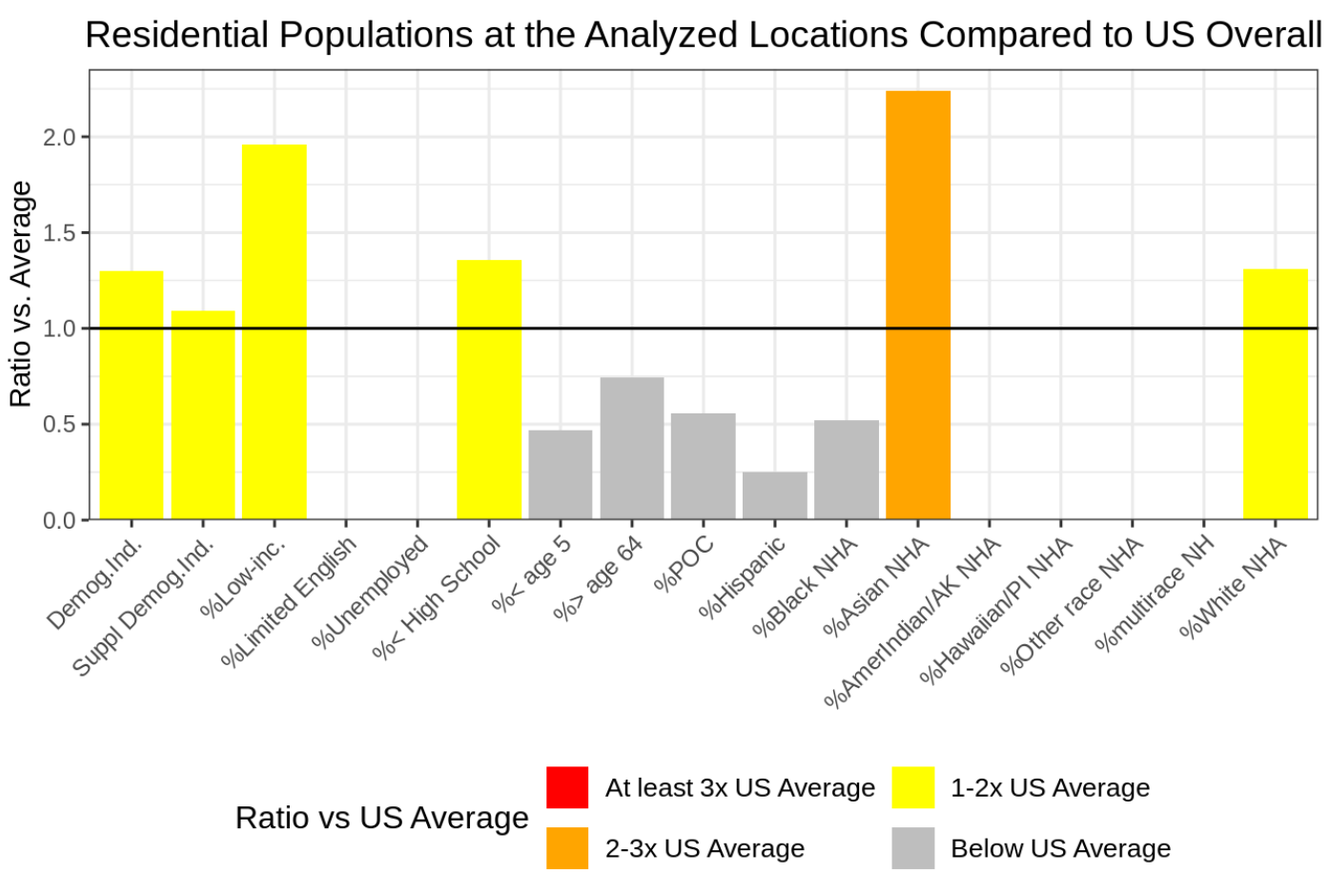
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	84	28
Ozone Summary Index	74	51
Nitrogen Dioxide (NO2) Summary Index	89	87
Diesel Particulate Matter Summary Index	91	85
Toxic Releases to Air Summary Index	92	87
Traffic Proximity and Volume Summary Index	90	88
Lead Paint Summary Index	85	86
Superfund Proximity Summary Index	83	79
RMP Proximity Summary Index	85	75
Hazardous Waste Proximity Summary Index	91	88
Underground Storage Tanks Summary Index	89	86
Wastewater Discharge Summary Index	87	74
Drinking Water Non-Compliance Summary Index	91	92
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	78	16
Ozone Supplemental Summary Index	56	35
Nitrogen Dioxide (NO2) Supplemental Summary Index	89	89
Diesel Particulate Matter Supplemental Summary Index	90	88
Toxic Releases to Air Supplemental Summary Index	91	86
Traffic Proximity and Volume Supplemental Summary Index	90	91
Lead Paint Supplemental Summary Index	80	84
Superfund Proximity Supplemental Summary Index	71	76
RMP Proximity Supplemental Summary Index	81	71
Hazardous Waste Proximity Supplemental Summary Index	91	91
Underground Storage Tanks Supplemental Summary Index	87	85
Wastewater Discharge Supplemental Summary Index	83	68
Drinking Water Non-Compliance Supplemental Summary Index	91	91

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	4%	0.2	0.3
% Black or African American (non-Hispanic, single race)	6%	0.5	1
% Asian (non-Hispanic, single race)	11%	2.2	1.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	0%	0	0
% White (non-Hispanic, single race)	78%	1.3	1.1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	30%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	12%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	9%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	63%	NA	NA
% Females	37%	NA	NA
HEALTH			
% with Disabilities	9%	0.7	0.8
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	3.10	NA	NA
AGE			
% under Age 5	3%	0.5	0.5
% under age 18	4%	NA	NA
% over Age 64	13%	0.7	0.7
COMMUNITY			
Occupied Housing Units	252	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	46,089	NA	NA
% Owner Occupied households	13%	NA	NA
POVERTY			
% of Households below Poverty Level	20%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	15%	NA	NA
% Households without Health Insurance	4%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	591	NA	NA
Count of Population Age 25 up	248	NA	NA
Count of Households	252	NA	NA
Universe for % unemployed (denominator, count)	576	NA	NA
Count of Housing Units Built Pre 1960	206	NA	NA
Built housing units count (denominator for % pre 1960)	300	NA	NA
Count of Population for whom Poverty Status is Determined	591	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250810011)
Area in Square Miles: 0.03
Population: 440

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	57	8.45	12	0.8	1.0
Ozone (ppb)	55.9	56.7	39	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	16.0	8.8	94	7.8	97	2.0	1.8
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,700	2,800	90	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	93	1,700,000	99	9.2	2.6
Lead Paint Indicator (% pre-1960s housing)	71.16%	0.51	71	0.3	87	2.4	1.4
Superfund Proximity (site count/km distance)	0.11	0.34	49	0.39	62	0.3	0.3
RMP Proximity (facility count/km distance)	0.44	0.37	71	0.57	60	0.8	1.2
Hazardous Waste Proximity (facility count/km distance)	45.4	11.2	95	3.5	99	13.0	4.1
Underground Storage Tanks (UST) indicator	9.1	3.3	90	3.6	88	2.5	2.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	71	700,000	55	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.99	1.19	60	1.34	41	0.7	1.0
Supplemental Demographic Index USA	1.85	1.52	77	1.64	67	1.1	1.3
% Low Income	21%	22%	59	30%	39	0.7	0.9
% in limited English-speaking Households	13%	6%	84	5%	88	2.8	2.2
% Unemployed	2%	5%	32	6%	34	0.3	0.4
% with Less Than High School Education	17%	9%	83	11%	77	1.5	1.9
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	0%	18%	0	18%	0	0.0	0.0
% People of Color	32%	31%	60	40%	50	0.8	1.0

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

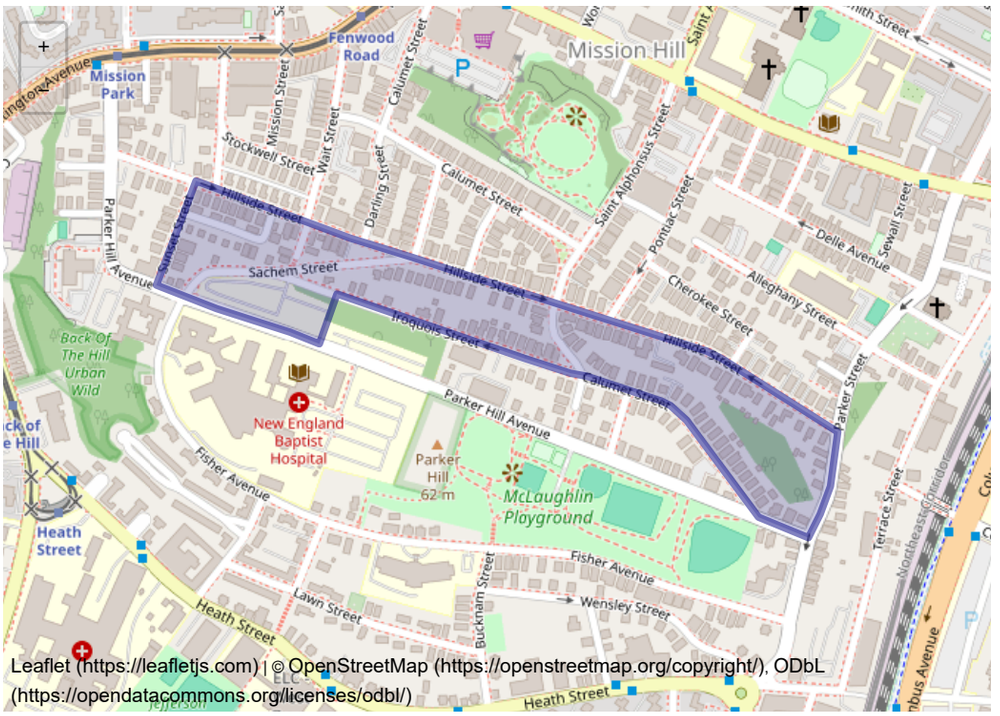
The indexes for a selected area are compared to those for all other locations in the state or nation.

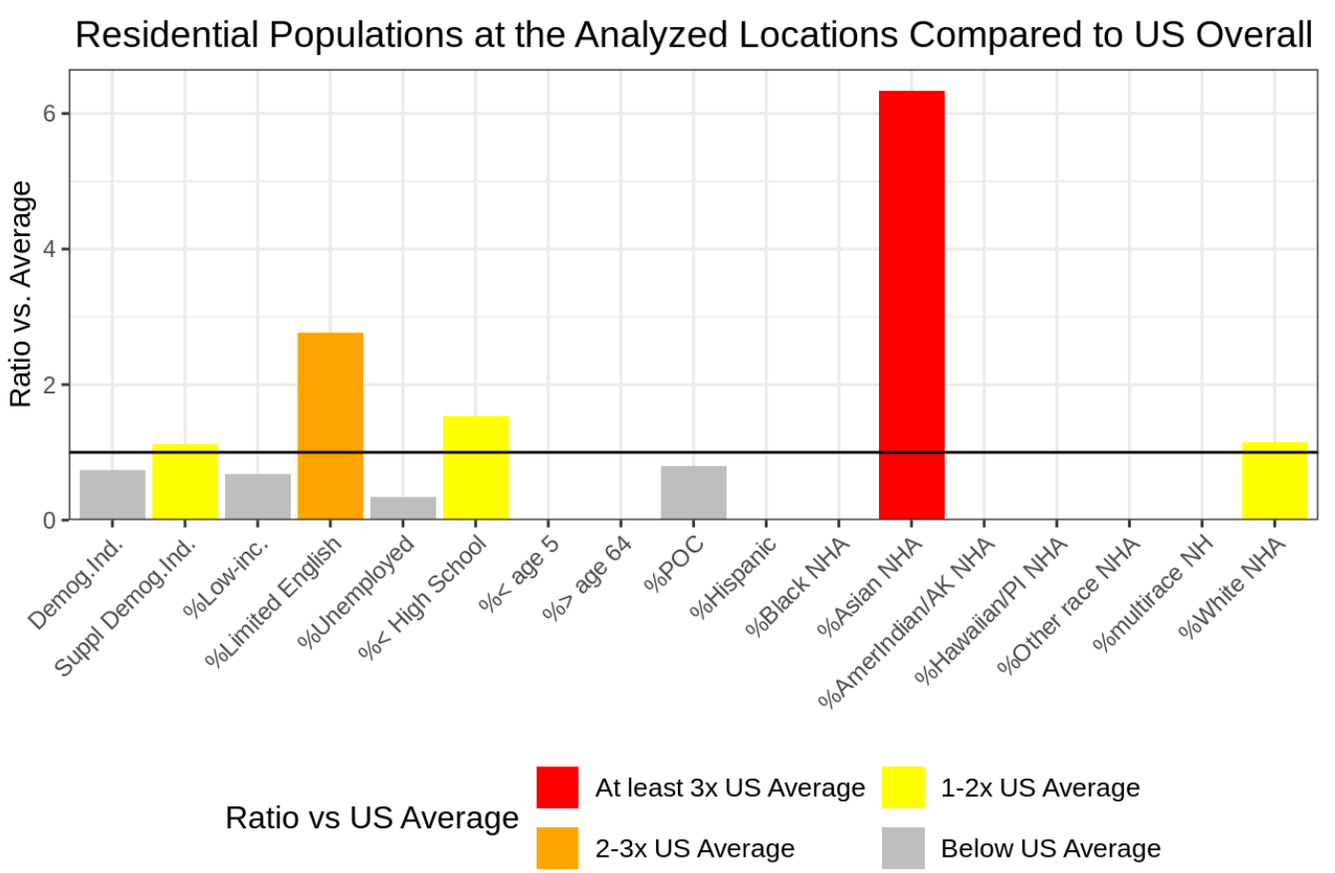
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	67	17
Ozone Summary Index	55	34
Nitrogen Dioxide (NO2) Summary Index	75	70
Diesel Particulate Matter Summary Index	77	68
Toxic Releases to Air Summary Index	80	70
Traffic Proximity and Volume Summary Index	76	71
Lead Paint Summary Index	71	70
Superfund Proximity Summary Index	68	69
RMP Proximity Summary Index	71	58
Hazardous Waste Proximity Summary Index	78	71
Underground Storage Tanks Summary Index	75	70
Wastewater Discharge Summary Index	72	54
Drinking Water Non-Compliance Summary Index	83	85
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	78	17
Ozone Supplemental Summary Index	55	37
Nitrogen Dioxide (NO2) Supplemental Summary Index	89	90
Diesel Particulate Matter Supplemental Summary Index	90	88
Toxic Releases to Air Supplemental Summary Index	92	87
Traffic Proximity and Volume Supplemental Summary Index	90	91
Lead Paint Supplemental Summary Index	82	86
Superfund Proximity Supplemental Summary Index	73	78
RMP Proximity Supplemental Summary Index	81	71
Hazardous Waste Proximity Supplemental Summary Index	91	91
Underground Storage Tanks Supplemental Summary Index	87	86
Wastewater Discharge Supplemental Summary Index	84	68
Drinking Water Non-Compliance Supplemental Summary Index	91	92

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	0%	0	0
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	32%	6.3	4.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	0%	0	0
% White (non-Hispanic, single race)	68%	1.1	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	47%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	23%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	14%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	51%	NA	NA
% Females	49%	NA	NA
HEALTH			
% with Disabilities	14%	1	1.1
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	5	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.50	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	0%	0	0
COMMUNITY			
Occupied Housing Units	173	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	53,845	NA	NA
% Owner Occupied households	7%	NA	NA
POVERTY			
% of Households below Poverty Level	5%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	7%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	440	NA	NA
Count of Population Age 25 up	323	NA	NA
Count of Households	173	NA	NA
Universe for % unemployed (denominator, count)	440	NA	NA
Count of Housing Units Built Pre 1960	153	NA	NA
Built housing units count (denominator for % pre 1960)	215	NA	NA
Count of Population for whom Poverty Status is Determined	440	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250810012)
Area in Square Miles: 0.03
Population: 1,633

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	57	8.45	12	0.8	1.0
Ozone (ppb)	55.9	56.7	39	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	16.0	8.8	94	7.8	97	2.0	1.8
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,600	2,800	88	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	15,000,000	6,100,000	93	1,700,000	99	9.1	2.5
Lead Paint Indicator (% pre-1960s housing)	69.30%	0.51	69	0.3	86	2.3	1.4
Superfund Proximity (site count/km distance)	0.11	0.34	49	0.39	61	0.3	0.3
RMP Proximity (facility count/km distance)	0.41	0.37	69	0.57	59	0.7	1.1
Hazardous Waste Proximity (facility count/km distance)	50.0	11.2	96	3.5	99	14.0	4.5
Underground Storage Tanks (UST) indicator	16.4	3.3	98	3.6	94	4.5	4.9
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	72	700,000	56	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.35	1.19	91	1.34	85	1.8	2.3
Supplemental Demographic Index USA	1.77	1.52	75	1.64	63	1.1	1.2
% Low Income	63%	22%	95	30%	91	2.1	2.9
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	5%	9%	48	11%	37	0.4	0.6
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	3%	18%	4	18%	4	0.2	0.2
% People of Color	55%	31%	81	40%	68	1.4	1.8

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

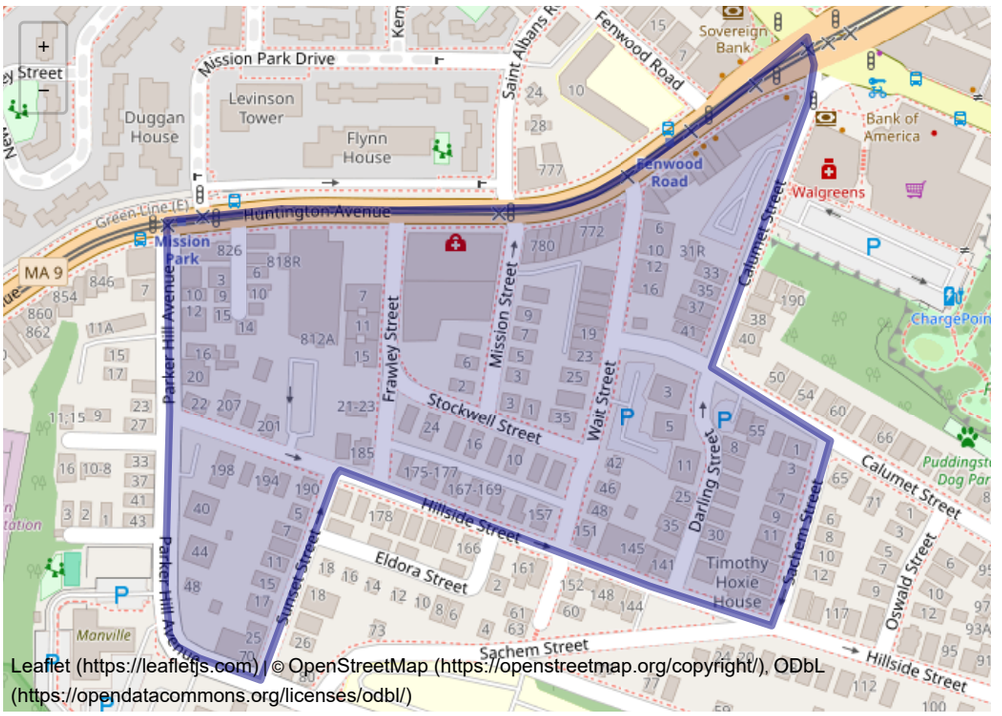
The indexes for a selected area are compared to those for all other locations in the state or nation.

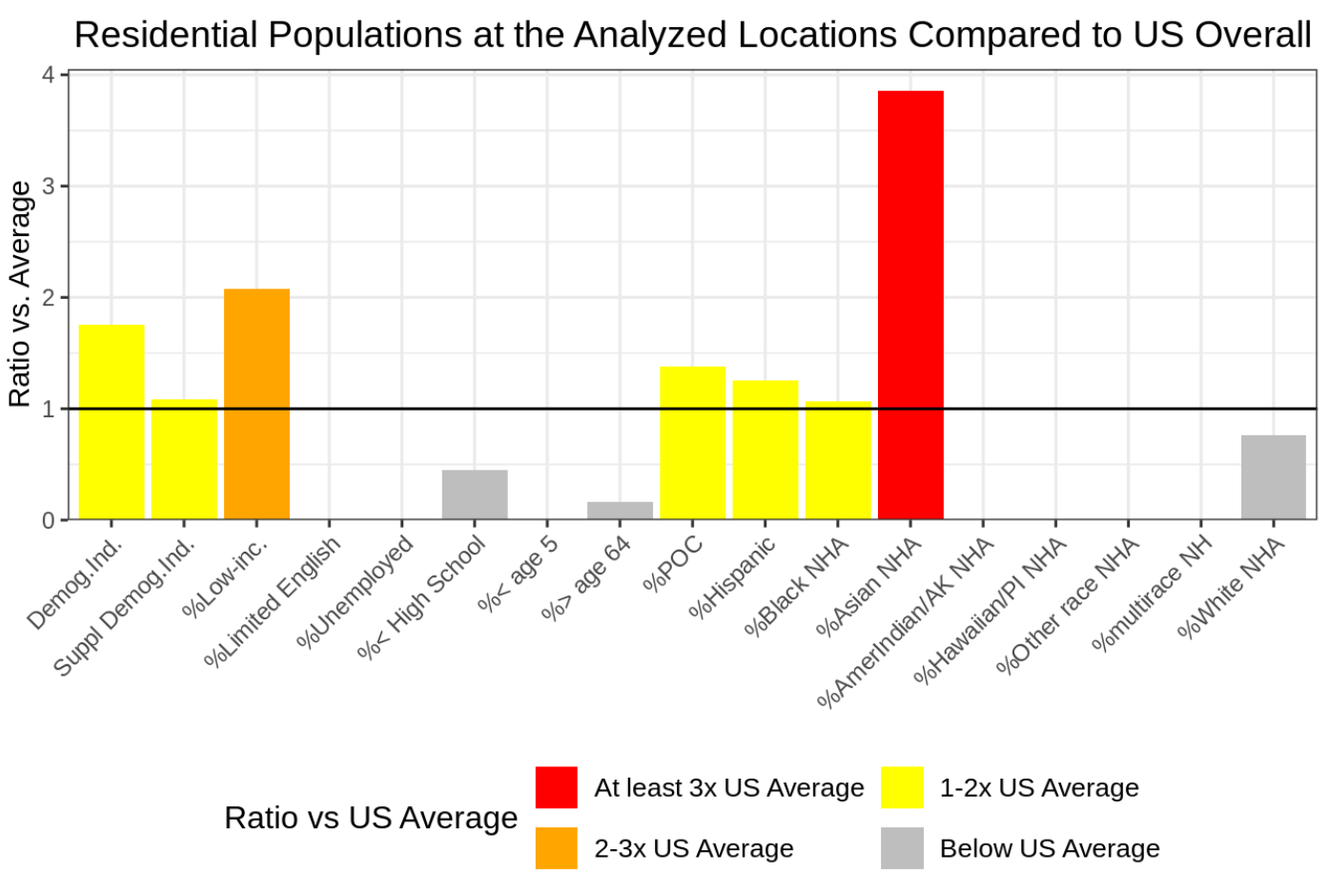
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	90	35
Ozone Summary Index	81	61
Nitrogen Dioxide (NO2) Summary Index	95	94
Diesel Particulate Matter Summary Index	96	93
Toxic Releases to Air Summary Index	96	94
Traffic Proximity and Volume Summary Index	96	95
Lead Paint Summary Index	92	93
Superfund Proximity Summary Index	89	86
RMP Proximity Summary Index	90	82
Hazardous Waste Proximity Summary Index	97	96
Underground Storage Tanks Summary Index	96	94
Wastewater Discharge Summary Index	93	83
Drinking Water Non-Compliance Summary Index	95	96
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	77	16
Ozone Supplemental Summary Index	54	35
Nitrogen Dioxide (NO2) Supplemental Summary Index	88	89
Diesel Particulate Matter Supplemental Summary Index	90	87
Toxic Releases to Air Supplemental Summary Index	91	86
Traffic Proximity and Volume Supplemental Summary Index	89	90
Lead Paint Supplemental Summary Index	80	84
Superfund Proximity Supplemental Summary Index	72	76
RMP Proximity Supplemental Summary Index	79	69
Hazardous Waste Proximity Supplemental Summary Index	90	90
Underground Storage Tanks Supplemental Summary Index	89	87
Wastewater Discharge Supplemental Summary Index	83	67
Drinking Water Non-Compliance Supplemental Summary Index	90	91

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	22%	1.3	1.8
% Black or African American (non-Hispanic, single race)	13%	1.1	2
% Asian (non-Hispanic, single race)	19%	3.9	2.8
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	0%	0	0
% White (non-Hispanic, single race)	45%	0.8	0.7
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	47%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	23%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	14%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	58%	NA	NA
% Females	42%	NA	NA
HEALTH			
% with Disabilities	14%	1	1.1
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	5	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.50	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	9%	NA	NA
% over Age 64	3%	0.2	0.2
COMMUNITY			
Occupied Housing Units	653	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	24,900	NA	NA
% Owner Occupied households	2%	NA	NA
POVERTY			
% of Households below Poverty Level	22%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	14%	NA	NA
% Households without Health Insurance	7%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,633	NA	NA
Count of Population Age 25 up	972	NA	NA
Count of Households	653	NA	NA
Universe for % unemployed (denominator, count)	1,490	NA	NA
Count of Housing Units Built Pre 1960	465	NA	NA
Built housing units count (denominator for % pre 1960)	671	NA	NA
Count of Population for whom Poverty Status is Determined	1,633	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250810013)
Area in Square Miles: 0.01
Population: 908

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	57	8.45	12	0.8	1.0
Ozone (ppb)	55.9	56.7	39	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	15.6	8.8	94	7.8	97	2.0	1.8
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,600	2,800	88	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	93	1,700,000	99	9.3	2.6
Lead Paint Indicator (% pre-1960s housing)	18.99%	0.51	15	0.3	47	0.6	0.4
Superfund Proximity (site count/km distance)	0.11	0.34	48	0.39	61	0.3	0.3
RMP Proximity (facility count/km distance)	0.41	0.37	69	0.57	58	0.7	1.1
Hazardous Waste Proximity (facility count/km distance)	55.1	11.2	97	3.5	99	16.0	4.9
Underground Storage Tanks (UST) indicator	20.4	3.3	98	3.6	96	5.6	6.1
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	72	700,000	56	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.56	1.19	94	1.34	89	1.9	2.5
Supplemental Demographic Index USA	3.39	1.52	98	1.64	98	2.1	2.4
% Low Income	56%	22%	93	30%	86	1.8	2.5
% in limited English-speaking Households	42%	6%	98	5%	98	8.8	7.0
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	39%	9%	97	11%	96	3.4	4.2
% under Age 5	1%	5%	21	5%	18	0.3	0.3
% over Age 64	22%	18%	70	18%	70	1.2	1.2
% People of Color	79%	31%	92	40%	82	2.0	2.5

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

The indexes for a selected area are compared to those for all other locations in the state or nation.

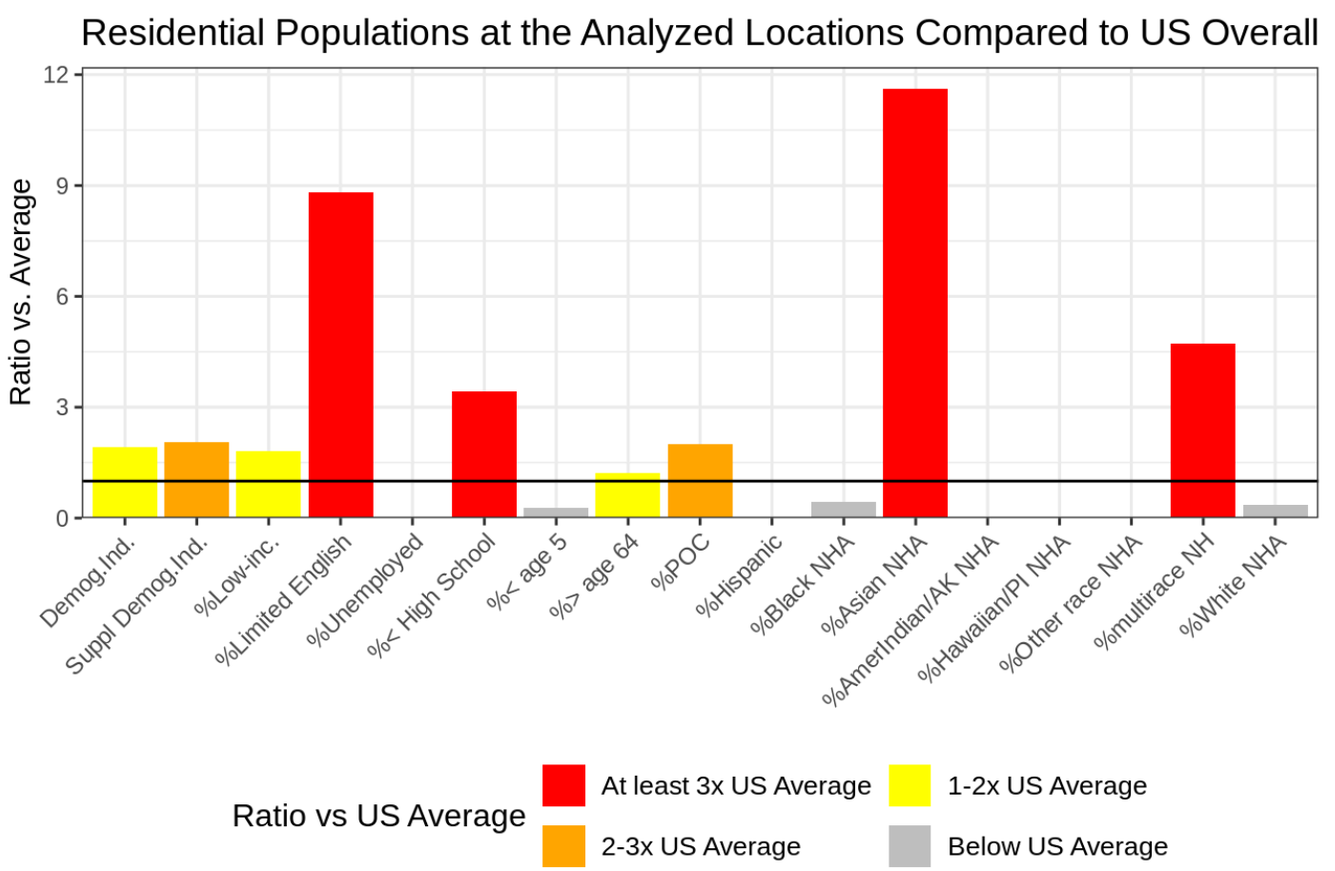
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	92	37
Ozone Summary Index	83	64
Nitrogen Dioxide (NO2) Summary Index	97	96
Diesel Particulate Matter Summary Index	97	95
Toxic Releases to Air Summary Index	98	95
Traffic Proximity and Volume Summary Index	98	97
Lead Paint Summary Index	52	80
Superfund Proximity Summary Index	91	87
RMP Proximity Summary Index	92	84
Hazardous Waste Proximity Summary Index	98	97
Underground Storage Tanks Summary Index	98	96
Wastewater Discharge Summary Index	95	85
Drinking Water Non-Compliance Summary Index	96	97
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	95	30
Ozone Supplemental Summary Index	85	65
Nitrogen Dioxide (NO2) Supplemental Summary Index	99	99
Diesel Particulate Matter Supplemental Summary Index	99	99
Toxic Releases to Air Supplemental Summary Index	99	99
Traffic Proximity and Volume Supplemental Summary Index	99	99
Lead Paint Supplemental Summary Index	44	86
Superfund Proximity Supplemental Summary Index	94	95
RMP Proximity Supplemental Summary Index	95	92
Hazardous Waste Proximity Supplemental Summary Index	99	99
Underground Storage Tanks Supplemental Summary Index	99	99
Wastewater Discharge Supplemental Summary Index	98	93
Drinking Water Non-Compliance Supplemental Summary Index	99	99

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	0%	0	0
% Black or African American (non-Hispanic, single race)	5%	0.4	0.8
% Asian (non-Hispanic, single race)	58%	12	8.6
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	16%	4.7	4.2
% White (non-Hispanic, single race)	21%	0.3	0.3
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	47%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	23%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	14%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	25%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	75%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	38%	NA	NA
% Females	62%	NA	NA
HEALTH			
% with Disabilities	14%	1	1.1
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	5	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.50	NA	NA
AGE			
% under Age 5	1%	0.3	0.3
% under age 18	27%	NA	NA
% over Age 64	22%	1.2	1.2
COMMUNITY			
Occupied Housing Units	474	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	18,666	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	49%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	35%	NA	NA
% Households without Health Insurance	7%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	908	NA	NA
Count of Population Age 25 up	557	NA	NA
Count of Households	474	NA	NA
Universe for % unemployed (denominator, count)	673	NA	NA
Count of Housing Units Built Pre 1960	90	NA	NA
Built housing units count (denominator for % pre 1960)	474	NA	NA
Count of Population for whom Poverty Status is Determined	908	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250810014)
Area in Square Miles: 0.03
Population: 1,390

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	57	8.45	12	0.8	1.0
Ozone (ppb)	55.9	56.7	39	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	16.3	8.8	95	7.8	98	2.1	1.9
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,600	2,800	89	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	94	1,700,000	99	9.5	2.6
Lead Paint Indicator (% pre-1960s housing)	21.63%	0.51	18	0.3	50	0.7	0.4
Superfund Proximity (site count/km distance)	0.11	0.34	48	0.39	61	0.3	0.3
RMP Proximity (facility count/km distance)	0.40	0.37	68	0.57	58	0.7	1.1
Hazardous Waste Proximity (facility count/km distance)	55.7	11.2	97	3.5	99	16.0	5.0
Underground Storage Tanks (UST) indicator	15.1	3.3	97	3.6	93	4.1	4.5
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	72	700,000	56	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.77	1.19	96	1.34	92	2.1	2.7
Supplemental Demographic Index USA	2.85	1.52	95	1.64	94	1.7	2.0
% Low Income	62%	22%	95	30%	90	2.0	2.8
% in limited English-speaking Households	34%	6%	96	5%	97	7.0	5.6
% Unemployed	8%	5%	76	6%	75	1.4	1.5
% with Less Than High School Education	19%	9%	86	11%	81	1.7	2.1
% under Age 5	4%	5%	45	5%	40	0.7	0.8
% over Age 64	16%	18%	51	18%	52	0.9	0.9
% People of Color	83%	31%	93	40%	85	2.1	2.7

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

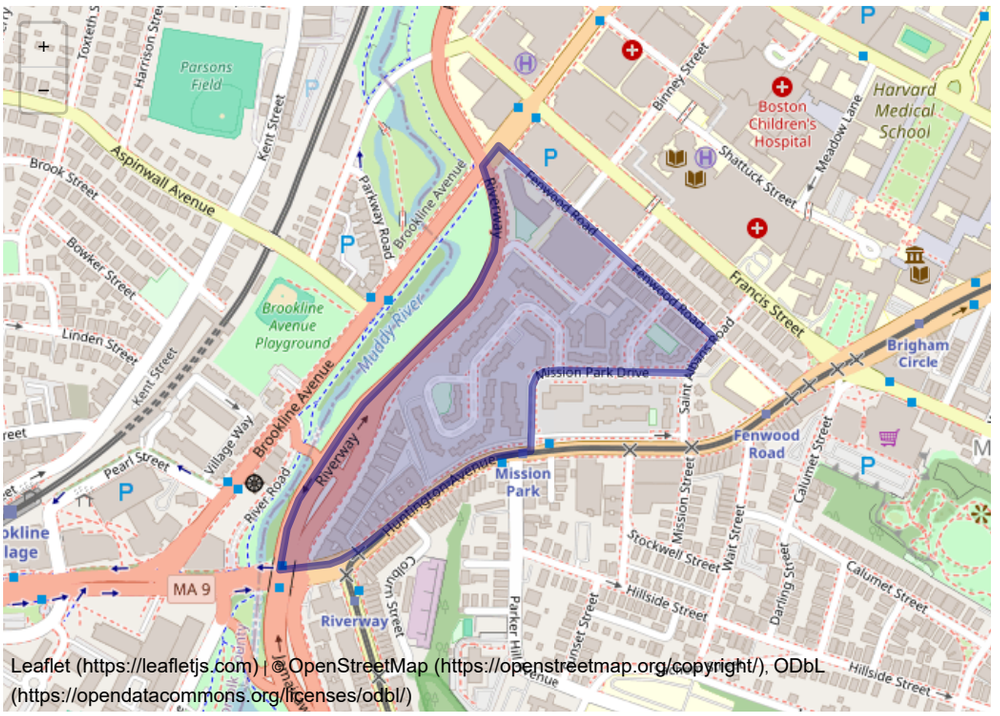
The indexes for a selected area are compared to those for all other locations in the state or nation.

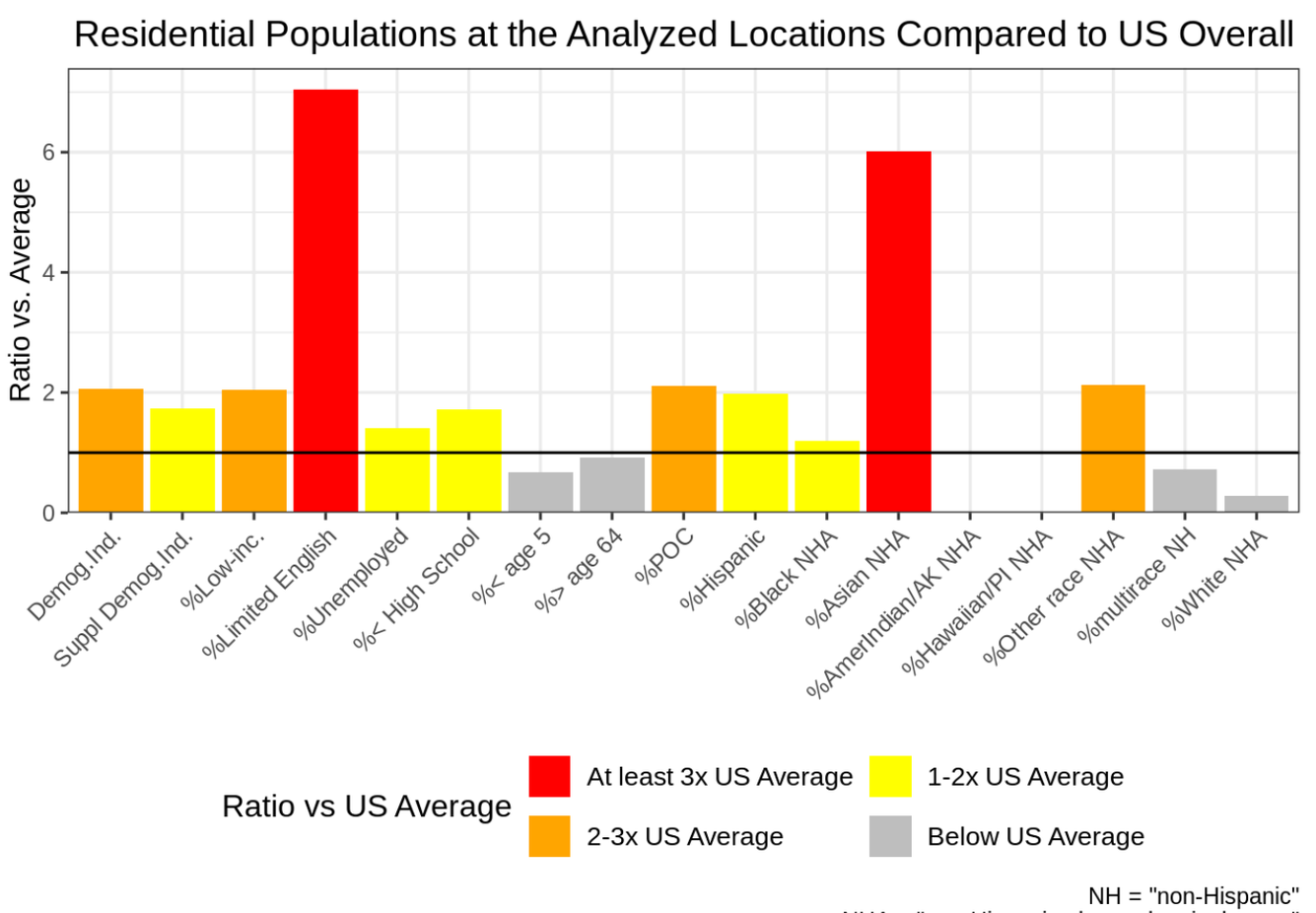
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	93	39
Ozone Summary Index	86	66
Nitrogen Dioxide (NO2) Summary Index	98	98
Diesel Particulate Matter Summary Index	98	96
Toxic Releases to Air Summary Index	99	96
Traffic Proximity and Volume Summary Index	98	98
Lead Paint Summary Index	61	84
Superfund Proximity Summary Index	93	89
RMP Proximity Summary Index	93	86
Hazardous Waste Proximity Summary Index	99	98
Underground Storage Tanks Summary Index	99	97
Wastewater Discharge Summary Index	97	87
Drinking Water Non-Compliance Summary Index	97	98
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	92	26
Ozone Supplemental Summary Index	77	56
Nitrogen Dioxide (NO2) Supplemental Summary Index	97	98
Diesel Particulate Matter Supplemental Summary Index	98	98
Toxic Releases to Air Supplemental Summary Index	99	97
Traffic Proximity and Volume Supplemental Summary Index	98	98
Lead Paint Supplemental Summary Index	44	82
Superfund Proximity Supplemental Summary Index	90	91
RMP Proximity Supplemental Summary Index	91	87
Hazardous Waste Proximity Supplemental Summary Index	99	99
Underground Storage Tanks Supplemental Summary Index	97	98
Wastewater Discharge Supplemental Summary Index	95	88
Drinking Water Non-Compliance Supplemental Summary Index	98	98

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	35%	2	2.8
% Black or African American (non-Hispanic, single race)	15%	1.2	2.2
% Asian (non-Hispanic, single race)	30%	6	4.4
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	1%	2.1	0.9
% Two or more races (non-Hispanic)	2%	0.7	0.6
% White (non-Hispanic, single race)	17%	0.3	0.2
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	47%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	23%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	14%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	28%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	45%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	27%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	52%	NA	NA
% Females	48%	NA	NA
HEALTH			
% with Disabilities	14%	1	1.1
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	5	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.50	NA	NA
AGE			
% under Age 5	4%	0.7	0.8
% under age 18	21%	NA	NA
% over Age 64	16%	0.9	0.9
COMMUNITY			
Occupied Housing Units	832	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	21,300	NA	NA
% Owner Occupied households	4%	NA	NA
POVERTY			
% of Households below Poverty Level	46%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	2	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	1	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	7%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	13%	NA	NA
% Households without Health Insurance	7%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,390	NA	NA
Count of Population Age 25 up	957	NA	NA
Count of Households	832	NA	NA
Universe for % unemployed (denominator, count)	1,211	NA	NA
Count of Housing Units Built Pre 1960	180	NA	NA
Built housing units count (denominator for % pre 1960)	832	NA	NA
Count of Population for whom Poverty Status is Determined	1,390	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250810015)
Area in Square Miles: 0.11
Population: 445

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	57	8.45	12	0.8	1.0
Ozone (ppb)	55.9	56.7	39	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	17.8	8.8	96	7.8	99	2.3	2.0
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,500	2,800	88	4,600	85	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	94	1,700,000	99	9.6	2.7
Lead Paint Indicator (% pre-1960s housing)	79.94%	0.51	83	0.3	92	2.7	1.6
Superfund Proximity (site count/km distance)	0.11	0.34	47	0.39	60	0.3	0.3
RMP Proximity (facility count/km distance)	0.42	0.37	70	0.57	59	0.7	1.1
Hazardous Waste Proximity (facility count/km distance)	82.3	11.2	100	3.5	100	23.0	7.3
Underground Storage Tanks (UST) indicator	14.8	3.3	97	3.6	93	4.1	4.4
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	110	760	73	700,000	56	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.35	1.19	92	1.34	85	1.8	2.3
Supplemental Demographic Index USA	2.35	1.52	88	1.64	85	1.4	1.6
% Low Income	57%	22%	93	30%	87	1.9	2.6
% in limited English-speaking Households	14%	6%	85	5%	89	2.9	2.3
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	20%	9%	86	11%	82	1.8	2.2
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	49%	18%	98	18%	98	2.8	2.8
% People of Color	64%	31%	86	40%	74	1.6	2.1

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

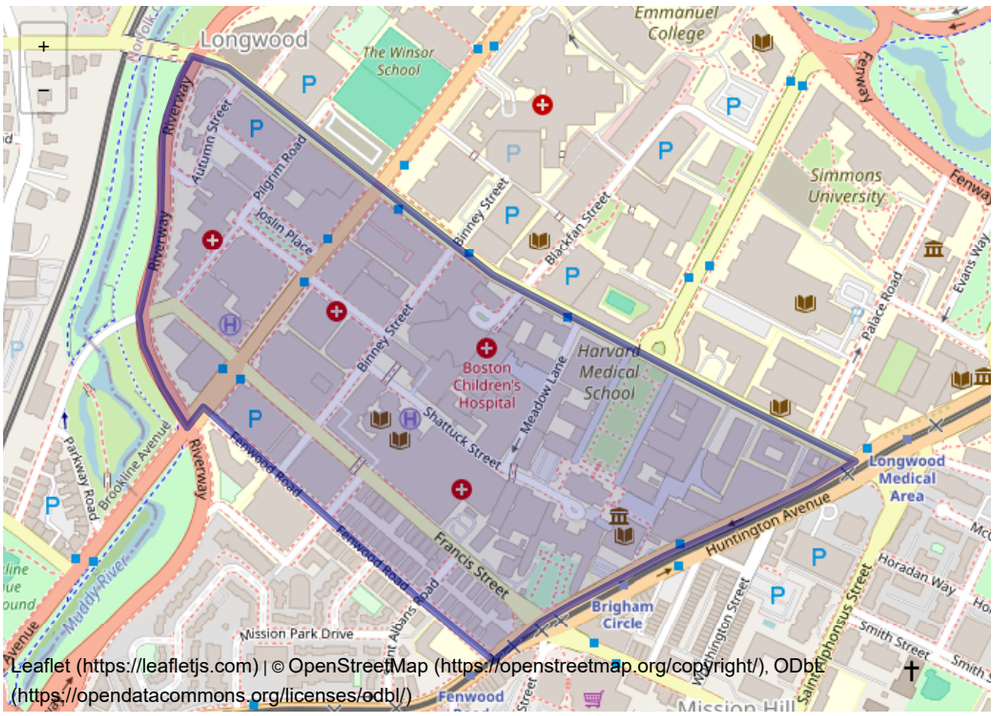
The indexes for a selected area are compared to those for all other locations in the state or nation.

	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	90	35
Ozone Summary Index	81	61
Nitrogen Dioxide (NO2) Summary Index	95	95
Diesel Particulate Matter Summary Index	96	93
Toxic Releases to Air Summary Index	96	94
Traffic Proximity and Volume Summary Index	97	95
Lead Paint Summary Index	95	95
Superfund Proximity Summary Index	89	85
RMP Proximity Summary Index	91	82
Hazardous Waste Proximity Summary Index	97	96
Underground Storage Tanks Summary Index	96	94
Wastewater Discharge Summary Index	94	83
Drinking Water Non-Compliance Summary Index	95	96
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	87	22
Ozone Supplemental Summary Index	67	47
Nitrogen Dioxide (NO2) Supplemental Summary Index	95	96
Diesel Particulate Matter Supplemental Summary Index	96	95
Toxic Releases to Air Supplemental Summary Index	96	94
Traffic Proximity and Volume Supplemental Summary Index	96	96
Lead Paint Supplemental Summary Index	93	95
Superfund Proximity Supplemental Summary Index	83	85
RMP Proximity Supplemental Summary Index	88	81
Hazardous Waste Proximity Supplemental Summary Index	97	97
Underground Storage Tanks Supplemental Summary Index	95	95
Wastewater Discharge Supplemental Summary Index	92	80
Drinking Water Non-Compliance Supplemental Summary Index	95	96

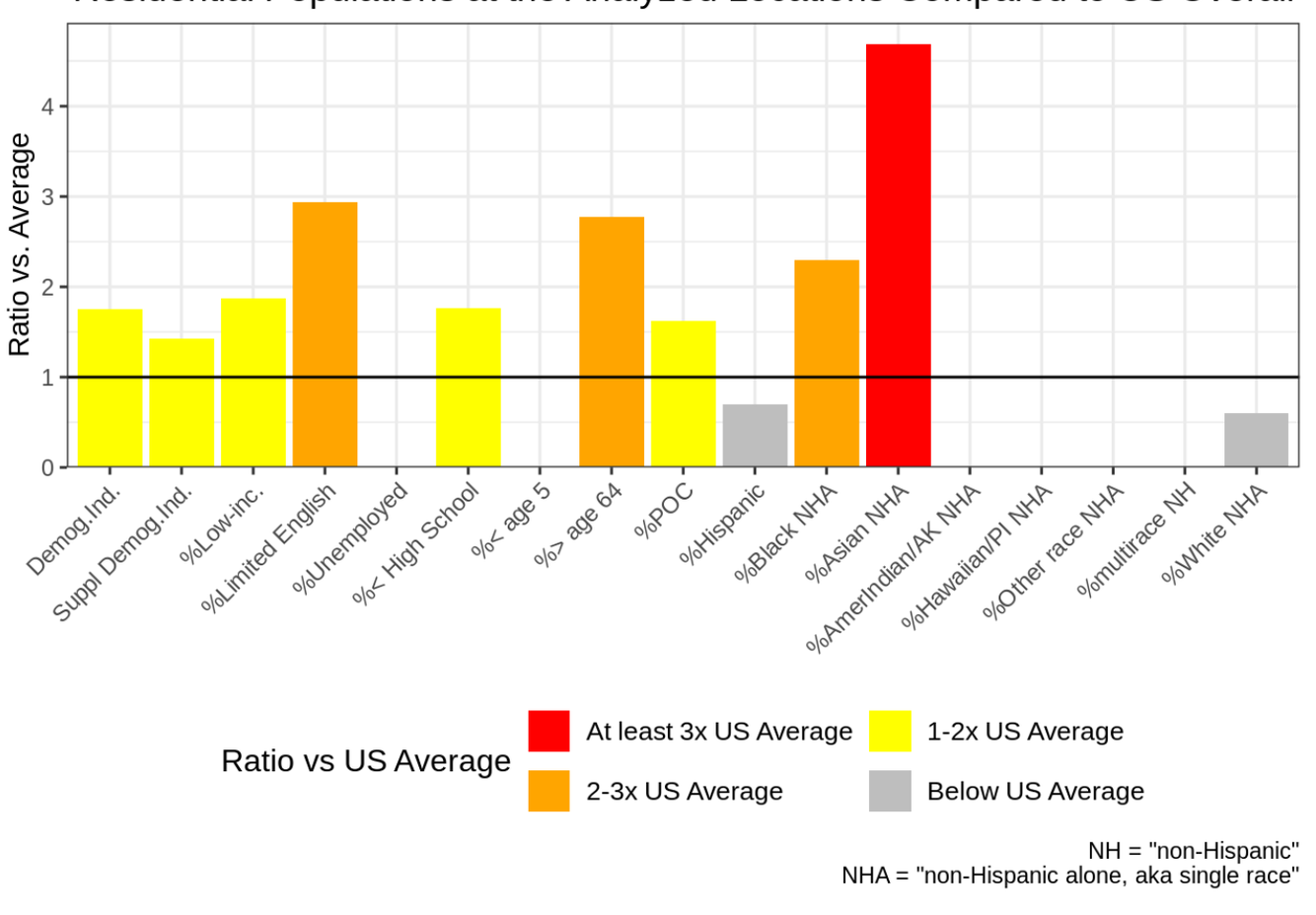
ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	12%	0.7	1
% Black or African American (non-Hispanic, single race)	28%	2.3	4.3
% Asian (non-Hispanic, single race)	23%	4.7	3.5
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	0%	0	0
% White (non-Hispanic, single race)	36%	0.6	0.5
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	47%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	23%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	14%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	37%	NA	NA
% Females	63%	NA	NA
HEALTH			
% with Disabilities	14%	1	1.1
% with Low Life Expectancy	N/A	NA	NA
% with Heart Diseases	5	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	4.50	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	49%	2.8	2.8
COMMUNITY			
Occupied Housing Units	319	NA	NA
Life Expectancy in Years	0	NA	NA
Per Capita Income	58,759	NA	NA
% Owner Occupied households	0%	NA	NA
POVERTY			
% of Households below Poverty Level	19%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	3	NA	NA
Number of Air Pollution Facilities	5	NA	NA
Number of Toxic Release Facilities	1	NA	NA
Number of Water Discharge Facilities	6	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	1	NA	NA
Number of Hospitals	4	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	1	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	28%	NA	NA
% Households without Health Insurance	7%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	445	NA	NA
Count of Population Age 25 up	440	NA	NA
Count of Households	319	NA	NA
Universe for % unemployed (denominator, count)	445	NA	NA
Count of Housing Units Built Pre 1960	267	NA	NA
Built housing units count (denominator for % pre 1960)	334	NA	NA
Count of Population for whom Poverty Status is Determined	429	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)



Residential Populations at the Analyzed Locations Compared to US Overall



NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250811011)
Area in Square Miles: 0.01
Population: 300

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.64	6.52	61	8.45	12	0.8	1.0
Ozone (ppb)	55.8	56.7	38	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	14.2	8.8	90	7.8	94	1.8	1.6
Diesel Particulate Matter (ug/m3)	0.360	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,900	2,800	91	4,600	86	1.1	1.8
Traffic Proximity and Volume (daily traffic count/distance to road)	16,000,000	6,100,000	94	1,700,000	99	9.4	2.6
Lead Paint Indicator (% pre-1960s housing)	56.79%	0.51	54	0.3	78	1.9	1.1
Superfund Proximity (site count/km distance)	0.11	0.34	49	0.39	62	0.3	0.3
RMP Proximity (facility count/km distance)	0.38	0.37	67	0.57	57	0.7	1.0
Hazardous Waste Proximity (facility count/km distance)	44.6	11.2	95	3.5	99	13.0	4.0
Underground Storage Tanks (UST) indicator	12.4	3.3	95	3.6	92	3.4	3.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	97	760	70	700,000	55	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.53	1.19	78	1.34	64	1.1	1.5
Supplemental Demographic Index USA	1.79	1.52	78	1.64	64	1.1	1.3
% Low Income	36%	22%	79	30%	65	1.2	1.6
% in limited English-speaking Households	26%	6%	94	5%	95	5.3	4.2
% Unemployed	0%	5%	0	6%	0	0.0	0.0
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	3%	18%	4	18%	4	0.1	0.2
% People of Color	43%	31%	73	40%	60	1.1	1.4

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

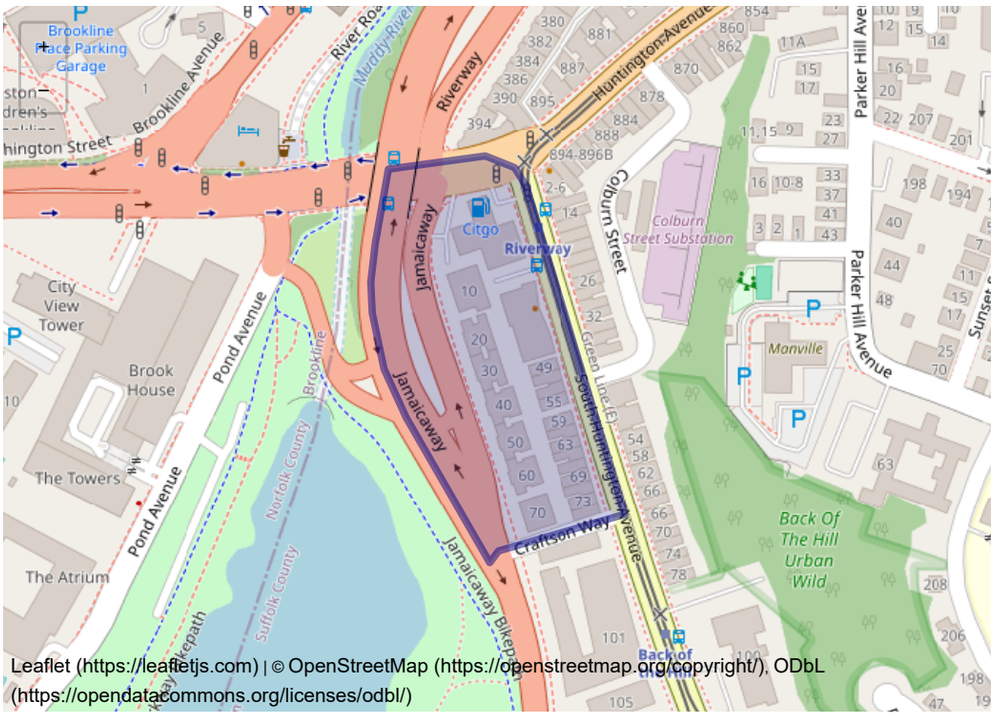
The indexes for a selected area are compared to those for all other locations in the state or nation.

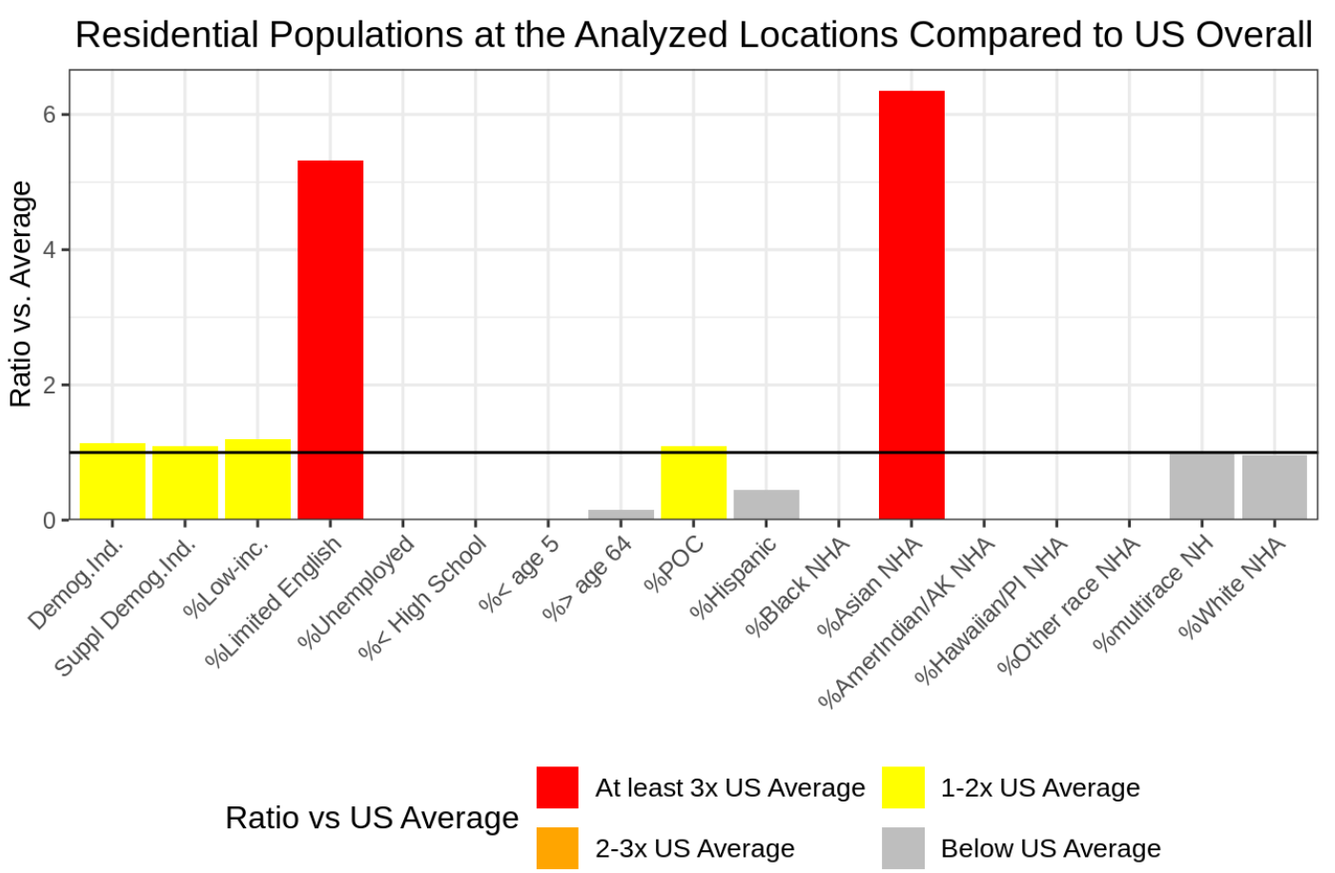
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	83	25
Ozone Summary Index	69	46
Nitrogen Dioxide (NO2) Summary Index	85	82
Diesel Particulate Matter Summary Index	88	81
Toxic Releases to Air Summary Index	91	84
Traffic Proximity and Volume Summary Index	88	84
Lead Paint Summary Index	76	80
Superfund Proximity Summary Index	80	77
RMP Proximity Summary Index	81	69
Hazardous Waste Proximity Summary Index	88	85
Underground Storage Tanks Summary Index	88	83
Wastewater Discharge Summary Index	83	69
Drinking Water Non-Compliance Summary Index	89	91
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	82	16
Ozone Supplemental Summary Index	55	34
Nitrogen Dioxide (NO2) Supplemental Summary Index	88	88
Diesel Particulate Matter Supplemental Summary Index	91	87
Toxic Releases to Air Supplemental Summary Index	93	86
Traffic Proximity and Volume Supplemental Summary Index	91	91
Lead Paint Supplemental Summary Index	72	81
Superfund Proximity Supplemental Summary Index	74	77
RMP Proximity Supplemental Summary Index	80	68
Hazardous Waste Proximity Supplemental Summary Index	92	90
Underground Storage Tanks Supplemental Summary Index	90	87
Wastewater Discharge Supplemental Summary Index	85	67
Drinking Water Non-Compliance Supplemental Summary Index	92	91

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	8%	0.5	0.6
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	32%	6.4	4.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	3%	1	0.9
% White (non-Hispanic, single race)	57%	1	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	38%	NA	NA
% speaking Other Indo-European at home	12%	NA	NA
% speaking Asian and Pacific Island languages at home	15%	NA	NA
% speaking Other and Unspecified languages at home	0%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	11%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	67%	NA	NA
% Females	33%	NA	NA
HEALTH			
% with Disabilities	7%	0.5	0.5
% with Low Life Expectancy	22%	1.1	1.3
% with Heart Diseases	5	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.60	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	3%	0.1	0.2
COMMUNITY			
Occupied Housing Units	285	NA	NA
Life Expectancy in Years	76	NA	NA
Per Capita Income	49,056	NA	NA
% Owner Occupied households	16%	NA	NA
POVERTY			
% of Households below Poverty Level	21%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	0%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	300	NA	NA
Count of Population Age 25 up	300	NA	NA
Count of Households	285	NA	NA
Universe for % unemployed (denominator, count)	300	NA	NA
Count of Housing Units Built Pre 1960	184	NA	NA
Built housing units count (denominator for % pre 1960)	324	NA	NA
Count of Population for whom Poverty Status is Determined	300	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250811012)
Area in Square Miles: 0.04
Population: 1,076

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.64	6.52	61	8.45	12	0.8	1.0
Ozone (ppb)	55.8	56.7	38	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	13.8	8.8	88	7.8	94	1.8	1.6
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	5,000	2,800	91	4,600	86	1.1	1.8
Traffic Proximity and Volume (daily traffic count/distance to road)	14,000,000	6,100,000	90	1,700,000	99	8.4	2.3
Lead Paint Indicator (% pre-1960s housing)	23.35%	0.51	20	0.3	52	0.8	0.5
Superfund Proximity (site count/km distance)	0.12	0.34	51	0.39	63	0.3	0.4
RMP Proximity (facility count/km distance)	0.37	0.37	67	0.57	56	0.6	1.0
Hazardous Waste Proximity (facility count/km distance)	44.8	11.2	95	3.5	99	13.0	4.0
Underground Storage Tanks (UST) indicator	8.6	3.3	90	3.6	87	2.4	2.6
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	92	760	69	700,000	55	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.29	1.19	72	1.34	55	1.0	1.3
Supplemental Demographic Index USA	1.67	1.52	74	1.64	57	1.0	1.2
% Low Income	21%	22%	60	30%	40	0.7	1.0
% in limited English-speaking Households	15%	6%	86	5%	90	3.1	2.5
% Unemployed	4%	5%	54	6%	54	0.8	0.8
% with Less Than High School Education	12%	9%	74	11%	66	1.1	1.4
% under Age 5	10%	5%	90	5%	87	1.9	2.1
% over Age 64	24%	18%	77	18%	77	1.4	1.4
% People of Color	50%	31%	78	40%	65	1.3	1.6

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

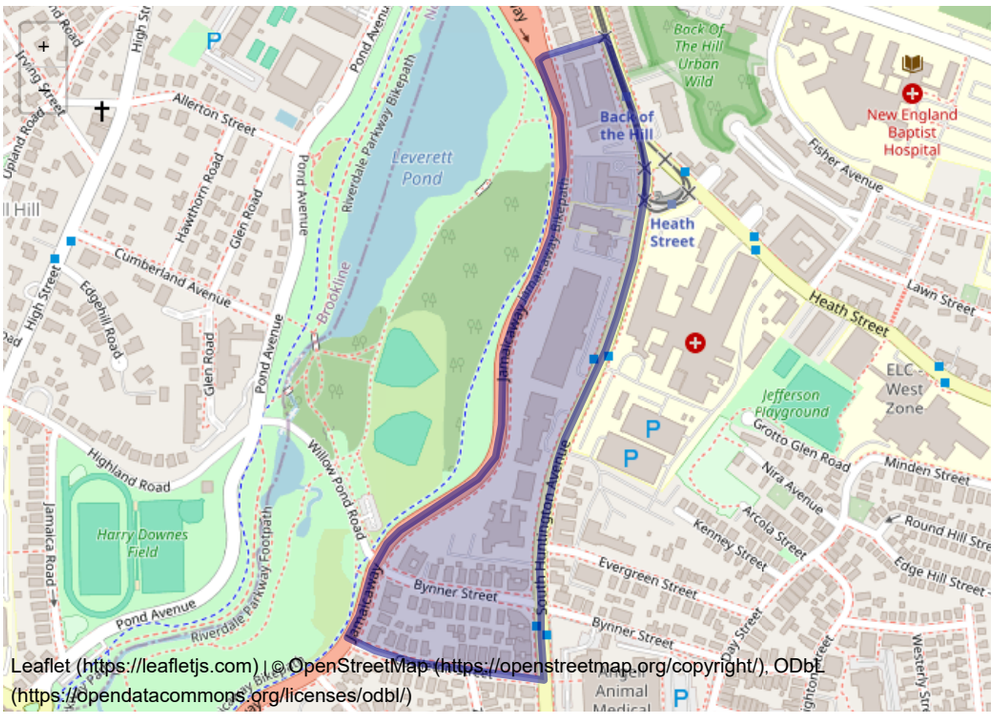
The indexes for a selected area are compared to those for all other locations in the state or nation.

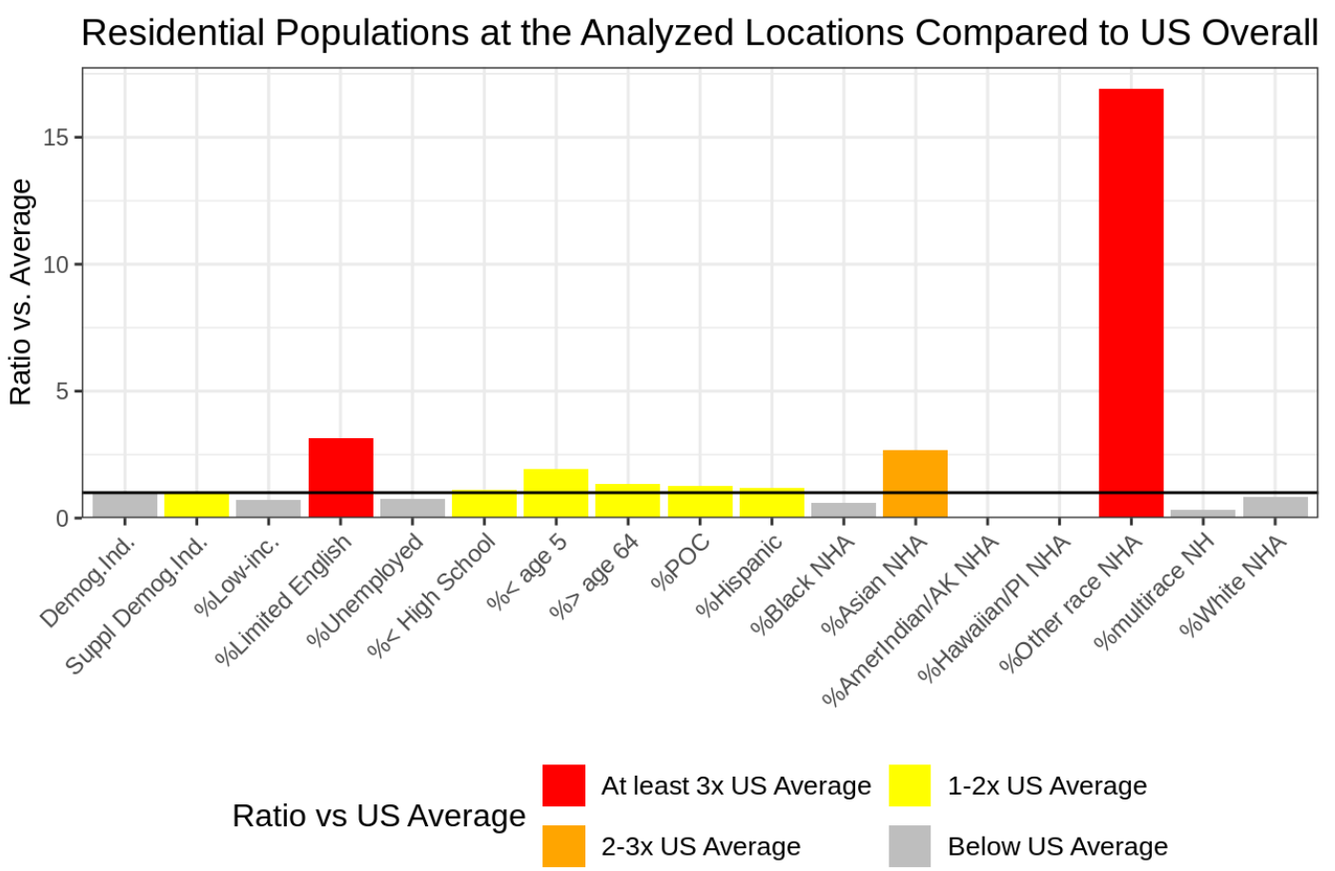
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	79	22
Ozone Summary Index	64	40
Nitrogen Dioxide (NO2) Summary Index	81	77
Diesel Particulate Matter Summary Index	84	76
Toxic Releases to Air Summary Index	87	79
Traffic Proximity and Volume Summary Index	83	79
Lead Paint Summary Index	42	62
Superfund Proximity Summary Index	77	74
RMP Proximity Summary Index	77	64
Hazardous Waste Proximity Summary Index	85	80
Underground Storage Tanks Summary Index	82	77
Wastewater Discharge Summary Index	78	64
Drinking Water Non-Compliance Summary Index	87	89
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	79	15
Ozone Supplemental Summary Index	52	32
Nitrogen Dioxide (NO2) Supplemental Summary Index	85	86
Diesel Particulate Matter Supplemental Summary Index	89	85
Toxic Releases to Air Supplemental Summary Index	92	84
Traffic Proximity and Volume Supplemental Summary Index	88	89
Lead Paint Supplemental Summary Index	32	58
Superfund Proximity Supplemental Summary Index	73	75
RMP Proximity Supplemental Summary Index	78	64
Hazardous Waste Proximity Supplemental Summary Index	90	88
Underground Storage Tanks Supplemental Summary Index	86	82
Wastewater Discharge Supplemental Summary Index	81	63
Drinking Water Non-Compliance Supplemental Summary Index	90	89

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	21%	1.2	1.6
% Black or African American (non-Hispanic, single race)	7%	0.6	1.1
% Asian (non-Hispanic, single race)	13%	2.7	2
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	7%	17	6.9
% Two or more races (non-Hispanic)	1%	0.3	0.3
% White (non-Hispanic, single race)	50%	0.8	0.7
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	38%	NA	NA
% speaking Other Indo-European at home	12%	NA	NA
% speaking Asian and Pacific Island languages at home	15%	NA	NA
% speaking Other and Unspecified languages at home	0%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	11%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	52%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	48%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	30%	NA	NA
% Females	70%	NA	NA
HEALTH			
% with Disabilities	7%	0.5	0.5
% with Low Life Expectancy	22%	1.1	1.3
% with Heart Diseases	5	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.60	NA	NA
AGE			
% under Age 5	10%	1.9	2.1
% under age 18	10%	NA	NA
% over Age 64	24%	1.4	1.4
COMMUNITY			
Occupied Housing Units	482	NA	NA
Life Expectancy in Years	76	NA	NA
Per Capita Income	49,624	NA	NA
% Owner Occupied households	12%	NA	NA
POVERTY			
% of Households below Poverty Level	7%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	8%	NA	NA
% Households without Health Insurance	0%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	1,076	NA	NA
Count of Population Age 25 up	938	NA	NA
Count of Households	482	NA	NA
Universe for % unemployed (denominator, count)	965	NA	NA
Count of Housing Units Built Pre 1960	127	NA	NA
Built housing units count (denominator for % pre 1960)	544	NA	NA
Count of Population for whom Poverty Status is Determined	937	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250811021)
Area in Square Miles: 0.1
Population: 1,480

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.63	6.52	59	8.45	12	0.8	1.0
Ozone (ppb)	55.9	56.7	40	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	16.0	8.8	94	7.8	97	2.0	1.8
Diesel Particulate Matter (ug/m3)	0.362	0.176	93	0.191	89	1.9	2.1
Toxic Releases to Air	4,700	2,800	89	4,600	85	1.0	1.7
Traffic Proximity and Volume (daily traffic count/distance to road)	15,000,000	6,100,000	92	1,700,000	99	9.0	2.5
Lead Paint Indicator (% pre-1960s housing)	45.35%	0.51	42	0.3	71	1.5	0.9
Superfund Proximity (site count/km distance)	0.12	0.34	50	0.39	62	0.3	0.3
RMP Proximity (facility count/km distance)	0.44	0.37	71	0.57	60	0.8	1.2
Hazardous Waste Proximity (facility count/km distance)	42.1	11.2	95	3.5	99	12.0	3.8
Underground Storage Tanks (UST) indicator	5.3	3.3	79	3.6	80	1.5	1.6
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	98	760	71	700,000	55	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.87	1.19	85	1.34	74	1.4	1.8
Supplemental Demographic Index USA	2.29	1.52	89	1.64	84	1.4	1.7
% Low Income	39%	22%	82	30%	69	1.3	1.8
% in limited English-speaking Households	14%	6%	85	5%	89	2.9	2.3
% Unemployed	20%	5%	96	6%	95	3.5	3.6
% with Less Than High School Education	17%	9%	83	11%	77	1.5	1.9
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	13%	18%	34	18%	36	0.7	0.7
% People of Color	60%	31%	84	40%	72	1.5	1.9

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

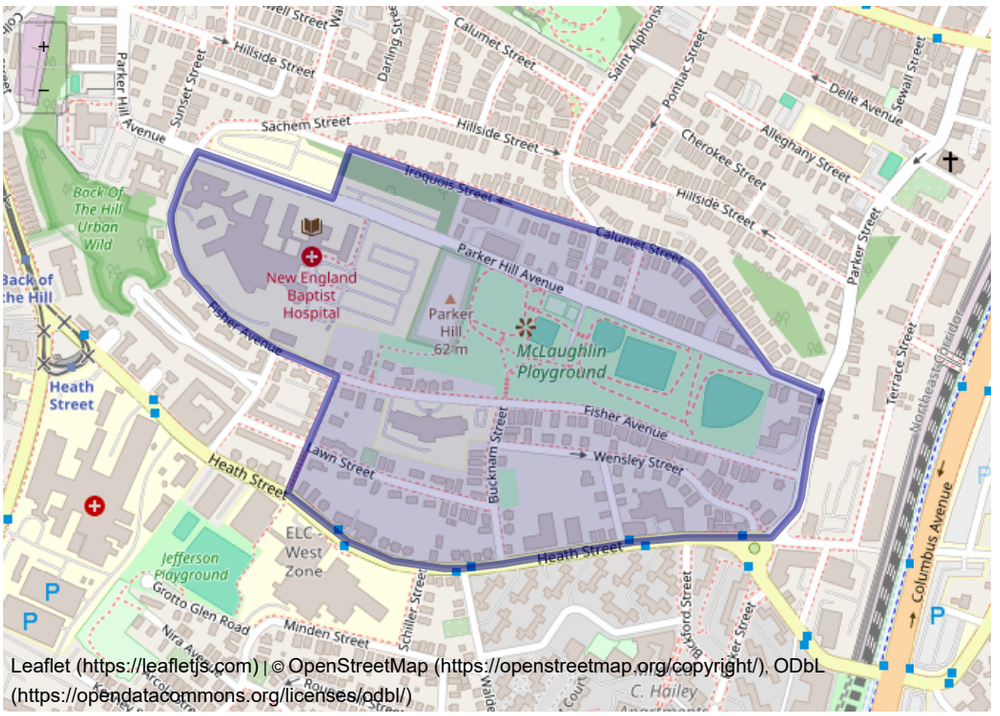
The indexes for a selected area are compared to those for all other locations in the state or nation.

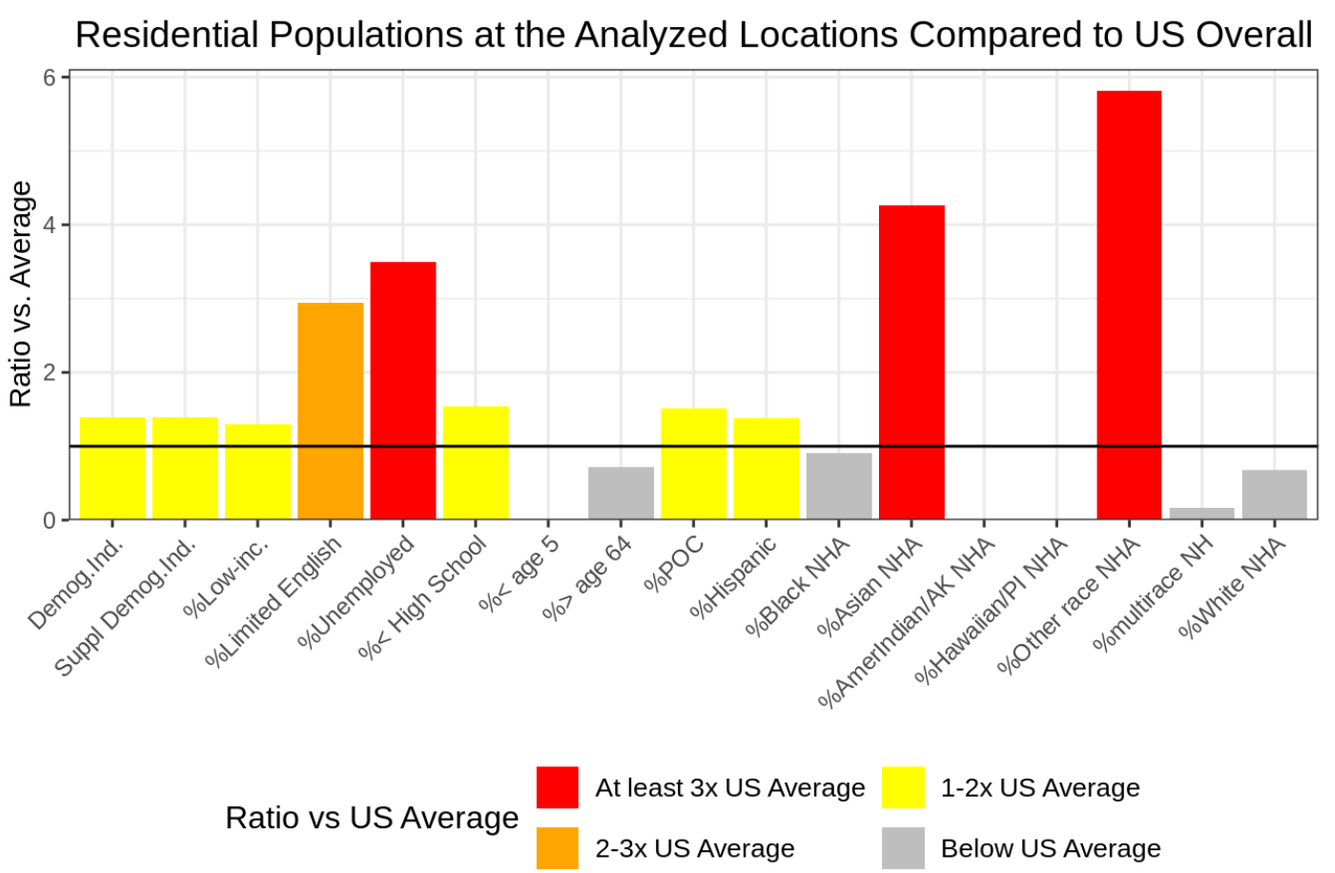
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	87	29
Ozone Summary Index	76	53
Nitrogen Dioxide (NO2) Summary Index	90	89
Diesel Particulate Matter Summary Index	92	87
Toxic Releases to Air Summary Index	94	89
Traffic Proximity and Volume Summary Index	92	90
Lead Paint Summary Index	74	83
Superfund Proximity Summary Index	86	81
RMP Proximity Summary Index	87	77
Hazardous Waste Proximity Summary Index	93	90
Underground Storage Tanks Summary Index	88	85
Wastewater Discharge Summary Index	88	76
Drinking Water Non-Compliance Summary Index	92	93
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	89	21
Ozone Supplemental Summary Index	69	45
Nitrogen Dioxide (NO2) Supplemental Summary Index	95	95
Diesel Particulate Matter Supplemental Summary Index	96	94
Toxic Releases to Air Supplemental Summary Index	97	93
Traffic Proximity and Volume Supplemental Summary Index	96	96
Lead Paint Supplemental Summary Index	72	87
Superfund Proximity Supplemental Summary Index	86	85
RMP Proximity Supplemental Summary Index	88	80
Hazardous Waste Proximity Supplemental Summary Index	96	96
Underground Storage Tanks Supplemental Summary Index	91	90
Wastewater Discharge Supplemental Summary Index	92	78
Drinking Water Non-Compliance Supplemental Summary Index	95	96

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	24%	1.4	1.9
% Black or African American (non-Hispanic, single race)	11%	0.9	1.7
% Asian (non-Hispanic, single race)	21%	4.3	3.2
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	2%	5.8	2.4
% Two or more races (non-Hispanic)	1%	0.2	0.1
% White (non-Hispanic, single race)	40%	0.7	0.6
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	48%	NA	NA
% speaking Other Indo-European at home	21%	NA	NA
% speaking Asian and Pacific Island languages at home	11%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	15%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	73%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	27%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	65%	NA	NA
% Females	35%	NA	NA
HEALTH			
% with Disabilities	19%	1.4	1.5
% with Low Life Expectancy	22%	1.1	1.3
% with Heart Diseases	5	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.60	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	5%	NA	NA
% over Age 64	13%	0.7	0.7
COMMUNITY			
Occupied Housing Units	389	NA	NA
Life Expectancy in Years	76	NA	NA
Per Capita Income	41,328	NA	NA
% Owner Occupied households	50%	NA	NA
POVERTY			
% of Households below Poverty Level	26%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	1	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	10%	NA	NA
% Households without Health Insurance	0%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,480	NA	NA
Count of Population Age 25 up	855	NA	NA
Count of Households	389	NA	NA
Universe for % unemployed (denominator, count)	1,413	NA	NA
Count of Housing Units Built Pre 1960	229	NA	NA
Built housing units count (denominator for % pre 1960)	505	NA	NA
Count of Population for whom Poverty Status is Determined	1,459	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250811022)
Area in Square Miles: 0.05
Population: 1,355

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.63	6.52	59	8.45	12	0.8	1.0
Ozone (ppb)	55.9	56.7	40	61.8	27	0.9	1.0
Nitrogen Dioxide (NO2)	14.6	8.8	91	7.8	95	1.9	1.7
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,800	2,800	90	4,600	85	1.0	1.8
Traffic Proximity and Volume (daily traffic count/distance to road)	15,000,000	6,100,000	93	1,700,000	99	9.0	2.5
Lead Paint Indicator (% pre-1960s housing)	42.16%	0.51	38	0.3	68	1.4	0.8
Superfund Proximity (site count/km distance)	0.12	0.34	50	0.39	62	0.3	0.3
RMP Proximity (facility count/km distance)	0.39	0.37	68	0.57	58	0.7	1.0
Hazardous Waste Proximity (facility count/km distance)	45.3	11.2	95	3.5	99	13.0	4.0
Underground Storage Tanks (UST) indicator	12.4	3.3	95	3.6	92	3.4	3.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	97	760	70	700,000	55	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.56	1.19	79	1.34	65	1.2	1.5
Supplemental Demographic Index USA	2.31	1.52	89	1.64	84	1.4	1.7
% Low Income	34%	22%	77	30%	62	1.1	1.5
% in limited English-speaking Households	30%	6%	95	5%	96	6.2	4.9
% Unemployed	2%	5%	34	6%	36	0.4	0.4
% with Less Than High School Education	5%	9%	47	11%	36	0.4	0.5
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	15%	18%	43	18%	45	0.8	0.8
% People of Color	48%	31%	77	40%	64	1.2	1.6

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

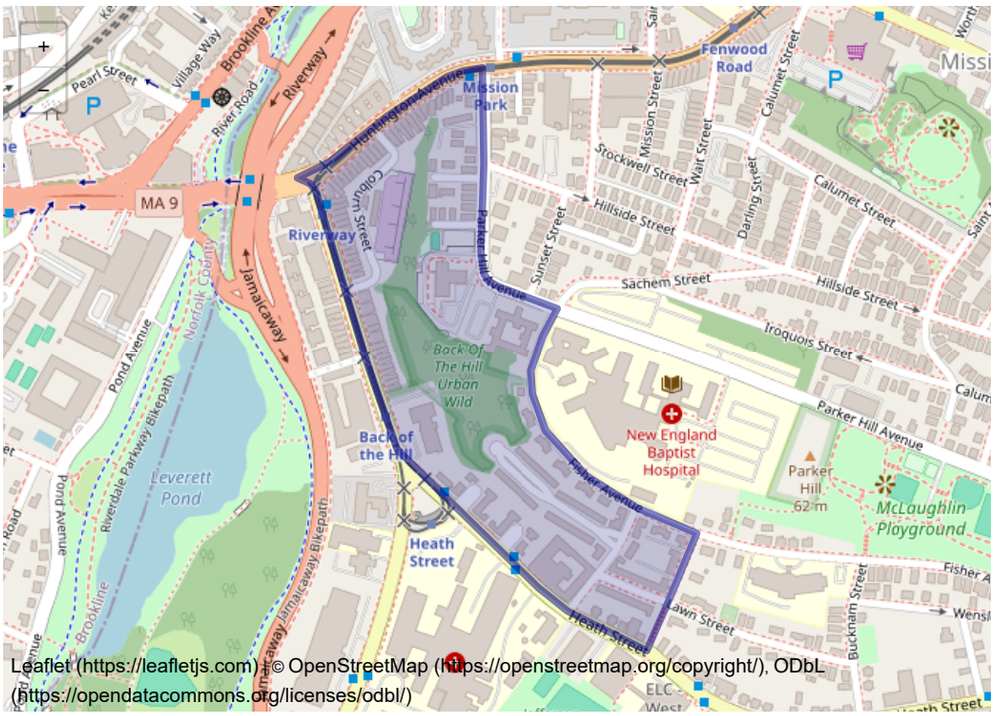
The indexes for a selected area are compared to those for all other locations in the state or nation.

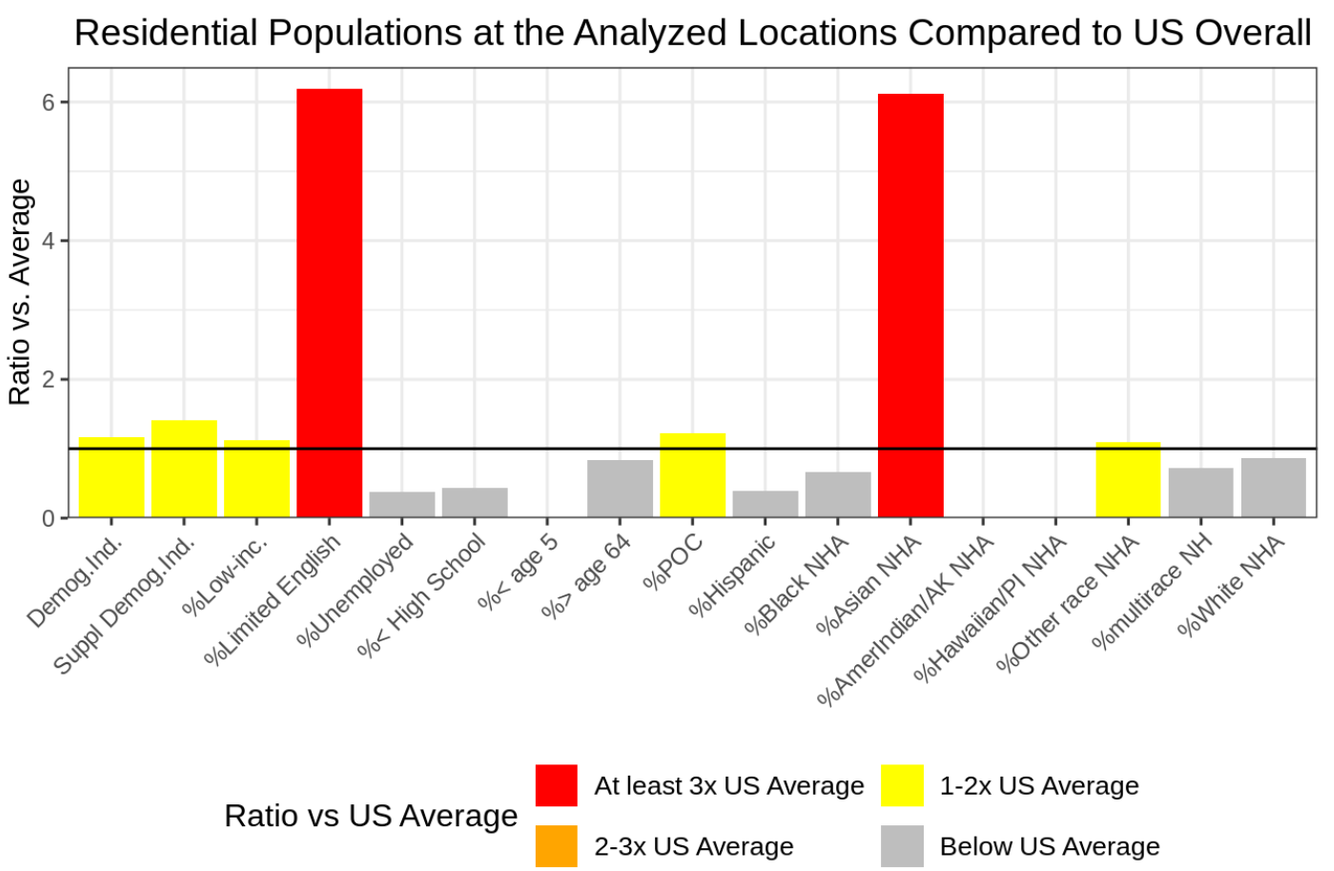
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	83	25
Ozone Summary Index	71	47
Nitrogen Dioxide (NO2) Summary Index	86	83
Diesel Particulate Matter Summary Index	89	82
Toxic Releases to Air Summary Index	91	84
Traffic Proximity and Volume Summary Index	88	85
Lead Paint Summary Index	66	77
Superfund Proximity Summary Index	82	77
RMP Proximity Summary Index	81	70
Hazardous Waste Proximity Summary Index	89	85
Underground Storage Tanks Summary Index	88	84
Wastewater Discharge Summary Index	84	70
Drinking Water Non-Compliance Summary Index	89	91
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	89	21
Ozone Supplemental Summary Index	69	46
Nitrogen Dioxide (NO2) Supplemental Summary Index	94	95
Diesel Particulate Matter Supplemental Summary Index	96	94
Toxic Releases to Air Supplemental Summary Index	97	93
Traffic Proximity and Volume Supplemental Summary Index	96	96
Lead Paint Supplemental Summary Index	68	86
Superfund Proximity Supplemental Summary Index	86	85
RMP Proximity Supplemental Summary Index	87	79
Hazardous Waste Proximity Supplemental Summary Index	97	96
Underground Storage Tanks Supplemental Summary Index	95	94
Wastewater Discharge Supplemental Summary Index	92	79
Drinking Water Non-Compliance Supplemental Summary Index	96	96

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	7%	0.4	0.5
% Black or African American (non-Hispanic, single race)	8%	0.7	1.2
% Asian (non-Hispanic, single race)	30%	6.1	4.5
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	1.1	0.4
% Two or more races (non-Hispanic)	2%	0.7	0.6
% White (non-Hispanic, single race)	52%	0.9	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	48%	NA	NA
% speaking Other Indo-European at home	21%	NA	NA
% speaking Asian and Pacific Island languages at home	11%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	15%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	21%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	73%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	6%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	45%	NA	NA
% Females	55%	NA	NA
HEALTH			
% with Disabilities	19%	1.4	1.5
% with Low Life Expectancy	22%	1.1	1.3
% with Heart Diseases	5	NA	NA
% of Adults with Asthma	11.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.60	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	1%	NA	NA
% over Age 64	15%	0.8	0.8
COMMUNITY			
Occupied Housing Units	762	NA	NA
Life Expectancy in Years	76	NA	NA
Per Capita Income	58,322	NA	NA
% Owner Occupied households	18%	NA	NA
POVERTY			
% of Households below Poverty Level	24%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	0%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	38%	NA	NA
% Households without Health Insurance	0%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,355	NA	NA
Count of Population Age 25 up	1,023	NA	NA
Count of Households	762	NA	NA
Universe for % unemployed (denominator, count)	1,355	NA	NA
Count of Housing Units Built Pre 1960	336	NA	NA
Built housing units count (denominator for % pre 1960)	797	NA	NA
Count of Population for whom Poverty Status is Determined	1,307	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.



Summary of Analysis

Residents within this specified Census unit (FIPS 250250814001)
Area in Square Miles: 0.05
Population: 749

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	58	8.45	12	0.8	1.0
Ozone (ppb)	56.1	56.7	43	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	17.4	8.8	96	7.8	98	2.2	2.0
Diesel Particulate Matter (ug/m3)	0.365	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,400	2,800	86	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	18,000,000	6,100,000	96	1,700,000	99	10.0	2.9
Lead Paint Indicator (% pre-1960s housing)	51.10%	0.51	48	0.3	75	1.7	1.0
Superfund Proximity (site count/km distance)	0.11	0.34	49	0.39	62	0.3	0.3
RMP Proximity (facility count/km distance)	0.57	0.37	77	0.57	66	1.0	1.5
Hazardous Waste Proximity (facility count/km distance)	42.0	11.2	94	3.5	99	12.0	3.8
Underground Storage Tanks (UST) indicator	2.5	3.3	57	3.6	66	0.7	0.7
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	110	760	73	700,000	56	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.11	1.19	89	1.34	80	1.6	2.1
Supplemental Demographic Index USA	1.69	1.52	75	1.64	58	1.0	1.2
% Low Income	50%	22%	90	30%	81	1.6	2.2
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	11%	5%	87	6%	86	2.0	2.1
% with Less Than High School Education	9%	9%	65	11%	55	0.8	1.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	15%	18%	45	18%	46	0.8	0.9
% People of Color	60%	31%	84	40%	72	1.5	1.9

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

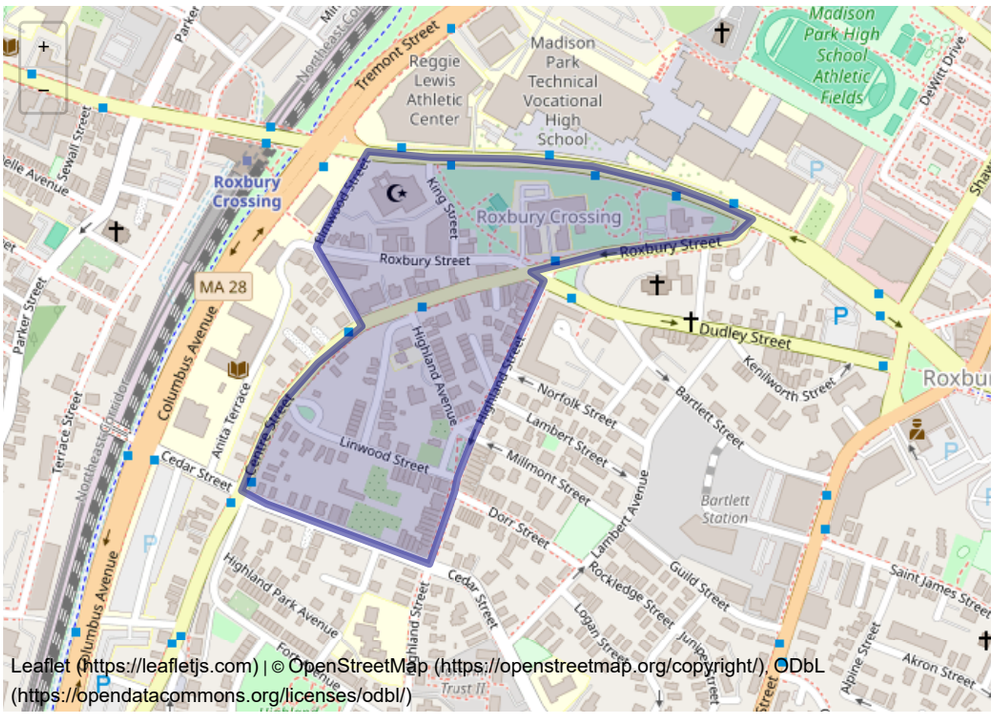
The indexes for a selected area are compared to those for all other locations in the state or nation.

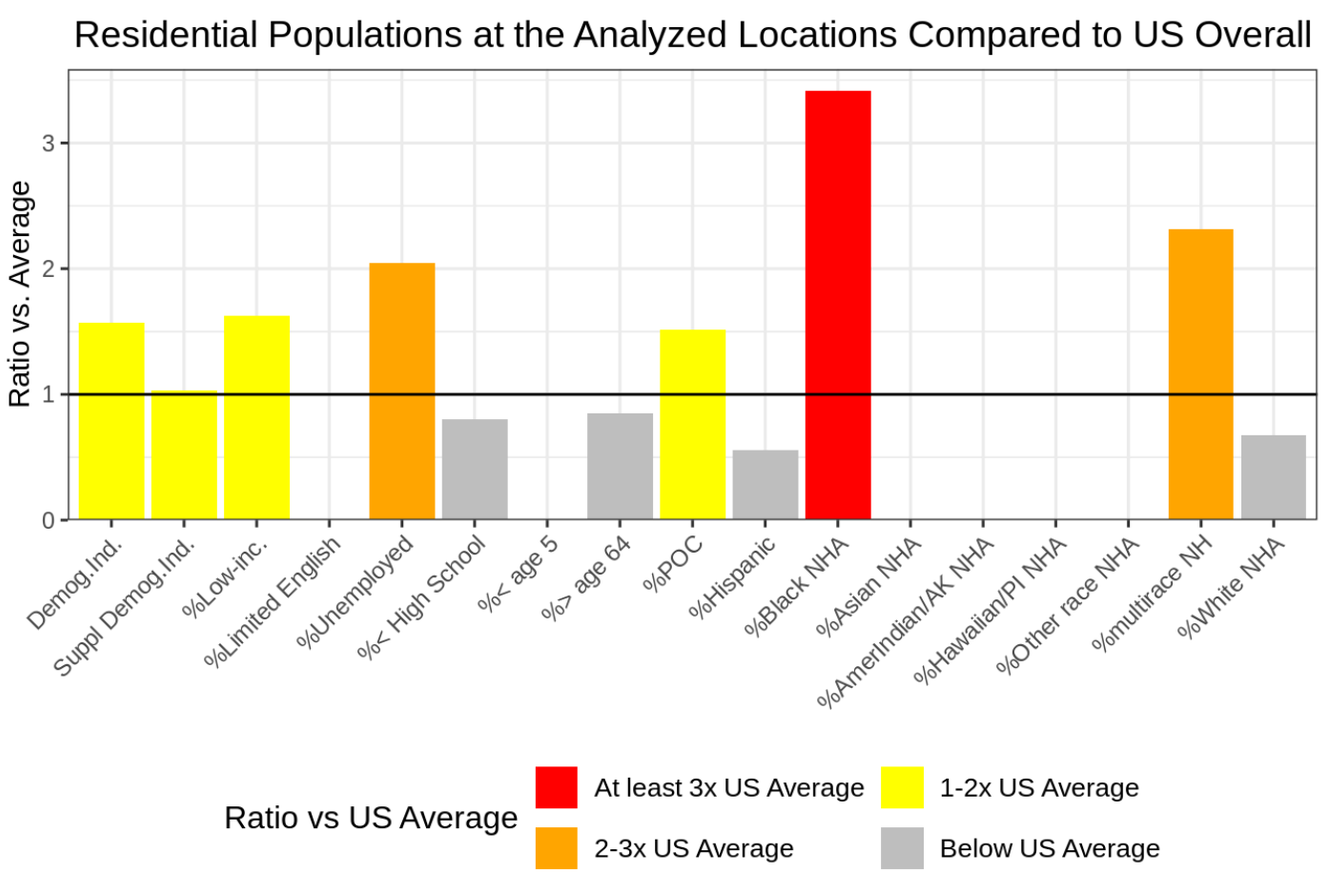
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	89	32
Ozone Summary Index	81	58
Nitrogen Dioxide (NO2) Summary Index	93	92
Diesel Particulate Matter Summary Index	95	90
Toxic Releases to Air Summary Index	95	91
Traffic Proximity and Volume Summary Index	95	93
Lead Paint Summary Index	81	88
Superfund Proximity Summary Index	87	84
RMP Proximity Summary Index	91	82
Hazardous Waste Proximity Summary Index	95	93
Underground Storage Tanks Summary Index	83	83
Wastewater Discharge Summary Index	92	80
Drinking Water Non-Compliance Summary Index	93	95
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	77	15
Ozone Supplemental Summary Index	57	35
Nitrogen Dioxide (NO2) Supplemental Summary Index	88	87
Diesel Particulate Matter Supplemental Summary Index	90	86
Toxic Releases to Air Supplemental Summary Index	90	84
Traffic Proximity and Volume Supplemental Summary Index	90	89
Lead Paint Supplemental Summary Index	65	76
Superfund Proximity Supplemental Summary Index	71	75
RMP Proximity Supplemental Summary Index	83	72
Hazardous Waste Proximity Supplemental Summary Index	90	89
Underground Storage Tanks Supplemental Summary Index	71	71
Wastewater Discharge Supplemental Summary Index	83	65
Drinking Water Non-Compliance Supplemental Summary Index	90	89

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	10%	0.6	0.8
% Black or African American (non-Hispanic, single race)	42%	3.4	6.3
% Asian (non-Hispanic, single race)	0%	0	0
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	8%	2.3	2
% White (non-Hispanic, single race)	40%	0.7	0.6
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	35%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	2%	NA	NA
% speaking Other and Unspecified languages at home	3%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	23%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	53%	NA	NA
% Females	47%	NA	NA
HEALTH			
% with Disabilities	13%	1	1.1
% with Low Life Expectancy	20%	1	1.1
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.00	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	2%	NA	NA
% over Age 64	15%	0.8	0.9
COMMUNITY			
Occupied Housing Units	339	NA	NA
Life Expectancy in Years	78	NA	NA
Per Capita Income	43,208	NA	NA
% Owner Occupied households	27%	NA	NA
POVERTY			
% of Households below Poverty Level	32%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	1	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	1	NA	NA
Number of Schools	1	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	12%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	26%	NA	NA
% Households without Health Insurance	2%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	749	NA	NA
Count of Population Age 25 up	474	NA	NA
Count of Households	339	NA	NA
Universe for % unemployed (denominator, count)	731	NA	NA
Count of Housing Units Built Pre 1960	186	NA	NA
Built housing units count (denominator for % pre 1960)	364	NA	NA
Count of Population for whom Poverty Status is Determined	749	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250814002)
Area in Square Miles: 0.09
Population: 909

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	58	8.45	12	0.8	1.0
Ozone (ppb)	56.1	56.7	43	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	16.7	8.8	95	7.8	98	2.1	1.9
Diesel Particulate Matter (ug/m3)	0.364	0.176	94	0.191	89	1.9	2.1
Toxic Releases to Air	4,400	2,800	87	4,600	84	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	17,000,000	6,100,000	95	1,700,000	99	9.9	2.8
Lead Paint Indicator (% pre-1960s housing)	66.77%	0.51	66	0.3	84	2.2	1.3
Superfund Proximity (site count/km distance)	0.12	0.34	51	0.39	63	0.3	0.4
RMP Proximity (facility count/km distance)	0.52	0.37	75	0.57	64	0.9	1.4
Hazardous Waste Proximity (facility count/km distance)	38.8	11.2	93	3.5	99	11.0	3.5
Underground Storage Tanks (UST) indicator	1.5	3.3	44	3.6	58	0.4	0.4
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	72	700,000	56	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.41	1.19	75	1.34	60	1.1	1.4
Supplemental Demographic Index USA	1.35	1.52	59	1.64	38	0.8	1.0
% Low Income	21%	22%	59	30%	39	0.7	0.9
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	15%	5%	93	6%	91	2.7	2.8
% with Less Than High School Education	5%	9%	49	11%	37	0.5	0.6
% under Age 5	3%	5%	34	5%	29	0.5	0.5
% over Age 64	11%	18%	26	18%	28	0.6	0.6
% People of Color	58%	31%	83	40%	71	1.5	1.9

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

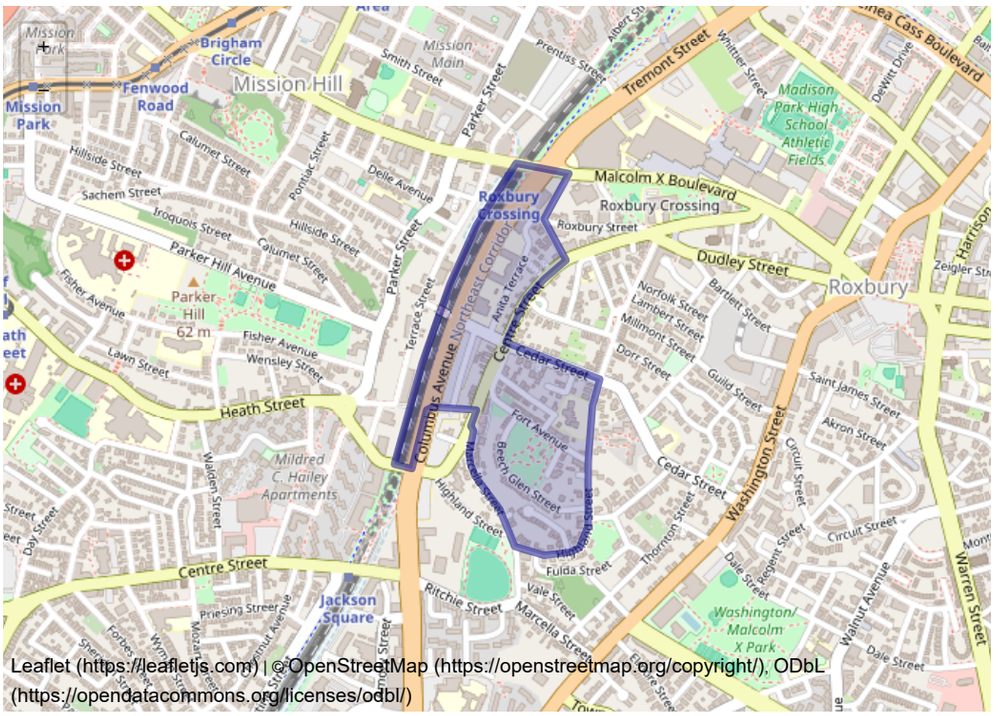
The indexes for a selected area are compared to those for all other locations in the state or nation.

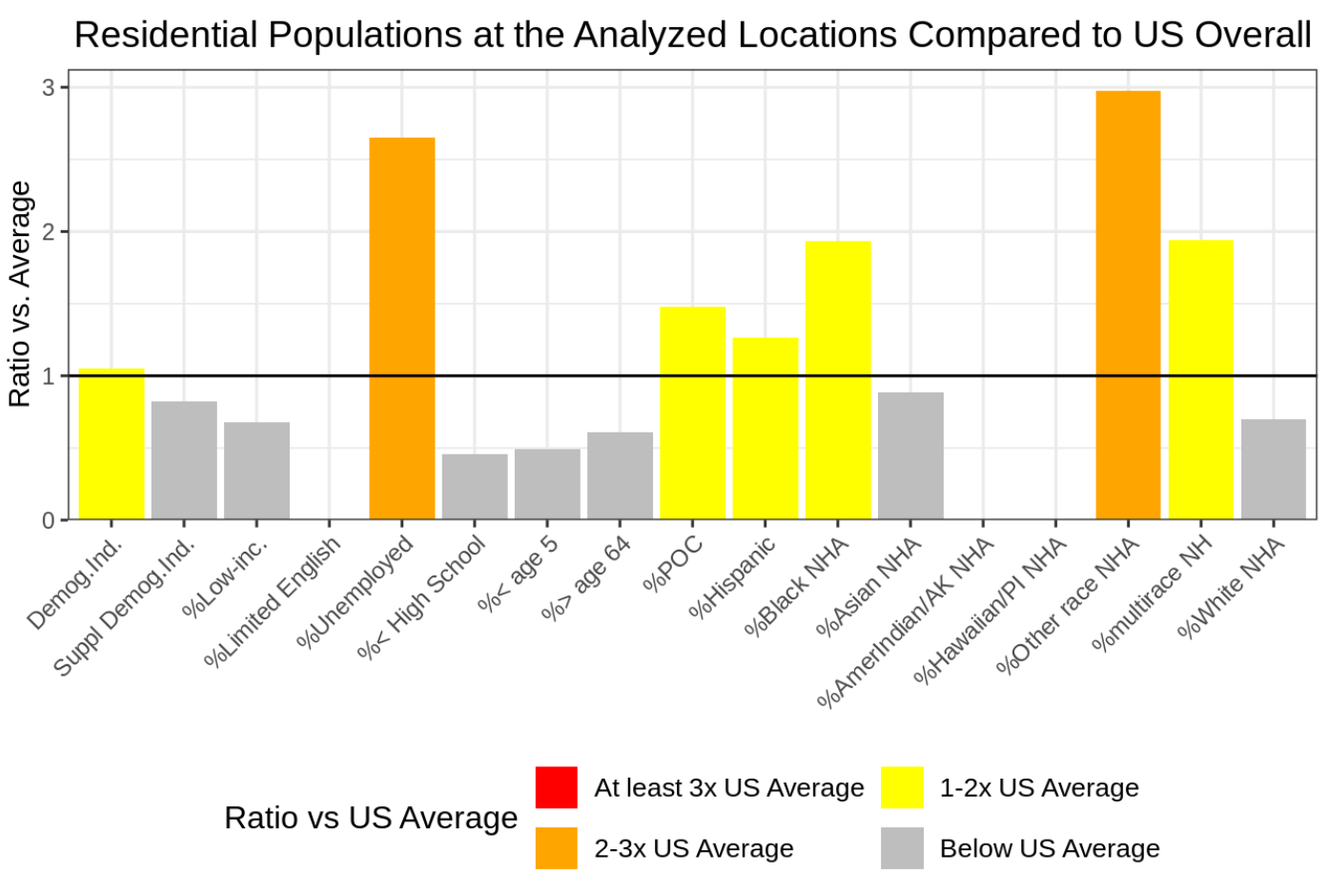
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	80	23
Ozone Summary Index	70	45
Nitrogen Dioxide (NO2) Summary Index	85	81
Diesel Particulate Matter Summary Index	87	79
Toxic Releases to Air Summary Index	88	81
Traffic Proximity and Volume Summary Index	87	82
Lead Paint Summary Index	79	80
Superfund Proximity Summary Index	80	76
RMP Proximity Summary Index	82	70
Hazardous Waste Proximity Summary Index	87	82
Underground Storage Tanks Summary Index	65	68
Wastewater Discharge Summary Index	82	67
Drinking Water Non-Compliance Summary Index	88	90
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	67	12
Ozone Supplemental Summary Index	48	27
Nitrogen Dioxide (NO2) Supplemental Summary Index	81	80
Diesel Particulate Matter Supplemental Summary Index	83	77
Toxic Releases to Air Supplemental Summary Index	84	74
Traffic Proximity and Volume Supplemental Summary Index	83	81
Lead Paint Supplemental Summary Index	68	71
Superfund Proximity Supplemental Summary Index	63	68
RMP Proximity Supplemental Summary Index	74	61
Hazardous Waste Proximity Supplemental Summary Index	83	81
Underground Storage Tanks Supplemental Summary Index	51	56
Wastewater Discharge Supplemental Summary Index	74	54
Drinking Water Non-Compliance Supplemental Summary Index	85	84

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	22%	1.3	1.8
% Black or African American (non-Hispanic, single race)	24%	1.9	3.6
% Asian (non-Hispanic, single race)	4%	0.9	0.7
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	1%	3	1.2
% Two or more races (non-Hispanic)	7%	1.9	1.7
% White (non-Hispanic, single race)	42%	0.7	0.6
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	35%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	2%	NA	NA
% speaking Other and Unspecified languages at home	3%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	23%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	52%	NA	NA
% Females	48%	NA	NA
HEALTH			
% with Disabilities	13%	1	1.1
% with Low Life Expectancy	20%	1	1.1
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.00	NA	NA
AGE			
% under Age 5	3%	0.5	0.5
% under age 18	20%	NA	NA
% over Age 64	11%	0.6	0.6
COMMUNITY			
Occupied Housing Units	271	NA	NA
Life Expectancy in Years	78	NA	NA
Per Capita Income	73,671	NA	NA
% Owner Occupied households	49%	NA	NA
POVERTY			
% of Households below Poverty Level	8%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	3%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	2%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	909	NA	NA
Count of Population Age 25 up	545	NA	NA
Count of Households	271	NA	NA
Universe for % unemployed (denominator, count)	746	NA	NA
Count of Housing Units Built Pre 1960	207	NA	NA
Built housing units count (denominator for % pre 1960)	310	NA	NA
Count of Population for whom Poverty Status is Determined	903	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250250814004)
Area in Square Miles: 0.04
Population: 331

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.62	6.52	58	8.45	12	0.8	1.0
Ozone (ppb)	56.1	56.7	43	61.8	28	0.9	1.0
Nitrogen Dioxide (NO2)	15.9	8.8	94	7.8	97	2.0	1.8
Diesel Particulate Matter (ug/m3)	0.365	0.176	95	0.191	89	1.9	2.1
Toxic Releases to Air	4,500	2,800	87	4,600	85	1.0	1.6
Traffic Proximity and Volume (daily traffic count/distance to road)	17,000,000	6,100,000	95	1,700,000	99	10.0	2.8
Lead Paint Indicator (% pre-1960s housing)	51.49%	0.51	48	0.3	75	1.7	1.0
Superfund Proximity (site count/km distance)	0.12	0.34	50	0.39	62	0.3	0.3
RMP Proximity (facility count/km distance)	0.50	0.37	74	0.57	63	0.9	1.3
Hazardous Waste Proximity (facility count/km distance)	42.4	11.2	95	3.5	99	12.0	3.8
Underground Storage Tanks (UST) indicator	1.9	3.3	50	3.6	62	0.5	0.6
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	100	760	72	700,000	56	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	2.10	1.19	88	1.34	80	1.6	2.0
Supplemental Demographic Index USA	1.70	1.52	76	1.64	59	1.0	1.2
% Low Income	67%	22%	96	30%	93	2.2	3.0
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed	8%	5%	74	6%	74	1.3	1.4
% with Less Than High School Education	0%	9%	0	11%	0	0.0	0.0
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	3%	18%	4	18%	5	0.2	0.2
% People of Color	34%	31%	62	40%	52	0.8	1.1

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

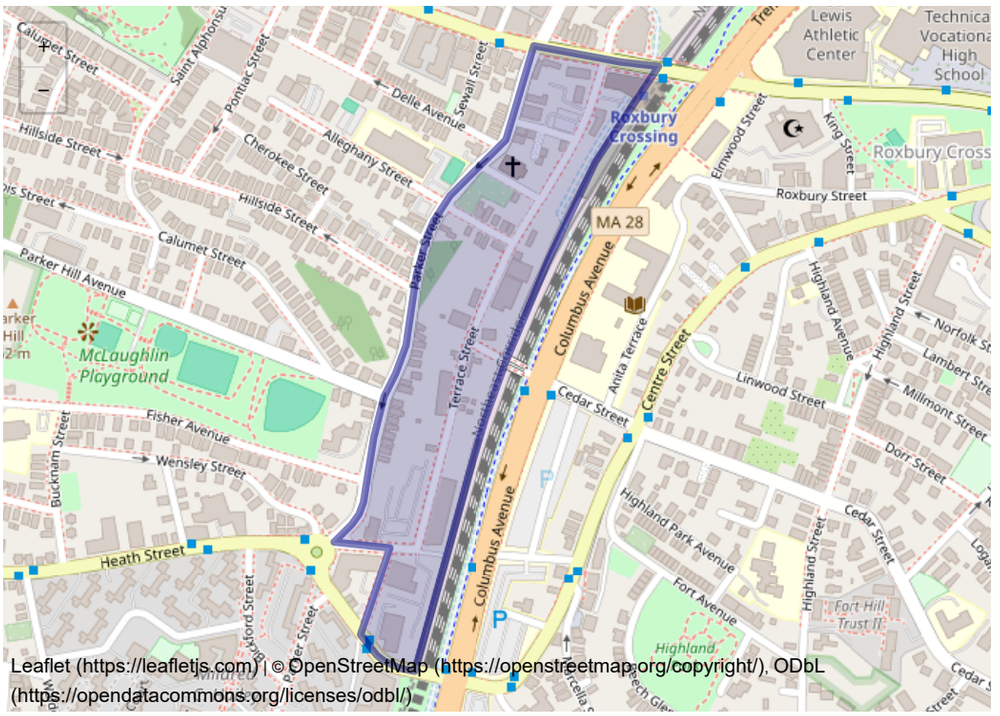
The indexes for a selected area are compared to those for all other locations in the state or nation.

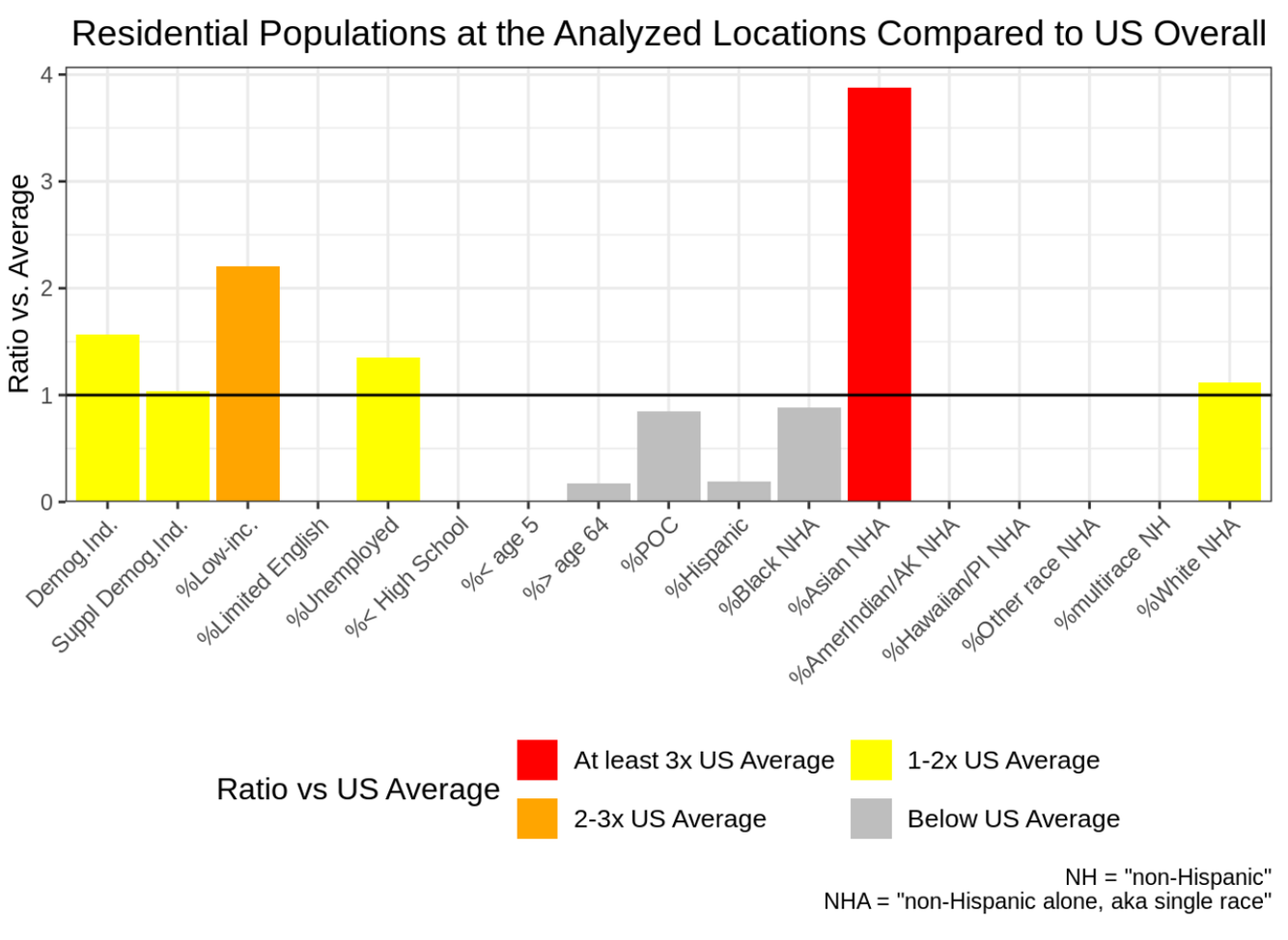
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	88	32
Ozone Summary Index	80	58
Nitrogen Dioxide (NO2) Summary Index	93	92
Diesel Particulate Matter Summary Index	94	90
Toxic Releases to Air Summary Index	95	91
Traffic Proximity and Volume Summary Index	95	93
Lead Paint Summary Index	80	88
Superfund Proximity Summary Index	87	83
RMP Proximity Summary Index	89	81
Hazardous Waste Proximity Summary Index	95	93
Underground Storage Tanks Summary Index	79	81
Wastewater Discharge Summary Index	91	80
Drinking Water Non-Compliance Summary Index	93	95
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	78	16
Ozone Supplemental Summary Index	57	35
Nitrogen Dioxide (NO2) Supplemental Summary Index	88	87
Diesel Particulate Matter Supplemental Summary Index	90	86
Toxic Releases to Air Supplemental Summary Index	91	84
Traffic Proximity and Volume Supplemental Summary Index	90	89
Lead Paint Supplemental Summary Index	65	77
Superfund Proximity Supplemental Summary Index	73	75
RMP Proximity Supplemental Summary Index	82	70
Hazardous Waste Proximity Supplemental Summary Index	90	89
Underground Storage Tanks Supplemental Summary Index	66	69
Wastewater Discharge Supplemental Summary Index	83	65
Drinking Water Non-Compliance Supplemental Summary Index	90	90

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	3%	0.2	0.3
% Black or African American (non-Hispanic, single race)	11%	0.9	1.6
% Asian (non-Hispanic, single race)	19%	3.9	2.9
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	0%	0	0
% White (non-Hispanic, single race)	66%	1.1	1
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	35%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	2%	NA	NA
% speaking Other and Unspecified languages at home	3%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	23%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	N/A	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	32%	NA	NA
% Females	68%	NA	NA
HEALTH			
% with Disabilities	13%	1	1.1
% with Low Life Expectancy	20%	1	1.1
% with Heart Diseases	4	NA	NA
% of Adults with Asthma	12.00	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.00	NA	NA
AGE			
% under Age 5	0%	0	0
% under age 18	0%	NA	NA
% over Age 64	3%	0.2	0.2
COMMUNITY			
Occupied Housing Units	91	NA	NA
Life Expectancy in Years	78	NA	NA
Per Capita Income	23,238	NA	NA
% Owner Occupied households	24%	NA	NA
POVERTY			
% of Households below Poverty Level	15%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	2	NA	NA
Number of Schools	0	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	2%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	0%	NA	NA
% Households without Health Insurance	2%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	331	NA	NA
Count of Population Age 25 up	69	NA	NA
Count of Households	91	NA	NA
Universe for % unemployed (denominator, count)	331	NA	NA
Count of Housing Units Built Pre 1960	69	NA	NA
Built housing units count (denominator for % pre 1960)	134	NA	NA
Count of Population for whom Poverty Status is Determined	331	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)





NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

Summary of Analysis

Residents within this specified Census unit (FIPS 250251207001)
Area in Square Miles: 0.09
Population: 967

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	6.64	6.52	61	8.45	12	0.8	1.0
Ozone (ppb)	55.8	56.7	37	61.8	26	0.9	1.0
Nitrogen Dioxide (NO2)	13.7	8.8	88	7.8	93	1.8	1.6
Diesel Particulate Matter (ug/m3)	0.361	0.176	93	0.191	89	1.9	2.0
Toxic Releases to Air	4,900	2,800	91	4,600	85	1.1	1.8
Traffic Proximity and Volume (daily traffic count/distance to road)	14,000,000	6,100,000	90	1,700,000	99	8.4	2.3
Lead Paint Indicator (% pre-1960s housing)	64.95%	0.51	64	0.3	83	2.2	1.3
Superfund Proximity (site count/km distance)	0.12	0.34	52	0.39	63	0.3	0.4
RMP Proximity (facility count/km distance)	0.38	0.37	68	0.57	57	0.7	1.0
Hazardous Waste Proximity (facility count/km distance)	39.9	11.2	94	3.5	99	11.0	3.6
Underground Storage Tanks (UST) indicator	3.6	3.3	67	3.6	73	1.0	1.1
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	91	760	69	700,000	55	0.0	0.1
Drinking Water Non-Compliance	8.0	3.17	81	2.2	92	3.6	2.5
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.39	1.19	74	1.34	59	1.0	1.4
Supplemental Demographic Index USA	1.07	1.52	35	1.64	20	0.7	0.7
% Low Income	30%	22%	73	30%	55	1.0	1.3
% in limited English-speaking Households	6%	6%	69	5%	78	1.3	1.0
% Unemployed	4%	5%	48	6%	49	0.6	0.7
% with Less Than High School Education	5%	9%	48	11%	37	0.4	0.5
% under Age 5	10%	5%	88	5%	85	1.8	2.0
% over Age 64	5%	18%	8	18%	9	0.3	0.3
% People of Color	44%	31%	73	40%	61	1.1	1.4

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

The indexes for a selected area are compared to those for all other locations in the state or nation.

	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	81	23
Ozone Summary Index	65	43
Nitrogen Dioxide (NO2) Summary Index	83	79
Diesel Particulate Matter Summary Index	86	79
Toxic Releases to Air Summary Index	89	81
Traffic Proximity and Volume Summary Index	85	81
Lead Paint Summary Index	78	79
Superfund Proximity Summary Index	80	75
RMP Proximity Summary Index	79	66
Hazardous Waste Proximity Summary Index	86	82
Underground Storage Tanks Summary Index	76	74
Wastewater Discharge Summary Index	80	66
Drinking Water Non-Compliance Summary Index	88	90
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	56	10
Ozone Supplemental Summary Index	36	20
Nitrogen Dioxide (NO2) Supplemental Summary Index	69	68
Diesel Particulate Matter Supplemental Summary Index	73	67
Toxic Releases to Air Supplemental Summary Index	76	64
Traffic Proximity and Volume Supplemental Summary Index	71	72
Lead Paint Supplemental Summary Index	55	59
Superfund Proximity Supplemental Summary Index	53	62
RMP Proximity Supplemental Summary Index	59	46
Hazardous Waste Proximity Supplemental Summary Index	73	72
Underground Storage Tanks Supplemental Summary Index	56	56
Wastewater Discharge Supplemental Summary Index	60	43
Drinking Water Non-Compliance Supplemental Summary Index	76	79

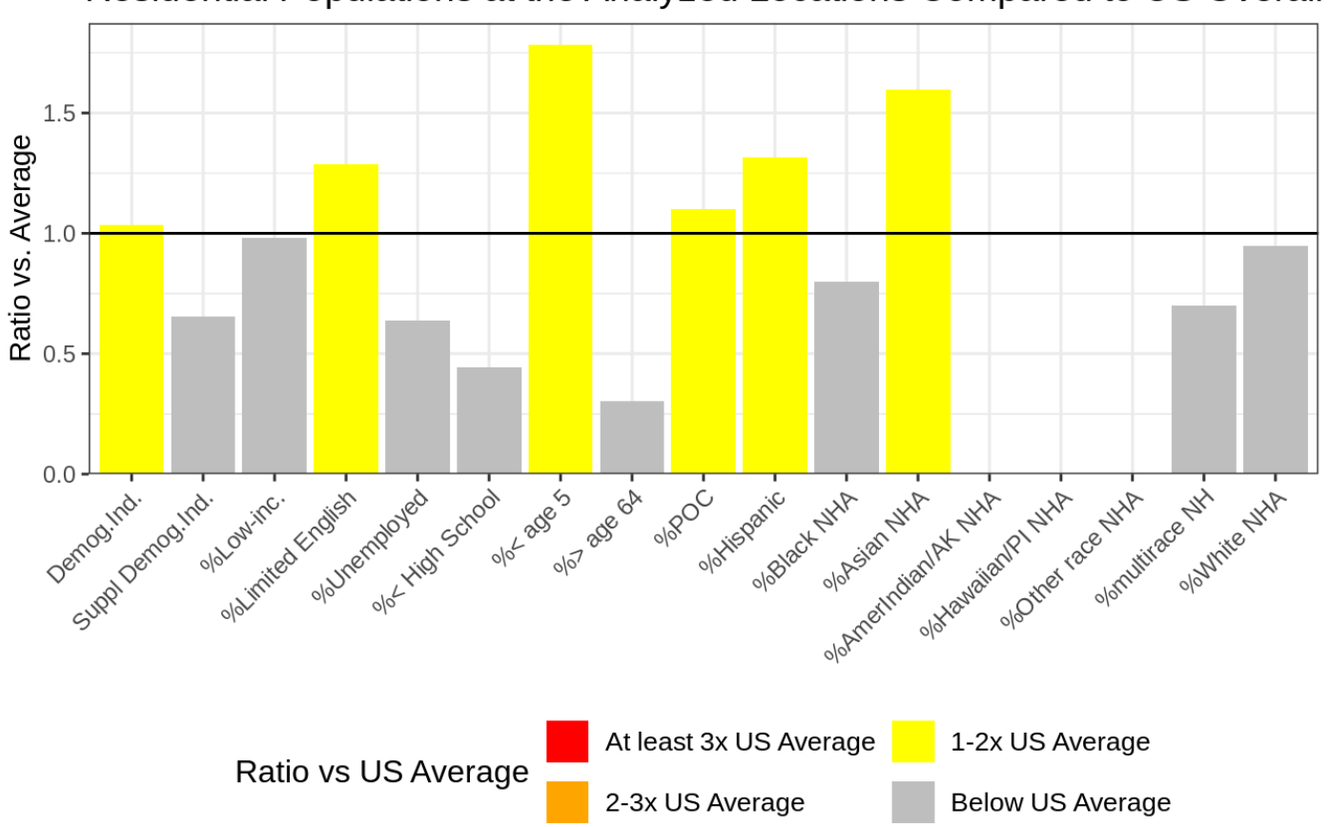
ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	23%	1.3	1.8
% Black or African American (non-Hispanic, single race)	10%	0.8	1.5
% Asian (non-Hispanic, single race)	8%	1.6	1.2
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	2%	0.7	0.6
% White (non-Hispanic, single race)	56%	0.9	0.8
LANGUAGE SPOKEN AT HOME			
% speaking Non English languages at home	28%	NA	NA
% speaking Other Indo-European at home	8%	NA	NA
% speaking Asian and Pacific Island languages at home	7%	NA	NA
% speaking Other and Unspecified languages at home	1%	NA	NA
% speaking English at home	1	NA	NA
% speaking Spanish at home	13%	NA	NA
% speaking French at home	0	NA	NA
% speaking Russian, Polish or Other Slavic at home	0	NA	NA
% speaking Indo-European at home	0	NA	NA
% speaking Vietnamese at home	0	NA	NA
% speaking Other Asian and Pacific Island languages at home	0	NA	NA
% speaking Arabic at home	0	NA	NA
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			
% speaking Spanish (as % of limited English households)	0%	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Other Indo-European languages (as % of limited English households)	0%	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	100%	NA	NA
% speaking Other languages (as % of limited English households)	0%	NA	NA
BREAKDOWN BY SEX			
% Males	40%	NA	NA
% Females	60%	NA	NA
HEALTH			
% with Disabilities	8%	0.6	0.7
% with Low Life Expectancy	13%	0.7	0.8
% with Heart Diseases	3	NA	NA
% of Adults with Asthma	9.90	NA	NA
% of Adults with Cancer (excluding skin cancer)	5.50	NA	NA
AGE			
% under Age 5	10%	1.8	2
% under age 18	20%	NA	NA
% over Age 64	5%	0.3	0.3
COMMUNITY			
Occupied Housing Units	388	NA	NA
Life Expectancy in Years	84	NA	NA
Per Capita Income	61,465	NA	NA
% Owner Occupied households	30%	NA	NA
POVERTY			
% of Households below Poverty Level	20%	NA	NA
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	1	NA	NA
Number of Air Pollution Facilities	4	NA	NA
Number of Toxic Release Facilities	1	NA	NA
Number of Water Discharge Facilities	2	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	2	NA	NA
Number of Worship Places	0	NA	NA
Number of Hospitals	1	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	0	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	NA	NA
Estimated Flood Risk in 30 Years	4%	NA	NA
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	1	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	4%	NA	NA
% Households without Health Insurance	1%	NA	NA
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	967	NA	NA
Count of Population Age 25 up	659	NA	NA
Count of Households	388	NA	NA
Universe for % unemployed (denominator, count)	788	NA	NA
Count of Housing Units Built Pre 1960	252	NA	NA
Built housing units count (denominator for % pre 1960)	388	NA	NA
Count of Population for whom Poverty Status is Determined	967	NA	NA

Note: Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update (https://www.epa.gov/haps/air-toxics-data-update)



Residential Populations at the Analyzed Locations Compared to US Overall



NH = "non-Hispanic"
NHA = "non-Hispanic alone, aka single race"

Version 2.32.6.002 | Report created on February 04, 2026

Appendix C: Transportation

- **Turning Movement Count (TMC) Data**
- **Future Cancer Hospital (1 Joslin Place): Proposed Transportation Improvements**
- **Trip Generation Calculations (includes Internal Capture Worksheets)**
- **Intersection Capacity Analysis: Synchro Reports**
  - **2025 Existing Conditions**
  - **2030 No-Build Conditions**
  - **2030 Build Conditions**
- **BTD Transportation Demand Management Point System Tool**

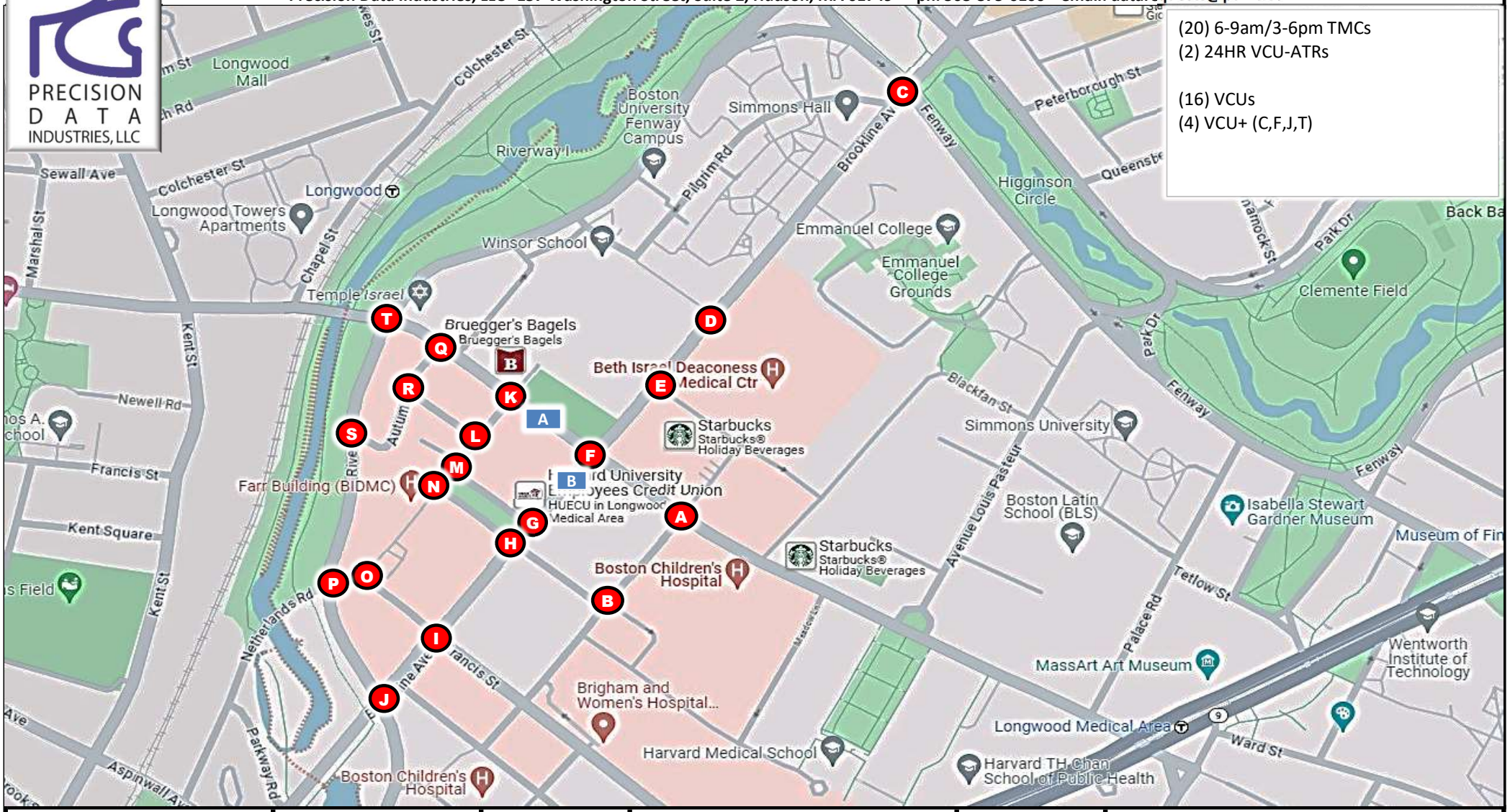
Turning Movement Count (TMC) Data

Location Map: 239743 Boston, Ma

Precision Data Industries, LLC 157 Washington Street, Suite 2, Hudson, MA 01749 ph: 508-875-0100 email: datarequests@pdillc.com

(20) 6-9am/3-6pm TMCs
(2) 24HR VCU-ATRs

(16) VCUs
(4) VCU+ (C,F,J,T)



Client:	Engineer:	Site Code:	Date:	PDI Job #	City, State:
VHB	S. Yashin	16164.00	Thur 12/7/23	239743	Boston, Ma

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	204	16	0	220	7	9	0	16	11	107	0	118	354
6:15 AM	219	13	0	232	11	11	0	22	16	100	0	116	370
6:30 AM	268	26	0	294	14	11	0	25	24	119	0	143	462
6:45 AM	274	37	0	311	28	13	0	41	25	131	0	156	508
Total	965	92	0	1057	60	44	0	104	76	457	0	533	1694
7:00 AM	226	30	0	256	32	21	0	53	21	152	0	173	482
7:15 AM	198	20	0	218	30	25	0	55	17	172	0	189	462
7:30 AM	245	17	0	262	21	26	0	47	33	194	0	227	536
7:45 AM	228	19	0	247	7	21	0	28	24	168	0	192	467
Total	897	86	0	983	90	93	0	183	95	686	0	781	1947
8:00 AM	214	14	0	228	11	11	0	22	21	154	0	175	425
8:15 AM	209	17	0	226	17	15	0	32	20	149	0	169	427
8:30 AM	210	9	0	219	14	13	0	27	17	119	0	136	382
8:45 AM	217	21	0	238	21	23	0	44	25	139	0	164	446
Total	850	61	0	911	63	62	0	125	83	561	0	644	1680
Grand Total	2712	239	0	2951	213	199	0	412	254	1704	0	1958	5321
Approach %	91.9	8.1	0.0		51.7	48.3	0.0		13.0	87.0	0.0		
Total %	51.0	4.5	0.0	55.5	4.0	3.7	0.0	7.7	4.8	32.0	0.0	36.8	
Exiting Leg Total				1917				493				2911	5321
Cars	2540	239	0	2779	212	197	0	409	251	1517	0	1768	4956
% Cars	93.7	100.0	0.0	94.2	99.5	99.0	0.0	99.3	98.8	89.0	0.0	90.3	93.1
Exiting Leg Total				1729				490				2737	4956
Heavy Vehicles	172	0	0	172	1	2	0	3	3	187	0	190	365
% Heavy Vehicles	6.3	0.0	0.0	5.8	0.5	1.0	0.0	0.7	1.2	11.0	0.0	9.7	6.9
Exiting Leg Total				188				3				174	365

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:45 AM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:45 AM	274	37	0	311	28	13	0	41	25	131	0	156	508
7:00 AM	226	30	0	256	32	21	0	53	21	152	0	173	482
7:15 AM	198	20	0	218	30	25	0	55	17	172	0	189	462
7:30 AM	245	17	0	262	21	26	0	47	33	194	0	227	536
Total Volume	943	104	0	1047	111	85	0	196	96	649	0	745	1988
% Approach Total	90.1	9.9	0.0		56.6	43.4	0.0		12.9	87.1	0.0		
PHF	0.860	0.703	0.000	0.842	0.867	0.817	0.000	0.891	0.727	0.836	0.000	0.820	0.927
Cars	886	104	0	990	111	85	0	196	96	578	0	674	1860
Cars %	94.0	100.0	0.0	94.6	100.0	100.0	0.0	100.0	100.0	89.1	0.0	90.5	93.6
Heavy Vehicles	57	0	0	57	0	0	0	0	0	71	0	71	128
Heavy Vehicles %	6.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	10.9	0.0	9.5	6.4
Cars Enter Leg	886	104	0	990	111	85	0	196	96	578	0	674	1860
Heavy Enter Leg	57	0	0	57	0	0	0	0	0	71	0	71	128
Total Entering Leg	943	104	0	1047	111	85	0	196	96	649	0	745	1988
Cars Exiting Leg				689				200				971	1860
Heavy Exiting Leg				71				0				57	128
Total Exiting Leg				760				200				1028	1988

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	195	16	0	211	6	8	0	14	11	99	0	110	335
6:15 AM	209	13	0	222	11	11	0	22	16	83	0	99	343
6:30 AM	257	26	0	283	14	11	0	25	24	107	0	131	439
6:45 AM	261	37	0	298	28	13	0	41	25	110	0	135	474
Total	922	92	0	1014	59	43	0	102	76	399	0	475	1591
7:00 AM	211	30	0	241	32	21	0	53	21	135	0	156	450
7:15 AM	185	20	0	205	30	25	0	55	17	158	0	175	435
7:30 AM	229	17	0	246	21	26	0	47	33	175	0	208	501
7:45 AM	213	19	0	232	7	21	0	28	23	153	0	176	436
Total	838	86	0	924	90	93	0	183	94	621	0	715	1822
8:00 AM	199	14	0	213	11	11	0	22	21	133	0	154	389
8:15 AM	191	17	0	208	17	15	0	32	20	135	0	155	395
8:30 AM	193	9	0	202	14	13	0	27	17	106	0	123	352
8:45 AM	197	21	0	218	21	22	0	43	23	123	0	146	407
Total	780	61	0	841	63	61	0	124	81	497	0	578	1543
Grand Total	2540	239	0	2779	212	197	0	409	251	1517	0	1768	4956
Approach %	91.4	8.6	0.0		51.8	48.2	0.0		14.2	85.8	0.0		
Total %	51.3	4.8	0.0	56.1	4.3	4.0	0.0	8.3	5.1	30.6	0.0	35.7	
Exiting Leg Total				1729				490				2737	4956

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:45 AM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:45 AM	261	37	0	298	28	13	0	41	25	110	0	135	474
7:00 AM	211	30	0	241	32	21	0	53	21	135	0	156	450
7:15 AM	185	20	0	205	30	25	0	55	17	158	0	175	435
7:30 AM	229	17	0	246	21	26	0	47	33	175	0	208	501
Total Volume	886	104	0	990	111	85	0	196	96	578	0	674	1860
% Approach Total	89.5	10.5	0.0		56.6	43.4	0.0		14.2	85.8	0.0		
PHF	0.849	0.703	0.000	0.831	0.867	0.817	0.000	0.891	0.727	0.826	0.000	0.810	0.928
Entering Leg	886	104	0	990	111	85	0	196	96	578	0	674	1860
Exiting Leg				689				200				971	1860
Total				1679				396				1645	3720

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	9	0	0	9	1	1	0	2	0	8	0	8	19
6:15 AM	10	0	0	10	0	0	0	0	0	17	0	17	27
6:30 AM	11	0	0	11	0	0	0	0	0	12	0	12	23
6:45 AM	13	0	0	13	0	0	0	0	0	21	0	21	34
Total	43	0	0	43	1	1	0	2	0	58	0	58	103
7:00 AM	15	0	0	15	0	0	0	0	0	17	0	17	32
7:15 AM	13	0	0	13	0	0	0	0	0	14	0	14	27
7:30 AM	16	0	0	16	0	0	0	0	0	19	0	19	35
7:45 AM	15	0	0	15	0	0	0	0	1	15	0	16	31
Total	59	0	0	59	0	0	0	0	1	65	0	66	125
8:00 AM	15	0	0	15	0	0	0	0	0	21	0	21	36
8:15 AM	18	0	0	18	0	0	0	0	0	14	0	14	32
8:30 AM	17	0	0	17	0	0	0	0	0	13	0	13	30
8:45 AM	20	0	0	20	0	1	0	1	2	16	0	18	39
Total	70	0	0	70	0	1	0	1	2	64	0	66	137
Grand Total	172	0	0	172	1	2	0	3	3	187	0	190	365
Approach %	100.0	0.0	0.0		33.3	66.7	0.0		1.6	98.4	0.0		
Total %	47.1	0.0	0.0	47.1	0.3	0.5	0.0	0.8	0.8	51.2	0.0	52.1	
Exiting Leg Total				188				3				174	365
Buses	115	0	0	115	0	0	0	0	1	136	0	137	252
% Buses	66.9	0.0	0.0	66.9	0.0	0.0	0.0	0.0	33.3	72.7	0.0	72.1	69.0
Exiting Leg Total				136				1				115	252
Single-Unit Trucks	51	0	0	51	1	2	0	3	2	49	0	51	105
% Single-Unit	29.7	0.0	0.0	29.7	100.0	100.0	0.0	100.0	66.7	26.2	0.0	26.8	28.8
Exiting Leg Total				50				2				53	105
Articulated Trucks	6	0	0	6	0	0	0	0	0	2	0	2	8
% Articulated	3.5	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1	2.2
Exiting Leg Total				2				0				6	8

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
8:00 AM	15	0	0	15	0	0	0	0	0	21	0	21	36
8:15 AM	18	0	0	18	0	0	0	0	0	14	0	14	32
8:30 AM	17	0	0	17	0	0	0	0	0	13	0	13	30
8:45 AM	20	0	0	20	0	1	0	1	2	16	0	18	39
Total Volume	70	0	0	70	0	1	0	1	2	64	0	66	137
% Approach Total	100.0	0.0	0.0		0.0	100.0	0.0		3.0	97.0	0.0		
PHF	0.875	0.000	0.000	0.875	0.000	0.250	0.000	0.250	0.250	0.762	0.000	0.786	0.878
Buses	43	0	0	43	0	0	0	0	1	49	0	50	93
Buses %	61.4	0.0	0.0	61.4	0.0	0.0	0.0	0.0	50.0	76.6	0.0	75.8	67.9
Single-Unit Trucks	23	0	0	23	0	1	0	1	1	13	0	14	38
Single-Unit %	32.9	0.0	0.0	32.9	0.0	100.0	0.0	100.0	50.0	20.3	0.0	21.2	27.7
Articulated Trucks	4	0	0	4	0	0	0	0	0	2	0	2	6
Articulated %	5.7	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	3.1	0.0	3.0	4.4
Buses	43	0	0	43	0	0	0	0	1	49	0	50	93
Single-Unit Trucks	23	0	0	23	0	1	0	1	1	13	0	14	38
Articulated Trucks	4	0	0	4	0	0	0	0	0	2	0	2	6
Total Entering Leg	70	0	0	70	0	1	0	1	2	64	0	66	137
Buses				49				1				43	93
Single-Unit Trucks				13				1				24	38
Articulated Trucks				2				0				4	6
Total Exiting Leg				64				2				71	137

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Buses**

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	6	0	0	6	0	0	0	0	0	5	0	5	11
6:15 AM	8	0	0	8	0	0	0	0	0	10	0	10	18
6:30 AM	8	0	0	8	0	0	0	0	0	7	0	7	15
6:45 AM	10	0	0	10	0	0	0	0	0	14	0	14	24
Total	32	0	0	32	0	0	0	0	0	36	0	36	68
7:00 AM	12	0	0	12	0	0	0	0	0	13	0	13	25
7:15 AM	7	0	0	7	0	0	0	0	0	10	0	10	17
7:30 AM	14	0	0	14	0	0	0	0	0	15	0	15	29
7:45 AM	7	0	0	7	0	0	0	0	0	13	0	13	20
Total	40	0	0	40	0	0	0	0	0	51	0	51	91
8:00 AM	9	0	0	9	0	0	0	0	0	17	0	17	26
8:15 AM	13	0	0	13	0	0	0	0	0	9	0	9	22
8:30 AM	10	0	0	10	0	0	0	0	0	10	0	10	20
8:45 AM	11	0	0	11	0	0	0	0	1	13	0	14	25
Total	43	0	0	43	0	0	0	0	1	49	0	50	93
Grand Total	115	0	0	115	0	0	0	0	1	136	0	137	252
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.7	99.3	0.0		
Total %	45.6	0.0	0.0	45.6	0.0	0.0	0.0	0.0	0.4	54.0	0.0	54.4	
Exiting Leg Total				136				1				115	252

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:30 AM	14	0	0	14	0	0	0	0	0	15	0	15	29
7:45 AM	7	0	0	7	0	0	0	0	0	13	0	13	20
8:00 AM	9	0	0	9	0	0	0	0	0	17	0	17	26
8:15 AM	13	0	0	13	0	0	0	0	0	9	0	9	22
Total Volume	43	0	0	43	0	0	0	0	0	54	0	54	97
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.768	0.000	0.000	0.768	0.000	0.000	0.000	0.000	0.000	0.794	0.000	0.794	0.836
Entering Leg	43	0	0	43	0	0	0	0	0	54	0	54	97
Exiting Leg				54				0				43	97
Total				97				0				97	194

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	2	0	0	2	1	1	0	2	0	3	0	3	7
6:15 AM	2	0	0	2	0	0	0	0	0	7	0	7	9
6:30 AM	2	0	0	2	0	0	0	0	0	5	0	5	7
6:45 AM	3	0	0	3	0	0	0	0	0	7	0	7	10
Total	9	0	0	9	1	1	0	2	0	22	0	22	33
7:00 AM	3	0	0	3	0	0	0	0	0	4	0	4	7
7:15 AM	6	0	0	6	0	0	0	0	0	4	0	4	10
7:30 AM	2	0	0	2	0	0	0	0	0	4	0	4	6
7:45 AM	8	0	0	8	0	0	0	0	1	2	0	3	11
Total	19	0	0	19	0	0	0	0	1	14	0	15	34
8:00 AM	6	0	0	6	0	0	0	0	0	4	0	4	10
8:15 AM	5	0	0	5	0	0	0	0	0	4	0	4	9
8:30 AM	7	0	0	7	0	0	0	0	0	3	0	3	10
8:45 AM	5	0	0	5	0	1	0	1	1	2	0	3	9
Total	23	0	0	23	0	1	0	1	1	13	0	14	38
Grand Total	51	0	0	51	1	2	0	3	2	49	0	51	105
Approach %	100.0	0.0	0.0		33.3	66.7	0.0		3.9	96.1	0.0		
Total %	48.6	0.0	0.0	48.6	1.0	1.9	0.0	2.9	1.9	46.7	0.0	48.6	
Exiting Leg Total				50				2				53	105

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:45 AM	8	0	0	8	0	0	0	0	1	2	0	3	11
8:00 AM	6	0	0	6	0	0	0	0	0	4	0	4	10
8:15 AM	5	0	0	5	0	0	0	0	0	4	0	4	9
8:30 AM	7	0	0	7	0	0	0	0	0	3	0	3	10
Total Volume	26	0	0	26	0	0	0	0	1	13	0	14	40
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		7.1	92.9	0.0		
PHF	0.813	0.000	0.000	0.813	0.000	0.000	0.000	0.000	0.250	0.813	0.000	0.875	0.909
Entering Leg	26	0	0	26	0	0	0	0	1	13	0	14	40
Exiting Leg				13				1				26	40
Total				39				1				40	80

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Articulated Trucks**

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	0	0	0	0	0	0	0	0	2
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	4	0	0	4	0	0	0	0	0	1	0	1	5
Total	4	0	0	4	0	0	0	0	0	2	0	2	6
Grand Total	6	0	0	6	0	0	0	0	0	2	0	2	8
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	75.0	0.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	25.0	
Exiting Leg Total				2				0				6	8

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	4	0	0	4	0	0	0	0	0	1	0	1	5
Total Volume	4	0	0	4	0	0	0	0	0	2	0	2	6
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.300
Entering Leg	4	0	0	4	0	0	0	0	0	2	0	2	6
Exiting Leg				2				0				4	6
Total				6				0				6	12

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Brookline Avenue from North						BIDMC Driveway from East						Brookline Avenue from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
6:00 AM	2	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	3
6:15 AM	1	0	0	0	0	1	0	1	0	0	0	1	1	0	0	0	0	1	3
6:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	3	4
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	5	5
Total	3	1	0	0	0	4	0	1	0	0	0	1	5	5	0	0	0	10	15
7:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	2
7:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	3	4
7:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	5	0	0	0	6	7
7:45 AM	0	0	0	1	0	1	0	1	0	0	0	1	0	5	0	0	0	5	7
Total	2	1	0	1	0	4	0	1	0	0	0	1	1	14	0	0	0	15	20
8:00 AM	7	1	0	0	0	8	0	0	0	0	0	0	0	3	0	0	0	3	11
8:15 AM	4	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0	1	5
8:30 AM	4	0	0	1	0	5	0	0	0	0	0	0	0	6	0	0	0	6	11
8:45 AM	2	0	0	0	0	2	0	0	0	0	0	0	0	6	0	0	0	6	8
Total	17	1	0	1	0	19	0	0	0	0	0	0	0	16	0	0	0	16	35
Grand Total	22	3	0	2	0	27	0	2	0	0	0	2	6	35	0	0	0	41	70
Approach %	81.5	11.1	0.0	7.4	0.0		0.0	100.0	0.0	0.0	0.0		14.6	85.4	0.0	0.0	0.0		
Total %	31.4	4.3	0.0	2.9	0.0	38.6	0.0	2.9	0.0	0.0	0.0	2.9	8.6	50.0	0.0	0.0	0.0	58.6	
Exiting Leg Total						37						9						24	70

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North						BIDMC Driveway from East						Brookline Avenue from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
8:00 AM	7	1	0	0	0	8	0	0	0	0	0	0	0	3	0	0	0	3	11
8:15 AM	4	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0	1	5
8:30 AM	4	0	0	1	0	5	0	0	0	0	0	0	0	6	0	0	0	6	11
8:45 AM	2	0	0	0	0	2	0	0	0	0	0	0	0	6	0	0	0	6	8
Total Volume	17	1	0	1	0	19	0	0	0	0	0	0	0	16	0	0	0	16	35
% Approach Total	89.5	5.3	0.0	5.3	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		
PHF	0.607	0.250	0.000	0.250	0.000	0.594	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.000	0.000	0.667	0.795
Entering Leg	17	1	0	1	0	19	0	0	0	0	0	0	0	16	0	0	0	16	35
Exiting Leg						17						1						17	35
Total						36						1						33	70

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Brookline Avenue from North						BIDMC Driveway from East						Brookline Avenue from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
6:00 AM	0	0	0	4	1	5	0	0	0	8	2	10	0	0	0	0	1	1	16
6:15 AM	0	0	0	12	1	13	0	0	0	8	1	9	0	0	0	0	1	1	23
6:30 AM	0	0	0	23	3	26	0	0	0	21	1	22	0	0	0	0	0	0	48
6:45 AM	0	0	0	21	1	22	0	0	0	39	1	40	0	0	0	0	0	0	62
Total	0	0	0	60	6	66	0	0	0	76	5	81	0	0	0	0	2	2	149
7:00 AM	0	0	0	33	2	35	0	0	0	28	5	33	0	0	0	0	1	1	69
7:15 AM	0	0	0	28	2	30	0	0	0	35	3	38	0	0	0	0	0	0	68
7:30 AM	0	0	0	26	6	32	0	0	0	29	6	35	0	0	0	0	0	0	67
7:45 AM	0	0	0	37	8	45	0	0	0	52	12	64	0	0	0	0	0	0	109
Total	0	0	0	124	18	142	0	0	0	144	26	170	0	0	0	0	1	1	313
8:00 AM	0	0	0	29	3	32	0	0	0	33	11	44	0	0	0	0	0	0	76
8:15 AM	0	0	0	27	1	28	0	0	0	33	8	41	0	0	0	0	1	1	70
8:30 AM	0	0	0	31	2	33	0	0	0	27	11	38	0	0	0	0	2	2	73
8:45 AM	0	0	0	21	4	25	0	0	0	27	8	35	0	0	0	0	2	2	62
Total	0	0	0	108	10	118	0	0	0	120	38	158	0	0	0	0	5	5	281
Grand Total	0	0	0	292	34	326	0	0	0	340	69	409	0	0	0	0	8	8	743
Approach %	0	0	0	89.571	10.429		0	0	0	83.13	16.87		0	0	0	0	100		
Total %	0	0	0	39.3	4.576	43.876	0	0	0	45.76	9.2867	55.047	0	0	0	0	1.0767	1.0767	
Exiting Leg Total						326						409						8	743

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Brookline Avenue from North						BIDMC Driveway from East						Brookline Avenue from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
7:45 AM	0	0	0	37	8	45	0	0	0	52	12	64	0	0	0	0	0	0	109
8:00 AM	0	0	0	29	3	32	0	0	0	33	11	44	0	0	0	0	0	0	76
8:15 AM	0	0	0	27	1	28	0	0	0	33	8	41	0	0	0	0	1	1	70
8:30 AM	0	0	0	31	2	33	0	0	0	27	11	38	0	0	0	0	2	2	73
Total Volume	0	0	0	124	14	138	0	0	0	145	42	187	0	0	0	0	3	3	328
% Approach Total	0.0	0.0	0.0	89.9	10.1		0.0	0.0	0.0	77.5	22.5		0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.838	0.438	0.767	0.000	0.000	0.000	0.697	0.875	0.730	0.000	0.000	0.000	0.000	0.375	0.375	0.752
Entering Leg	0	0	0	124	14	138	0	0	0	145	42	187	0	0	0	0	3	3	328
Exiting Leg						138						187						3	328
Total						276						374						6	656

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	213	19	0	232	13	25	0	38	16	105	0	121	391
3:15 PM	206	17	1	224	34	26	0	60	21	176	0	197	481
3:30 PM	179	13	0	192	24	32	0	56	19	149	0	168	416
3:45 PM	212	13	0	225	16	16	0	32	20	196	0	216	473
Total	810	62	1	873	87	99	0	186	76	626	0	702	1761
4:00 PM	210	17	0	227	31	24	1	56	15	144	0	159	442
4:15 PM	226	14	0	240	23	13	0	36	10	145	0	155	431
4:30 PM	173	11	0	184	18	20	2	40	18	141	0	159	383
4:45 PM	206	17	0	223	25	9	1	35	13	162	0	175	433
Total	815	59	0	874	97	66	4	167	56	592	0	648	1689
5:00 PM	200	11	0	211	28	16	0	44	5	177	0	182	437
5:15 PM	194	13	0	207	16	19	0	35	10	168	0	178	420
5:30 PM	176	11	0	187	12	14	0	26	11	185	0	196	409
5:45 PM	188	6	0	194	13	16	0	29	13	158	0	171	394
Total	758	41	0	799	69	65	0	134	39	688	0	727	1660
Grand Total	2383	162	1	2546	253	230	4	487	171	1906	0	2077	5110
Approach %	93.6	6.4	0.0		52.0	47.2	0.8		8.2	91.8	0.0		
Total %	46.6	3.2	0.0	49.8	5.0	4.5	0.1	9.5	3.3	37.3	0.0	40.6	
Exiting Leg Total				2160				337				2613	5110
Cars	2232	160	1	2393	235	224	4	463	148	1797	0	1945	4801
% Cars	93.7	98.8	100.0	94.0	92.9	97.4	100.0	95.1	86.5	94.3	0.0	93.6	94.0
Exiting Leg Total				2033				312				2456	4801
Heavy Vehicles	151	2	0	153	18	6	0	24	23	109	0	132	309
% Heavy Vehicles	6.3	1.2	0.0	6.0	7.1	2.6	0.0	4.9	13.5	5.7	0.0	6.4	6.0
Exiting Leg Total				127				25				157	309

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:15 PM	206	17	1	224	34	26	0	60	21	176	0	197	481
3:30 PM	179	13	0	192	24	32	0	56	19	149	0	168	416
3:45 PM	212	13	0	225	16	16	0	32	20	196	0	216	473
4:00 PM	210	17	0	227	31	24	1	56	15	144	0	159	442
Total Volume	807	60	1	868	105	98	1	204	75	665	0	740	1812
% Approach Total	93.0	6.9	0.1		51.5	48.0	0.5		10.1	89.9	0.0		
PHF	0.952	0.882	0.250	0.956	0.772	0.766	0.250	0.850	0.893	0.848	0.000	0.856	0.942
Cars	757	60	1	818	99	97	1	197	67	616	0	683	1698
Cars %	93.8	100.0	100.0	94.2	94.3	99.0	100.0	96.6	89.3	92.6	0.0	92.3	93.7
Heavy Vehicles	50	0	0	50	6	1	0	7	8	49	0	57	114
Heavy Vehicles %	6.2	0.0	0.0	5.8	5.7	1.0	0.0	3.4	10.7	7.4	0.0	7.7	6.3
Cars Enter Leg	757	60	1	818	99	97	1	197	67	616	0	683	1698
Heavy Enter Leg	50	0	0	50	6	1	0	7	8	49	0	57	114
Total Entering Leg	807	60	1	868	105	98	1	204	75	665	0	740	1812
Cars Exiting Leg				716				128				854	1698
Heavy Exiting Leg				55				8				51	114
Total Exiting Leg				771				136				905	1812

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	202	19	0	221	11	24	0	35	13	98	0	111	367
3:15 PM	191	17	1	209	33	26	0	59	18	162	0	180	448
3:30 PM	167	13	0	180	23	32	0	55	18	140	0	158	393
3:45 PM	202	13	0	215	14	15	0	29	17	183	0	200	444
Total	762	62	1	825	81	97	0	178	66	583	0	649	1652
4:00 PM	197	17	0	214	29	24	1	54	14	131	0	145	413
4:15 PM	216	14	0	230	21	13	0	34	7	138	0	145	409
4:30 PM	157	10	0	167	17	19	2	38	16	127	0	143	348
4:45 PM	194	16	0	210	23	9	1	33	12	153	0	165	408
Total	764	57	0	821	90	65	4	159	49	549	0	598	1578
5:00 PM	187	11	0	198	26	15	0	41	3	173	0	176	415
5:15 PM	181	13	0	194	15	19	0	34	9	161	0	170	398
5:30 PM	162	11	0	173	11	14	0	25	10	180	0	190	388
5:45 PM	176	6	0	182	12	14	0	26	11	151	0	162	370
Total	706	41	0	747	64	62	0	126	33	665	0	698	1571
Grand Total	2232	160	1	2393	235	224	4	463	148	1797	0	1945	4801
Approach %	93.3	6.7	0.0		50.8	48.4	0.9		7.6	92.4	0.0		
Total %	46.5	3.3	0.0	49.8	4.9	4.7	0.1	9.6	3.1	37.4	0.0	40.5	
Exiting Leg Total				2033				312				2456	4801

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:15 PM	191	17	1	209	33	26	0	59	18	162	0	180	448
3:30 PM	167	13	0	180	23	32	0	55	18	140	0	158	393
3:45 PM	202	13	0	215	14	15	0	29	17	183	0	200	444
4:00 PM	197	17	0	214	29	24	1	54	14	131	0	145	413
Total Volume	757	60	1	818	99	97	1	197	67	616	0	683	1698
% Approach Total	92.5	7.3	0.1		50.3	49.2	0.5		9.8	90.2	0.0		
PHF	0.937	0.882	0.250	0.951	0.750	0.758	0.250	0.835	0.931	0.842	0.000	0.854	0.948
Entering Leg	757	60	1	818	99	97	1	197	67	616	0	683	1698
Exiting Leg				716				128				854	1698
Total				1534				325				1537	3396

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	11	0	0	11	2	1	0	3	3	7	0	10	24
3:15 PM	15	0	0	15	1	0	0	1	3	14	0	17	33
3:30 PM	12	0	0	12	1	0	0	1	1	9	0	10	23
3:45 PM	10	0	0	10	2	1	0	3	3	13	0	16	29
Total	48	0	0	48	6	2	0	8	10	43	0	53	109
4:00 PM	13	0	0	13	2	0	0	2	1	13	0	14	29
4:15 PM	10	0	0	10	2	0	0	2	3	7	0	10	22
4:30 PM	16	1	0	17	1	1	0	2	2	14	0	16	35
4:45 PM	12	1	0	13	2	0	0	2	1	9	0	10	25
Total	51	2	0	53	7	1	0	8	7	43	0	50	111
5:00 PM	13	0	0	13	2	1	0	3	2	4	0	6	22
5:15 PM	13	0	0	13	1	0	0	1	1	7	0	8	22
5:30 PM	14	0	0	14	1	0	0	1	1	5	0	6	21
5:45 PM	12	0	0	12	1	2	0	3	2	7	0	9	24
Total	52	0	0	52	5	3	0	8	6	23	0	29	89
Grand Total	151	2	0	153	18	6	0	24	23	109	0	132	309
Approach %	98.7	1.3	0.0		75.0	25.0	0.0		17.4	82.6	0.0		
Total %	48.9	0.6	0.0	49.5	5.8	1.9	0.0	7.8	7.4	35.3	0.0	42.7	
Exiting Leg Total				127				25				157	309
Buses	125	1	0	126	17	4	0	21	23	82	0	105	252
% Buses	82.8	50.0	0.0	82.4	94.4	66.7	0.0	87.5	100.0	75.2	0.0	79.5	81.6
Exiting Leg Total				99				24				129	252
Single-Unit Trucks	25	1	0	26	1	2	0	3	0	22	0	22	51
% Single-Unit	16.6	50.0	0.0	17.0	5.6	33.3	0.0	12.5	0.0	20.2	0.0	16.7	16.5
Exiting Leg Total				23				1				27	51
Articulated Trucks	1	0	0	1	0	0	0	0	0	5	0	5	6
% Articulated	0.7	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	4.6	0.0	3.8	1.9
Exiting Leg Total				5				0				1	6

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:45 PM	10	0	0	10	2	1	0	3	3	13	0	16	29
4:00 PM	13	0	0	13	2	0	0	2	1	13	0	14	29
4:15 PM	10	0	0	10	2	0	0	2	3	7	0	10	22
4:30 PM	16	1	0	17	1	1	0	2	2	14	0	16	35
Total Volume	49	1	0	50	7	2	0	9	9	47	0	56	115
% Approach Total	98.0	2.0	0.0		77.8	22.2	0.0		16.1	83.9	0.0		
PHF	0.766	0.250	0.000	0.735	0.875	0.500	0.000	0.750	0.750	0.839	0.000	0.875	0.821
Buses	44	0	0	44	7	1	0	8	9	35	0	44	96
Buses %	89.8	0.0	0.0	88.0	100.0	50.0	0.0	88.9	100.0	74.5	0.0	78.6	83.5
Single-Unit Trucks	5	1	0	6	0	1	0	1	0	10	0	10	17
Single-Unit %	10.2	100.0	0.0	12.0	0.0	50.0	0.0	11.1	0.0	21.3	0.0	17.9	14.8
Articulated Trucks	0	0	0	0	0	0	0	0	0	2	0	2	2
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	3.6	1.7
Buses	44	0	0	44	7	1	0	8	9	35	0	44	96
Single-Unit Trucks	5	1	0	6	0	1	0	1	0	10	0	10	17
Articulated Trucks	0	0	0	0	0	0	0	0	0	2	0	2	2
Total Entering Leg	49	1	0	50	7	2	0	9	9	47	0	56	115
Buses				42				9				45	96
Single-Unit Trucks				10				1				6	17
Articulated Trucks				2				0				0	2
Total Exiting Leg				54				10				51	115

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Buses**

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	8	0	0	8	2	1	0	3	3	3	0	6	17
3:15 PM	10	0	0	10	1	0	0	1	3	9	0	12	23
3:30 PM	8	0	0	8	1	0	0	1	1	7	0	8	17
3:45 PM	9	0	0	9	2	1	0	3	3	10	0	13	25
Total	35	0	0	35	6	2	0	8	10	29	0	39	82
4:00 PM	11	0	0	11	2	0	0	2	1	8	0	9	22
4:15 PM	9	0	0	9	2	0	0	2	3	7	0	10	21
4:30 PM	15	0	0	15	1	0	0	1	2	10	0	12	28
4:45 PM	11	1	0	12	1	0	0	1	1	8	0	9	22
Total	46	1	0	47	6	0	0	6	7	33	0	40	93
5:00 PM	13	0	0	13	2	1	0	3	2	2	0	4	20
5:15 PM	6	0	0	6	1	0	0	1	1	6	0	7	14
5:30 PM	14	0	0	14	1	0	0	1	1	5	0	6	21
5:45 PM	11	0	0	11	1	1	0	2	2	7	0	9	22
Total	44	0	0	44	5	2	0	7	6	20	0	26	77
Grand Total	125	1	0	126	17	4	0	21	23	82	0	105	252
Approach %	99.2	0.8	0.0		81.0	19.0	0.0		21.9	78.1	0.0		
Total %	49.6	0.4	0.0	50.0	6.7	1.6	0.0	8.3	9.1	32.5	0.0	41.7	
Exiting Leg Total				99				24				129	252

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:45 PM	9	0	0	9	2	1	0	3	3	10	0	13	25
4:00 PM	11	0	0	11	2	0	0	2	1	8	0	9	22
4:15 PM	9	0	0	9	2	0	0	2	3	7	0	10	21
4:30 PM	15	0	0	15	1	0	0	1	2	10	0	12	28
Total Volume	44	0	0	44	7	1	0	8	9	35	0	44	96
% Approach Total	100.0	0.0	0.0		87.5	12.5	0.0		20.5	79.5	0.0		
PHF	0.733	0.000	0.000	0.733	0.875	0.250	0.000	0.667	0.750	0.875	0.000	0.846	0.857
Entering Leg	44	0	0	44	7	1	0	8	9	35	0	44	96
Exiting Leg				42				9				45	96
Total				86				17				89	192

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Single-Unit Trucks

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	3	0	0	3	0	0	0	0	0	3	0	3	6
3:15 PM	5	0	0	5	0	0	0	0	0	5	0	5	10
3:30 PM	4	0	0	4	0	0	0	0	0	1	0	1	5
3:45 PM	1	0	0	1	0	0	0	0	0	3	0	3	4
Total	13	0	0	13	0	0	0	0	0	12	0	12	25
4:00 PM	2	0	0	2	0	0	0	0	0	4	0	4	6
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	1	1	0	2	0	1	0	1	0	3	0	3	6
4:45 PM	1	0	0	1	1	0	0	1	0	1	0	1	3
Total	5	1	0	6	1	1	0	2	0	8	0	8	16
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	6	0	0	6	0	0	0	0	0	1	0	1	7
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	1	0	1	0	1	0	0	0	0	2
Total	7	0	0	7	0	1	0	1	0	2	0	2	10
Grand Total	25	1	0	26	1	2	0	3	0	22	0	22	51
Approach %	96.2	3.8	0.0		33.3	66.7	0.0		0.0	100.0	0.0		
Total %	49.0	2.0	0.0	51.0	2.0	3.9	0.0	5.9	0.0	43.1	0.0	43.1	
Exiting Leg Total				23				1				27	51

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	3	0	0	3	0	0	0	0	0	3	0	3	6
3:15 PM	5	0	0	5	0	0	0	0	0	5	0	5	10
3:30 PM	4	0	0	4	0	0	0	0	0	1	0	1	5
3:45 PM	1	0	0	1	0	0	0	0	0	3	0	3	4
Total Volume	13	0	0	13	0	0	0	0	0	12	0	12	25
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.650	0.000	0.000	0.650	0.000	0.000	0.000	0.000	0.000	0.600	0.000	0.600	0.625
Entering Leg	13	0	0	13	0	0	0	0	0	12	0	12	25
Exiting Leg				12				0				13	25
Total				25				0				25	50

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	2	0	2	2
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	2	0	2	2
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	1	0	1	2
Grand Total	1	0	0	1	0	0	0	0	0	5	0	5	6
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	16.7	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	83.3	0.0	83.3	
Exiting Leg Total				5				0				1	6

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:30 PM	Brookline Avenue from North				BIDMC Driveway from East				Brookline Avenue from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	1	0	0	0	0	0	2	0	2	3
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.750
Entering Leg	1	0	0	1	0	0	0	0	0	2	0	2	3
Exiting Leg				2				0				1	3
Total				3				0				3	6

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Bicycles (on Roadway and Crosswalks)**

	Brookline Avenue from North						BIDMC Driveway from East						Brookline Avenue from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
3:15 PM	4	0	0	0	0	4	0	1	0	0	0	1	1	2	0	0	0	3	8
3:30 PM	3	0	0	0	0	3	1	1	0	0	0	2	0	2	0	0	0	2	7
3:45 PM	1	0	0	1	0	2	0	0	0	0	1	1	1	7	0	0	0	8	11
Total	8	0	0	1	0	9	1	2	0	0	1	4	2	15	0	0	0	17	30
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	3	0	0	0	3	4
4:15 PM	1	0	0	0	1	2	2	0	0	0	0	2	1	4	0	0	0	5	9
4:30 PM	0	0	0	0	2	2	0	0	0	0	0	0	0	6	0	0	0	6	8
4:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	9	0	0	0	9	10
Total	2	0	0	0	3	5	3	0	0	0	0	3	1	22	0	0	0	23	31
5:00 PM	0	0	0	0	0	0	1	1	0	0	1	3	1	8	0	0	0	9	12
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	8	0	0	0	8	9
5:30 PM	1	0	0	0	0	1	0	0	0	0	1	1	0	6	0	0	0	6	8
5:45 PM	3	0	0	0	0	3	0	2	0	0	0	2	0	9	0	0	0	9	14
Total	4	0	0	0	0	4	2	3	0	0	2	7	1	31	0	0	0	32	43
Grand Total	14	0	0	1	3	18	6	5	0	0	3	14	4	68	0	0	0	72	104
Approach %	77.8	0.0	0.0	5.6	16.7		42.9	35.7	0.0	0.0	21.4		5.6	94.4	0.0	0.0	0.0		
Total %	13.5	0.0	0.0	1.0	2.9	17.3	5.8	4.8	0.0	0.0	2.9	13.5	3.8	65.4	0.0	0.0	0.0	69.2	
Exiting Leg Total						78						7						19	104

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Brookline Avenue from North						BIDMC Driveway from East						Brookline Avenue from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
5:00 PM	0	0	0	0	0	0	1	1	0	0	1	3	1	8	0	0	0	9	12
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	8	0	0	0	8	9
5:30 PM	1	0	0	0	0	1	0	0	0	0	1	1	0	6	0	0	0	6	8
5:45 PM	3	0	0	0	0	3	0	2	0	0	0	2	0	9	0	0	0	9	14
Total Volume	4	0	0	0	0	4	2	3	0	0	2	7	1	31	0	0	0	32	43
% Approach Total	100.0	0.0	0.0	0.0	0.0		28.6	42.9	0.0	0.0	28.6		3.1	96.9	0.0	0.0	0.0		
PHF	0.333	0.000	0.000	0.000	0.000	0.333	0.500	0.375	0.000	0.000	0.500	0.583	0.250	0.861	0.000	0.000	0.000	0.889	0.768
Entering Leg	4	0	0	0	0	4	2	3	0	0	2	7	1	31	0	0	0	32	43
Exiting Leg						33						3						7	43
Total						37						10						39	86

PDI File #: **239743 D**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: BIDMC Driveway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Brookline Avenue from North						BIDMC Driveway from East						Brookline Avenue from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
3:00 PM	0	0	0	10	18	28	0	0	0	12	34	46	0	0	0	1	2	3	77
3:15 PM	0	0	0	7	19	26	0	0	0	18	20	38	0	0	0	0	2	2	66
3:30 PM	0	0	0	5	19	24	0	0	0	19	32	51	0	0	0	0	0	0	75
3:45 PM	0	0	0	6	9	15	0	0	0	12	38	50	0	0	0	0	0	0	65
Total	0	0	0	28	65	93	0	0	0	61	124	185	0	0	0	1	4	5	283
4:00 PM	0	0	0	3	29	32	0	0	0	6	54	60	0	0	0	0	0	0	92
4:15 PM	0	0	0	4	26	30	0	0	0	18	37	55	0	0	0	0	0	0	85
4:30 PM	0	0	0	7	36	43	0	0	0	16	41	57	0	0	0	0	0	0	100
4:45 PM	0	0	0	6	33	39	0	0	0	21	42	63	0	0	0	1	1	2	104
Total	0	0	0	20	124	144	0	0	0	61	174	235	0	0	0	1	1	2	381
5:00 PM	0	0	0	8	39	47	0	0	0	23	82	105	0	0	0	0	0	0	152
5:15 PM	0	0	0	5	41	46	0	0	0	19	55	74	0	0	0	0	0	0	120
5:30 PM	0	0	0	6	17	23	0	0	0	11	36	47	0	0	0	1	0	1	71
5:45 PM	0	0	0	2	17	19	0	0	0	19	39	58	0	0	0	0	0	0	77
Total	0	0	0	21	114	135	0	0	0	72	212	284	0	0	0	1	0	1	420
Grand Total	0	0	0	69	303	372	0	0	0	194	510	704	0	0	0	3	5	8	1084
Approach %	0	0	0	18.548	81.452		0	0	0	27.557	72.443		0	0	0	37.5	62.5		
Total %	0	0	0	6.3653	27.952	34.317	0	0	0	17.897	47.048	64.945	0	0	0	0.2768	0.4613	0.738	
Exiting Leg Total						372						704						8	1084

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:30 PM	Brookline Avenue from North						BIDMC Driveway from East						Brookline Avenue from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
4:30 PM	0	0	0	7	36	43	0	0	0	16	41	57	0	0	0	0	0	0	100
4:45 PM	0	0	0	6	33	39	0	0	0	21	42	63	0	0	0	1	1	2	104
5:00 PM	0	0	0	8	39	47	0	0	0	23	82	105	0	0	0	0	0	0	152
5:15 PM	0	0	0	5	41	46	0	0	0	19	55	74	0	0	0	0	0	0	120
Total Volume	0	0	0	26	149	175	0	0	0	79	220	299	0	0	0	1	1	2	476
% Approach Total	0.0	0.0	0.0	14.9	85.1		0.0	0.0	0.0	26.4	73.6		0.0	0.0	0.0	50.0	50.0		
PHF	0.000	0.000	0.000	0.813	0.909	0.931	0.000	0.000	0.000	0.859	0.671	0.712	0.000	0.000	0.000	0.250	0.250	0.250	0.783
Entering Leg	0	0	0	26	149	175	0	0	0	79	220	299	0	0	0	1	1	2	476
Exiting Leg						175						299						2	476
Total						350						598						4	952

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	46	101	32	0	179	17	20	15	0	52	23	94	5	0	122	2	12	6	0	20	373
6:15 AM	68	114	38	0	220	29	33	13	0	75	29	106	15	0	150	2	22	8	0	32	477
6:30 AM	80	125	45	0	250	35	47	17	0	99	37	120	10	0	167	3	24	12	0	39	555
6:45 AM	55	130	52	0	237	45	61	29	0	135	42	120	6	0	168	10	30	16	0	56	596
Total	249	470	167	0	886	126	161	74	0	361	131	440	36	0	607	17	88	42	0	147	2001
7:00 AM	37	134	47	0	218	58	40	34	0	132	27	92	5	0	124	9	50	21	0	80	554
7:15 AM	63	155	53	0	271	79	44	33	0	156	23	114	10	0	147	11	56	24	0	91	665
7:30 AM	45	132	50	0	227	74	66	31	0	171	23	108	8	0	139	9	62	26	0	97	634
7:45 AM	57	111	47	0	215	64	53	26	0	143	25	112	14	0	151	7	61	24	0	92	601
Total	202	532	197	0	931	275	203	124	0	602	98	426	37	0	561	36	229	95	0	360	2454
8:00 AM	50	95	52	0	197	62	52	27	0	141	14	131	11	0	156	6	53	8	0	67	561
8:15 AM	24	100	33	0	157	49	34	27	0	110	42	119	6	0	167	7	59	17	0	83	517
8:30 AM	29	117	38	0	184	46	29	25	0	100	25	114	6	0	145	8	66	10	0	84	513
8:45 AM	31	106	43	0	180	41	32	24	0	97	29	109	10	0	148	6	62	11	0	79	504
Total	134	418	166	0	718	198	147	103	0	448	110	473	33	0	616	27	240	46	0	313	2095
Grand Total	585	1420	530	0	2535	599	511	301	0	1411	339	1339	106	0	1784	80	557	183	0	820	6550
Approach %	23.1	56.0	20.9	0.0		42.5	36.2	21.3	0.0		19.0	75.1	5.9	0.0		9.8	67.9	22.3	0.0		
Total %	8.9	21.7	8.1	0.0	38.7	9.1	7.8	4.6	0.0	21.5	5.2	20.4	1.6	0.0	27.2	1.2	8.5	2.8	0.0	12.5	
Exiting Leg Total					2121					1426					1801					1202	6550
Cars	576	1316	483	0	2375	517	494	250	0	1261	304	1200	103	0	1607	78	541	179	0	798	6041
% Cars	98.5	92.7	91.1	0.0	93.7	86.3	96.7	83.1	0.0	89.4	89.7	89.6	97.2	0.0	90.1	97.5	97.1	97.8	0.0	97.3	92.2
Exiting Leg Total					1896					1328					1644					1173	6041
Heavy Vehicles	9	104	47	0	160	82	17	51	0	150	35	139	3	0	177	2	16	4	0	22	509
% Heavy Vehicles	1.5	7.3	8.9	0.0	6.3	13.7	3.3	16.9	0.0	10.6	10.3	10.4	2.8	0.0	9.9	2.5	2.9	2.2	0.0	2.7	7.8
Exiting Leg Total					225					98					157					29	509

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	63	155	53	0	271	79	44	33	0	156	23	114	10	0	147	11	56	24	0	91	665
7:30 AM	45	132	50	0	227	74	66	31	0	171	23	108	8	0	139	9	62	26	0	97	634
7:45 AM	57	111	47	0	215	64	53	26	0	143	25	112	14	0	151	7	61	24	0	92	601
8:00 AM	50	95	52	0	197	62	52	27	0	141	14	131	11	0	156	6	53	8	0	67	561
Total Volume	215	493	202	0	910	279	215	117	0	611	85	465	43	0	593	33	232	82	0	347	2461
% Approach Total	23.6	54.2	22.2	0.0		45.7	35.2	19.1	0.0		14.3	78.4	7.3	0.0		9.5	66.9	23.6	0.0		
PHF	0.853	0.795	0.953	0.000	0.839	0.883	0.814	0.886	0.000	0.893	0.850	0.887	0.768	0.000	0.950	0.750	0.935	0.788	0.000	0.894	0.925
Cars	209	455	185	0	849	250	209	99	0	558	77	413	41	0	531	33	226	81	0	340	2278
Cars %	97.2	92.3	91.6	0.0	93.3	89.6	97.2	84.6	0.0	91.3	90.6	88.8	95.3	0.0	89.5	100.0	97.4	98.8	0.0	98.0	92.6
Heavy Vehicles	6	38	17	0	61	29	6	18	0	53	8	52	2	0	62	0	6	1	0	7	183
Heavy Vehicles %	2.8	7.7	8.4	0.0	6.7	10.4	2.8	15.4	0.0	8.7	9.4	11.2	4.7	0.0	10.5	0.0	2.6	1.2	0.0	2.0	7.4
Cars Enter Leg	209	455	185	0	849	250	209	99	0	558	77	413	41	0	531	33	226	81	0	340	2278
Heavy Enter Leg	6	38	17	0	61	29	6	18	0	53	8	52	2	0	62	0	6	1	0	7	183
Total Entering Leg	215	493	202	0	910	279	215	117	0	611	85	465	43	0	593	33	232	82	0	347	2461
Cars Exiting Leg					744					488					587					459	2278
Heavy Exiting Leg					82					31					56					14	183
Total Exiting Leg					826					519					643					473	2461

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	46	96	31	0	173	15	16	11	0	42	21	85	5	0	111	2	10	6	0	18	344
6:15 AM	68	103	36	0	207	23	32	8	0	63	25	97	15	0	137	2	21	7	0	30	437
6:30 AM	80	117	42	0	239	28	46	12	0	86	34	111	10	0	155	2	24	12	0	38	518
6:45 AM	55	123	47	0	225	38	61	25	0	124	38	110	6	0	154	10	28	15	0	53	556
Total	249	439	156	0	844	104	155	56	0	315	118	403	36	0	557	16	83	40	0	139	1855
7:00 AM	36	129	42	0	207	49	38	30	0	117	23	83	5	0	111	8	50	21	0	79	514
7:15 AM	62	144	49	0	255	68	43	29	0	140	21	102	10	0	133	11	53	24	0	88	616
7:30 AM	45	124	46	0	215	71	64	27	0	162	21	88	8	0	117	9	61	25	0	95	589
7:45 AM	54	100	40	0	194	58	51	23	0	132	22	108	13	0	143	7	59	24	0	90	559
Total	197	497	177	0	871	246	196	109	0	551	87	381	36	0	504	35	223	94	0	352	2278
8:00 AM	48	87	50	0	185	53	51	20	0	124	13	115	10	0	138	6	53	8	0	67	514
8:15 AM	24	93	30	0	147	44	34	25	0	103	37	109	5	0	151	7	56	16	0	79	480
8:30 AM	28	106	32	0	166	38	29	20	0	87	22	98	6	0	126	8	64	10	0	82	461
8:45 AM	30	94	38	0	162	32	29	20	0	81	27	94	10	0	131	6	62	11	0	79	453
Total	130	380	150	0	660	167	143	85	0	395	99	416	31	0	546	27	235	45	0	307	1908
Grand Total	576	1316	483	0	2375	517	494	250	0	1261	304	1200	103	0	1607	78	541	179	0	798	6041
Approach %	24.3	55.4	20.3	0.0		41.0	39.2	19.8	0.0		18.9	74.7	6.4	0.0		9.8	67.8	22.4	0.0		
Total %	9.5	21.8	8.0	0.0	39.3	8.6	8.2	4.1	0.0	20.9	5.0	19.9	1.7	0.0	26.6	1.3	9.0	3.0	0.0	13.2	
Exiting Leg Total					1896					1328					1644					1173	6041

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:00 AM	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	36	129	42	0	207	49	38	30	0	117	23	83	5	0	111	8	50	21	0	79	514
7:15 AM	62	144	49	0	255	68	43	29	0	140	21	102	10	0	133	11	53	24	0	88	616
7:30 AM	45	124	46	0	215	71	64	27	0	162	21	88	8	0	117	9	61	25	0	95	589
7:45 AM	54	100	40	0	194	58	51	23	0	132	22	108	13	0	143	7	59	24	0	90	559
Total Volume	197	497	177	0	871	246	196	109	0	551	87	381	36	0	504	35	223	94	0	352	2278
% Approach Total	22.6	57.1	20.3	0.0		44.6	35.6	19.8	0.0		17.3	75.6	7.1	0.0		9.9	63.4	26.7	0.0		
PHF	0.794	0.863	0.903	0.000	0.854	0.866	0.766	0.908	0.000	0.850	0.946	0.882	0.692	0.000	0.881	0.795	0.914	0.940	0.000	0.926	0.925
Entering Leg	197	497	177	0	871	246	196	109	0	551	87	381	36	0	504	35	223	94	0	352	2278
Exiting Leg					721					487					641					429	2278
Total					1592					1038					1145					781	4556

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	5	1	0	6	2	4	4	0	10	2	9	0	0	11	0	2	0	0	2	29
6:15 AM	0	11	2	0	13	6	1	5	0	12	4	9	0	0	13	0	1	1	0	2	40
6:30 AM	0	8	3	0	11	7	1	5	0	13	3	9	0	0	12	1	0	0	0	1	37
6:45 AM	0	7	5	0	12	7	0	4	0	11	4	10	0	0	14	0	2	1	0	3	40
Total	0	31	11	0	42	22	6	18	0	46	13	37	0	0	50	1	5	2	0	8	146
7:00 AM	1	5	5	0	11	9	2	4	0	15	4	9	0	0	13	1	0	0	0	1	40
7:15 AM	1	11	4	0	16	11	1	4	0	16	2	12	0	0	14	0	3	0	0	3	49
7:30 AM	0	8	4	0	12	3	2	4	0	9	2	20	0	0	22	0	1	1	0	2	45
7:45 AM	3	11	7	0	21	6	2	3	0	11	3	4	1	0	8	0	2	0	0	2	42
Total	5	35	20	0	60	29	7	15	0	51	11	45	1	0	57	1	6	1	0	8	176
8:00 AM	2	8	2	0	12	9	1	7	0	17	1	16	1	0	18	0	0	0	0	0	47
8:15 AM	0	7	3	0	10	5	0	2	0	7	5	10	1	0	16	0	3	1	0	4	37
8:30 AM	1	11	6	0	18	8	0	5	0	13	3	16	0	0	19	0	2	0	0	2	52
8:45 AM	1	12	5	0	18	9	3	4	0	16	2	15	0	0	17	0	0	0	0	0	51
Total	4	38	16	0	58	31	4	18	0	53	11	57	2	0	70	0	5	1	0	6	187
Grand Total	9	104	47	0	160	82	17	51	0	150	35	139	3	0	177	2	16	4	0	22	509
Approach %	5.6	65.0	29.4	0.0		54.7	11.3	34.0	0.0		19.8	78.5	1.7	0.0		9.1	72.7	18.2	0.0		
Total %	1.8	20.4	9.2	0.0	31.4	16.1	3.3	10.0	0.0	29.5	6.9	27.3	0.6	0.0	34.8	0.4	3.1	0.8	0.0	4.3	
Exiting Leg Total					225					98					157					29	509
Buses	5	88	37	0	130	60	1	41	0	102	27	105	1	0	133	1	2	0	0	3	368
% Buses	55.6	84.6	78.7	0.0	81.3	73.2	5.9	80.4	0.0	68.0	77.1	75.5	33.3	0.0	75.1	50.0	12.5	0.0	0.0	13.6	72.3
Exiting Leg Total					165					66					130					7	368
Single-Unit Trucks	3	13	10	0	26	19	16	9	0	44	8	32	1	0	41	1	14	4	0	19	130
% Single-Unit	33.3	12.5	21.3	0.0	16.3	23.2	94.1	17.6	0.0	29.3	22.9	23.0	33.3	0.0	23.2	50.0	87.5	100.0	0.0	86.4	25.5
Exiting Leg Total					55					32					23					20	130
Articulated Trucks	1	3	0	0	4	3	0	1	0	4	0	2	1	0	3	0	0	0	0	0	11
% Articulated	11.1	2.9	0.0	0.0	2.5	3.7	0.0	2.0	0.0	2.7	0.0	1.4	33.3	0.0	1.7	0.0	0.0	0.0	0.0	0.0	2.2
Exiting Leg Total					5					0					4					2	11

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	2	8	2	0	12	9	1	7	0	17	1	16	1	0	18	0	0	0	0	0	47
8:15 AM	0	7	3	0	10	5	0	2	0	7	5	10	1	0	16	0	3	1	0	4	37
8:30 AM	1	11	6	0	18	8	0	5	0	13	3	16	0	0	19	0	2	0	0	2	52
8:45 AM	1	12	5	0	18	9	3	4	0	16	2	15	0	0	17	0	0	0	0	0	51
Total Volume	4	38	16	0	58	31	4	18	0	53	11	57	2	0	70	0	5	1	0	6	187
% Approach Total	6.9	65.5	27.6	0.0		58.5	7.5	34.0	0.0		15.7	81.4	2.9	0.0		0.0	83.3	16.7	0.0		
PHF	0.500	0.792	0.667	0.000	0.806	0.861	0.333	0.643	0.000	0.779	0.550	0.891	0.500	0.000	0.921	0.000	0.417	0.250	0.000	0.375	0.899
Buses	2	32	13	0	47	24	0	13	0	37	8	44	0	0	52	0	0	0	0	0	136
Buses %	50.0	84.2	81.3	0.0	81.0	77.4	0.0	72.2	0.0	69.8	72.7	77.2	0.0	0.0	74.3	0.0	0.0	0.0	0.0	0.0	72.7
Single-Unit Trucks	2	6	3	0	11	7	4	5	0	16	3	13	1	0	17	0	5	1	0	6	50
Single-Unit %	50.0	15.8	18.8	0.0	19.0	22.6	100.0	27.8	0.0	30.2	27.3	22.8	50.0	0.0	24.3	0.0	100.0	100.0	0.0	100.0	26.7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.5
Buses	2	32	13	0	47	24	0	13	0	37	8	44	0	0	52	0	0	0	0	0	136
Single-Unit Trucks	2	6	3	0	11	7	4	5	0	16	3	13	1	0	17	0	5	1	0	6	50
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total Entering Leg	4	38	16	0	58	31	4	18	0	53	11	57	2	0	70	0	5	1	0	6	187
Buses					68					21					45					2	136
Single-Unit Trucks					21					11					11					7	50
Articulated Trucks					0					0					0					1	1
Total Exiting Leg					89					32					56					10	187

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Buses**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

	Brookline Avenue					Longwood Avenue					Brookline Avenue					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	5	1	0	6	1	0	4	0	5	2	6	0	0	8	0	0	0	0	0	19
6:15 AM	0	8	2	0	10	4	0	3	0	7	4	9	0	0	13	0	0	0	0	0	30
6:30 AM	0	8	2	0	10	4	0	5	0	9	3	4	0	0	7	0	0	0	0	0	26
6:45 AM	0	6	4	0	10	4	0	3	0	7	3	8	0	0	11	0	1	0	0	1	29
Total	0	27	9	0	36	13	0	15	0	28	12	27	0	0	39	0	1	0	0	1	104
7:00 AM	1	4	5	0	10	7	0	4	0	11	3	7	0	0	10	1	0	0	0	1	32
7:15 AM	1	8	3	0	12	8	0	3	0	11	1	9	0	0	10	0	0	0	0	0	33
7:30 AM	0	7	2	0	9	2	0	4	0	6	1	15	0	0	16	0	1	0	0	1	32
7:45 AM	1	10	5	0	16	6	1	2	0	9	2	3	1	0	6	0	0	0	0	0	31
Total	3	29	15	0	47	23	1	13	0	37	7	34	1	0	42	1	1	0	0	2	128
8:00 AM	1	8	2	0	11	7	0	4	0	11	1	13	0	0	14	0	0	0	0	0	36
8:15 AM	0	6	3	0	9	4	0	2	0	6	4	6	0	0	10	0	0	0	0	0	25
8:30 AM	0	9	3	0	12	6	0	4	0	10	2	14	0	0	16	0	0	0	0	0	38
8:45 AM	1	9	5	0	15	7	0	3	0	10	1	11	0	0	12	0	0	0	0	0	37
Total	2	32	13	0	47	24	0	13	0	37	8	44	0	0	52	0	0	0	0	0	136
Grand Total	5	88	37	0	130	60	1	41	0	102	27	105	1	0	133	1	2	0	0	3	368
Approach %	3.8	67.7	28.5	0.0		58.8	1.0	40.2	0.0		20.3	78.9	0.8	0.0		33.3	66.7	0.0	0.0		
Total %	1.4	23.9	10.1	0.0	35.3	16.3	0.3	11.1	0.0	27.7	7.3	28.5	0.3	0.0	36.1	0.3	0.5	0.0	0.0	0.8	
Exiting Leg Total					165					66					130					7	368

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue					Longwood Avenue					Brookline Avenue					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	1	8	2	0	11	7	0	4	0	11	1	13	0	0	14	0	0	0	0	0	36
8:15 AM	0	6	3	0	9	4	0	2	0	6	4	6	0	0	10	0	0	0	0	0	25
8:30 AM	0	9	3	0	12	6	0	4	0	10	2	14	0	0	16	0	0	0	0	0	38
8:45 AM	1	9	5	0	15	7	0	3	0	10	1	11	0	0	12	0	0	0	0	0	37
Total Volume	2	32	13	0	47	24	0	13	0	37	8	44	0	0	52	0	0	0	0	0	136
% Approach Total	4.3	68.1	27.7	0.0		64.9	0.0	35.1	0.0		15.4	84.6	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.500	0.889	0.650	0.000	0.783	0.857	0.000	0.813	0.000	0.841	0.500	0.786	0.000	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.895
Entering Leg	2	32	13	0	47	24	0	13	0	37	8	44	0	0	52	0	0	0	0	0	136
Exiting Leg					68					21					45					2	136
Total					115					58					97					2	272

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Single-Unit Trucks

	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	4	0	0	4	0	1	0	0	1	0	2	0	0	2	7
6:15 AM	0	2	0	0	2	2	1	2	0	5	0	0	0	0	0	0	1	1	0	2	9
6:30 AM	0	0	1	0	1	2	1	0	0	3	0	5	0	0	5	1	0	0	0	1	10
6:45 AM	0	1	1	0	2	3	0	1	0	4	1	2	0	0	3	0	1	1	0	2	11
Total	0	3	2	0	5	7	6	3	0	16	1	8	0	0	9	1	4	2	0	7	37
7:00 AM	0	1	0	0	1	2	2	0	0	4	1	2	0	0	3	0	0	0	0	0	8
7:15 AM	0	1	1	0	2	2	1	1	0	4	1	3	0	0	4	0	3	0	0	3	13
7:30 AM	0	1	2	0	3	1	2	0	0	3	1	5	0	0	6	0	0	1	0	1	13
7:45 AM	1	1	2	0	4	0	1	0	0	1	1	1	0	0	2	0	2	0	0	2	9
Total	1	4	5	0	10	5	6	1	0	12	4	11	0	0	15	0	5	1	0	6	43
8:00 AM	1	0	0	0	1	2	1	3	0	6	0	3	1	0	4	0	0	0	0	0	11
8:15 AM	0	1	0	0	1	1	0	0	0	1	1	4	0	0	5	0	3	1	0	4	11
8:30 AM	1	2	3	0	6	2	0	1	0	3	1	2	0	0	3	0	2	0	0	2	14
8:45 AM	0	3	0	0	3	2	3	1	0	6	1	4	0	0	5	0	0	0	0	0	14
Total	2	6	3	0	11	7	4	5	0	16	3	13	1	0	17	0	5	1	0	6	50
Grand Total	3	13	10	0	26	19	16	9	0	44	8	32	1	0	41	1	14	4	0	19	130
Approach %	11.5	50.0	38.5	0.0		43.2	36.4	20.5	0.0		19.5	78.0	2.4	0.0		5.3	73.7	21.1	0.0		
Total %	2.3	10.0	7.7	0.0	20.0	14.6	12.3	6.9	0.0	33.8	6.2	24.6	0.8	0.0	31.5	0.8	10.8	3.1	0.0	14.6	
Exiting Leg Total					55					32					23					20	130

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	1	0	0	0	1	2	1	3	0	6	0	3	1	0	4	0	0	0	0	0	11
8:15 AM	0	1	0	0	1	1	0	0	0	1	1	4	0	0	5	0	3	1	0	4	11
8:30 AM	1	2	3	0	6	2	0	1	0	3	1	2	0	0	3	0	2	0	0	2	14
8:45 AM	0	3	0	0	3	2	3	1	0	6	1	4	0	0	5	0	0	0	0	0	14
Total Volume	2	6	3	0	11	7	4	5	0	16	3	13	1	0	17	0	5	1	0	6	50
% Approach Total	18.2	54.5	27.3	0.0		43.8	25.0	31.3	0.0		17.6	76.5	5.9	0.0		0.0	83.3	16.7	0.0		
PHF	0.500	0.500	0.250	0.000	0.458	0.875	0.333	0.417	0.000	0.667	0.750	0.813	0.250	0.000	0.850	0.000	0.417	0.250	0.000	0.375	0.893
Entering Leg	2	6	3	0	11	7	4	5	0	16	3	13	1	0	17	0	5	1	0	6	50
Exiting Leg					21					11					11					7	50
Total					32					27					28					13	100

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Articulated Trucks

	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	3
6:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	5
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	1	2	0	0	3	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Grand Total	1	3	0	0	4	3	0	1	0	4	0	2	1	0	3	0	0	0	0	0	11
Approach %	25.0	75.0	0.0	0.0		75.0	0.0	25.0	0.0		0.0	66.7	33.3	0.0		0.0	0.0	0.0	0.0		
Total %	9.1	27.3	0.0	0.0	36.4	27.3	0.0	9.1	0.0	36.4	0.0	18.2	9.1	0.0	27.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					5					0					4					2	11

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:00 AM	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	3
6:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	0	1	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	5
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.500	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.417
Entering Leg	0	1	0	0	1	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	5
Exiting Leg					4					0					1					0	5
Total					5					2					3					0	10

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Brookline Avenue from North							Longwood Avenue from East							Brookline Avenue from South							Crosswalk from Southwest			Longwood Avenue from West							Crosswalk from Northwest			
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	CW-NWB	CW-SEB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NEB	CW-SWB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	2
6:45 AM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	4
Total	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	3	0	1	0	4	0	0	0	7
7:00 AM	0	2	0	0	0	0	2	0	2	0	0	0	2	4	0	1	0	0	0	2	3	0	0	0	0	3	0	0	1	0	4	0	0	0	13
7:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	4	4	0	1	0	0	0	3	4	0	1	1	1	1	2	0	1	0	5	0	0	0	15
7:30 AM	0	1	0	0	0	0	1	0	0	0	0	1	1	2	0	0	0	0	0	3	3	0	0	0	0	2	0	0	0	1	3	0	0	0	9
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3	3	0	1	1	0	2	0	0	0	1	3	0	0	0	8
Total	0	4	0	0	0	0	4	0	2	0	0	1	8	11	0	2	0	0	0	11	13	0	2	2	1	8	2	0	2	2	15	0	0	0	45
8:00 AM	0	3	0	0	1	0	4	0	2	0	0	1	3	6	0	0	0	0	0	1	1	0	0	0	2	10	0	0	0	0	12	0	0	0	23
8:15 AM	0	4	0	0	1	0	5	0	0	0	0	1	2	3	0	3	0	0	0	5	8	0	0	0	1	9	0	0	0	0	10	0	0	0	26
8:30 AM	2	4	0	0	0	0	6	0	2	0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	1	15	1	0	0	0	17	0	0	0	27
8:45 AM	1	2	0	0	0	0	3	1	0	1	0	0	0	2	0	1	0	0	0	0	1	1	0	1	4	22	0	0	0	0	26	0	0	0	33
Total	3	13	0	0	2	0	18	1	4	1	0	2	7	15	0	4	0	0	0	6	10	1	0	1	8	56	1	0	0	0	65	0	0	0	109
Grand Total	3	17	0	0	4	0	24	1	6	1	0	3	15	26	0	6	0	0	0	17	23	1	3	4	9	64	6	0	3	2	84	0	0	0	161
Approach %	12.5	70.8	0.0	0.0	16.7	0.0		3.8	23.1	3.8	0.0	11.5	57.7		0.0	26.1	0.0	0.0	0.0	73.9		25.0	75.0		10.7	76.2	7.1	0.0	3.6	2.4		0.0	0.0		
Total %	1.9	10.6	0.0	0.0	2.5	0.0	14.9	0.6	3.7	0.6	0.0	1.9	9.3	16.1	0.0	3.7	0.0	0.0	0.0	10.6	14.3	0.6	1.9	2.5	5.6	39.8	3.7	0.0	1.9	1.2	52.2	0.0	0.0	0.0	
Exiting Leg Total							17							82							44			4							14			0	161

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North							Longwood Avenue from East							Brookline Avenue from South							Crosswalk from Southwest			Longwood Avenue from West							Crosswalk from Northwest			
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	CW-NWB	CW-SEB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NEB	CW-SWB	Total	Total
8:00 AM	0	3	0	0	1	0	4	0	2	0	0	1	3	6	0	0	0	0	0	1	1	0	0	0	2	10	0	0	0	0	12	0	0	0	23
8:15 AM	0	4	0	0	1	0	5	0	0	0	0	1	2	3	0	3	0	0	0	5	8	0	0	0	1	9	0	0	0	0	10	0	0	0	26
8:30 AM	2	4	0	0	0	0	6	0	2	0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	1	15	1	0	0	0	17	0	0	0	27
8:45 AM	1	2	0	0	0	0	3	1	0	1	0	0	0	2	0	1	0	0	0	0	1	1	0	1	4	22	0	0	0	0	26	0	0	0	33
Total Volume	3	13	0	0	2	0	18	1	4	1	0	2	7	15	0	4	0	0	0	6	10	1	0	1	8	56	1	0	0	0	65	0	0	0	109
% Approach Total	16.7	72.2	0.0	0.0	11.1	0.0		6.7	26.7	6.7	0.0	13.3	46.7		0.0	40.0	0.0	0.0	0.0	60.0		100.0	0.0		12.3	86.2	1.5	0.0	0.0	0.0		0.0	0.0		
PHF	0.375	0.813	0.000	0.000	0.500	0.000	0.750	0.250	0.500	0.250	0.000	0.500	0.583	0.625	0.000	0.333	0.000	0.000	0.000	0.300	0.313	0.250	0.000	0.250	0.500	0.636	0.250	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.826
Entering Leg	3	13	0	0	2	0	18	1	4	1	0	2	7	15	0	4	0	0	0	6	10	1	0	1	8	56	1	0	0	0	65	0	0	0	109
Exiting Leg							8							65							28			1							7			0	109
Total							26							80							38			2							72			0	218

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Brookline Avenue from North							Longwood Avenue from East							Brookline Avenue from South							Crosswalk from Southwest			Longwood Avenue from West							Crosswalk from Northwest			
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	CW-NWB	CW-SEB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NEB	CW-SWB	Total	Total
6:00 AM	0	0	0	0	5	5	10	0	0	0	0	8	13	21	0	0	0	0	3	16	19	3	2	5	0	0	0	0	2	6	8	0	7	7	70
6:15 AM	0	0	0	0	10	2	12	0	0	0	0	36	12	48	0	0	0	0	9	28	37	8	5	13	0	0	0	0	0	5	5	1	29	30	145
6:30 AM	0	0	0	0	30	2	32	0	0	0	0	55	27	82	0	0	0	0	16	27	43	19	6	25	0	0	0	0	0	3	3	1	65	66	251
6:45 AM	0	0	0	0	25	4	29	0	0	0	0	18	31	49	0	0	0	0	33	44	77	42	14	56	0	0	0	0	1	7	8	3	44	47	266
Total	0	0	0	0	70	13	83	0	0	0	0	117	83	200	0	0	0	0	61	115	176	72	27	99	0	0	0	0	3	21	24	5	145	150	732
7:00 AM	0	0	0	0	33	2	35	0	0	0	0	14	33	47	0	0	0	0	6	36	42	32	14	46	0	0	0	0	2	4	6	0	8	8	184
7:15 AM	0	0	0	0	26	13	39	0	0	0	0	30	27	57	0	0	0	0	19	26	45	13	9	22	0	0	0	0	2	5	7	1	19	20	190
7:30 AM	0	0	0	0	38	18	56	0	0	0	0	20	17	37	0	0	0	0	11	35	46	22	15	37	0	0	0	0	1	7	8	8	18	26	210
7:45 AM	0	0	0	0	75	11	86	0	0	0	0	32	20	52	0	0	0	0	13	39	52	22	22	44	0	0	0	0	2	11	13	3	19	22	269
Total	0	0	0	0	172	44	216	0	0	0	0	96	97	193	0	0	0	0	49	136	185	89	60	149	0	0	0	0	7	27	34	12	64	76	853
8:00 AM	0	0	0	0	42	11	53	0	0	0	0	29	31	60	0	0	0	0	22	42	64	29	22	51	0	0	0	0	3	8	11	0	16	16	255
8:15 AM	0	0	0	0	40	2	42	0	0	0	0	42	28	70	0	0	0	0	19	42	61	20	12	32	0	0	0	0	5	6	11	1	14	15	231
8:30 AM	0	0	0	0	55	8	63	0	0	0	0	26	31	57	0	0	0	0	12	38	50	21	7	28	0	0	0	0	3	6	9	4	10	14	221
8:45 AM	0	0	0	0	56	11	67	0	0	0	0	26	29	55	0	0	0	0	20	59	79	21	14	35	0	0	0	0	3	4	7	10	19	29	272
Total	0	0	0	0	193	32	225	0	0	0	0	123	119	242	0	0	0	0	73	181	254	91	55	146	0	0	0	0	14	24	38	15	59	74	979
Grand Total	0	0	0	0	435	89	524	0	0	0	0	336	299	635	0	0	0	0	183	432	615	252	142	394	0	0	0	0	24	72	96	32	268	300	2564
Approach %	0	0	0	0	83	17		0	0	0	0	52.9	47.1		0	0	0	0	29.8	70.2		64	36		0	0	0	0	25	75		10.7	89.3		
Total %	0	0	0	0	17	3.47	20.4	0	0	0	0	13.1	11.7	24.8	0	0	0	0	7.14	16.8	24	9.83	5.54	15.4	0	0	0	0	0.94	2.81	3.74	1.25	10.5	11.7	
Exiting Leg Total							524							635							615			394						96			300	2564

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North							Longwood Avenue from East							Brookline Avenue from South							Crosswalk from Southwest			Longwood Avenue from West							Crosswalk from Northwest			
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	CW-NWB	CW-SEB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NEB	CW-SWB	Total	Total
8:00 AM	0	0	0	0	42	11	53	0	0	0	0	29	31	60	0	0	0	0	22	42	64	29	22	51	0	0	0	0	3	8	11	0	16	16	255
8:15 AM	0	0	0	0	40	2	42	0	0	0	0	42	28	70	0	0	0	0	19	42	61	20	12	32	0	0	0	0	5	6	11	1	14	15	231
8:30 AM	0	0	0	0	55	8	63	0	0	0	0	26	31	57	0	0	0	0	12	38	50	21	7	28	0	0	0	0	3	6	9	4	10	14	221
8:45 AM	0	0	0	0	56	11	67	0	0	0	0	26	29	55	0	0	0	0	20	59	79	21	14	35	0	0	0	0	3	4	7	10	19	29	272
Total Volume	0	0	0	0	193	32	225	0	0	0	0	123	119	242	0	0	0	0	73	181	254	91	55	146	0	0	0	0	14	24	38	15	59	74	979
% Approach Total	0.0	0.0	0.0	0.0	85.8	14.2		0.0	0.0	0.0	0.0	50.8	49.2		0.0	0.0	0.0	0.0	28.7	71.3		62.3	37.7		0.0	0.0	0.0	0.0	36.8	63.2		20.3	79.7		
PHF	0.000	0.000	0.000	0.000	0.862	0.727	0.840	0.000	0.000	0.000	0.000	0.732	0.960	0.864	0.000	0.000	0.000	0.000	0.830	0.767	0.804	0.784	0.625	0.716	0.000	0.000	0.000	0.000	0.700	0.750	0.864	0.375	0.776	0.638	0.900
Entering Leg	0	0	0	0	193	32	225	0	0	0	0	123	119	242	0	0	0	0	73	181	254	91	55	146	0	0	0	0	14	24	38	15	59	74	979
Exiting Leg							225							242							254			146						38			74	979
Total							450							484							508			292						76			148	1958

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	23	116	40	0	179	62	45	42	0	149	18	90	2	0	110	8	31	13	0	52	490
3:15 PM	21	127	53	0	201	52	48	40	0	140	18	114	7	0	139	10	42	29	0	81	561
3:30 PM	21	111	56	0	188	54	39	41	0	134	13	130	8	0	151	4	40	14	0	58	531
3:45 PM	21	123	50	0	194	62	47	36	0	145	24	106	10	0	140	23	38	13	0	74	553
Total	86	477	199	0	762	230	179	159	0	568	73	440	27	0	540	45	151	69	0	265	2135
4:00 PM	24	115	47	0	186	60	51	32	0	143	20	132	5	0	157	17	32	14	0	63	549
4:15 PM	17	131	48	0	196	50	41	38	0	129	33	101	7	0	141	16	42	15	0	73	539
4:30 PM	19	126	47	0	192	66	59	32	0	157	22	109	8	0	139	7	43	16	0	66	554
4:45 PM	15	125	47	0	187	49	47	36	0	132	25	114	15	0	154	15	45	14	0	74	547
Total	75	497	189	0	761	225	198	138	0	561	100	456	35	0	591	55	162	59	0	276	2189
5:00 PM	19	121	31	0	171	65	59	24	0	148	6	84	10	0	100	13	47	14	0	74	493
5:15 PM	18	139	26	0	183	40	44	28	0	112	7	82	8	0	97	6	42	17	0	65	457
5:30 PM	18	119	42	0	179	52	59	39	0	150	6	94	4	0	104	11	39	20	0	70	503
5:45 PM	18	138	32	0	188	47	47	34	0	128	19	79	7	0	105	20	36	22	0	78	499
Total	73	517	131	0	721	204	209	125	0	538	38	339	29	0	406	50	164	73	0	287	1952
Grand Total	234	1491	519	0	2244	659	586	422	0	1667	211	1235	91	0	1537	150	477	201	0	828	6276
Approach %	10.4	66.4	23.1	0.0		39.5	35.2	25.3	0.0		13.7	80.4	5.9	0.0		18.1	57.6	24.3	0.0		
Total %	3.7	23.8	8.3	0.0	35.8	10.5	9.3	6.7	0.0	26.6	3.4	19.7	1.4	0.0	24.5	2.4	7.6	3.2	0.0	13.2	
Exiting Leg Total					2095					1207					2063					911	6276
Cars	217	1396	461	0	2074	600	577	394	0	1571	198	1154	89	0	1441	145	466	193	0	804	5890
% Cars	92.7	93.6	88.8	0.0	92.4	91.0	98.5	93.4	0.0	94.2	93.8	93.4	97.8	0.0	93.8	96.7	97.7	96.0	0.0	97.1	93.8
Exiting Leg Total					1947					1125					1935					883	5890
Heavy Vehicles	17	95	58	0	170	59	9	28	0	96	13	81	2	0	96	5	11	8	0	24	386
% Heavy Vehicles	7.3	6.4	11.2	0.0	7.6	9.0	1.5	6.6	0.0	5.8	6.2	6.6	2.2	0.0	6.2	3.3	2.3	4.0	0.0	2.9	6.2
Exiting Leg Total					148					82					128					28	386

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:45 PM	21	123	50	0	194	62	47	36	0	145	24	106	10	0	140	23	38	13	0	74	553
4:00 PM	24	115	47	0	186	60	51	32	0	143	20	132	5	0	157	17	32	14	0	63	549
4:15 PM	17	131	48	0	196	50	41	38	0	129	33	101	7	0	141	16	42	15	0	73	539
4:30 PM	19	126	47	0	192	66	59	32	0	157	22	109	8	0	139	7	43	16	0	66	554
Total Volume	81	495	192	0	768	238	198	138	0	574	99	448	30	0	577	63	155	58	0	276	2195
% Approach Total	10.5	64.5	25.0	0.0		41.5	34.5	24.0	0.0		17.2	77.6	5.2	0.0		22.8	56.2	21.0	0.0		
PHF	0.844	0.945	0.960	0.000	0.980	0.902	0.839	0.908	0.000	0.914	0.750	0.848	0.750	0.000	0.919	0.685	0.901	0.906	0.000	0.932	0.991
Cars	76	459	174	0	709	217	195	127	0	539	94	421	30	0	545	61	151	55	0	267	2060
Cars %	93.8	92.7	90.6	0.0	92.3	91.2	98.5	92.0	0.0	93.9	94.9	94.0	100.0	0.0	94.5	96.8	97.4	94.8	0.0	96.7	93.8
Heavy Vehicles	5	36	18	0	59	21	3	11	0	35	5	27	0	0	32	2	4	3	0	9	135
Heavy Vehicles %	6.2	7.3	9.4	0.0	7.7	8.8	1.5	8.0	0.0	6.1	5.1	6.0	0.0	0.0	5.5	3.2	2.6	5.2	0.0	3.3	6.2
Cars Enter Leg	76	459	174	0	709	217	195	127	0	539	94	421	30	0	545	61	151	55	0	267	2060
Heavy Enter Leg	5	36	18	0	59	21	3	11	0	35	5	27	0	0	32	2	4	3	0	9	135
Total Entering Leg	81	495	192	0	768	238	198	138	0	574	99	448	30	0	577	63	155	58	0	276	2195
Cars Exiting Leg					693					419					647					301	2060
Heavy Exiting Leg					51					27					49					8	135
Total Exiting Leg					744					446					696					309	2195

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	20	111	36	0	167	55	44	40	0	139	17	83	2	0	102	8	28	13	0	49	457
3:15 PM	20	120	48	0	188	48	46	37	0	131	17	107	7	0	131	10	40	28	0	78	528
3:30 PM	20	105	52	0	177	49	39	38	0	126	13	121	8	0	142	4	40	13	0	57	502
3:45 PM	19	115	46	0	180	56	47	34	0	137	23	99	10	0	132	22	36	13	0	71	520
Total	79	451	182	0	712	208	176	149	0	533	70	410	27	0	507	44	144	67	0	255	2007
4:00 PM	22	104	41	0	167	54	50	31	0	135	18	126	5	0	149	16	32	13	0	61	512
4:15 PM	16	123	43	0	182	45	39	35	0	119	32	94	7	0	133	16	41	13	0	70	504
4:30 PM	19	117	44	0	180	62	59	27	0	148	21	102	8	0	131	7	42	16	0	65	524
4:45 PM	14	117	43	0	174	47	47	34	0	128	22	106	13	0	141	14	44	14	0	72	515
Total	71	461	171	0	703	208	195	127	0	530	93	428	33	0	554	53	159	56	0	268	2055
5:00 PM	19	116	27	0	162	58	59	23	0	140	5	77	10	0	92	13	47	14	0	74	468
5:15 PM	15	123	20	0	158	34	43	25	0	102	7	76	8	0	91	6	41	16	0	63	414
5:30 PM	17	115	35	0	167	48	58	38	0	144	5	89	4	0	98	10	39	19	0	68	477
5:45 PM	16	130	26	0	172	44	46	32	0	122	18	74	7	0	99	19	36	21	0	76	469
Total	67	484	108	0	659	184	206	118	0	508	35	316	29	0	380	48	163	70	0	281	1828
Grand Total	217	1396	461	0	2074	600	577	394	0	1571	198	1154	89	0	1441	145	466	193	0	804	5890
Approach %	10.5	67.3	22.2	0.0		38.2	36.7	25.1	0.0		13.7	80.1	6.2	0.0		18.0	58.0	24.0	0.0		
Total %	3.7	23.7	7.8	0.0	35.2	10.2	9.8	6.7	0.0	26.7	3.4	19.6	1.5	0.0	24.5	2.5	7.9	3.3	0.0	13.7	
Exiting Leg Total					1947					1125					1935					883	5890

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:15 PM	20	120	48	0	188	48	46	37	0	131	17	107	7	0	131	10	40	28	0	78	528
3:30 PM	20	105	52	0	177	49	39	38	0	126	13	121	8	0	142	4	40	13	0	57	502
3:45 PM	19	115	46	0	180	56	47	34	0	137	23	99	10	0	132	22	36	13	0	71	520
4:00 PM	22	104	41	0	167	54	50	31	0	135	18	126	5	0	149	16	32	13	0	61	512
Total Volume	81	444	187	0	712	207	182	140	0	529	71	453	30	0	554	52	148	67	0	267	2062
% Approach Total	11.4	62.4	26.3	0.0		39.1	34.4	26.5	0.0		12.8	81.8	5.4	0.0		19.5	55.4	25.1	0.0		
PHF	0.920	0.925	0.899	0.000	0.947	0.924	0.910	0.921	0.000	0.965	0.772	0.899	0.750	0.000	0.930	0.591	0.925	0.598	0.000	0.856	0.976
Entering Leg	81	444	187	0	712	207	182	140	0	529	71	453	30	0	554	52	148	67	0	267	2062
Exiting Leg					727					406					636					293	2062
Total					1439					935					1190					560	4124

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	3	5	4	0	12	7	1	2	0	10	1	7	0	0	8	0	3	0	0	3	33
3:15 PM	1	7	5	0	13	4	2	3	0	9	1	7	0	0	8	0	2	1	0	3	33
3:30 PM	1	6	4	0	11	5	0	3	0	8	0	9	0	0	9	0	0	1	0	1	29
3:45 PM	2	8	4	0	14	6	0	2	0	8	1	7	0	0	8	1	2	0	0	3	33
Total	7	26	17	0	50	22	3	10	0	35	3	30	0	0	33	1	7	2	0	10	128
4:00 PM	2	11	6	0	19	6	1	1	0	8	2	6	0	0	8	1	0	1	0	2	37
4:15 PM	1	8	5	0	14	5	2	3	0	10	1	7	0	0	8	0	1	2	0	3	35
4:30 PM	0	9	3	0	12	4	0	5	0	9	1	7	0	0	8	0	1	0	0	1	30
4:45 PM	1	8	4	0	13	2	0	2	0	4	3	8	2	0	13	1	1	0	0	2	32
Total	4	36	18	0	58	17	3	11	0	31	7	28	2	0	37	2	3	3	0	8	134
5:00 PM	0	5	4	0	9	7	0	1	0	8	1	7	0	0	8	0	0	0	0	0	25
5:15 PM	3	16	6	0	25	6	1	3	0	10	0	6	0	0	6	0	1	1	0	2	43
5:30 PM	1	4	7	0	12	4	1	1	0	6	1	5	0	0	6	1	0	1	0	2	26
5:45 PM	2	8	6	0	16	3	1	2	0	6	1	5	0	0	6	1	0	1	0	2	30
Total	6	33	23	0	62	20	3	7	0	30	3	23	0	0	26	2	1	3	0	6	124
Grand Total	17	95	58	0	170	59	9	28	0	96	13	81	2	0	96	5	11	8	0	24	386
Approach %	10.0	55.9	34.1	0.0		61.5	9.4	29.2	0.0		13.5	84.4	2.1	0.0		20.8	45.8	33.3	0.0		
Total %	4.4	24.6	15.0	0.0	44.0	15.3	2.3	7.3	0.0	24.9	3.4	21.0	0.5	0.0	24.9	1.3	2.8	2.1	0.0	6.2	
Exiting Leg Total					148					82					128					28	386
Buses	8	84	49	0	141	52	1	27	0	80	11	72	1	0	84	3	7	2	0	12	317
% Buses	47.1	88.4	84.5	0.0	82.9	88.1	11.1	96.4	0.0	83.3	84.6	88.9	50.0	0.0	87.5	60.0	63.6	25.0	0.0	50.0	82.1
Exiting Leg Total					126					67					114					10	317
Single-Unit Trucks	9	10	8	0	27	6	8	0	0	14	2	8	1	0	11	2	4	6	0	12	64
% Single-Unit	52.9	10.5	13.8	0.0	15.9	10.2	88.9	0.0	0.0	14.6	15.4	9.9	50.0	0.0	11.5	40.0	36.4	75.0	0.0	50.0	16.6
Exiting Leg Total					20					14					12					18	64
Articulated Trucks	0	1	1	0	2	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	5
% Articulated	0.0	1.1	1.7	0.0	1.2	1.7	0.0	3.6	0.0	2.1	0.0	1.2	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.3
Exiting Leg Total					2					1					2					0	5

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:45 PM	2	8	4	0	14	6	0	2	0	8	1	7	0	0	8	1	2	0	0	3	33
4:00 PM	2	11	6	0	19	6	1	1	0	8	2	6	0	0	8	1	0	1	0	2	37
4:15 PM	1	8	5	0	14	5	2	3	0	10	1	7	0	0	8	0	1	2	0	3	35
4:30 PM	0	9	3	0	12	4	0	5	0	9	1	7	0	0	8	0	1	0	0	1	30
Total Volume	5	36	18	0	59	21	3	11	0	35	5	27	0	0	32	2	4	3	0	9	135
% Approach Total	8.5	61.0	30.5	0.0		60.0	8.6	31.4	0.0		15.6	84.4	0.0	0.0		22.2	44.4	33.3	0.0		
PHF	0.625	0.818	0.750	0.000	0.776	0.875	0.375	0.550	0.000	0.875	0.625	0.964	0.000	0.000	1.000	0.500	0.500	0.375	0.000	0.750	0.912
Buses	3	33	15	0	51	19	0	10	0	29	4	26	0	0	30	1	3	1	0	5	115
Buses %	60.0	91.7	83.3	0.0	86.4	90.5	0.0	90.9	0.0	82.9	80.0	96.3	0.0	0.0	93.8	50.0	75.0	33.3	0.0	55.6	85.2
Single-Unit Trucks	2	3	3	0	8	1	3	0	0	4	1	1	0	0	2	1	1	2	0	4	18
Single-Unit %	40.0	8.3	16.7	0.0	13.6	4.8	100.0	0.0	0.0	11.4	20.0	3.7	0.0	0.0	6.3	50.0	25.0	66.7	0.0	44.4	13.3
Articulated Trucks	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
Articulated %	0.0	0.0	0.0	0.0	0.0	4.8	0.0	9.1	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Buses	3	33	15	0	51	19	0	10	0	29	4	26	0	0	30	1	3	1	0	5	115
Single-Unit Trucks	2	3	3	0	8	1	3	0	0	4	1	1	0	0	2	1	1	2	0	4	18
Articulated Trucks	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
Total Entering Leg	5	36	18	0	59	21	3	11	0	35	5	27	0	0	32	2	4	3	0	9	135
Buses					46					22					44					3	115
Single-Unit Trucks					4					5					4					5	18
Articulated Trucks					1					0					1					0	2
Total Exiting Leg					51					27					49					8	135

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Buses**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	2	3	3	0	8	7	0	2	0	9	0	7	0	0	7	0	3	0	0	3	27
3:15 PM	0	5	3	0	8	1	0	3	0	4	1	6	0	0	7	0	1	0	0	1	20
3:30 PM	0	6	4	0	10	4	0	3	0	7	0	7	0	0	7	0	0	0	0	0	24
3:45 PM	1	8	4	0	13	6	0	2	0	8	1	7	0	0	8	1	2	0	0	3	32
Total	3	22	14	0	39	18	0	10	0	28	2	27	0	0	29	1	6	0	0	7	103
4:00 PM	1	9	5	0	15	4	0	1	0	5	2	6	0	0	8	0	0	0	0	0	28
4:15 PM	1	8	4	0	13	5	0	2	0	7	1	6	0	0	7	0	0	1	0	1	28
4:30 PM	0	8	2	0	10	4	0	5	0	9	0	7	0	0	7	0	1	0	0	1	27
4:45 PM	1	6	3	0	10	2	0	2	0	4	3	7	1	0	11	1	0	0	0	1	26
Total	3	31	14	0	48	15	0	10	0	25	6	26	1	0	33	1	1	1	0	3	109
5:00 PM	0	5	4	0	9	6	0	1	0	7	1	6	0	0	7	0	0	0	0	0	23
5:15 PM	1	16	4	0	21	6	1	3	0	10	0	5	0	0	5	0	0	1	0	1	37
5:30 PM	0	4	7	0	11	4	0	1	0	5	1	5	0	0	6	1	0	0	0	1	23
5:45 PM	1	6	6	0	13	3	0	2	0	5	1	3	0	0	4	0	0	0	0	0	22
Total	2	31	21	0	54	19	1	7	0	27	3	19	0	0	22	1	0	1	0	2	105
Grand Total	8	84	49	0	141	52	1	27	0	80	11	72	1	0	84	3	7	2	0	12	317
Approach %	5.7	59.6	34.8	0.0		65.0	1.3	33.8	0.0		13.1	85.7	1.2	0.0		25.0	58.3	16.7	0.0		
Total %	2.5	26.5	15.5	0.0	44.5	16.4	0.3	8.5	0.0	25.2	3.5	22.7	0.3	0.0	26.5	0.9	2.2	0.6	0.0	3.8	
Exiting Leg Total					126					67					114					10	317

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:45 PM	1	8	4	0	13	6	0	2	0	8	1	7	0	0	8	1	2	0	0	3	32
4:00 PM	1	9	5	0	15	4	0	1	0	5	2	6	0	0	8	0	0	0	0	0	28
4:15 PM	1	8	4	0	13	5	0	2	0	7	1	6	0	0	7	0	0	1	0	1	28
4:30 PM	0	8	2	0	10	4	0	5	0	9	0	7	0	0	7	0	1	0	0	1	27
Total Volume	3	33	15	0	51	19	0	10	0	29	4	26	0	0	30	1	3	1	0	5	115
% Approach Total	5.9	64.7	29.4	0.0		65.5	0.0	34.5	0.0		13.3	86.7	0.0	0.0		20.0	60.0	20.0	0.0		
PHF	0.750	0.917	0.750	0.000	0.850	0.792	0.000	0.500	0.000	0.806	0.500	0.929	0.000	0.000	0.938	0.250	0.375	0.250	0.000	0.417	0.898
Entering Leg	3	33	15	0	51	19	0	10	0	29	4	26	0	0	30	1	3	1	0	5	115
Exiting Leg					46					22					44					3	115
Total					97					51					74					8	230

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	1	2	0	0	3	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	5
3:15 PM	1	1	2	0	4	3	2	0	0	5	0	1	0	0	1	0	1	1	0	2	12
3:30 PM	1	0	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	4
3:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	4	3	2	0	9	4	3	0	0	7	1	2	0	0	3	0	1	2	0	3	22
4:00 PM	1	2	1	0	4	1	1	0	0	2	0	0	0	0	0	1	0	1	0	2	8
4:15 PM	0	0	1	0	1	0	2	0	0	2	0	1	0	0	1	0	1	1	0	2	6
4:30 PM	0	1	1	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
4:45 PM	0	2	1	0	3	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	6
Total	1	5	4	0	10	1	3	0	0	4	1	2	1	0	4	1	2	2	0	5	23
5:00 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
5:15 PM	2	0	2	0	4	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	6
5:30 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	3
5:45 PM	1	2	0	0	3	0	1	0	0	1	0	2	0	0	2	1	0	1	0	2	8
Total	4	2	2	0	8	1	2	0	0	3	0	4	0	0	4	1	1	2	0	4	19
Grand Total	9	10	8	0	27	6	8	0	0	14	2	8	1	0	11	2	4	6	0	12	64
Approach %	33.3	37.0	29.6	0.0		42.9	57.1	0.0	0.0		18.2	72.7	9.1	0.0		16.7	33.3	50.0	0.0		
Total %	14.1	15.6	12.5	0.0	42.2	9.4	12.5	0.0	0.0	21.9	3.1	12.5	1.6	0.0	17.2	3.1	6.3	9.4	0.0	18.8	
Exiting Leg Total					20					14					12					18	64

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:15 PM	1	1	2	0	4	3	2	0	0	5	0	1	0	0	1	0	1	1	0	2	12
3:30 PM	1	0	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	4
3:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00 PM	1	2	1	0	4	1	1	0	0	2	0	0	0	0	0	1	0	1	0	2	8
Total Volume	4	3	3	0	10	5	3	0	0	8	0	2	0	0	2	1	1	3	0	5	25
% Approach Total	40.0	30.0	30.0	0.0		62.5	37.5	0.0	0.0		0.0	100.0	0.0	0.0		20.0	20.0	60.0	0.0		
PHF	1.000	0.375	0.375	0.000	0.625	0.417	0.375	0.000	0.000	0.400	0.000	0.500	0.000	0.000	0.500	0.250	0.250	0.750	0.000	0.625	0.521
Entering Leg	4	3	3	0	10	5	3	0	0	8	0	2	0	0	2	1	1	3	0	5	25
Exiting Leg					10					4					4					7	25
Total					20					12					6					12	50

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
4:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	1	0	2	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	5
Approach %	0.0	50.0	50.0	0.0		50.0	0.0	50.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	20.0	20.0	0.0	40.0	20.0	0.0	20.0	0.0	40.0	0.0	20.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					2					1					2					0	5

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Brookline Avenue from North					Longwood Avenue from East					Brookline Avenue from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
% Approach Total	0.0	50.0	50.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Exiting Leg					1					1					1					0	3
Total					3					1					2					0	6

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Brookline Avenue from North							Longwood Avenue from East							Brookline Avenue from South							Crosswalk from Southwest			Longwood Avenue from West							Crosswalk from Northwest			
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	CW-NWB	CW-SEB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NEB	CW-SWB	Total	Total
3:00 PM	0	0	0	0	0	3	3	0	4	0	0	0	0	4	0	1	0	0	0	0	1	0	0	0	1	1	0	0	0	0	2	0	0	0	10
3:15 PM	1	2	0	0	0	3	6	0	3	0	0	1	0	4	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	2	3	0	0	0	14
3:30 PM	1	1	0	0	1	2	5	2	4	0	0	0	0	6	0	1	0	0	0	0	1	0	0	0	1	0	1	0	0	1	3	0	0	0	15
3:45 PM	2	4	0	0	0	4	10	0	6	1	0	0	0	7	0	1	0	0	0	0	1	0	0	0	0	3	0	0	0	3	6	3	0	3	27
Total	4	7	0	0	1	12	24	2	17	1	0	1	0	21	0	3	0	0	0	1	4	0	0	0	2	5	1	0	0	6	14	3	0	3	66
4:00 PM	0	2	0	0	0	0	2	0	12	1	0	0	0	13	0	2	1	0	0	1	4	0	0	0	1	1	0	0	0	0	2	0	0	0	21
4:15 PM	0	0	0	0	0	3	3	0	3	1	0	0	0	4	0	2	0	0	0	1	3	0	0	0	1	3	0	0	0	2	6	0	0	0	16
4:30 PM	0	4	0	0	0	1	5	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	16
4:45 PM	0	0	0	0	0	0	0	0	14	0	0	0	0	14	0	1	0	0	0	0	1	0	0	0	0	1	2	0	0	0	3	1	0	1	19
Total	0	6	0	0	0	4	10	0	38	2	0	0	0	40	0	5	1	0	0	2	8	0	0	0	2	5	2	0	0	4	13	1	0	1	72
5:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	3	3	0	0	2	0	0	0	2	0	0	0	0	1	0	0	0	0	1	0	0	0	7
5:15 PM	0	4	0	0	0	0	4	0	3	0	0	1	1	5	0	0	0	0	0	0	0	1	1	2	0	2	0	0	0	0	2	0	0	0	13
5:30 PM	1	2	0	0	0	3	6	0	5	0	0	1	0	6	0	0	0	0	0	1	1	0	2	2	0	1	0	0	0	2	3	0	1	1	19
5:45 PM	0	4	0	0	0	1	5	0	3	2	0	0	1	6	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	2	3	16
Total	1	11	0	0	0	4	16	0	11	2	0	2	5	20	0	0	3	0	0	1	4	1	3	4	0	4	0	0	0	3	7	1	3	4	55
Grand Total	5	24	0	0	1	20	50	2	66	5	0	3	5	81	0	8	4	0	0	4	16	1	3	4	4	14	3	0	0	13	34	5	3	8	193
Approach %	10.0	48.0	0.0	0.0	2.0	40.0		2.5	81.5	6.2	0.0	3.7	6.2		0.0	50.0	25.0	0.0	0.0	25.0		25.0	75.0		11.8	41.2	8.8	0.0	0.0	38.2		62.5	37.5		
Total %	2.6	12.4	0.0	0.0	0.5	10.4	25.9	1.0	34.2	2.6	0.0	1.6	2.6	42.0	0.0	4.1	2.1	0.0	0.0	2.1	8.3	0.5	1.6	2.1	2.1	7.3	1.6	0.0	0.0	6.7	17.6	2.6	1.6	4.1	
Exiting Leg Total							34							22							37			4							88			8	193

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Brookline Avenue from North							Longwood Avenue from East							Brookline Avenue from South							Crosswalk from Southwest			Longwood Avenue from West							Crosswalk from Northwest			
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	CW-NWB	CW-SEB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NEB	CW-SWB	Total	Total
3:45 PM	2	4	0	0	0	4	10	0	6	1	0	0	0	7	0	1	0	0	0	0	1	0	0	0	0	3	0	0	0	3	6	3	0	3	27
4:00 PM	0	2	0	0	0	0	2	0	12	1	0	0	0	13	0	2	1	0	0	1	4	0	0	0	1	1	0	0	0	0	2	0	0	0	21
4:15 PM	0	0	0	0	0	3	3	0	3	1	0	0	0	4	0	2	0	0	0	1	3	0	0	0	1	3	0	0	0	2	6	0	0	0	16
4:30 PM	0	4	0	0	0	1	5	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	16
Total Volume	2	10	0	0	0	8	20	0	30	3	0	0	0	33	0	5	1	0	0	2	8	0	0	0	2	7	0	0	0	7	16	3	0	3	80
% Approach Total	10.0	50.0	0.0	0.0	0.0	40.0		0.0	90.9	9.1	0.0	0.0	0.0		0.0	62.5	12.5	0.0	0.0	25.0		0.0	0.0		12.5	43.8	0.0	0.0	0.0	43.8		100.0	0.0		
PHF	0.250	0.625	0.000	0.000	0.000	0.500	0.500	0.000	0.625	0.750	0.000	0.000	0.000	0.635	0.000	0.625	0.250	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.500	0.583	0.000	0.000	0.000	0.583	0.667	0.250	0.000	0.250	0.741
Entering Leg	2	10	0	0	0	8	20	0	30	3	0	0	0	33	0	5	1	0	0	2	8	0	0	0	2	7	0	0	0	7	16	3	0	3	80
Exiting Leg							13							7							17			0							40			3	80
Total							33							40							25			0							56			6	160

PDI File #: **239743 F**
Location: **N: Brookline Avenue S: Brookline Avenue NW: Crosswalk**
Location: **E: Longwood Avenue W: Longwood Avenue SW: Crosswalk**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Tuesday, December 12, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Brookline Avenue from North							Longwood Avenue from East							Brookline Avenue from South							Crosswalk from Southwest			Longwood Avenue from West							Crosswalk from Northwest			
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	CW-NWB	CW-SEB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NEB	CW-SWB	Total	Total
3:00 PM	0	0	0	0	21	22	43	0	0	0	0	24	8	32	0	0	0	0	14	19	33	32	38	70	0	0	0	0	20	8	28	19	1	20	226
3:15 PM	0	0	0	0	23	13	36	0	0	0	0	35	48	83	0	0	0	0	23	27	50	33	33	66	0	0	0	0	10	7	17	9	2	11	263
3:30 PM	0	0	0	0	11	31	42	0	0	0	0	44	24	68	0	0	0	0	26	14	40	28	50	78	0	0	0	0	7	10	17	11	2	13	258
3:45 PM	0	0	0	0	24	35	59	0	0	0	0	28	25	53	0	0	0	0	30	21	51	30	37	67	0	0	0	0	15	14	29	23	0	23	282
Total	0	0	0	0	79	101	180	0	0	0	0	131	105	236	0	0	0	0	93	81	174	123	158	281	0	0	0	0	52	39	91	62	5	67	1029
4:00 PM	0	0	0	0	15	43	58	0	0	0	0	25	23	48	0	0	0	0	46	28	74	35	43	78	0	0	0	0	10	6	16	3	1	4	278
4:15 PM	0	0	0	0	15	28	43	0	0	0	0	21	23	44	0	0	0	0	48	17	65	25	23	48	0	0	0	0	12	10	22	15	0	15	237
4:30 PM	0	0	0	0	15	54	69	0	0	0	0	29	26	55	0	0	0	0	50	22	72	28	22	50	0	0	0	0	26	7	33	17	5	22	301
4:45 PM	0	0	0	0	24	72	96	0	0	0	0	22	22	44	0	0	0	0	31	24	55	36	22	58	0	0	0	0	33	8	41	3	0	3	297
Total	0	0	0	0	69	197	266	0	0	0	0	97	94	191	0	0	0	0	175	91	266	124	110	234	0	0	0	0	81	31	112	38	6	44	1113
5:00 PM	0	0	0	0	22	101	123	0	0	0	0	35	54	89	0	0	0	0	75	25	100	39	27	66	0	0	0	0	31	26	57	8	3	11	446
5:15 PM	0	0	0	0	18	83	101	0	0	0	0	36	37	73	0	0	0	0	66	22	88	35	27	62	0	0	0	0	18	16	34	33	14	47	405
5:30 PM	0	0	0	0	25	71	96	0	0	0	0	27	48	75	0	0	0	0	60	31	91	28	23	51	0	0	0	0	11	13	24	30	15	45	382
5:45 PM	0	0	0	0	13	50	63	0	0	0	0	22	34	56	0	0	0	0	56	24	80	23	13	36	0	0	0	0	13	17	30	28	4	32	297
Total	0	0	0	0	78	305	383	0	0	0	0	120	173	293	0	0	0	0	257	102	359	125	90	215	0	0	0	0	73	72	145	99	36	135	1530
Grand Total	0	0	0	0	226	603	829	0	0	0	0	348	372	720	0	0	0	0	525	274	799	372	358	730	0	0	0	0	206	142	348	199	47	246	3672
Approach %	0	0	0	0	27.3	72.7		0	0	0	0	48.3	51.7		0	0	0	0	65.7	34.3		51	49		0	0	0	0	59.2	40.8		80.9	19.1		
Total %	0	0	0	0	6.15	16.4	22.6	0	0	0	0	9.48	10.1	19.6	0	0	0	0	14.3	7.46	21.8	10.1	9.75	19.9	0	0	0	0	5.61	3.87	9.48	5.42	1.28	6.7	
Exiting Leg Total							829							720							799			730						348			246	3672

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Brookline Avenue from North							Longwood Avenue from East							Brookline Avenue from South							Crosswalk from Southwest			Longwood Avenue from West							Crosswalk from Northwest			
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	CW-NWB	CW-SEB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NEB	CW-SWB	Total	Total
4:45 PM	0	0	0	0	24	72	96	0	0	0	0	22	22	44	0	0	0	0	31	24	55	36	22	58	0	0	0	0	33	8	41	3	0	3	297
5:00 PM	0	0	0	0	22	101	123	0	0	0	0	35	54	89	0	0	0	0	75	25	100	39	27	66	0	0	0	0	31	26	57	8	3	11	446
5:15 PM	0	0	0	0	18	83	101	0	0	0	0	36	37	73	0	0	0	0	66	22	88	35	27	62	0	0	0	0	18	16	34	33	14	47	405
5:30 PM	0	0	0	0	25	71	96	0	0	0	0	27	48	75	0	0	0	0	60	31	91	28	23	51	0	0	0	0	11	13	24	30	15	45	382
Total Volume	0	0	0	0	89	327	416	0	0	0	0	120	161	281	0	0	0	0	232	102	334	138	99	237	0	0	0	0	93	63	156	74	32	106	1530
% Approach Total	0.0	0.0	0.0	0.0	21.4	78.6		0.0	0.0	0.0	0.0	42.7	57.3		0.0	0.0	0.0	0.0	69.5	30.5		58.2	41.8		0.0	0.0	0.0	0.0	59.6	40.4		69.8	30.2		
PHF	0.000	0.000	0.000	0.000	0.890	0.809	0.846	0.000	0.000	0.000	0.000	0.833	0.745	0.789	0.000	0.000	0.000	0.000	0.773	0.823	0.835	0.885	0.917	0.898	0.000	0.000	0.000	0.000	0.705	0.606	0.684	0.561	0.533	0.564	0.858
Entering Leg	0	0	0	0	89	327	416	0	0	0	0	120	161	281	0	0	0	0	232	102	334	138	99	237	0	0	0	0	93	63	156	74	32	106	1530
Exiting Leg							416							281							334			237						156			106	1530
Total							832							562							668			474						312			212	3060

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	113	18	0	131	14	0	4	0	18	9	158	0	0	167	7	2	10	0	19	335
6:15 AM	0	91	14	0	105	14	0	8	0	22	25	136	0	0	161	9	2	14	0	25	313
6:30 AM	0	112	14	0	126	10	0	11	0	21	17	158	0	0	175	23	4	18	0	45	367
6:45 AM	0	112	24	0	136	20	0	29	0	49	24	166	0	0	190	22	5	23	0	50	425
Total	0	428	70	0	498	58	0	52	0	110	75	618	0	0	693	61	13	65	0	139	1440
7:00 AM	0	126	32	0	158	34	0	8	0	42	14	150	0	0	164	22	9	25	0	56	420
7:15 AM	0	128	25	0	153	24	0	22	0	46	21	157	0	0	178	26	5	21	0	52	429
7:30 AM	0	140	22	0	162	28	0	21	0	49	20	170	0	0	190	34	2	15	0	51	452
7:45 AM	0	142	16	0	158	24	0	24	0	48	14	145	0	0	159	14	2	8	0	24	389
Total	0	536	95	0	631	110	0	75	0	185	69	622	0	0	691	96	18	69	0	183	1690
8:00 AM	0	136	20	0	156	26	0	18	0	44	19	143	0	0	162	13	4	6	0	23	385
8:15 AM	0	117	30	0	147	23	0	18	0	41	25	160	0	0	185	8	6	11	0	25	398
8:30 AM	0	117	28	0	145	19	0	14	0	33	22	149	0	0	171	6	6	8	0	20	369
8:45 AM	0	119	13	0	132	23	0	12	0	35	17	165	0	0	182	9	5	9	0	23	372
Total	0	489	91	0	580	91	0	62	0	153	83	617	0	0	700	36	21	34	0	91	1524
Grand Total	0	1453	256	0	1709	259	0	189	0	448	227	1857	0	0	2084	193	52	168	0	413	4654
Approach %	0.0	85.0	15.0	0.0		57.8	0.0	42.2	0.0		10.9	89.1	0.0	0.0		46.7	12.6	40.7	0.0		
Total %	0.0	31.2	5.5	0.0	36.7	5.6	0.0	4.1	0.0	9.6	4.9	39.9	0.0	0.0	44.8	4.1	1.1	3.6	0.0	8.9	
Exiting Leg Total					2284					535					1835					0	4654
Cars	0	1324	253	0	1577	200	0	177	0	377	223	1746	0	0	1969	192	47	162	0	401	4324
% Cars	0.0	91.1	98.8	0.0	92.3	77.2	0.0	93.7	0.0	84.2	98.2	94.0	0.0	0.0	94.5	99.5	90.4	96.4	0.0	97.1	92.9
Exiting Leg Total					2108					523					1693					0	4324
Heavy Vehicles	0	129	3	0	132	59	0	12	0	71	4	111	0	0	115	1	5	6	0	12	330
% Heavy Vehicles	0.0	8.9	1.2	0.0	7.7	22.8	0.0	6.3	0.0	15.8	1.8	6.0	0.0	0.0	5.5	0.5	9.6	3.6	0.0	2.9	7.1
Exiting Leg Total					176					12					142					0	330

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:45 AM	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:45 AM	0	112	24	0	136	20	0	29	0	49	24	166	0	0	190	22	5	23	0	50	425
7:00 AM	0	126	32	0	158	34	0	8	0	42	14	150	0	0	164	22	9	25	0	56	420
7:15 AM	0	128	25	0	153	24	0	22	0	46	21	157	0	0	178	26	5	21	0	52	429
7:30 AM	0	140	22	0	162	28	0	21	0	49	20	170	0	0	190	34	2	15	0	51	452
Total Volume	0	506	103	0	609	106	0	80	0	186	79	643	0	0	722	104	21	84	0	209	1726
% Approach Total	0.0	83.1	16.9	0.0		57.0	0.0	43.0	0.0		10.9	89.1	0.0	0.0		49.8	10.0	40.2	0.0		
PHF	0.000	0.904	0.805	0.000	0.940	0.779	0.000	0.690	0.000	0.949	0.823	0.946	0.000	0.000	0.950	0.765	0.583	0.840	0.000	0.933	0.955
Cars	0	465	102	0	567	85	0	76	0	161	79	612	0	0	691	104	19	82	0	205	1624
Cars %	0.0	91.9	99.0	0.0	93.1	80.2	0.0	95.0	0.0	86.6	100.0	95.2	0.0	0.0	95.7	100.0	90.5	97.6	0.0	98.1	94.1
Heavy Vehicles	0	41	1	0	42	21	0	4	0	25	0	31	0	0	31	0	2	2	0	4	102
Heavy Vehicles %	0.0	8.1	1.0	0.0	6.9	19.8	0.0	5.0	0.0	13.4	0.0	4.8	0.0	0.0	4.3	0.0	9.5	2.4	0.0	1.9	5.9
Cars Enter Leg	0	465	102	0	567	85	0	76	0	161	79	612	0	0	691	104	19	82	0	205	1624
Heavy Enter Leg	0	41	1	0	42	21	0	4	0	25	0	31	0	0	31	0	2	2	0	4	102
Total Entering Leg	0	506	103	0	609	106	0	80	0	186	79	643	0	0	722	104	21	84	0	209	1726
Cars Exiting Leg					779					200					645					0	1624
Heavy Exiting Leg					54					3					45					0	102
Total Exiting Leg					833					203					690					0	1726

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	104	18	0	122	11	0	2	0	13	8	150	0	0	158	7	2	9	0	18	311
6:15 AM	0	80	14	0	94	10	0	8	0	18	25	125	0	0	150	9	2	14	0	25	287
6:30 AM	0	99	12	0	111	7	0	10	0	17	17	151	0	0	168	23	4	18	0	45	341
6:45 AM	0	103	24	0	127	15	0	28	0	43	24	161	0	0	185	22	5	23	0	50	405
Total	0	386	68	0	454	43	0	48	0	91	74	587	0	0	661	61	13	64	0	138	1344
7:00 AM	0	117	32	0	149	28	0	7	0	35	14	143	0	0	157	22	7	24	0	53	394
7:15 AM	0	116	25	0	141	19	0	21	0	40	21	147	0	0	168	26	5	21	0	52	401
7:30 AM	0	129	21	0	150	23	0	20	0	43	20	161	0	0	181	34	2	14	0	50	424
7:45 AM	0	132	16	0	148	20	0	23	0	43	13	136	0	0	149	14	2	8	0	24	364
Total	0	494	94	0	588	90	0	71	0	161	68	587	0	0	655	96	16	67	0	179	1583
8:00 AM	0	124	20	0	144	20	0	18	0	38	19	132	0	0	151	13	3	6	0	22	355
8:15 AM	0	106	30	0	136	17	0	17	0	34	23	148	0	0	171	8	5	11	0	24	365
8:30 AM	0	109	28	0	137	13	0	12	0	25	22	138	0	0	160	6	6	8	0	20	342
8:45 AM	0	105	13	0	118	17	0	11	0	28	17	154	0	0	171	8	4	6	0	18	335
Total	0	444	91	0	535	67	0	58	0	125	81	572	0	0	653	35	18	31	0	84	1397
Grand Total	0	1324	253	0	1577	200	0	177	0	377	223	1746	0	0	1969	192	47	162	0	401	4324
Approach %	0.0	84.0	16.0	0.0		53.1	0.0	46.9	0.0		11.3	88.7	0.0	0.0		47.9	11.7	40.4	0.0		
Total %	0.0	30.6	5.9	0.0	36.5	4.6	0.0	4.1	0.0	8.7	5.2	40.4	0.0	0.0	45.5	4.4	1.1	3.7	0.0	9.3	
Exiting Leg Total					2108					523					1693					0	4324

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:45 AM	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:45 AM	0	103	24	0	127	15	0	28	0	43	24	161	0	0	185	22	5	23	0	50	405
7:00 AM	0	117	32	0	149	28	0	7	0	35	14	143	0	0	157	22	7	24	0	53	394
7:15 AM	0	116	25	0	141	19	0	21	0	40	21	147	0	0	168	26	5	21	0	52	401
7:30 AM	0	129	21	0	150	23	0	20	0	43	20	161	0	0	181	34	2	14	0	50	424
Total Volume	0	465	102	0	567	85	0	76	0	161	79	612	0	0	691	104	19	82	0	205	1624
% Approach Total	0.0	82.0	18.0	0.0		52.8	0.0	47.2	0.0		11.4	88.6	0.0	0.0		50.7	9.3	40.0	0.0		
PHF	0.000	0.901	0.797	0.000	0.945	0.759	0.000	0.679	0.000	0.936	0.823	0.950	0.000	0.000	0.934	0.765	0.679	0.854	0.000	0.967	0.958
Entering Leg	0	465	102	0	567	85	0	76	0	161	79	612	0	0	691	104	19	82	0	205	1624
Exiting Leg					779					200					645					0	1624
Total					1346					361					1336					205	3248

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	9	0	0	9	3	0	2	0	5	1	8	0	0	9	0	0	1	0	1	24
6:15 AM	0	11	0	0	11	4	0	0	0	4	0	11	0	0	11	0	0	0	0	0	26
6:30 AM	0	13	2	0	15	3	0	1	0	4	0	7	0	0	7	0	0	0	0	0	26
6:45 AM	0	9	0	0	9	5	0	1	0	6	0	5	0	0	5	0	0	0	0	0	20
Total	0	42	2	0	44	15	0	4	0	19	1	31	0	0	32	0	0	1	0	1	96
7:00 AM	0	9	0	0	9	6	0	1	0	7	0	7	0	0	7	0	2	1	0	3	26
7:15 AM	0	12	0	0	12	5	0	1	0	6	0	10	0	0	10	0	0	0	0	0	28
7:30 AM	0	11	1	0	12	5	0	1	0	6	0	9	0	0	9	0	0	1	0	1	28
7:45 AM	0	10	0	0	10	4	0	1	0	5	1	9	0	0	10	0	0	0	0	0	25
Total	0	42	1	0	43	20	0	4	0	24	1	35	0	0	36	0	2	2	0	4	107
8:00 AM	0	12	0	0	12	6	0	0	0	6	0	11	0	0	11	0	1	0	0	1	30
8:15 AM	0	11	0	0	11	6	0	1	0	7	2	12	0	0	14	0	1	0	0	1	33
8:30 AM	0	8	0	0	8	6	0	2	0	8	0	11	0	0	11	0	0	0	0	0	27
8:45 AM	0	14	0	0	14	6	0	1	0	7	0	11	0	0	11	1	1	3	0	5	37
Total	0	45	0	0	45	24	0	4	0	28	2	45	0	0	47	1	3	3	0	7	127
Grand Total	0	129	3	0	132	59	0	12	0	71	4	111	0	0	115	1	5	6	0	12	330
Approach %	0.0	97.7	2.3	0.0		83.1	0.0	16.9	0.0		3.5	96.5	0.0	0.0		8.3	41.7	50.0	0.0		
Total %	0.0	39.1	0.9	0.0	40.0	17.9	0.0	3.6	0.0	21.5	1.2	33.6	0.0	0.0	34.8	0.3	1.5	1.8	0.0	3.6	
Exiting Leg Total					176					12					142					0	330
Buses	0	99	1	0	100	50	0	10	0	60	1	73	0	0	74	0	2	4	0	6	240
% Buses	0.0	76.7	33.3	0.0	75.8	84.7	0.0	83.3	0.0	84.5	25.0	65.8	0.0	0.0	64.3	0.0	40.0	66.7	0.0	50.0	72.7
Exiting Leg Total					127					4					109					0	240
Single-Unit Trucks	0	26	2	0	28	9	0	2	0	11	1	38	0	0	39	1	3	2	0	6	84
% Single-Unit	0.0	20.2	66.7	0.0	21.2	15.3	0.0	16.7	0.0	15.5	25.0	34.2	0.0	0.0	33.9	100.0	60.0	33.3	0.0	50.0	25.5
Exiting Leg Total					49					6					29					0	84
Articulated Trucks	0	4	0	0	4	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	6
% Articulated	0.0	3.1	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	1.8
Exiting Leg Total					0					2					4					0	6

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	12	0	0	12	6	0	0	0	6	0	11	0	0	11	0	1	0	0	1	30
8:15 AM	0	11	0	0	11	6	0	1	0	7	2	12	0	0	14	0	1	0	0	1	33
8:30 AM	0	8	0	0	8	6	0	2	0	8	0	11	0	0	11	0	0	0	0	0	27
8:45 AM	0	14	0	0	14	6	0	1	0	7	0	11	0	0	11	1	1	3	0	5	37
Total Volume	0	45	0	0	45	24	0	4	0	28	2	45	0	0	47	1	3	3	0	7	127
% Approach Total	0.0	100.0	0.0	0.0		85.7	0.0	14.3	0.0		4.3	95.7	0.0	0.0		14.3	42.9	42.9	0.0		
PHF	0.000	0.804	0.000	0.000	0.804	1.000	0.000	0.500	0.000	0.875	0.250	0.938	0.000	0.000	0.839	0.250	0.750	0.250	0.000	0.350	0.858
Buses	0	31	0	0	31	22	0	3	0	25	0	27	0	0	27	0	2	2	0	4	87
Buses %	0.0	68.9	0.0	0.0	68.9	91.7	0.0	75.0	0.0	89.3	0.0	60.0	0.0	0.0	57.4	0.0	66.7	66.7	0.0	57.1	68.5
Single-Unit Trucks	0	10	0	0	10	2	0	1	0	3	1	18	0	0	19	1	1	1	0	3	35
Single-Unit %	0.0	22.2	0.0	0.0	22.2	8.3	0.0	25.0	0.0	10.7	50.0	40.0	0.0	0.0	40.4	100.0	33.3	33.3	0.0	42.9	27.6
Articulated Trucks	0	4	0	0	4	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	5
Articulated %	0.0	8.9	0.0	0.0	8.9	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	3.9
Buses	0	31	0	0	31	22	0	3	0	25	0	27	0	0	27	0	2	2	0	4	87
Single-Unit Trucks	0	10	0	0	10	2	0	1	0	3	1	18	0	0	19	1	1	1	0	3	35
Articulated Trucks	0	4	0	0	4	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	5
Total Entering Leg	0	45	0	0	45	24	0	4	0	28	2	45	0	0	47	1	3	3	0	7	127
Buses					51					2					34					0	87
Single-Unit Trucks					21					2					12					0	35
Articulated Trucks					0					1					4					0	5
Total Exiting Leg					72					5					50					0	127

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	7	0	0	7	2	0	2	0	4	1	3	0	0	4	0	0	0	0	0	15
6:15 AM	0	9	0	0	9	4	0	0	0	4	0	8	0	0	8	0	0	0	0	0	21
6:30 AM	0	9	1	0	10	1	0	1	0	2	0	6	0	0	6	0	0	0	0	0	18
6:45 AM	0	8	0	0	8	5	0	1	0	6	0	5	0	0	5	0	0	0	0	0	19
Total	0	33	1	0	34	12	0	4	0	16	1	22	0	0	23	0	0	0	0	0	73
7:00 AM	0	8	0	0	8	5	0	1	0	6	0	7	0	0	7	0	0	1	0	1	22
7:15 AM	0	8	0	0	8	3	0	0	0	3	0	6	0	0	6	0	0	0	0	0	17
7:30 AM	0	10	0	0	10	4	0	1	0	5	0	5	0	0	5	0	0	1	0	1	21
7:45 AM	0	9	0	0	9	4	0	1	0	5	0	6	0	0	6	0	0	0	0	0	20
Total	0	35	0	0	35	16	0	3	0	19	0	24	0	0	24	0	0	2	0	2	80
8:00 AM	0	7	0	0	7	5	0	0	0	5	0	8	0	0	8	0	0	0	0	0	20
8:15 AM	0	10	0	0	10	6	0	1	0	7	0	5	0	0	5	0	1	0	0	1	23
8:30 AM	0	6	0	0	6	6	0	1	0	7	0	6	0	0	6	0	0	0	0	0	19
8:45 AM	0	8	0	0	8	5	0	1	0	6	0	8	0	0	8	0	1	2	0	3	25
Total	0	31	0	0	31	22	0	3	0	25	0	27	0	0	27	0	2	2	0	4	87
Grand Total	0	99	1	0	100	50	0	10	0	60	1	73	0	0	74	0	2	4	0	6	240
Approach %	0.0	99.0	1.0	0.0		83.3	0.0	16.7	0.0		1.4	98.6	0.0	0.0		0.0	33.3	66.7	0.0		
Total %	0.0	41.3	0.4	0.0	41.7	20.8	0.0	4.2	0.0	25.0	0.4	30.4	0.0	0.0	30.8	0.0	0.8	1.7	0.0	2.5	
Exiting Leg Total					127					4					109					0	240

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	7	0	0	7	5	0	0	0	5	0	8	0	0	8	0	0	0	0	0	20
8:15 AM	0	10	0	0	10	6	0	1	0	7	0	5	0	0	5	0	1	0	0	1	23
8:30 AM	0	6	0	0	6	6	0	1	0	7	0	6	0	0	6	0	0	0	0	0	19
8:45 AM	0	8	0	0	8	5	0	1	0	6	0	8	0	0	8	0	1	2	0	3	25
Total Volume	0	31	0	0	31	22	0	3	0	25	0	27	0	0	27	0	2	2	0	4	87
% Approach Total	0.0	100.0	0.0	0.0		88.0	0.0	12.0	0.0		0.0	100.0	0.0	0.0		0.0	50.0	50.0	0.0		
PHF	0.000	0.775	0.000	0.000	0.775	0.917	0.000	0.750	0.000	0.893	0.000	0.844	0.000	0.000	0.844	0.000	0.500	0.250	0.000	0.333	0.870
Entering Leg	0	31	0	0	31	22	0	3	0	25	0	27	0	0	27	0	2	2	0	4	87
Exiting Leg					51					2					34					0	87
Total					82					27					61					4	174

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	2	0	0	2	1	0	0	0	1	0	5	0	0	5	0	0	1	0	1	9
6:15 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
6:30 AM	0	4	1	0	5	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	8
6:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	9	1	0	10	3	0	0	0	3	0	9	0	0	9	0	0	1	0	1	23
7:00 AM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	4
7:15 AM	0	4	0	0	4	2	0	1	0	3	0	4	0	0	4	0	0	0	0	0	11
7:30 AM	0	1	1	0	2	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	7
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
Total	0	7	1	0	8	4	0	1	0	5	0	11	0	0	11	0	2	0	0	2	26
8:00 AM	0	5	0	0	5	1	0	0	0	1	0	3	0	0	3	0	1	0	0	1	10
8:15 AM	0	1	0	0	1	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	9
8:30 AM	0	2	0	0	2	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	8
8:45 AM	0	2	0	0	2	1	0	0	0	1	0	3	0	0	3	1	0	1	0	2	8
Total	0	10	0	0	10	2	0	1	0	3	1	18	0	0	19	1	1	1	0	3	35
Grand Total	0	26	2	0	28	9	0	2	0	11	1	38	0	0	39	1	3	2	0	6	84
Approach %	0.0	92.9	7.1	0.0		81.8	0.0	18.2	0.0		2.6	97.4	0.0	0.0		16.7	50.0	33.3	0.0		
Total %	0.0	31.0	2.4	0.0	33.3	10.7	0.0	2.4	0.0	13.1	1.2	45.2	0.0	0.0	46.4	1.2	3.6	2.4	0.0	7.1	
Exiting Leg Total					49					6					29					0	84

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	5	0	0	5	1	0	0	0	1	0	3	0	0	3	0	1	0	0	1	10
8:15 AM	0	1	0	0	1	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	9
8:30 AM	0	2	0	0	2	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	8
8:45 AM	0	2	0	0	2	1	0	0	0	1	0	3	0	0	3	1	0	1	0	2	8
Total Volume	0	10	0	0	10	2	0	1	0	3	1	18	0	0	19	1	1	1	0	3	35
% Approach Total	0.0	100.0	0.0	0.0		66.7	0.0	33.3	0.0		5.3	94.7	0.0	0.0		33.3	33.3	33.3	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.500	0.000	0.250	0.000	0.750	0.250	0.643	0.000	0.000	0.594	0.250	0.250	0.250	0.000	0.375	0.875
Entering Leg	0	10	0	0	10	2	0	1	0	3	1	18	0	0	19	1	1	1	0	3	35
Exiting Leg					21					2					12					0	35
Total					31					5					31					3	70

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Articulated Trucks**

	Brookline Avenue					Jimmy Fund Way					Brookline Avenue					Deaconess Road					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	4	0	0	4	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	5
Grand Total	0	4	0	0	4	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	6
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					2					4					0	6

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue					Jimmy Fund Way					Brookline Avenue					Deaconess Road					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	4	0	0	4	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	5
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.313
Entering Leg	0	4	0	0	4	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	5
Exiting Leg					0					1					4					0	5
Total					4					1					5					0	10

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Bicycles (on Roadway and Crosswalks)

	Brookline Avenue from North							Jimmy Fund Way from East							Brookline Avenue from South							Deaconess Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	0	0	0	0	0	0	0	3
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	3
6:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	3
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	6	0	0	0	0	0	0	0	6
Total	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3	10	0	0	0	1	14	0	0	0	0	0	0	0	15
7:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
7:15 AM	0	3	1	0	0	0	4	3	0	0	0	0	2	5	2	3	0	0	0	1	6	0	0	0	0	0	0	0	15
7:30 AM	0	5	1	0	0	0	6	1	0	0	0	0	1	2	2	2	0	0	0	0	4	0	0	0	0	1	0	1	13
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	6	0	0	0	0	6	0	0	0	0	0	0	0	8
Total	0	9	2	0	0	0	11	5	0	0	0	0	4	9	4	12	0	0	0	1	17	0	0	0	0	1	0	1	38
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
8:15 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	3	0	0	0	0	4	1	0	0	0	0	0	1	7
8:30 AM	0	2	0	0	0	0	2	0	0	0	0	0	2	2	0	6	0	0	0	0	6	0	2	0	0	1	1	4	14
8:45 AM	0	3	0	0	0	0	3	1	0	0	0	0	0	1	0	10	0	0	0	0	10	0	1	0	0	0	0	1	15
Total	0	7	0	0	0	0	7	1	0	0	0	0	2	3	1	20	0	0	0	0	21	1	3	0	0	1	1	6	37
Grand Total	0	17	2	0	0	0	19	6	0	0	0	0	6	12	8	42	0	0	0	2	52	1	3	0	0	2	1	7	90
Approach %	0.0	89.5	10.5	0.0	0.0	0.0		50.0	0.0	0.0	0.0	0.0	50.0		15.4	80.8	0.0	0.0	0.0	3.8		14.3	42.9	0.0	0.0	28.6	14.3		
Total %	0.0	18.9	2.2	0.0	0.0	0.0	21.1	6.7	0.0	0.0	0.0	0.0	6.7	13.3	8.9	46.7	0.0	0.0	0.0	2.2	57.8	1.1	3.3	0.0	0.0	2.2	1.1	7.8	
Exiting Leg Total							48							19							20							3	90

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:00 AM	Brookline Avenue from North							Jimmy Fund Way from East							Brookline Avenue from South							Deaconess Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
7:15 AM	0	3	1	0	0	0	4	3	0	0	0	0	2	5	2	3	0	0	0	1	6	0	0	0	0	0	0	0	15
7:30 AM	0	5	1	0	0	0	6	1	0	0	0	0	1	2	2	2	0	0	0	0	4	0	0	0	0	1	0	1	13
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	6	0	0	0	0	6	0	0	0	0	0	0	0	8
Total Volume	0	9	2	0	0	0	11	5	0	0	0	0	4	9	4	12	0	0	0	1	17	0	0	0	0	1	0	1	38
% Approach Total	0.0	81.8	18.2	0.0	0.0	0.0		55.6	0.0	0.0	0.0	0.0	44.4		23.5	70.6	0.0	0.0	0.0	5.9		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.450	0.500	0.000	0.000	0.000	0.458	0.417	0.000	0.000	0.000	0.000	0.500	0.450	0.500	0.500	0.000	0.000	0.000	0.250	0.708	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.633
Entering Leg	0	9	2	0	0	0	11	5	0	0	0	0	4	9	4	12	0	0	0	1	17	0	0	0	0	1	0	1	38
Exiting Leg							17							10							10							1	38
Total							28							19							27							2	76

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Brookline Avenue from North							Jimmy Fund Way from East							Brookline Avenue from South							Deaconess Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	4	8	12	0	0	0	0	3	3	6	0	0	0	0	8	5	13	0	0	0	0	3	13	16	47
6:15 AM	0	0	0	0	14	8	22	0	0	0	0	7	3	10	0	0	0	0	4	3	7	0	0	0	0	4	19	23	62
6:30 AM	0	0	0	0	17	21	38	0	0	0	0	18	9	27	0	0	0	0	8	12	20	0	0	0	0	5	42	47	132
6:45 AM	0	0	0	0	11	11	22	0	0	0	0	20	8	28	0	0	0	0	8	8	16	0	0	0	0	10	38	48	114
Total	0	0	0	0	46	48	94	0	0	0	0	48	23	71	0	0	0	0	28	28	56	0	0	0	0	22	112	134	355
7:00 AM	0	0	0	0	12	5	17	0	0	0	0	13	12	25	0	0	0	0	8	0	8	0	0	0	0	8	19	27	77
7:15 AM	0	0	0	0	14	4	18	0	0	0	0	11	12	23	0	0	0	0	3	7	10	0	0	0	0	10	30	40	91
7:30 AM	0	0	0	0	16	8	24	0	0	0	0	17	8	25	0	0	0	0	4	12	16	0	0	0	0	12	27	39	104
7:45 AM	0	0	0	0	14	6	20	0	0	0	0	19	28	47	0	0	0	0	3	11	14	0	0	0	0	12	29	41	122
Total	0	0	0	0	56	23	79	0	0	0	0	60	60	120	0	0	0	0	18	30	48	0	0	0	0	42	105	147	394
8:00 AM	0	0	0	0	17	9	26	0	0	0	0	12	11	23	0	0	0	0	5	3	8	0	0	0	0	12	20	32	89
8:15 AM	0	0	0	0	16	12	28	0	0	0	0	18	24	42	0	0	0	0	3	6	9	0	0	0	0	15	17	32	111
8:30 AM	0	0	0	0	16	13	29	0	0	0	0	14	10	24	0	0	0	0	3	6	9	0	0	0	0	18	20	38	100
8:45 AM	0	0	0	0	21	9	30	0	0	0	0	15	23	38	0	0	0	0	7	9	16	0	0	0	0	18	14	32	116
Total	0	0	0	0	70	43	113	0	0	0	0	59	68	127	0	0	0	0	18	24	42	0	0	0	0	63	71	134	416
Grand Total	0	0	0	0	172	114	286	0	0	0	0	167	151	318	0	0	0	0	64	82	146	0	0	0	0	127	288	415	1165
Approach %	0	0	0	0	60.1	39.9		0	0	0	0	52.5	47.5		0	0	0	0	43.8	56.2		0	0	0	0	30.6	69.4		
Total %	0	0	0	0	14.8	9.79	24.5	0	0	0	0	14.3	13	27.3	0	0	0	0	5.49	7.04	12.5	0	0	0	0	10.9	24.7	35.6	
Exiting Leg Total							286							318							146							415	1165

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Brookline Avenue from North							Jimmy Fund Way from East							Brookline Avenue from South							Deaconess Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:30 AM	0	0	0	0	16	8	24	0	0	0	0	17	8	25	0	0	0	0	4	12	16	0	0	0	0	12	27	39	104
7:45 AM	0	0	0	0	14	6	20	0	0	0	0	19	28	47	0	0	0	0	3	11	14	0	0	0	0	12	29	41	122
8:00 AM	0	0	0	0	17	9	26	0	0	0	0	12	11	23	0	0	0	0	5	3	8	0	0	0	0	12	20	32	89
8:15 AM	0	0	0	0	16	12	28	0	0	0	0	18	24	42	0	0	0	0	3	6	9	0	0	0	0	15	17	32	111
Total Volume	0	0	0	0	63	35	98	0	0	0	0	66	71	137	0	0	0	0	15	32	47	0	0	0	0	51	93	144	426
% Approach Total	0.0	0.0	0.0	0.0	64.3	35.7		0.0	0.0	0.0	0.0	48.2	51.8		0.0	0.0	0.0	0.0	31.9	68.1		0.0	0.0	0.0	0.0	35.4	64.6		
PHF	0.000	0.000	0.000	0.000	0.926	0.729	0.875	0.000	0.000	0.000	0.000	0.868	0.634	0.729	0.000	0.000	0.000	0.000	0.750	0.667	0.734	0.000	0.000	0.000	0.000	0.850	0.802	0.878	0.873
Entering Leg	0	0	0	0	63	35	98	0	0	0	0	66	71	137	0	0	0	0	15	32	47	0	0	0	0	51	93	144	426
Exiting Leg							98							137							47							144	426
Total							196							274							94							288	852

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	149	12	1	162	21	0	35	0	56	7	93	0	0	100	23	5	15	0	43	361
3:15 PM	0	153	18	0	171	36	0	36	0	72	16	116	0	0	132	31	6	16	0	53	428
3:30 PM	0	153	8	0	161	36	0	27	0	63	15	100	0	0	115	23	7	20	0	50	389
3:45 PM	0	173	16	0	189	31	0	28	0	59	6	120	0	0	126	28	8	19	0	55	429
Total	0	628	54	1	683	124	0	126	0	250	44	429	0	0	473	105	26	70	0	201	1607
4:00 PM	0	192	9	0	201	21	0	38	0	59	11	140	0	0	151	23	1	8	1	33	444
4:15 PM	0	186	8	0	194	30	0	31	0	61	11	80	0	0	91	22	9	12	0	43	389
4:30 PM	0	175	8	0	183	26	0	28	0	54	11	124	0	0	135	22	3	12	0	37	409
4:45 PM	0	152	9	0	161	22	0	32	0	54	3	106	0	0	109	35	4	15	0	54	378
Total	0	705	34	0	739	99	0	129	0	228	36	450	0	0	486	102	17	47	1	167	1620
5:00 PM	0	173	12	0	185	25	0	34	0	59	13	124	0	0	137	32	2	8	0	42	423
5:15 PM	1	158	9	0	168	34	0	45	0	79	5	107	0	0	112	44	2	12	0	58	417
5:30 PM	0	177	11	0	188	22	0	29	0	51	7	129	0	0	136	28	2	10	0	40	415
5:45 PM	0	147	6	0	153	30	0	30	0	60	6	124	0	0	130	26	1	10	0	37	380
Total	1	655	38	0	694	111	0	138	0	249	31	484	0	0	515	130	7	40	0	177	1635
Grand Total	1	1988	126	1	2116	334	0	393	0	727	111	1363	0	0	1474	337	50	157	1	545	4862
Approach %	0.0	94.0	6.0	0.0		45.9	0.0	54.1	0.0		7.5	92.5	0.0	0.0		61.8	9.2	28.8	0.2		
Total %	0.0	40.9	2.6	0.0	43.5	6.9	0.0	8.1	0.0	15.0	2.3	28.0	0.0	0.0	30.3	6.9	1.0	3.2	0.0	11.2	
Exiting Leg Total					1855					287					2718					2	4862
Cars	1	1905	124	1	2031	290	0	382	0	672	106	1319	0	0	1425	334	47	151	1	533	4661
% Cars	100.0	95.8	98.4	100.0	96.0	86.8	0.0	97.2	0.0	92.4	95.5	96.8	0.0	0.0	96.7	99.1	94.0	96.2	100.0	97.8	95.9
Exiting Leg Total					1761					277					2621					2	4661
Heavy Vehicles	0	83	2	0	85	44	0	11	0	55	5	44	0	0	49	3	3	6	0	12	201
% Heavy Vehicles	0.0	4.2	1.6	0.0	4.0	13.2	0.0	2.8	0.0	7.6	4.5	3.2	0.0	0.0	3.3	0.9	6.0	3.8	0.0	2.2	4.1
Exiting Leg Total					94					10					97					0	201

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:15 PM	0	153	18	0	171	36	0	36	0	72	16	116	0	0	132	31	6	16	0	53	428
3:30 PM	0	153	8	0	161	36	0	27	0	63	15	100	0	0	115	23	7	20	0	50	389
3:45 PM	0	173	16	0	189	31	0	28	0	59	6	120	0	0	126	28	8	19	0	55	429
4:00 PM	0	192	9	0	201	21	0	38	0	59	11	140	0	0	151	23	1	8	1	33	444
Total Volume	0	671	51	0	722	124	0	129	0	253	48	476	0	0	524	105	22	63	1	191	1690
% Approach Total	0.0	92.9	7.1	0.0		49.0	0.0	51.0	0.0		9.2	90.8	0.0	0.0		55.0	11.5	33.0	0.5		
PHF	0.000	0.874	0.708	0.000	0.898	0.861	0.000	0.849	0.000	0.878	0.750	0.850	0.000	0.000	0.868	0.847	0.688	0.788	0.250	0.868	0.952
Cars	0	644	51	0	695	106	0	124	0	230	45	461	0	0	506	104	19	62	1	186	1617
Cars %	0.0	96.0	100.0	0.0	96.3	85.5	0.0	96.1	0.0	90.9	93.8	96.8	0.0	0.0	96.6	99.0	86.4	98.4	100.0	97.4	95.7
Heavy Vehicles	0	27	0	0	27	18	0	5	0	23	3	15	0	0	18	1	3	1	0	5	73
Heavy Vehicles %	0.0	4.0	0.0	0.0	3.7	14.5	0.0	3.9	0.0	9.1	6.3	3.2	0.0	0.0	3.4	1.0	13.6	1.6	0.0	2.6	4.3
Cars Enter Leg	0	644	51	0	695	106	0	124	0	230	45	461	0	0	506	104	19	62	1	186	1617
Heavy Enter Leg	0	27	0	0	27	18	0	5	0	23	3	15	0	0	18	1	3	1	0	5	73
Total Entering Leg	0	671	51	0	722	124	0	129	0	253	48	476	0	0	524	105	22	63	1	191	1690
Cars Exiting Leg					629					115					872					1	1617
Heavy Exiting Leg					34					6					33					0	73
Total Exiting Leg					663					121					905					1	1690

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	145	11	1	157	19	0	35	0	54	7	91	0	0	98	22	5	15	0	42	351
3:15 PM	0	147	18	0	165	31	0	34	0	65	15	112	0	0	127	31	5	15	0	51	408
3:30 PM	0	145	8	0	153	32	0	26	0	58	13	95	0	0	108	22	6	20	0	48	367
3:45 PM	0	168	16	0	184	26	0	27	0	53	6	117	0	0	123	28	7	19	0	54	414
Total	0	605	53	1	659	108	0	122	0	230	41	415	0	0	456	103	23	69	0	195	1540
4:00 PM	0	184	9	0	193	17	0	37	0	54	11	137	0	0	148	23	1	8	1	33	428
4:15 PM	0	181	8	0	189	27	0	31	0	58	10	78	0	0	88	22	9	11	0	42	377
4:30 PM	0	165	8	0	173	23	0	27	0	50	11	117	0	0	128	22	3	11	0	36	387
4:45 PM	0	144	9	0	153	18	0	30	0	48	3	105	0	0	108	35	4	14	0	53	362
Total	0	674	34	0	708	85	0	125	0	210	35	437	0	0	472	102	17	44	1	164	1554
5:00 PM	0	164	12	0	176	21	0	33	0	54	13	118	0	0	131	32	2	8	0	42	403
5:15 PM	1	152	9	0	162	32	0	45	0	77	5	103	0	0	108	44	2	11	0	57	404
5:30 PM	0	170	11	0	181	17	0	28	0	45	7	126	0	0	133	28	2	10	0	40	399
5:45 PM	0	140	5	0	145	27	0	29	0	56	5	120	0	0	125	25	1	9	0	35	361
Total	1	626	37	0	664	97	0	135	0	232	30	467	0	0	497	129	7	38	0	174	1567
Grand Total	1	1905	124	1	2031	290	0	382	0	672	106	1319	0	0	1425	334	47	151	1	533	4661
Approach %	0.0	93.8	6.1	0.0		43.2	0.0	56.8	0.0		7.4	92.6	0.0	0.0		62.7	8.8	28.3	0.2		
Total %	0.0	40.9	2.7	0.0	43.6	6.2	0.0	8.2	0.0	14.4	2.3	28.3	0.0	0.0	30.6	7.2	1.0	3.2	0.0	11.4	
Exiting Leg Total					1761					277					2621					2	4661

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:15 PM	0	147	18	0	165	31	0	34	0	65	15	112	0	0	127	31	5	15	0	51	408
3:30 PM	0	145	8	0	153	32	0	26	0	58	13	95	0	0	108	22	6	20	0	48	367
3:45 PM	0	168	16	0	184	26	0	27	0	53	6	117	0	0	123	28	7	19	0	54	414
4:00 PM	0	184	9	0	193	17	0	37	0	54	11	137	0	0	148	23	1	8	1	33	428
Total Volume	0	644	51	0	695	106	0	124	0	230	45	461	0	0	506	104	19	62	1	186	1617
% Approach Total	0.0	92.7	7.3	0.0		46.1	0.0	53.9	0.0		8.9	91.1	0.0	0.0		55.9	10.2	33.3	0.5		
PHF	0.000	0.875	0.708	0.000	0.900	0.828	0.000	0.838	0.000	0.885	0.750	0.841	0.000	0.000	0.855	0.839	0.679	0.775	0.250	0.861	0.945
Entering Leg	0	644	51	0	695	106	0	124	0	230	45	461	0	0	506	104	19	62	1	186	1617
Exiting Leg					629					115					872					1	1617
Total					1324					345					1378					187	3234

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	4	1	0	5	2	0	0	0	2	0	2	0	0	2	1	0	0	0	1	10
3:15 PM	0	6	0	0	6	5	0	2	0	7	1	4	0	0	5	0	1	1	0	2	20
3:30 PM	0	8	0	0	8	4	0	1	0	5	2	5	0	0	7	1	1	0	0	2	22
3:45 PM	0	5	0	0	5	5	0	1	0	6	0	3	0	0	3	0	1	0	0	1	15
Total	0	23	1	0	24	16	0	4	0	20	3	14	0	0	17	2	3	1	0	6	67
4:00 PM	0	8	0	0	8	4	0	1	0	5	0	3	0	0	3	0	0	0	0	0	16
4:15 PM	0	5	0	0	5	3	0	0	0	3	1	2	0	0	3	0	0	1	0	1	12
4:30 PM	0	10	0	0	10	3	0	1	0	4	0	7	0	0	7	0	0	1	0	1	22
4:45 PM	0	8	0	0	8	4	0	2	0	6	0	1	0	0	1	0	0	1	0	1	16
Total	0	31	0	0	31	14	0	4	0	18	1	13	0	0	14	0	0	3	0	3	66
5:00 PM	0	9	0	0	9	4	0	1	0	5	0	6	0	0	6	0	0	0	0	0	20
5:15 PM	0	6	0	0	6	2	0	0	0	2	0	4	0	0	4	0	0	1	0	1	13
5:30 PM	0	7	0	0	7	5	0	1	0	6	0	3	0	0	3	0	0	0	0	0	16
5:45 PM	0	7	1	0	8	3	0	1	0	4	1	4	0	0	5	1	0	1	0	2	19
Total	0	29	1	0	30	14	0	3	0	17	1	17	0	0	18	1	0	2	0	3	68
Grand Total	0	83	2	0	85	44	0	11	0	55	5	44	0	0	49	3	3	6	0	12	201
Approach %	0.0	97.6	2.4	0.0		80.0	0.0	20.0	0.0		10.2	89.8	0.0	0.0		25.0	25.0	50.0	0.0		
Total %	0.0	41.3	1.0	0.0	42.3	21.9	0.0	5.5	0.0	27.4	2.5	21.9	0.0	0.0	24.4	1.5	1.5	3.0	0.0	6.0	
Exiting Leg Total					94					10					97					0	201
Buses	0	78	1	0	79	41	0	11	0	52	4	31	0	0	35	2	2	4	0	8	174
% Buses	0.0	94.0	50.0	0.0	92.9	93.2	0.0	100.0	0.0	94.5	80.0	70.5	0.0	0.0	71.4	66.7	66.7	66.7	0.0	66.7	86.6
Exiting Leg Total					76					7					91					0	174
Single-Unit Trucks	0	5	1	0	6	3	0	0	0	3	1	10	0	0	11	1	1	2	0	4	24
% Single-Unit	0.0	6.0	50.0	0.0	7.1	6.8	0.0	0.0	0.0	5.5	20.0	22.7	0.0	0.0	22.4	33.3	33.3	33.3	0.0	33.3	11.9
Exiting Leg Total					15					3					6					0	24
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	1.5
Exiting Leg Total					3					0					0					0	3

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:15 PM	0	6	0	0	6	5	0	2	0	7	1	4	0	0	5	0	1	1	0	2	20
3:30 PM	0	8	0	0	8	4	0	1	0	5	2	5	0	0	7	1	1	0	0	2	22
3:45 PM	0	5	0	0	5	5	0	1	0	6	0	3	0	0	3	0	1	0	0	1	15
4:00 PM	0	8	0	0	8	4	0	1	0	5	0	3	0	0	3	0	0	0	0	0	16
Total Volume	0	27	0	0	27	18	0	5	0	23	3	15	0	0	18	1	3	1	0	5	73
% Approach Total	0.0	100.0	0.0	0.0		78.3	0.0	21.7	0.0		16.7	83.3	0.0	0.0		20.0	60.0	20.0	0.0		
PHF	0.000	0.844	0.000	0.000	0.844	0.900	0.000	0.625	0.000	0.821	0.375	0.750	0.000	0.000	0.643	0.250	0.750	0.250	0.000	0.625	0.830
Buses	0	25	0	0	25	16	0	5	0	21	2	10	0	0	12	1	2	0	0	3	61
Buses %	0.0	92.6	0.0	0.0	92.6	88.9	0.0	100.0	0.0	91.3	66.7	66.7	0.0	0.0	66.7	100.0	66.7	0.0	0.0	60.0	83.6
Single-Unit Trucks	0	2	0	0	2	2	0	0	0	2	1	4	0	0	5	0	1	1	0	2	11
Single-Unit %	0.0	7.4	0.0	0.0	7.4	11.1	0.0	0.0	0.0	8.7	33.3	26.7	0.0	0.0	27.8	0.0	33.3	100.0	0.0	40.0	15.1
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	1.4
Buses	0	25	0	0	25	16	0	5	0	21	2	10	0	0	12	1	2	0	0	3	61
Single-Unit Trucks	0	2	0	0	2	2	0	0	0	2	1	4	0	0	5	0	1	1	0	2	11
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Entering Leg	0	27	0	0	27	18	0	5	0	23	3	15	0	0	18	1	3	1	0	5	73
Buses					26					4					31					0	61
Single-Unit Trucks					7					2					2					0	11
Articulated Trucks					1					0					0					0	1
Total Exiting Leg					34					6					33					0	73

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	3	0	0	3	2	0	0	0	2	0	1	0	0	1	1	0	0	0	1	7
3:15 PM	0	5	0	0	5	4	0	2	0	6	1	2	0	0	3	0	1	0	0	1	15
3:30 PM	0	8	0	0	8	3	0	1	0	4	1	3	0	0	4	1	0	0	0	1	17
3:45 PM	0	5	0	0	5	5	0	1	0	6	0	3	0	0	3	0	1	0	0	1	15
Total	0	21	0	0	21	14	0	4	0	18	2	9	0	0	11	2	2	0	0	4	54
4:00 PM	0	7	0	0	7	4	0	1	0	5	0	2	0	0	2	0	0	0	0	0	14
4:15 PM	0	5	0	0	5	3	0	0	0	3	1	2	0	0	3	0	0	1	0	1	12
4:30 PM	0	10	0	0	10	3	0	1	0	4	0	4	0	0	4	0	0	1	0	1	19
4:45 PM	0	8	0	0	8	4	0	2	0	6	0	0	0	0	0	0	0	0	0	0	14
Total	0	30	0	0	30	14	0	4	0	18	1	8	0	0	9	0	0	2	0	2	59
5:00 PM	0	9	0	0	9	4	0	1	0	5	0	4	0	0	4	0	0	0	0	0	18
5:15 PM	0	5	0	0	5	2	0	0	0	2	0	4	0	0	4	0	0	1	0	1	12
5:30 PM	0	6	0	0	6	4	0	1	0	5	0	2	0	0	2	0	0	0	0	0	13
5:45 PM	0	7	1	0	8	3	0	1	0	4	1	4	0	0	5	0	0	1	0	1	18
Total	0	27	1	0	28	13	0	3	0	16	1	14	0	0	15	0	0	2	0	2	61
Grand Total	0	78	1	0	79	41	0	11	0	52	4	31	0	0	35	2	2	4	0	8	174
Approach %	0.0	98.7	1.3	0.0		78.8	0.0	21.2	0.0		11.4	88.6	0.0	0.0		25.0	25.0	50.0	0.0		
Total %	0.0	44.8	0.6	0.0	45.4	23.6	0.0	6.3	0.0	29.9	2.3	17.8	0.0	0.0	20.1	1.1	1.1	2.3	0.0	4.6	
Exiting Leg Total					76					7					91					0	174

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:15 PM	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	0	5	0	0	5	3	0	0	0	3	1	2	0	0	3	0	0	1	0	1	12
4:30 PM	0	10	0	0	10	3	0	1	0	4	0	4	0	0	4	0	0	1	0	1	19
4:45 PM	0	8	0	0	8	4	0	2	0	6	0	0	0	0	0	0	0	0	0	0	14
5:00 PM	0	9	0	0	9	4	0	1	0	5	0	4	0	0	4	0	0	0	0	0	18
Total Volume	0	32	0	0	32	14	0	4	0	18	1	10	0	0	11	0	0	2	0	2	63
% Approach Total	0.0	100.0	0.0	0.0		77.8	0.0	22.2	0.0		9.1	90.9	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.000	0.800	0.000	0.000	0.800	0.875	0.000	0.500	0.000	0.750	0.250	0.625	0.000	0.000	0.688	0.000	0.000	0.500	0.000	0.500	0.829
Entering Leg	0	32	0	0	32	14	0	4	0	18	1	10	0	0	11	0	0	2	0	2	63
Exiting Leg					26					1					36					0	63
Total					58					19					47					2	126

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Single-Unit Trucks

	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
3:15 PM	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	0	0	1	0	1	5
3:30 PM	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2	0	1	0	0	1	4
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	1	0	3	2	0	0	0	2	1	4	0	0	5	0	1	1	0	2	12
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	2	0	0	2	1	0	0	0	1	0	3	0	0	3	1	0	0	0	1	7
Grand Total	0	5	1	0	6	3	0	0	0	3	1	10	0	0	11	1	1	2	0	4	24
Approach %	0.0	83.3	16.7	0.0		100.0	0.0	0.0	0.0		9.1	90.9	0.0	0.0		25.0	25.0	50.0	0.0		
Total %	0.0	20.8	4.2	0.0	25.0	12.5	0.0	0.0	0.0	12.5	4.2	41.7	0.0	0.0	45.8	4.2	4.2	8.3	0.0	16.7	
Exiting Leg Total					15					3					6					0	24

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
3:15 PM	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	0	0	1	0	1	5
3:30 PM	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2	0	1	0	0	1	4
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	1	0	3	2	0	0	0	2	1	4	0	0	5	0	1	1	0	2	12
% Approach Total	0.0	66.7	33.3	0.0		100.0	0.0	0.0	0.0		20.0	80.0	0.0	0.0		0.0	50.0	50.0	0.0		
PHF	0.000	0.500	0.250	0.000	0.375	0.500	0.000	0.000	0.000	0.500	0.250	0.500	0.000	0.000	0.625	0.000	0.250	0.250	0.000	0.500	0.600
Entering Leg	0	2	1	0	3	2	0	0	0	2	1	4	0	0	5	0	1	1	0	2	12
Exiting Leg					7					3					2					0	12
Total					10					5					7					2	24

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Articulated Trucks**

	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					3					0					0					0	3

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Brookline Avenue from North					Jimmy Fund Way from East					Brookline Avenue from South					Deaconess Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Exiting Leg					2					0					0					0	2
Total					2					0					2					0	4

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Brookline Avenue from North							Jimmy Fund Way from East							Brookline Avenue from South							Deaconess Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	1	0	0	2	1	4	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	6
3:15 PM	0	3	0	0	0	0	3	3	0	0	0	0	0	3	0	1	0	0	0	0	1	0	0	0	0	0	2	2	9
3:30 PM	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	2	3	6
3:45 PM	0	1	0	0	0	0	1	1	0	0	0	1	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	4
Total	0	6	0	0	2	1	9	4	0	2	0	1	0	7	0	3	0	0	0	0	3	2	0	0	0	0	4	6	25
4:00 PM	0	2	0	0	0	1	3	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:15 PM	0	4	0	0	0	1	5	1	0	0	0	0	1	2	0	4	0	0	1	0	5	0	1	0	0	0	0	1	13
4:30 PM	0	6	0	0	0	0	6	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	0	9
4:45 PM	0	3	0	0	0	0	3	1	0	0	0	0	0	1	0	4	0	0	0	0	4	0	0	0	0	0	0	0	8
Total	0	15	0	0	0	2	17	4	0	0	0	0	1	5	0	10	0	0	1	0	11	0	1	0	0	0	0	1	34
5:00 PM	0	2	0	0	0	0	2	4	1	0	0	0	0	5	0	2	0	0	0	0	2	0	0	0	0	0	0	0	9
5:15 PM	0	4	0	0	0	0	4	3	0	0	0	0	0	3	0	2	0	0	0	0	2	0	0	0	0	0	0	0	9
5:30 PM	0	2	0	0	0	0	2	3	0	1	0	0	0	4	0	2	0	0	0	0	2	0	0	0	0	0	0	0	8
5:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	5
Total	0	9	0	0	0	0	9	10	1	1	0	0	0	12	0	10	0	0	0	0	10	0	0	0	0	0	0	0	31
Grand Total	0	30	0	0	2	3	35	18	1	3	0	1	1	24	0	23	0	0	1	0	24	2	1	0	0	0	4	7	90
Approach %	0.0	85.7	0.0	0.0	5.7	8.6		75.0	4.2	12.5	0.0	4.2	4.2		0.0	95.8	0.0	0.0	4.2	0.0		28.6	14.3	0.0	0.0	0.0	57.1		
Total %	0.0	33.3	0.0	0.0	2.2	3.3	38.9	20.0	1.1	3.3	0.0	1.1	1.1	26.7	0.0	25.6	0.0	0.0	1.1	0.0	26.7	2.2	1.1	0.0	0.0	0.0	4.4	7.8	
Exiting Leg Total							46							3							36							5	90

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:15 PM	Brookline Avenue from North							Jimmy Fund Way from East							Brookline Avenue from South							Deaconess Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:15 PM	0	4	0	0	0	1	5	1	0	0	0	0	1	2	0	4	0	0	1	0	5	0	1	0	0	0	0	1	13
4:30 PM	0	6	0	0	0	0	6	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	0	9
4:45 PM	0	3	0	0	0	0	3	1	0	0	0	0	0	1	0	4	0	0	0	0	4	0	0	0	0	0	0	0	8
5:00 PM	0	2	0	0	0	0	2	4	1	0	0	0	0	5	0	2	0	0	0	0	2	0	0	0	0	0	0	0	9
Total Volume	0	15	0	0	0	1	16	7	1	0	0	0	1	9	0	12	0	0	1	0	13	0	1	0	0	0	0	1	39
% Approach Total	0.0	93.8	0.0	0.0	0.0	6.3		77.8	11.1	0.0	0.0	0.0	11.1		0.0	92.3	0.0	0.0	7.7	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.625	0.000	0.000	0.000	0.250	0.667	0.438	0.250	0.000	0.000	0.000	0.250	0.450	0.000	0.750	0.000	0.000	0.250	0.000	0.650	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.750
Entering Leg	0	15	0	0	0	1	16	7	1	0	0	0	1	9	0	12	0	0	1	0	13	0	1	0	0	0	0	1	39
Exiting Leg							20							2							16							1	39
Total							36							11							29							2	78

PDI File #: **239743 H**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Jimmy Fund Way W: Deaconess Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Brookline Avenue from North							Jimmy Fund Way from East							Brookline Avenue from South							Deaconess Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	13	15	28	0	0	0	0	18	12	30	0	0	0	0	3	9	12	0	0	0	0	14	22	36	106
3:15 PM	0	0	0	0	21	13	34	0	0	0	0	14	9	23	0	0	0	0	7	6	13	0	0	0	0	30	21	51	121
3:30 PM	0	0	0	0	30	24	54	0	0	0	0	21	18	39	0	0	0	0	4	8	12	0	0	0	0	27	21	48	153
3:45 PM	0	0	0	0	18	18	36	0	0	0	0	9	17	26	0	0	0	0	4	3	7	0	0	0	0	19	20	39	108
Total	0	0	0	0	82	70	152	0	0	0	0	62	56	118	0	0	0	0	18	26	44	0	0	0	0	90	84	174	488
4:00 PM	0	0	0	0	13	31	44	0	0	0	0	12	16	28	0	0	0	0	6	5	11	0	0	0	0	16	15	31	114
4:15 PM	0	0	0	0	20	21	41	0	0	0	0	14	18	32	0	0	0	0	10	4	14	0	0	0	0	15	23	38	125
4:30 PM	0	0	0	0	19	41	60	0	0	0	0	20	24	44	0	0	0	0	9	4	13	0	0	0	0	19	15	34	151
4:45 PM	0	0	0	0	17	41	58	0	0	0	0	11	30	41	0	0	0	0	12	1	13	0	0	0	0	14	15	29	141
Total	0	0	0	0	69	134	203	0	0	0	0	57	88	145	0	0	0	0	37	14	51	0	0	0	0	64	68	132	531
5:00 PM	0	0	0	0	14	28	42	0	0	0	0	31	26	57	0	0	0	0	4	3	7	0	0	0	0	8	14	22	128
5:15 PM	0	0	0	0	11	25	36	0	0	0	0	21	19	40	0	0	0	0	2	2	4	0	0	0	0	11	19	30	110
5:30 PM	0	0	0	0	18	35	53	0	0	0	0	15	25	40	0	0	0	0	3	2	5	0	0	0	0	14	20	34	132
5:45 PM	0	0	0	0	1	22	23	0	0	0	0	16	15	31	0	0	0	0	2	0	2	0	0	0	0	8	16	24	80
Total	0	0	0	0	44	110	154	0	0	0	0	83	85	168	0	0	0	0	11	7	18	0	0	0	0	41	69	110	450
Grand Total	0	0	0	0	195	314	509	0	0	0	0	202	229	431	0	0	0	0	66	47	113	0	0	0	0	195	221	416	1469
Approach %	0	0	0	0	38.3	61.7		0	0	0	0	46.9	53.1		0	0	0	0	58.4	41.6		0	0	0	0	46.9	53.1		
Total %	0	0	0	0	13.3	21.4	34.6	0	0	0	0	13.8	15.6	29.3	0	0	0	0	4.49	3.2	7.69	0	0	0	0	13.3	15	28.3	
Exiting Leg Total							509							431							113							416	1469

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:15 PM	Brookline Avenue from North							Jimmy Fund Way from East							Brookline Avenue from South							Deaconess Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:15 PM	0	0	0	0	20	21	41	0	0	0	0	14	18	32	0	0	0	0	10	4	14	0	0	0	0	15	23	38	125
4:30 PM	0	0	0	0	19	41	60	0	0	0	0	20	24	44	0	0	0	0	9	4	13	0	0	0	0	19	15	34	151
4:45 PM	0	0	0	0	17	41	58	0	0	0	0	11	30	41	0	0	0	0	12	1	13	0	0	0	0	14	15	29	141
5:00 PM	0	0	0	0	14	28	42	0	0	0	0	31	26	57	0	0	0	0	4	3	7	0	0	0	0	8	14	22	128
Total Volume	0	0	0	0	70	131	201	0	0	0	0	76	98	174	0	0	0	0	35	12	47	0	0	0	0	56	67	123	545
% Approach Total	0.0	0.0	0.0	0.0	34.8	65.2		0.0	0.0	0.0	0.0	43.7	56.3		0.0	0.0	0.0	0.0	74.5	25.5		0.0	0.0	0.0	0.0	45.5	54.5		
PHF	0.000	0.000	0.000	0.000	0.875	0.799	0.838	0.000	0.000	0.000	0.000	0.613	0.817	0.763	0.000	0.000	0.000	0.000	0.729	0.750	0.839	0.000	0.000	0.000	0.000	0.737	0.728	0.809	0.902
Entering Leg	0	0	0	0	70	131	201	0	0	0	0	76	98	174	0	0	0	0	35	12	47	0	0	0	0	56	67	123	545
Exiting Leg							201							174							47							123	545
Total							402							348							94							246	1090

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	3	63	52	0	118	11	4	12	0	27	24	142	3	0	169	1	8	1	0	10	324
6:15 AM	5	58	48	0	111	13	7	24	0	44	31	150	2	1	184	2	15	1	0	18	357
6:30 AM	4	70	54	0	128	13	11	32	0	56	41	172	11	0	224	4	24	1	0	29	437
6:45 AM	13	95	65	0	173	21	19	31	0	71	41	143	4	0	188	5	41	4	0	50	482
Total	25	286	219	0	530	58	41	99	0	198	137	607	20	1	765	12	88	7	0	107	1600
7:00 AM	6	93	50	0	149	19	21	37	0	77	28	152	17	2	199	4	20	2	0	26	451
7:15 AM	3	123	59	0	185	25	16	41	0	82	31	117	7	0	155	4	23	3	0	30	452
7:30 AM	2	138	49	0	189	20	19	33	0	72	46	157	17	0	220	5	17	1	0	23	504
7:45 AM	9	120	55	0	184	19	18	41	0	78	32	123	16	1	172	3	34	2	0	39	473
Total	20	474	213	0	707	83	74	152	0	309	137	549	57	3	746	16	94	8	0	118	1880
8:00 AM	14	117	35	0	166	14	23	29	0	66	28	166	7	1	202	3	35	3	0	41	475
8:15 AM	4	93	47	0	144	24	15	40	0	79	22	163	5	0	190	5	27	4	0	36	449
8:30 AM	9	84	36	0	129	17	18	28	0	63	36	169	11	0	216	6	19	3	0	28	436
8:45 AM	8	94	38	0	140	15	21	34	0	70	32	137	16	0	185	3	27	2	0	32	427
Total	35	388	156	0	579	70	77	131	0	278	118	635	39	1	793	17	108	12	0	137	1787
Grand Total	80	1148	588	0	1816	211	192	382	0	785	392	1791	116	5	2304	45	290	27	0	362	5267
Approach %	4.4	63.2	32.4	0.0		26.9	24.5	48.7	0.0		17.0	77.7	5.0	0.2		12.4	80.1	7.5	0.0		
Total %	1.5	21.8	11.2	0.0	34.5	4.0	3.6	7.3	0.0	14.9	7.4	34.0	2.2	0.1	43.7	0.9	5.5	0.5	0.0	6.9	
Exiting Leg Total					2029					1270					1580					388	5267
Cars	77	1104	494	0	1675	171	186	358	0	715	369	1729	113	5	2216	43	285	25	0	353	4959
% Cars	96.3	96.2	84.0	0.0	92.2	81.0	96.9	93.7	0.0	91.1	94.1	96.5	97.4	100.0	96.2	95.6	98.3	92.6	0.0	97.5	94.2
Exiting Leg Total					1925					1148					1510					376	4959
Heavy Vehicles	3	44	94	0	141	40	6	24	0	70	23	62	3	0	88	2	5	2	0	9	308
% Heavy Vehicles	3.8	3.8	16.0	0.0	7.8	19.0	3.1	6.3	0.0	8.9	5.9	3.5	2.6	0.0	3.8	4.4	1.7	7.4	0.0	2.5	5.8
Exiting Leg Total					104					122					70					12	308

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	3	123	59	0	185	25	16	41	0	82	31	117	7	0	155	4	23	3	0	30	452
7:30 AM	2	138	49	0	189	20	19	33	0	72	46	157	17	0	220	5	17	1	0	23	504
7:45 AM	9	120	55	0	184	19	18	41	0	78	32	123	16	1	172	3	34	2	0	39	473
8:00 AM	14	117	35	0	166	14	23	29	0	66	28	166	7	1	202	3	35	3	0	41	475
Total Volume	28	498	198	0	724	78	76	144	0	298	137	563	47	2	749	15	109	9	0	133	1904
% Approach Total	3.9	68.8	27.3	0.0		26.2	25.5	48.3	0.0		18.3	75.2	6.3	0.3		11.3	82.0	6.8	0.0		
PHF	0.500	0.902	0.839	0.000	0.958	0.780	0.826	0.878	0.000	0.909	0.745	0.848	0.691	0.500	0.851	0.750	0.779	0.750	0.000	0.811	0.944
Cars	27	481	171	0	679	67	74	136	0	277	130	541	46	2	719	14	107	9	0	130	1805
Cars %	96.4	96.6	86.4	0.0	93.8	85.9	97.4	94.4	0.0	93.0	94.9	96.1	97.9	100.0	96.0	93.3	98.2	100.0	0.0	97.7	94.8
Heavy Vehicles	1	17	27	0	45	11	2	8	0	21	7	22	1	0	30	1	2	0	0	3	99
Heavy Vehicles %	3.6	3.4	13.6	0.0	6.2	14.1	2.6	5.6	0.0	7.0	5.1	3.9	2.1	0.0	4.0	6.7	1.8	0.0	0.0	2.3	5.2
Cars Enter Leg	27	481	171	0	679	67	74	136	0	277	130	541	46	2	719	14	107	9	0	130	1805
Heavy Enter Leg	1	17	27	0	45	11	2	8	0	21	7	22	1	0	30	1	2	0	0	3	99
Total Entering Leg	28	498	198	0	724	78	76	144	0	298	137	563	47	2	749	15	109	9	0	133	1904
Cars Exiting Leg					617					408					633					147	1805
Heavy Exiting Leg					33					36					26					4	99
Total Exiting Leg					650					444					659					151	1904

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	3	60	43	0	106	10	4	10	0	24	22	136	3	0	161	1	8	1	0	10	301
6:15 AM	5	55	39	0	99	8	7	22	0	37	30	145	2	1	178	2	15	1	0	18	332
6:30 AM	3	66	46	0	115	9	10	30	0	49	39	167	11	0	217	4	23	1	0	28	409
6:45 AM	12	91	58	0	161	17	18	28	0	63	40	143	4	0	187	4	41	4	0	49	460
Total	23	272	186	0	481	44	39	90	0	173	131	591	20	1	743	11	87	7	0	105	1502
7:00 AM	6	90	43	0	139	16	21	35	0	72	26	146	16	2	190	4	20	2	0	26	427
7:15 AM	3	119	52	0	174	24	16	39	0	79	30	111	7	0	148	3	23	3	0	29	430
7:30 AM	2	133	43	0	178	16	18	32	0	66	44	150	17	0	211	5	16	1	0	22	477
7:45 AM	8	117	48	0	173	14	17	38	0	69	30	121	15	1	167	3	33	2	0	38	447
Total	19	459	186	0	664	70	72	144	0	286	130	528	55	3	716	15	92	8	0	115	1781
8:00 AM	14	112	28	0	154	13	23	27	0	63	26	159	7	1	193	3	35	3	0	41	451
8:15 AM	4	89	38	0	131	18	14	39	0	71	20	158	5	0	183	5	26	3	0	34	419
8:30 AM	9	80	30	0	119	14	17	25	0	56	34	159	11	0	204	6	19	2	0	27	406
8:45 AM	8	92	26	0	126	12	21	33	0	66	28	134	15	0	177	3	26	2	0	31	400
Total	35	373	122	0	530	57	75	124	0	256	108	610	38	1	757	17	106	10	0	133	1676
Grand Total	77	1104	494	0	1675	171	186	358	0	715	369	1729	113	5	2216	43	285	25	0	353	4959
Approach %	4.6	65.9	29.5	0.0		23.9	26.0	50.1	0.0		16.7	78.0	5.1	0.2		12.2	80.7	7.1	0.0		
Total %	1.6	22.3	10.0	0.0	33.8	3.4	3.8	7.2	0.0	14.4	7.4	34.9	2.3	0.1	44.7	0.9	5.7	0.5	0.0	7.1	
Exiting Leg Total					1925					1148					1510					376	4959

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	3	119	52	0	174	24	16	39	0	79	30	111	7	0	148	3	23	3	0	29	430
7:30 AM	2	133	43	0	178	16	18	32	0	66	44	150	17	0	211	5	16	1	0	22	477
7:45 AM	8	117	48	0	173	14	17	38	0	69	30	121	15	1	167	3	33	2	0	38	447
8:00 AM	14	112	28	0	154	13	23	27	0	63	26	159	7	1	193	3	35	3	0	41	451
Total Volume	27	481	171	0	679	67	74	136	0	277	130	541	46	2	719	14	107	9	0	130	1805
% Approach Total	4.0	70.8	25.2	0.0		24.2	26.7	49.1	0.0		18.1	75.2	6.4	0.3		10.8	82.3	6.9	0.0		
PHF	0.482	0.904	0.822	0.000	0.954	0.698	0.804	0.872	0.000	0.877	0.739	0.851	0.676	0.500	0.852	0.700	0.764	0.750	0.000	0.793	0.946
Entering Leg	27	481	171	0	679	67	74	136	0	277	130	541	46	2	719	14	107	9	0	130	1805
Exiting Leg					617					408					633					147	1805
Total					1296					685					1352					277	3610

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	3	9	0	12	1	0	2	0	3	2	6	0	0	8	0	0	0	0	0	23
6:15 AM	0	3	9	0	12	5	0	2	0	7	1	5	0	0	6	0	0	0	0	0	25
6:30 AM	1	4	8	0	13	4	1	2	0	7	2	5	0	0	7	0	1	0	0	1	28
6:45 AM	1	4	7	0	12	4	1	3	0	8	1	0	0	0	1	1	0	0	0	1	22
Total	2	14	33	0	49	14	2	9	0	25	6	16	0	0	22	1	1	0	0	2	98
7:00 AM	0	3	7	0	10	3	0	2	0	5	2	6	1	0	9	0	0	0	0	0	24
7:15 AM	0	4	7	0	11	1	0	2	0	3	1	6	0	0	7	1	0	0	0	1	22
7:30 AM	0	5	6	0	11	4	1	1	0	6	2	7	0	0	9	0	1	0	0	1	27
7:45 AM	1	3	7	0	11	5	1	3	0	9	2	2	1	0	5	0	1	0	0	1	26
Total	1	15	27	0	43	13	2	8	0	23	7	21	2	0	30	1	2	0	0	3	99
8:00 AM	0	5	7	0	12	1	0	2	0	3	2	7	0	0	9	0	0	0	0	0	24
8:15 AM	0	4	9	0	13	6	1	1	0	8	2	5	0	0	7	0	1	1	0	2	30
8:30 AM	0	4	6	0	10	3	1	3	0	7	2	10	0	0	12	0	0	1	0	1	30
8:45 AM	0	2	12	0	14	3	0	1	0	4	4	3	1	0	8	0	1	0	0	1	27
Total	0	15	34	0	49	13	2	7	0	22	10	25	1	0	36	0	2	2	0	4	111
Grand Total	3	44	94	0	141	40	6	24	0	70	23	62	3	0	88	2	5	2	0	9	308
Approach %	2.1	31.2	66.7	0.0		57.1	8.6	34.3	0.0		26.1	70.5	3.4	0.0		22.2	55.6	22.2	0.0		
Total %	1.0	14.3	30.5	0.0	45.8	13.0	1.9	7.8	0.0	22.7	7.5	20.1	1.0	0.0	28.6	0.6	1.6	0.6	0.0	2.9	
Exiting Leg Total					104					122					70					12	308
Buses	0	25	85	0	110	31	1	18	0	50	12	42	1	0	55	0	3	1	0	4	219
% Buses	0.0	56.8	90.4	0.0	78.0	77.5	16.7	75.0	0.0	71.4	52.2	67.7	33.3	0.0	62.5	0.0	60.0	50.0	0.0	44.4	71.1
Exiting Leg Total					74					100					43					2	219
Single-Unit Trucks	3	17	6	0	26	9	5	5	0	19	11	20	2	0	33	2	2	1	0	5	83
% Single-Unit	100.0	38.6	6.4	0.0	18.4	22.5	83.3	20.8	0.0	27.1	47.8	32.3	66.7	0.0	37.5	100.0	40.0	50.0	0.0	55.6	26.9
Exiting Leg Total					30					19					24					10	83
Articulated Trucks	0	2	3	0	5	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	6
% Articulated	0.0	4.5	3.2	0.0	3.5	0.0	0.0	4.2	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
Exiting Leg Total					0					3					3					0	6

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	5	7	0	12	1	0	2	0	3	2	7	0	0	9	0	0	0	0	0	24
8:15 AM	0	4	9	0	13	6	1	1	0	8	2	5	0	0	7	0	1	1	0	2	30
8:30 AM	0	4	6	0	10	3	1	3	0	7	2	10	0	0	12	0	0	1	0	1	30
8:45 AM	0	2	12	0	14	3	0	1	0	4	4	3	1	0	8	0	1	0	0	1	27
Total Volume	0	15	34	0	49	13	2	7	0	22	10	25	1	0	36	0	2	2	0	4	111
% Approach Total	0.0	30.6	69.4	0.0		59.1	9.1	31.8	0.0		27.8	69.4	2.8	0.0		0.0	50.0	50.0	0.0		
PHF	0.000	0.750	0.708	0.000	0.875	0.542	0.500	0.583	0.000	0.688	0.625	0.625	0.250	0.000	0.750	0.000	0.500	0.500	0.000	0.500	0.925
Buses	0	7	28	0	35	8	0	6	0	14	5	19	0	0	24	0	0	1	0	1	74
Buses %	0.0	46.7	82.4	0.0	71.4	61.5	0.0	85.7	0.0	63.6	50.0	76.0	0.0	0.0	66.7	0.0	0.0	50.0	0.0	25.0	66.7
Single-Unit Trucks	0	7	3	0	10	5	2	1	0	8	5	6	1	0	12	0	2	1	0	3	33
Single-Unit %	0.0	46.7	8.8	0.0	20.4	38.5	100.0	14.3	0.0	36.4	50.0	24.0	100.0	0.0	33.3	0.0	100.0	50.0	0.0	75.0	29.7
Articulated Trucks	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Articulated %	0.0	6.7	8.8	0.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
Buses	0	7	28	0	35	8	0	6	0	14	5	19	0	0	24	0	0	1	0	1	74
Single-Unit Trucks	0	7	3	0	10	5	2	1	0	8	5	6	1	0	12	0	2	1	0	3	33
Articulated Trucks	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Entering Leg	0	15	34	0	49	13	2	7	0	22	10	25	1	0	36	0	2	2	0	4	111
Buses					28					33					13					0	74
Single-Unit Trucks					12					10					8					3	33
Articulated Trucks					0					3					1					0	4
Total Exiting Leg					40					46					22					3	111

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Brookline Avenue					Francis Street					Brookline Avenue					Francis Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	2	8	0	10	1	0	2	0	3	1	2	0	0	3	0	0	0	0	0	16
6:15 AM	0	1	8	0	9	5	0	1	0	6	1	3	0	0	4	0	0	0	0	0	19
6:30 AM	0	2	8	0	10	4	0	2	0	6	0	4	0	0	4	0	1	0	0	1	21
6:45 AM	0	3	7	0	10	4	0	1	0	5	1	0	0	0	1	0	0	0	0	0	16
Total	0	8	31	0	39	14	0	6	0	20	3	9	0	0	12	0	1	0	0	1	72
7:00 AM	0	2	7	0	9	3	0	2	0	5	1	5	1	0	7	0	0	0	0	0	21
7:15 AM	0	2	6	0	8	1	0	1	0	2	1	3	0	0	4	0	0	0	0	0	14
7:30 AM	0	4	6	0	10	2	1	1	0	4	1	5	0	0	6	0	1	0	0	1	21
7:45 AM	0	2	7	0	9	3	0	2	0	5	1	1	0	0	2	0	1	0	0	1	17
Total	0	10	26	0	36	9	1	6	0	16	4	14	1	0	19	0	2	0	0	2	73
8:00 AM	0	2	7	0	9	1	0	2	0	3	1	6	0	0	7	0	0	0	0	0	19
8:15 AM	0	3	7	0	10	3	0	1	0	4	1	3	0	0	4	0	0	0	0	0	18
8:30 AM	0	1	6	0	7	1	0	2	0	3	1	7	0	0	8	0	0	1	0	1	19
8:45 AM	0	1	8	0	9	3	0	1	0	4	2	3	0	0	5	0	0	0	0	0	18
Total	0	7	28	0	35	8	0	6	0	14	5	19	0	0	24	0	0	1	0	1	74
Grand Total	0	25	85	0	110	31	1	18	0	50	12	42	1	0	55	0	3	1	0	4	219
Approach %	0.0	22.7	77.3	0.0		62.0	2.0	36.0	0.0		21.8	76.4	1.8	0.0		0.0	75.0	25.0	0.0		
Total %	0.0	11.4	38.8	0.0	50.2	14.2	0.5	8.2	0.0	22.8	5.5	19.2	0.5	0.0	25.1	0.0	1.4	0.5	0.0	1.8	
Exiting Leg Total					74					100					43					2	219

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:15 AM	Brookline Avenue					Francis Street					Brookline Avenue					Francis Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:15 AM	0	1	8	0	9	5	0	1	0	6	1	3	0	0	4	0	0	0	0	0	19
6:30 AM	0	2	8	0	10	4	0	2	0	6	0	4	0	0	4	0	1	0	0	1	21
6:45 AM	0	3	7	0	10	4	0	1	0	5	1	0	0	0	1	0	0	0	0	0	16
7:00 AM	0	2	7	0	9	3	0	2	0	5	1	5	1	0	7	0	0	0	0	0	21
Total Volume	0	8	30	0	38	16	0	6	0	22	3	12	1	0	16	0	1	0	0	1	77
% Approach Total	0.0	21.1	78.9	0.0		72.7	0.0	27.3	0.0		18.8	75.0	6.3	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.667	0.938	0.000	0.950	0.800	0.000	0.750	0.000	0.917	0.750	0.600	0.250	0.000	0.571	0.000	0.250	0.000	0.000	0.250	0.917
Entering Leg	0	8	30	0	38	16	0	6	0	22	3	12	1	0	16	0	1	0	0	1	77
Exiting Leg					28					34					14					1	77
Total					66					56					30					2	154

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	1	1	0	2	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	7
6:15 AM	0	1	1	0	2	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	5
6:30 AM	1	2	0	0	3	0	1	0	0	1	2	1	0	0	3	0	0	0	0	0	7
6:45 AM	1	1	0	0	2	0	1	1	0	2	0	0	0	0	0	1	0	0	0	1	5
Total	2	5	2	0	9	0	2	2	0	4	3	7	0	0	10	1	0	0	0	1	24
7:00 AM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3
7:15 AM	0	2	1	0	3	0	0	1	0	1	0	3	0	0	3	1	0	0	0	1	8
7:30 AM	0	1	0	0	1	2	0	0	0	2	1	2	0	0	3	0	0	0	0	0	6
7:45 AM	1	1	0	0	2	2	1	1	0	4	1	1	1	0	3	0	0	0	0	0	9
Total	1	5	1	0	7	4	1	2	0	7	3	7	1	0	11	1	0	0	0	1	26
8:00 AM	0	3	0	0	3	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	5
8:15 AM	0	1	1	0	2	3	1	0	0	4	1	2	0	0	3	0	1	1	0	2	11
8:30 AM	0	3	0	0	3	2	1	1	0	4	1	3	0	0	4	0	0	0	0	0	11
8:45 AM	0	0	2	0	2	0	0	0	0	0	2	0	1	0	3	0	1	0	0	1	6
Total	0	7	3	0	10	5	2	1	0	8	5	6	1	0	12	0	2	1	0	3	33
Grand Total	3	17	6	0	26	9	5	5	0	19	11	20	2	0	33	2	2	1	0	5	83
Approach %	11.5	65.4	23.1	0.0		47.4	26.3	26.3	0.0		33.3	60.6	6.1	0.0		40.0	40.0	20.0	0.0		
Total %	3.6	20.5	7.2	0.0	31.3	10.8	6.0	6.0	0.0	22.9	13.3	24.1	2.4	0.0	39.8	2.4	2.4	1.2	0.0	6.0	
Exiting Leg Total					30					19					24					10	83

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	1	1	0	0	2	2	1	1	0	4	1	1	1	0	3	0	0	0	0	0	9
8:00 AM	0	3	0	0	3	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	5
8:15 AM	0	1	1	0	2	3	1	0	0	4	1	2	0	0	3	0	1	1	0	2	11
8:30 AM	0	3	0	0	3	2	1	1	0	4	1	3	0	0	4	0	0	0	0	0	11
Total Volume	1	8	1	0	10	7	3	2	0	12	4	7	1	0	12	0	1	1	0	2	36
% Approach Total	10.0	80.0	10.0	0.0		58.3	25.0	16.7	0.0		33.3	58.3	8.3	0.0		0.0	50.0	50.0	0.0		
PHF	0.250	0.667	0.250	0.000	0.833	0.583	0.750	0.500	0.000	0.750	1.000	0.583	0.250	0.000	0.750	0.000	0.250	0.250	0.000	0.250	0.818
Entering Leg	1	8	1	0	10	7	3	2	0	12	4	7	1	0	12	0	1	1	0	2	36
Exiting Leg					15					6					10					5	36
Total					25					18					22					7	72

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Articulated Trucks

	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Grand Total	0	2	3	0	5	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	6
Approach %	0.0	40.0	60.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	33.3	50.0	0.0	83.3	0.0	0.0	16.7	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					3					3					0	6

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
% Approach Total	0.0	25.0	75.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.375	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333
Entering Leg	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Exiting Leg					0					3					1					0	4
Total					4					3					1					0	8

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Brookline Avenue from North							Francis Street from East							Brookline Avenue from South							Francis Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	1	1	0	0	0	2	1	0	0	0	0	0	1	0	3	0	0	0	0	3	0	0	0	0	0	0	0	6
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	1	0	0	0	0	1	3
6:30 AM	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	4
6:45 AM	2	0	0	0	0	0	2	0	1	0	0	0	0	1	0	3	0	0	0	1	4	1	2	0	0	0	2	5	12
Total	3	2	1	0	0	0	6	1	1	0	0	0	0	2	0	8	0	0	0	1	9	2	4	0	0	0	2	8	25
7:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	3
7:15 AM	1	2	0	0	0	0	3	1	0	0	0	0	0	1	0	3	0	0	0	0	3	1	0	0	0	0	2	3	10
7:30 AM	1	3	1	0	0	0	5	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	2	0	0	0	1	3	12
7:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	4
Total	2	6	2	0	0	0	10	1	0	0	0	0	0	1	1	10	1	0	0	0	12	1	2	0	0	0	3	6	29
8:00 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	1	0	0	0	0	1	6
8:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	1	0	0	0	0	1	4
8:30 AM	0	1	0	0	0	0	1	0	0	0	0	1	0	1	0	5	0	0	0	0	5	0	1	0	0	1	0	2	9
8:45 AM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	7	0	0	0	1	8	0	2	1	0	2	1	6	17
Total	0	4	3	0	0	0	7	0	0	0	0	1	0	1	1	15	0	0	1	1	18	0	5	1	0	3	1	10	36
Grand Total	5	12	6	0	0	0	23	2	1	0	0	1	0	4	2	33	1	0	1	2	39	3	11	1	0	3	6	24	90
Approach %	21.7	52.2	26.1	0.0	0.0	0.0		50.0	25.0	0.0	0.0	25.0	0.0		5.1	84.6	2.6	0.0	2.6	5.1		12.5	45.8	4.2	0.0	12.5	25.0		
Total %	5.6	13.3	6.7	0.0	0.0	0.0	25.6	2.2	1.1	0.0	0.0	1.1	0.0	4.4	2.2	36.7	1.1	0.0	1.1	2.2	43.3	3.3	12.2	1.1	0.0	3.3	6.7	26.7	
Exiting Leg Total							36							20							18							16	90

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:45 AM	Brookline Avenue from North							Francis Street from East							Brookline Avenue from South							Francis Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:45 AM	2	0	0	0	0	0	2	0	1	0	0	0	0	1	0	3	0	0	0	1	4	1	2	0	0	0	2	5	12
7:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	3
7:15 AM	1	2	0	0	0	0	3	1	0	0	0	0	0	1	0	3	0	0	0	0	3	1	0	0	0	0	2	3	10
7:30 AM	1	3	1	0	0	0	5	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	2	0	0	0	1	3	12
Total Volume	4	6	1	0	0	0	11	1	1	0	0	0	0	2	1	10	1	0	0	1	13	2	4	0	0	0	5	11	37
% Approach Total	36.4	54.5	9.1	0.0	0.0	0.0		50.0	50.0	0.0	0.0	0.0	0.0		7.7	76.9	7.7	0.0	0.0	7.7		18.2	36.4	0.0	0.0	0.0	45.5		
PHF	0.500	0.500	0.250	0.000	0.000	0.000	0.550	0.250	0.250	0.000	0.000	0.000	0.000	0.500	0.250	0.833	0.250	0.000	0.000	0.250	0.813	0.500	0.500	0.000	0.000	0.000	0.625	0.550	0.771
Entering Leg	4	6	1	0	0	0	11	1	1	0	0	0	0	2	1	10	1	0	0	1	13	2	4	0	0	0	5	11	37
Exiting Leg							11							6							9							11	37
Total							22							8							22							22	74

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Brookline Avenue from North							Francis Street from East							Brookline Avenue from South							Francis Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	4	3	7	0	0	0	0	0	2	2	0	0	0	0	2	1	3	0	0	0	0	4	0	4	16
6:15 AM	0	0	0	0	2	7	9	0	0	0	0	1	6	7	0	0	0	0	4	3	7	0	0	0	0	10	5	15	38
6:30 AM	0	0	0	0	9	9	18	0	0	0	0	2	7	9	0	0	0	0	5	1	6	0	0	0	0	11	1	12	45
6:45 AM	0	0	0	0	9	15	24	0	0	0	0	1	7	8	0	0	0	0	3	6	9	0	0	0	0	18	4	22	63
Total	0	0	0	0	24	34	58	0	0	0	0	4	22	26	0	0	0	0	14	11	25	0	0	0	0	43	10	53	162
7:00 AM	0	0	0	0	5	9	14	0	0	0	0	4	7	11	0	0	0	0	5	2	7	0	0	0	0	9	5	14	46
7:15 AM	0	0	0	0	12	5	17	0	0	0	0	2	5	7	0	0	0	0	3	4	7	0	0	0	0	11	10	21	52
7:30 AM	0	0	0	0	3	10	13	0	0	0	0	7	11	18	0	0	0	0	10	3	13	0	0	0	0	13	9	22	66
7:45 AM	0	0	0	0	6	2	8	0	0	0	0	4	19	23	0	0	0	0	4	3	7	0	0	0	0	11	5	16	54
Total	0	0	0	0	26	26	52	0	0	0	0	17	42	59	0	0	0	0	22	12	34	0	0	0	0	44	29	73	218
8:00 AM	0	0	0	0	3	6	9	0	0	0	0	5	15	20	0	0	0	0	4	6	10	0	0	0	0	9	5	14	53
8:15 AM	0	0	0	0	5	2	7	0	0	0	0	8	36	44	0	0	0	0	0	3	3	0	0	0	0	20	9	29	83
8:30 AM	0	0	0	0	7	4	11	0	0	0	0	8	34	42	0	0	0	0	1	4	5	0	0	0	0	14	10	24	82
8:45 AM	0	0	0	0	3	3	6	0	0	0	0	6	28	34	0	0	0	0	7	1	8	0	0	0	0	16	3	19	67
Total	0	0	0	0	18	15	33	0	0	0	0	27	113	140	0	0	0	0	12	14	26	0	0	0	0	59	27	86	285
Grand Total	0	0	0	0	68	75	143	0	0	0	0	48	177	225	0	0	0	0	48	37	85	0	0	0	0	146	66	212	665
Approach %	0	0	0	0	47.6	52.4		0	0	0	0	21.3	78.7		0	0	0	0	56.5	43.5		0	0	0	0	68.9	31.1		
Total %	0	0	0	0	10.2	11.3	21.5	0	0	0	0	7.22	26.6	33.8	0	0	0	0	7.22	5.56	12.8	0	0	0	0	22	9.92	31.9	
Exiting Leg Total							143							225							85							212	665

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North							Francis Street from East							Brookline Avenue from South							Francis Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	3	6	9	0	0	0	0	5	15	20	0	0	0	0	4	6	10	0	0	0	0	9	5	14	53
8:15 AM	0	0	0	0	5	2	7	0	0	0	0	8	36	44	0	0	0	0	0	3	3	0	0	0	0	20	9	29	83
8:30 AM	0	0	0	0	7	4	11	0	0	0	0	8	34	42	0	0	0	0	1	4	5	0	0	0	0	14	10	24	82
8:45 AM	0	0	0	0	3	3	6	0	0	0	0	6	28	34	0	0	0	0	7	1	8	0	0	0	0	16	3	19	67
Total Volume	0	0	0	0	18	15	33	0	0	0	0	27	113	140	0	0	0	0	12	14	26	0	0	0	0	59	27	86	285
% Approach Total	0.0	0.0	0.0	0.0	54.5	45.5		0.0	0.0	0.0	0.0	19.3	80.7		0.0	0.0	0.0	0.0	46.2	53.8		0.0	0.0	0.0	0.0	68.6	31.4		
PHF	0.000	0.000	0.000	0.000	0.643	0.625	0.750	0.000	0.000	0.000	0.000	0.844	0.785	0.795	0.000	0.000	0.000	0.000	0.429	0.583	0.650	0.000	0.000	0.000	0.000	0.738	0.675	0.741	0.858
Entering Leg	0	0	0	0	18	15	33	0	0	0	0	27	113	140	0	0	0	0	12	14	26	0	0	0	0	59	27	86	285
Exiting Leg							33							140							26							86	285
Total							66							280							52							172	570

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	5	162	38	0	205	28	14	48	0	90	27	77	15	1	120	7	21	7	0	35	450
3:15 PM	10	152	42	0	204	29	27	56	0	112	16	73	8	0	97	15	17	13	0	45	458
3:30 PM	6	178	33	0	217	21	18	59	0	98	15	92	9	0	116	16	11	0	1	28	459
3:45 PM	7	163	46	0	216	31	18	62	0	111	19	83	10	0	112	11	14	8	0	33	472
Total	28	655	159	0	842	109	77	225	0	411	77	325	42	1	445	49	63	28	1	141	1839
4:00 PM	7	213	32	1	253	17	18	44	0	79	13	102	12	1	128	10	13	6	0	29	489
4:15 PM	8	214	21	0	243	20	24	66	0	110	13	64	5	0	82	5	22	10	0	37	472
4:30 PM	4	193	26	0	223	23	23	55	0	101	20	109	9	2	140	7	10	3	0	20	484
4:45 PM	4	185	30	0	219	19	17	64	0	100	21	87	11	0	119	11	13	3	0	27	465
Total	23	805	109	1	938	79	82	229	0	390	67	362	37	3	469	33	58	22	0	113	1910
5:00 PM	6	214	39	0	259	25	25	70	0	120	17	84	11	1	113	6	8	6	0	20	512
5:15 PM	6	207	25	0	238	19	20	60	0	99	17	99	8	2	126	13	9	4	0	26	489
5:30 PM	0	211	34	0	245	14	22	55	0	91	24	99	12	1	136	9	8	5	0	22	494
5:45 PM	5	171	21	0	197	20	9	53	0	82	13	108	11	3	135	5	20	6	0	31	445
Total	17	803	119	0	939	78	76	238	0	392	71	390	42	7	510	33	45	21	0	99	1940
Grand Total	68	2263	387	1	2719	266	235	692	0	1193	215	1077	121	11	1424	115	166	71	1	353	5689
Approach %	2.5	83.2	14.2	0.0		22.3	19.7	58.0	0.0		15.1	75.6	8.5	0.8		32.6	47.0	20.1	0.3		
Total %	1.2	39.8	6.8	0.0	47.8	4.7	4.1	12.2	0.0	21.0	3.8	18.9	2.1	0.2	25.0	2.0	2.9	1.2	0.0	6.2	
Exiting Leg Total					1415					768					3081					425	5689
Cars	67	2219	331	1	2618	263	227	668	0	1158	195	1035	120	11	1361	112	163	68	1	344	5481
% Cars	98.5	98.1	85.5	100.0	96.3	98.9	96.6	96.5	0.0	97.1	90.7	96.1	99.2	100.0	95.6	97.4	98.2	95.8	100.0	97.5	96.3
Exiting Leg Total					1367					689					3010					415	5481
Heavy Vehicles	1	44	56	0	101	3	8	24	0	35	20	42	1	0	63	3	3	3	0	9	208
% Heavy Vehicles	1.5	1.9	14.5	0.0	3.7	1.1	3.4	3.5	0.0	2.9	9.3	3.9	0.8	0.0	4.4	2.6	1.8	4.2	0.0	2.5	3.7
Exiting Leg Total					48					79					71					10	208

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	4	185	30	0	219	19	17	64	0	100	21	87	11	0	119	11	13	3	0	27	465
5:00 PM	6	214	39	0	259	25	25	70	0	120	17	84	11	1	113	6	8	6	0	20	512
5:15 PM	6	207	25	0	238	19	20	60	0	99	17	99	8	2	126	13	9	4	0	26	489
5:30 PM	0	211	34	0	245	14	22	55	0	91	24	99	12	1	136	9	8	5	0	22	494
Total Volume	16	817	128	0	961	77	84	249	0	410	79	369	42	4	494	39	38	18	0	95	1960
% Approach Total	1.7	85.0	13.3	0.0		18.8	20.5	60.7	0.0		16.0	74.7	8.5	0.8		41.1	40.0	18.9	0.0		
PHF	0.667	0.954	0.821	0.000	0.928	0.770	0.840	0.889	0.000	0.854	0.823	0.932	0.875	0.500	0.908	0.750	0.731	0.750	0.000	0.880	0.957
Cars	16	799	108	0	923	77	80	241	0	398	69	355	42	4	470	38	35	18	0	91	1882
Cars %	100.0	97.8	84.4	0.0	96.0	100.0	95.2	96.8	0.0	97.1	87.3	96.2	100.0	100.0	95.1	97.4	92.1	100.0	0.0	95.8	96.0
Heavy Vehicles	0	18	20	0	38	0	4	8	0	12	10	14	0	0	24	1	3	0	0	4	78
Heavy Vehicles %	0.0	2.2	15.6	0.0	4.0	0.0	4.8	3.2	0.0	2.9	12.7	3.8	0.0	0.0	4.9	2.6	7.9	0.0	0.0	4.2	4.0
Cars Enter Leg	16	799	108	0	923	77	80	241	0	398	69	355	42	4	470	38	35	18	0	91	1882
Heavy Enter Leg	0	18	20	0	38	0	4	8	0	12	10	14	0	0	24	1	3	0	0	4	78
Total Entering Leg	16	817	128	0	961	77	84	249	0	410	79	369	42	4	494	39	38	18	0	95	1960
Cars Exiting Leg					450					212					1082					138	1882
Heavy Exiting Leg					14					33					27					4	78
Total Exiting Leg					464					245					1109					142	1960

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	5	160	34	0	199	28	13	46	0	87	26	75	15	1	117	7	21	7	0	35	438
3:15 PM	10	147	38	0	195	29	26	53	0	108	16	70	8	0	94	15	17	11	0	43	440
3:30 PM	6	173	28	0	207	19	18	57	0	94	15	87	9	0	111	16	11	0	1	28	440
3:45 PM	7	162	41	0	210	31	17	60	0	108	17	81	10	0	108	11	14	8	0	33	459
Total	28	642	141	0	811	107	74	216	0	397	74	313	42	1	430	49	63	26	1	139	1777
4:00 PM	7	208	27	1	243	17	18	41	0	76	12	99	12	1	124	8	13	5	0	26	469
4:15 PM	8	213	17	0	238	19	24	64	0	107	12	62	5	0	79	5	22	10	0	37	461
4:30 PM	4	190	20	0	214	23	22	54	0	99	18	103	8	2	131	7	10	3	0	20	464
4:45 PM	4	179	24	0	207	19	17	62	0	98	17	86	11	0	114	11	12	3	0	26	445
Total	23	790	88	1	902	78	81	221	0	380	59	350	36	3	448	31	57	21	0	109	1839
5:00 PM	6	209	35	0	250	25	23	68	0	116	16	77	11	1	105	6	6	6	0	18	489
5:15 PM	6	205	21	0	232	19	20	57	0	96	14	95	8	2	119	12	9	4	0	25	472
5:30 PM	0	206	28	0	234	14	20	54	0	88	22	97	12	1	132	9	8	5	0	22	476
5:45 PM	4	167	18	0	189	20	9	52	0	81	10	103	11	3	127	5	20	6	0	31	428
Total	16	787	102	0	905	78	72	231	0	381	62	372	42	7	483	32	43	21	0	96	1865
Grand Total	67	2219	331	1	2618	263	227	668	0	1158	195	1035	120	11	1361	112	163	68	1	344	5481
Approach %	2.6	84.8	12.6	0.0		22.7	19.6	57.7	0.0		14.3	76.0	8.8	0.8		32.6	47.4	19.8	0.3		
Total %	1.2	40.5	6.0	0.0	47.8	4.8	4.1	12.2	0.0	21.1	3.6	18.9	2.2	0.2	24.8	2.0	3.0	1.2	0.0	6.3	
Exiting Leg Total					1367					689					3010					415	5481

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	4	179	24	0	207	19	17	62	0	98	17	86	11	0	114	11	12	3	0	26	445
5:00 PM	6	209	35	0	250	25	23	68	0	116	16	77	11	1	105	6	6	6	0	18	489
5:15 PM	6	205	21	0	232	19	20	57	0	96	14	95	8	2	119	12	9	4	0	25	472
5:30 PM	0	206	28	0	234	14	20	54	0	88	22	97	12	1	132	9	8	5	0	22	476
Total Volume	16	799	108	0	923	77	80	241	0	398	69	355	42	4	470	38	35	18	0	91	1882
% Approach Total	1.7	86.6	11.7	0.0		19.3	20.1	60.6	0.0		14.7	75.5	8.9	0.9		41.8	38.5	19.8	0.0		
PHF	0.667	0.956	0.771	0.000	0.923	0.770	0.870	0.886	0.000	0.858	0.784	0.915	0.875	0.500	0.890	0.792	0.729	0.750	0.000	0.875	0.962
Entering Leg	16	799	108	0	923	77	80	241	0	398	69	355	42	4	470	38	35	18	0	91	1882
Exiting Leg					450					212					1082					138	1882
Total					1373					610					1552					229	3764

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	2	4	0	6	0	1	2	0	3	1	2	0	0	3	0	0	0	0	0	12
3:15 PM	0	5	4	0	9	0	1	3	0	4	0	3	0	0	3	0	0	2	0	2	18
3:30 PM	0	5	5	0	10	2	0	2	0	4	0	5	0	0	5	0	0	0	0	0	19
3:45 PM	0	1	5	0	6	0	1	2	0	3	2	2	0	0	4	0	0	0	0	0	13
Total	0	13	18	0	31	2	3	9	0	14	3	12	0	0	15	0	0	2	0	2	62
4:00 PM	0	5	5	0	10	0	0	3	0	3	1	3	0	0	4	2	0	1	0	3	20
4:15 PM	0	1	4	0	5	1	0	2	0	3	1	2	0	0	3	0	0	0	0	0	11
4:30 PM	0	3	6	0	9	0	1	1	0	2	2	6	1	0	9	0	0	0	0	0	20
4:45 PM	0	6	6	0	12	0	0	2	0	2	4	1	0	0	5	0	1	0	0	1	20
Total	0	15	21	0	36	1	1	8	0	10	8	12	1	0	21	2	1	1	0	4	71
5:00 PM	0	5	4	0	9	0	2	2	0	4	1	7	0	0	8	0	2	0	0	2	23
5:15 PM	0	2	4	0	6	0	0	3	0	3	3	4	0	0	7	1	0	0	0	1	17
5:30 PM	0	5	6	0	11	0	2	1	0	3	2	2	0	0	4	0	0	0	0	0	18
5:45 PM	1	4	3	0	8	0	0	1	0	1	3	5	0	0	8	0	0	0	0	0	17
Total	1	16	17	0	34	0	4	7	0	11	9	18	0	0	27	1	2	0	0	3	75
Grand Total	1	44	56	0	101	3	8	24	0	35	20	42	1	0	63	3	3	3	0	9	208
Approach %	1.0	43.6	55.4	0.0		8.6	22.9	68.6	0.0		31.7	66.7	1.6	0.0		33.3	33.3	33.3	0.0		
Total %	0.5	21.2	26.9	0.0	48.6	1.4	3.8	11.5	0.0	16.8	9.6	20.2	0.5	0.0	30.3	1.4	1.4	1.4	0.0	4.3	
Exiting Leg Total					48					79					71					10	208
Buses	1	36	55	0	92	2	2	20	0	24	12	35	1	0	48	0	1	0	0	1	165
% Buses	100.0	81.8	98.2	0.0	91.1	66.7	25.0	83.3	0.0	68.6	60.0	83.3	100.0	0.0	76.2	0.0	33.3	0.0	0.0	11.1	79.3
Exiting Leg Total					37					68					56					4	165
Single-Unit Trucks	0	8	1	0	9	1	6	4	0	11	6	5	0	0	11	3	2	3	0	8	39
% Single-Unit	0.0	18.2	1.8	0.0	8.9	33.3	75.0	16.7	0.0	31.4	30.0	11.9	0.0	0.0	17.5	100.0	66.7	100.0	0.0	88.9	18.8
Exiting Leg Total					9					9					15					6	39
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	4
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	4.8	0.0	0.0	6.3	0.0	0.0	0.0	0.0	0.0	1.9
Exiting Leg Total					2					2					0					0	4

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:30 PM	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	0	3	6	0	9	0	1	1	0	2	2	6	1	0	9	0	0	0	0	0	20
4:45 PM	0	6	6	0	12	0	0	2	0	2	4	1	0	0	5	0	1	0	0	1	20
5:00 PM	0	5	4	0	9	0	2	2	0	4	1	7	0	0	8	0	2	0	0	2	23
5:15 PM	0	2	4	0	6	0	0	3	0	3	3	4	0	0	7	1	0	0	0	1	17
Total Volume	0	16	20	0	36	0	3	8	0	11	10	18	1	0	29	1	3	0	0	4	80
% Approach Total	0.0	44.4	55.6	0.0		0.0	27.3	72.7	0.0		34.5	62.1	3.4	0.0		25.0	75.0	0.0	0.0		
PHF	0.000	0.667	0.833	0.000	0.750	0.000	0.375	0.667	0.000	0.688	0.625	0.643	0.250	0.000	0.806	0.250	0.375	0.000	0.000	0.500	0.870
Buses	0	13	20	0	33	0	0	7	0	7	6	14	1	0	21	0	1	0	0	1	62
Buses %	0.0	81.3	100.0	0.0	91.7	0.0	0.0	87.5	0.0	63.6	60.0	77.8	100.0	0.0	72.4	0.0	33.3	0.0	0.0	25.0	77.5
Single-Unit Trucks	0	3	0	0	3	0	3	1	0	4	2	3	0	0	5	1	2	0	0	3	15
Single-Unit %	0.0	18.8	0.0	0.0	8.3	0.0	100.0	12.5	0.0	36.4	20.0	16.7	0.0	0.0	17.2	100.0	66.7	0.0	0.0	75.0	18.8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	5.6	0.0	0.0	10.3	0.0	0.0	0.0	0.0	0.0	3.8
Buses	0	13	20	0	33	0	0	7	0	7	6	14	1	0	21	0	1	0	0	1	62
Single-Unit Trucks	0	3	0	0	3	0	3	1	0	4	2	3	0	0	5	1	2	0	0	3	15
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
Total Entering Leg	0	16	20	0	36	0	3	8	0	11	10	18	1	0	29	1	3	0	0	4	80
Buses					14					27					20					1	62
Single-Unit Trucks					3					4					5					3	15
Articulated Trucks					1					2					0					0	3
Total Exiting Leg					18					33					25					4	80

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Brookline Avenue					Francis Street					Brookline Avenue					Francis Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	2	3	0	5	0	1	2	0	3	0	2	0	0	2	0	0	0	0	0	10
3:15 PM	0	3	4	0	7	0	1	2	0	3	0	2	0	0	2	0	0	0	0	0	12
3:30 PM	0	5	5	0	10	1	0	2	0	3	0	4	0	0	4	0	0	0	0	0	17
3:45 PM	0	1	5	0	6	0	0	1	0	1	2	2	0	0	4	0	0	0	0	0	11
Total	0	11	17	0	28	1	2	7	0	10	2	10	0	0	12	0	0	0	0	0	50
4:00 PM	0	3	5	0	8	0	0	2	0	2	0	3	0	0	3	0	0	0	0	0	13
4:15 PM	0	1	4	0	5	1	0	2	0	3	1	2	0	0	3	0	0	0	0	0	11
4:30 PM	0	3	6	0	9	0	0	1	0	1	1	5	1	0	7	0	0	0	0	0	17
4:45 PM	0	5	6	0	11	0	0	2	0	2	2	0	0	0	2	0	0	0	0	0	15
Total	0	12	21	0	33	1	0	7	0	8	4	10	1	0	15	0	0	0	0	0	56
5:00 PM	0	4	4	0	8	0	0	1	0	1	1	5	0	0	6	0	1	0	0	1	16
5:15 PM	0	1	4	0	5	0	0	3	0	3	2	4	0	0	6	0	0	0	0	0	14
5:30 PM	0	4	6	0	10	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	13
5:45 PM	1	4	3	0	8	0	0	1	0	1	2	5	0	0	7	0	0	0	0	0	16
Total	1	13	17	0	31	0	0	6	0	6	6	15	0	0	21	0	1	0	0	1	59
Grand Total	1	36	55	0	92	2	2	20	0	24	12	35	1	0	48	0	1	0	0	1	165
Approach %	1.1	39.1	59.8	0.0		8.3	8.3	83.3	0.0		25.0	72.9	2.1	0.0		0.0	100.0	0.0	0.0		
Total %	0.6	21.8	33.3	0.0	55.8	1.2	1.2	12.1	0.0	14.5	7.3	21.2	0.6	0.0	29.1	0.0	0.6	0.0	0.0	0.6	
Exiting Leg Total					37					68					56					4	165

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:30 PM	Brookline Avenue					Francis Street					Brookline Avenue					Francis Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	0	3	6	0	9	0	0	1	0	1	1	5	1	0	7	0	0	0	0	0	17
4:45 PM	0	5	6	0	11	0	0	2	0	2	2	0	0	0	2	0	0	0	0	0	15
5:00 PM	0	4	4	0	8	0	0	1	0	1	1	5	0	0	6	0	1	0	0	1	16
5:15 PM	0	1	4	0	5	0	0	3	0	3	2	4	0	0	6	0	0	0	0	0	14
Total Volume	0	13	20	0	33	0	0	7	0	7	6	14	1	0	21	0	1	0	0	1	62
% Approach Total	0.0	39.4	60.6	0.0		0.0	0.0	100.0	0.0		28.6	66.7	4.8	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.650	0.833	0.000	0.750	0.000	0.000	0.583	0.000	0.583	0.750	0.700	0.250	0.000	0.750	0.000	0.250	0.000	0.000	0.250	0.912
Entering Leg	0	13	20	0	33	0	0	7	0	7	6	14	1	0	21	0	1	0	0	1	62
Exiting Leg					14					27					20					1	62
Total					47					34					41					2	124

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
3:15 PM	0	2	0	0	2	0	0	1	0	1	0	1	0	0	1	0	0	2	0	2	6
3:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	2	1	0	3	1	1	2	0	4	1	1	0	0	2	0	0	2	0	2	11
4:00 PM	0	2	0	0	2	0	0	1	0	1	1	0	0	0	1	2	0	1	0	3	7
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
4:45 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	4
Total	0	3	0	0	3	0	1	1	0	2	3	1	0	0	4	2	1	1	0	4	13
5:00 PM	0	1	0	0	1	0	2	1	0	3	0	2	0	0	2	0	1	0	0	1	7
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
5:30 PM	0	1	0	0	1	0	2	0	0	2	1	1	0	0	2	0	0	0	0	0	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total	0	3	0	0	3	0	4	1	0	5	2	3	0	0	5	1	1	0	0	2	15
Grand Total	0	8	1	0	9	1	6	4	0	11	6	5	0	0	11	3	2	3	0	8	39
Approach %	0.0	88.9	11.1	0.0		9.1	54.5	36.4	0.0		54.5	45.5	0.0	0.0		37.5	25.0	37.5	0.0		
Total %	0.0	20.5	2.6	0.0	23.1	2.6	15.4	10.3	0.0	28.2	15.4	12.8	0.0	0.0	28.2	7.7	5.1	7.7	0.0	20.5	
Exiting Leg Total					9					9					15					6	39

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	4
5:00 PM	0	1	0	0	1	0	2	1	0	3	0	2	0	0	2	0	1	0	0	1	7
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
5:30 PM	0	1	0	0	1	0	2	0	0	2	1	1	0	0	2	0	0	0	0	0	5
Total Volume	0	4	0	0	4	0	4	1	0	5	3	3	0	0	6	1	2	0	0	3	18
% Approach Total	0.0	100.0	0.0	0.0		0.0	80.0	20.0	0.0		50.0	50.0	0.0	0.0		33.3	66.7	0.0	0.0		
PHF	0.000	1.000	0.000	0.000	1.000	0.000	0.500	0.250	0.000	0.417	0.375	0.375	0.000	0.000	0.750	0.250	0.500	0.000	0.000	0.750	0.643
Entering Leg	0	4	0	0	4	0	4	1	0	5	3	3	0	0	6	1	2	0	0	3	18
Exiting Leg					3					5					6					4	18
Total					7					10					12					7	36

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	4
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		50.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					2					2					0					0	4

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:30 PM	Brookline Avenue from North					Francis Street from East					Brookline Avenue from South					Francis Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		66.7	33.3	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
Exiting Leg					1					2					0					0	3
Total					1					2					3					0	6

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Brookline Avenue from North							Francis Street from East							Brookline Avenue from South							Francis Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	3	1	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	5
3:15 PM	0	4	2	0	0	0	6	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	7
3:30 PM	0	4	0	0	0	0	4	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
3:45 PM	0	1	0	0	0	0	1	1	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	12	3	0	0	0	15	1	0	2	0	0	0	3	1	1	0	0	0	0	2	0	0	0	0	0	0	0	20
4:00 PM	0	4	0	0	0	0	4	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
4:15 PM	0	3	0	0	0	0	3	2	1	1	0	0	0	4	0	1	0	0	0	0	1	0	0	0	0	0	0	0	8
4:30 PM	0	3	1	0	1	0	5	0	1	1	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	8
4:45 PM	0	2	0	0	0	0	2	1	1	0	0	0	0	2	1	3	0	0	0	0	4	0	0	0	0	0	0	0	8
Total	0	12	1	0	1	0	14	3	4	2	0	0	0	9	1	5	0	0	0	0	6	0	0	0	0	0	0	0	29
5:00 PM	0	8	0	0	0	0	8	1	1	1	0	0	0	3	0	2	0	0	0	0	2	0	0	0	0	0	0	0	13
5:15 PM	0	8	0	0	0	0	8	0	1	2	0	1	1	5	0	2	0	0	0	0	2	0	0	0	0	0	0	0	15
5:30 PM	0	8	0	0	0	1	9	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	1	0	0	0	0	1	12
5:45 PM	0	5	1	0	0	0	6	2	0	0	0	0	0	2	0	2	0	0	0	0	2	1	1	0	0	0	0	2	12
Total	0	29	1	0	0	1	31	3	2	3	0	1	2	11	1	6	0	0	0	0	7	1	2	0	0	0	0	3	52
Grand Total	0	53	5	0	1	1	60	7	6	7	0	1	2	23	3	12	0	0	0	0	15	1	2	0	0	0	0	3	101
Approach %	0.0	88.3	8.3	0.0	1.7	1.7		30.4	26.1	30.4	0.0	4.3	8.7		20.0	80.0	0.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0	0.0	0.0		
Total %	0.0	52.5	5.0	0.0	1.0	1.0	59.4	6.9	5.9	6.9	0.0	1.0	2.0	22.8	3.0	11.9	0.0	0.0	0.0	0.0	14.9	1.0	2.0	0.0	0.0	0.0	0.0	3.0	
Exiting Leg Total							21							13							61							6	101

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Brookline Avenue from North							Francis Street from East							Brookline Avenue from South							Francis Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	8	0	0	0	0	8	1	1	1	0	0	0	3	0	2	0	0	0	0	2	0	0	0	0	0	0	0	13
5:15 PM	0	8	0	0	0	0	8	0	1	2	0	1	1	5	0	2	0	0	0	0	2	0	0	0	0	0	0	0	15
5:30 PM	0	8	0	0	0	1	9	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	1	0	0	0	0	1	12
5:45 PM	0	5	1	0	0	0	6	2	0	0	0	0	0	2	0	2	0	0	0	0	2	1	1	0	0	0	0	2	12
Total Volume	0	29	1	0	0	1	31	3	2	3	0	1	2	11	1	6	0	0	0	0	7	1	2	0	0	0	0	3	52
% Approach Total	0.0	93.5	3.2	0.0	0.0	3.2		27.3	18.2	27.3	0.0	9.1	18.2		14.3	85.7	0.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0	0.0	0.0		
PHF	0.000	0.906	0.250	0.000	0.000	0.250	0.861	0.375	0.500	0.375	0.000	0.250	0.500	0.550	0.250	0.750	0.000	0.000	0.000	0.000	0.875	0.250	0.500	0.000	0.000	0.000	0.000	0.375	0.867
Entering Leg	0	29	1	0	0	1	31	3	2	3	0	1	2	11	1	6	0	0	0	0	7	1	2	0	0	0	0	3	52
Exiting Leg							10							7							33							2	52
Total							41							18							40							5	104

PDI File #: **239743 I**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Francis Street W: Francis Street**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Brookline Avenue from North							Francis Street from East							Brookline Avenue from South							Francis Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	11	6	17	0	0	0	0	8	4	12	0	0	0	0	8	5	13	0	0	0	0	5	8	13	55
3:15 PM	0	0	0	0	17	5	22	0	0	0	0	12	10	22	0	0	0	0	7	3	10	0	0	0	0	9	13	22	76
3:30 PM	0	0	0	0	8	12	20	0	0	0	0	13	6	19	0	0	0	0	10	1	11	0	0	0	0	10	12	22	72
3:45 PM	0	0	0	0	2	2	4	0	0	0	0	9	6	15	0	0	0	0	3	4	7	0	0	0	0	0	5	5	31
Total	0	0	0	0	38	25	63	0	0	0	0	42	26	68	0	0	0	0	28	13	41	0	0	0	0	24	38	62	234
4:00 PM	0	0	0	0	3	8	11	0	0	0	0	14	6	20	0	0	0	0	12	4	16	0	0	0	0	3	7	10	57
4:15 PM	0	0	0	0	2	3	5	0	0	0	0	15	6	21	0	0	0	0	13	9	22	0	0	0	0	7	22	29	77
4:30 PM	0	0	0	0	5	15	20	0	0	0	0	23	8	31	0	0	0	0	18	7	25	0	0	0	0	3	17	20	96
4:45 PM	0	0	0	0	7	10	17	0	0	0	0	13	8	21	0	0	0	0	10	7	17	0	0	0	0	4	15	19	74
Total	0	0	0	0	17	36	53	0	0	0	0	65	28	93	0	0	0	0	53	27	80	0	0	0	0	17	61	78	304
5:00 PM	0	0	0	0	6	10	16	0	0	0	0	26	8	34	0	0	0	0	15	7	22	0	0	0	0	2	19	21	93
5:15 PM	0	0	0	0	0	4	4	0	0	0	0	18	8	26	0	0	0	0	17	10	27	0	0	0	0	5	18	23	80
5:30 PM	0	0	0	0	5	5	10	0	0	0	0	19	8	27	0	0	0	0	6	7	13	0	0	0	0	3	21	24	74
5:45 PM	0	0	0	0	1	3	4	0	0	0	0	14	6	20	0	0	0	0	10	3	13	0	0	0	0	2	11	13	50
Total	0	0	0	0	12	22	34	0	0	0	0	77	30	107	0	0	0	0	48	27	75	0	0	0	0	12	69	81	297
Grand Total	0	0	0	0	67	83	150	0	0	0	0	184	84	268	0	0	0	0	129	67	196	0	0	0	0	53	168	221	835
Approach %	0	0	0	0	44.7	55.3		0	0	0	0	68.7	31.3		0	0	0	0	65.8	34.2		0	0	0	0	24	76		
Total %	0	0	0	0	8.02	9.94	18	0	0	0	0	22	10.1	32.1	0	0	0	0	15.4	8.02	23.5	0	0	0	0	6.35	20.1	26.5	
Exiting Leg Total							150							268							196							221	835

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:30 PM	Brookline Avenue from North							Francis Street from East							Brookline Avenue from South							Francis Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:30 PM	0	0	0	0	5	15	20	0	0	0	0	23	8	31	0	0	0	0	18	7	25	0	0	0	0	3	17	20	96
4:45 PM	0	0	0	0	7	10	17	0	0	0	0	13	8	21	0	0	0	0	10	7	17	0	0	0	0	4	15	19	74
5:00 PM	0	0	0	0	6	10	16	0	0	0	0	26	8	34	0	0	0	0	15	7	22	0	0	0	0	2	19	21	93
5:15 PM	0	0	0	0	0	4	4	0	0	0	0	18	8	26	0	0	0	0	17	10	27	0	0	0	0	5	18	23	80
Total Volume	0	0	0	0	18	39	57	0	0	0	0	80	32	112	0	0	0	0	60	31	91	0	0	0	0	14	69	83	343
% Approach Total	0.0	0.0	0.0	0.0	31.6	68.4		0.0	0.0	0.0	0.0	71.4	28.6		0.0	0.0	0.0	0.0	65.9	34.1		0.0	0.0	0.0	0.0	16.9	83.1		
PHF	0.000	0.000	0.000	0.000	0.643	0.650	0.713	0.000	0.000	0.000	0.000	0.769	1.000	0.824	0.000	0.000	0.000	0.000	0.833	0.775	0.843	0.000	0.000	0.000	0.000	0.700	0.908	0.902	0.893
Entering Leg	0	0	0	0	18	39	57	0	0	0	0	80	32	112	0	0	0	0	60	31	91	0	0	0	0	14	69	83	343
Exiting Leg							57							112							91							83	343
Total							114							224							182							166	686

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	2	37	34	0	73	127	133	0	0	260	0	61	19	0	80	4	46	0	0	50	463
6:15 AM	2	46	37	0	85	129	166	0	0	295	0	84	36	0	120	13	71	0	0	84	584
6:30 AM	4	54	49	0	107	134	182	0	0	316	0	106	45	0	151	13	75	0	0	88	662
6:45 AM	8	55	62	1	126	142	220	0	0	362	0	95	46	0	141	12	104	0	0	116	745
Total	16	192	182	1	391	532	701	0	0	1233	0	346	146	0	492	42	296	0	0	338	2454
7:00 AM	9	62	68	0	139	100	187	0	0	287	1	97	56	0	154	20	130	0	0	150	730
7:15 AM	4	75	80	0	159	93	228	0	0	321	2	85	40	0	127	19	161	0	0	180	787
7:30 AM	4	90	84	0	178	95	230	0	0	325	1	125	47	0	173	29	164	0	0	193	869
7:45 AM	2	73	96	0	171	99	237	1	0	337	2	85	52	0	139	20	200	0	0	220	867
Total	19	300	328	0	647	387	882	1	0	1270	6	392	195	0	593	88	655	0	0	743	3253
8:00 AM	1	75	72	0	148	106	207	0	0	313	32	117	60	0	209	23	144	0	0	167	837
8:15 AM	4	70	58	0	132	115	245	0	0	360	34	88	57	0	179	17	137	0	0	154	825
8:30 AM	8	67	51	0	126	109	200	0	0	309	24	124	63	0	211	21	111	0	0	132	778
8:45 AM	3	74	54	0	131	107	221	0	0	328	18	107	61	0	186	24	104	0	0	128	773
Total	16	286	235	0	537	437	873	0	0	1310	108	436	241	0	785	85	496	0	0	581	3213
Grand Total	51	778	745	1	1575	1356	2456	1	0	3813	114	1174	582	0	1870	215	1447	0	0	1662	8920
Approach %	3.2	49.4	47.3	0.1		35.6	64.4	0.0	0.0		6.1	62.8	31.1	0.0		12.9	87.1	0.0	0.0		
Total %	0.6	8.7	8.4	0.0	17.7	15.2	27.5	0.0	0.0	42.7	1.3	13.2	6.5	0.0	21.0	2.4	16.2	0.0	0.0	18.6	
Exiting Leg Total					2531					2306					994					3089	8920
Cars	51	716	737	1	1505	1346	2442	1	0	3789	114	1109	574	0	1797	213	1428	0	0	1641	8732
% Cars	100.0	92.0	98.9	100.0	95.6	99.3	99.4	100.0	0.0	99.4	100.0	94.5	98.6	0.0	96.1	99.1	98.7	0.0	0.0	98.7	97.9
Exiting Leg Total					2456					2279					930					3067	8732
Heavy Vehicles	0	62	8	0	70	10	14	0	0	24	0	65	8	0	73	2	19	0	0	21	188
% Heavy Vehicles	0.0	8.0	1.1	0.0	4.4	0.7	0.6	0.0	0.0	0.6	0.0	5.5	1.4	0.0	3.9	0.9	1.3	0.0	0.0	1.3	2.1
Exiting Leg Total					75					27					64					22	188

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	4	90	84	0	178	95	230	0	0	325	1	125	47	0	173	29	164	0	0	193	869
7:45 AM	2	73	96	0	171	99	237	1	0	337	2	85	52	0	139	20	200	0	0	220	867
8:00 AM	1	75	72	0	148	106	207	0	0	313	32	117	60	0	209	23	144	0	0	167	837
8:15 AM	4	70	58	0	132	115	245	0	0	360	34	88	57	0	179	17	137	0	0	154	825
Total Volume	11	308	310	0	629	415	919	1	0	1335	69	415	216	0	700	89	645	0	0	734	3398
% Approach Total	1.7	49.0	49.3	0.0		31.1	68.8	0.1	0.0		9.9	59.3	30.9	0.0		12.1	87.9	0.0	0.0		
PHF	0.688	0.856	0.807	0.000	0.883	0.902	0.938	0.250	0.000	0.927	0.507	0.830	0.900	0.000	0.837	0.767	0.806	0.000	0.000	0.834	0.978
Cars	11	287	306	0	604	410	912	1	0	1323	69	395	212	0	676	87	630	0	0	717	3320
Cars %	100.0	93.2	98.7	0.0	96.0	98.8	99.2	100.0	0.0	99.1	100.0	95.2	98.1	0.0	96.6	97.8	97.7	0.0	0.0	97.7	97.7
Heavy Vehicles	0	21	4	0	25	5	7	0	0	12	0	20	4	0	24	2	15	0	0	17	78
Heavy Vehicles %	0.0	6.8	1.3	0.0	4.0	1.2	0.8	0.0	0.0	0.9	0.0	4.8	1.9	0.0	3.4	2.2	2.3	0.0	0.0	2.3	2.3
Cars Enter Leg	11	287	306	0	604	410	912	1	0	1323	69	395	212	0	676	87	630	0	0	717	3320
Heavy Enter Leg	0	21	4	0	25	5	7	0	0	12	0	20	4	0	24	2	15	0	0	17	78
Total Entering Leg	11	308	310	0	629	415	919	1	0	1335	69	415	216	0	700	89	645	0	0	734	3398
Cars Exiting Leg					805					1005					375					1135	3320
Heavy Exiting Leg					25					19					23					11	78
Total Exiting Leg					830					1024					398					1146	3398

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	2	32	34	0	68	126	133	0	0	259	0	57	18	0	75	4	46	0	0	50	452
6:15 AM	2	43	37	0	82	129	165	0	0	294	0	80	36	0	116	13	71	0	0	84	576
6:30 AM	4	48	49	0	101	134	181	0	0	315	0	102	45	0	147	13	75	0	0	88	651
6:45 AM	8	48	61	1	118	142	220	0	0	362	0	92	45	0	137	12	103	0	0	115	732
Total	16	171	181	1	369	531	699	0	0	1230	0	331	144	0	475	42	295	0	0	337	2411
7:00 AM	9	57	68	0	134	99	186	0	0	285	1	90	55	0	146	20	129	0	0	149	714
7:15 AM	4	70	78	0	152	93	227	0	0	320	2	77	40	0	119	19	160	0	0	179	770
7:30 AM	4	85	83	0	172	95	229	0	0	324	1	118	47	0	166	29	160	0	0	189	851
7:45 AM	2	68	95	0	165	97	233	1	0	331	2	83	50	0	135	20	195	0	0	215	846
Total	19	280	324	0	623	384	875	1	0	1260	6	368	192	0	566	88	644	0	0	732	3181
8:00 AM	1	69	70	0	140	105	206	0	0	311	32	110	60	0	202	21	140	0	0	161	814
8:15 AM	4	65	58	0	127	113	244	0	0	357	34	84	55	0	173	17	135	0	0	152	809
8:30 AM	8	60	50	0	118	109	199	0	0	308	24	114	62	0	200	21	110	0	0	131	757
8:45 AM	3	71	54	0	128	104	219	0	0	323	18	102	61	0	181	24	104	0	0	128	760
Total	16	265	232	0	513	431	868	0	0	1299	108	410	238	0	756	83	489	0	0	572	3140
Grand Total	51	716	737	1	1505	1346	2442	1	0	3789	114	1109	574	0	1797	213	1428	0	0	1641	8732
Approach %	3.4	47.6	49.0	0.1		35.5	64.4	0.0	0.0		6.3	61.7	31.9	0.0		13.0	87.0	0.0	0.0		
Total %	0.6	8.2	8.4	0.0	17.2	15.4	28.0	0.0	0.0	43.4	1.3	12.7	6.6	0.0	20.6	2.4	16.4	0.0	0.0	18.8	
Exiting Leg Total					2456					2279					930					3067	8732

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	4	85	83	0	172	95	229	0	0	324	1	118	47	0	166	29	160	0	0	189	851
7:45 AM	2	68	95	0	165	97	233	1	0	331	2	83	50	0	135	20	195	0	0	215	846
8:00 AM	1	69	70	0	140	105	206	0	0	311	32	110	60	0	202	21	140	0	0	161	814
8:15 AM	4	65	58	0	127	113	244	0	0	357	34	84	55	0	173	17	135	0	0	152	809
Total Volume	11	287	306	0	604	410	912	1	0	1323	69	395	212	0	676	87	630	0	0	717	3320
% Approach Total	1.8	47.5	50.7	0.0		31.0	68.9	0.1	0.0		10.2	58.4	31.4	0.0		12.1	87.9	0.0	0.0		
PHF	0.688	0.844	0.805	0.000	0.878	0.907	0.934	0.250	0.000	0.926	0.507	0.837	0.883	0.000	0.837	0.750	0.808	0.000	0.000	0.834	0.975
Entering Leg	11	287	306	0	604	410	912	1	0	1323	69	395	212	0	676	87	630	0	0	717	3320
Exiting Leg					805					1005					375					1135	3320
Total					1409					2328					1051					1852	6640

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	5	0	0	5	1	0	0	0	1	0	4	1	0	5	0	0	0	0	0	11
6:15 AM	0	3	0	0	3	0	1	0	0	1	0	4	0	0	4	0	0	0	0	0	8
6:30 AM	0	6	0	0	6	0	1	0	0	1	0	4	0	0	4	0	0	0	0	0	11
6:45 AM	0	7	1	0	8	0	0	0	0	0	0	3	1	0	4	0	1	0	0	1	13
Total	0	21	1	0	22	1	2	0	0	3	0	15	2	0	17	0	1	0	0	1	43
7:00 AM	0	5	0	0	5	1	1	0	0	2	0	7	1	0	8	0	1	0	0	1	16
7:15 AM	0	5	2	0	7	0	1	0	0	1	0	8	0	0	8	0	1	0	0	1	17
7:30 AM	0	5	1	0	6	0	1	0	0	1	0	7	0	0	7	0	4	0	0	4	18
7:45 AM	0	5	1	0	6	2	4	0	0	6	0	2	2	0	4	0	5	0	0	5	21
Total	0	20	4	0	24	3	7	0	0	10	0	24	3	0	27	0	11	0	0	11	72
8:00 AM	0	6	2	0	8	1	1	0	0	2	0	7	0	0	7	2	4	0	0	6	23
8:15 AM	0	5	0	0	5	2	1	0	0	3	0	4	2	0	6	0	2	0	0	2	16
8:30 AM	0	7	1	0	8	0	1	0	0	1	0	10	1	0	11	0	1	0	0	1	21
8:45 AM	0	3	0	0	3	3	2	0	0	5	0	5	0	0	5	0	0	0	0	0	13
Total	0	21	3	0	24	6	5	0	0	11	0	26	3	0	29	2	7	0	0	9	73
Grand Total	0	62	8	0	70	10	14	0	0	24	0	65	8	0	73	2	19	0	0	21	188
Approach %	0.0	88.6	11.4	0.0		41.7	58.3	0.0	0.0		0.0	89.0	11.0	0.0		9.5	90.5	0.0	0.0		
Total %	0.0	33.0	4.3	0.0	37.2	5.3	7.4	0.0	0.0	12.8	0.0	34.6	4.3	0.0	38.8	1.1	10.1	0.0	0.0	11.2	
Exiting Leg Total					75					27					64					22	188
Buses	0	40	3	0	43	8	5	0	0	13	0	44	3	0	47	2	14	0	0	16	119
% Buses	0.0	64.5	37.5	0.0	61.4	80.0	35.7	0.0	0.0	54.2	0.0	67.7	37.5	0.0	64.4	100.0	73.7	0.0	0.0	76.2	63.3
Exiting Leg Total					52					17					42					8	119
Single-Unit Trucks	0	19	5	0	24	2	8	0	0	10	0	21	5	0	26	0	5	0	0	5	65
% Single-Unit	0.0	30.6	62.5	0.0	34.3	20.0	57.1	0.0	0.0	41.7	0.0	32.3	62.5	0.0	35.6	0.0	26.3	0.0	0.0	23.8	34.6
Exiting Leg Total					23					10					19					13	65
Articulated Trucks	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
% Articulated	0.0	4.8	0.0	0.0	4.3	0.0	7.1	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
Exiting Leg Total					0					0					3					1	4

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	5	1	0	6	2	4	0	0	6	0	2	2	0	4	0	5	0	0	5	21
8:00 AM	0	6	2	0	8	1	1	0	0	2	0	7	0	0	7	2	4	0	0	6	23
8:15 AM	0	5	0	0	5	2	1	0	0	3	0	4	2	0	6	0	2	0	0	2	16
8:30 AM	0	7	1	0	8	0	1	0	0	1	0	10	1	0	11	0	1	0	0	1	21
Total Volume	0	23	4	0	27	5	7	0	0	12	0	23	5	0	28	2	12	0	0	14	81
% Approach Total	0.0	85.2	14.8	0.0		41.7	58.3	0.0	0.0		0.0	82.1	17.9	0.0		14.3	85.7	0.0	0.0		
PHF	0.000	0.821	0.500	0.000	0.844	0.625	0.438	0.000	0.000	0.500	0.000	0.575	0.625	0.000	0.636	0.250	0.600	0.000	0.000	0.583	0.880
Buses	0	15	1	0	16	3	3	0	0	6	0	17	2	0	19	2	9	0	0	11	52
Buses %	0.0	65.2	25.0	0.0	59.3	60.0	42.9	0.0	0.0	50.0	0.0	73.9	40.0	0.0	67.9	100.0	75.0	0.0	0.0	78.6	64.2
Single-Unit Trucks	0	8	3	0	11	2	4	0	0	6	0	6	3	0	9	0	3	0	0	3	29
Single-Unit %	0.0	34.8	75.0	0.0	40.7	40.0	57.1	0.0	0.0	50.0	0.0	26.1	60.0	0.0	32.1	0.0	25.0	0.0	0.0	21.4	35.8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	15	1	0	16	3	3	0	0	6	0	17	2	0	19	2	9	0	0	11	52
Single-Unit Trucks	0	8	3	0	11	2	4	0	0	6	0	6	3	0	9	0	3	0	0	3	29
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	23	4	0	27	5	7	0	0	12	0	23	5	0	28	2	12	0	0	14	81
Buses					20					10					17					5	52
Single-Unit Trucks					8					6					8					7	29
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					28					16					25					12	81

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	4	0	0	4	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
6:15 AM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
6:30 AM	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
6:45 AM	0	4	0	0	4	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	7
Total	0	13	0	0	13	1	0	0	0	1	0	8	1	0	9	0	0	0	0	0	23
7:00 AM	0	4	0	0	4	1	0	0	0	1	0	5	0	0	5	0	1	0	0	1	11
7:15 AM	0	2	1	0	3	0	1	0	0	1	0	4	0	0	4	0	1	0	0	1	9
7:30 AM	0	4	1	0	5	0	1	0	0	1	0	6	0	0	6	0	3	0	0	3	15
7:45 AM	0	4	0	0	4	2	3	0	0	5	0	1	1	0	2	0	5	0	0	5	16
Total	0	14	2	0	16	3	5	0	0	8	0	16	1	0	17	0	10	0	0	10	51
8:00 AM	0	4	1	0	5	0	0	0	0	0	0	5	0	0	5	2	3	0	0	5	15
8:15 AM	0	4	0	0	4	1	0	0	0	1	0	2	1	0	3	0	1	0	0	1	9
8:30 AM	0	3	0	0	3	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	12
8:45 AM	0	2	0	0	2	3	0	0	0	3	0	4	0	0	4	0	0	0	0	0	9
Total	0	13	1	0	14	4	0	0	0	4	0	20	1	0	21	2	4	0	0	6	45
Grand Total	0	40	3	0	43	8	5	0	0	13	0	44	3	0	47	2	14	0	0	16	119
Approach %	0.0	93.0	7.0	0.0		61.5	38.5	0.0	0.0		0.0	93.6	6.4	0.0		12.5	87.5	0.0	0.0		
Total %	0.0	33.6	2.5	0.0	36.1	6.7	4.2	0.0	0.0	10.9	0.0	37.0	2.5	0.0	39.5	1.7	11.8	0.0	0.0	13.4	
Exiting Leg Total					52					17					42					8	119

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	2	1	0	3	0	1	0	0	1	0	4	0	0	4	0	1	0	0	1	9
7:30 AM	0	4	1	0	5	0	1	0	0	1	0	6	0	0	6	0	3	0	0	3	15
7:45 AM	0	4	0	0	4	2	3	0	0	5	0	1	1	0	2	0	5	0	0	5	16
8:00 AM	0	4	1	0	5	0	0	0	0	0	0	5	0	0	5	2	3	0	0	5	15
Total Volume	0	14	3	0	17	2	5	0	0	7	0	16	1	0	17	2	12	0	0	14	55
% Approach Total	0.0	82.4	17.6	0.0		28.6	71.4	0.0	0.0		0.0	94.1	5.9	0.0		14.3	85.7	0.0	0.0		
PHF	0.000	0.875	0.750	0.000	0.850	0.250	0.417	0.000	0.000	0.350	0.000	0.667	0.250	0.000	0.708	0.250	0.600	0.000	0.000	0.700	0.859
Entering Leg	0	14	3	0	17	2	5	0	0	7	0	16	1	0	17	2	12	0	0	14	55
Exiting Leg					18					15					16					6	55
Total					35					22					33					20	110

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	1	0	0	1	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	6
6:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
6:30 AM	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	4
6:45 AM	0	2	1	0	3	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	5
Total	0	6	1	0	7	0	1	0	0	1	0	7	1	0	8	0	1	0	0	1	17
7:00 AM	0	1	0	0	1	0	1	0	0	1	0	2	1	0	3	0	0	0	0	0	5
7:15 AM	0	3	1	0	4	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	8
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	3
7:45 AM	0	1	1	0	2	0	1	0	0	1	0	1	1	0	2	0	0	0	0	0	5
Total	0	6	2	0	8	0	2	0	0	2	0	8	2	0	10	0	1	0	0	1	21
8:00 AM	0	2	1	0	3	1	1	0	0	2	0	2	0	0	2	0	1	0	0	1	8
8:15 AM	0	1	0	0	1	1	1	0	0	2	0	2	1	0	3	0	1	0	0	1	7
8:30 AM	0	4	1	0	5	0	1	0	0	1	0	1	1	0	2	0	1	0	0	1	9
8:45 AM	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	3
Total	0	7	2	0	9	2	5	0	0	7	0	6	2	0	8	0	3	0	0	3	27
Grand Total	0	19	5	0	24	2	8	0	0	10	0	21	5	0	26	0	5	0	0	5	65
Approach %	0.0	79.2	20.8	0.0		20.0	80.0	0.0	0.0		0.0	80.8	19.2	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	29.2	7.7	0.0	36.9	3.1	12.3	0.0	0.0	15.4	0.0	32.3	7.7	0.0	40.0	0.0	7.7	0.0	0.0	7.7	
Exiting Leg Total					23					10					19					13	65

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	1	1	0	2	0	1	0	0	1	0	1	1	0	2	0	0	0	0	0	5
8:00 AM	0	2	1	0	3	1	1	0	0	2	0	2	0	0	2	0	1	0	0	1	8
8:15 AM	0	1	0	0	1	1	1	0	0	2	0	2	1	0	3	0	1	0	0	1	7
8:30 AM	0	4	1	0	5	0	1	0	0	1	0	1	1	0	2	0	1	0	0	1	9
Total Volume	0	8	3	0	11	2	4	0	0	6	0	6	3	0	9	0	3	0	0	3	29
% Approach Total	0.0	72.7	27.3	0.0		33.3	66.7	0.0	0.0		0.0	66.7	33.3	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.500	0.750	0.000	0.550	0.500	1.000	0.000	0.000	0.750	0.000	0.750	0.750	0.000	0.750	0.000	0.750	0.000	0.000	0.750	0.806
Entering Leg	0	8	3	0	11	2	4	0	0	6	0	6	3	0	9	0	3	0	0	3	29
Exiting Leg					8					6					8					7	29
Total					19					12					17					10	58

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Articulated Trucks

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
Approach %	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	75.0	0.0	0.0	75.0	0.0	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					3					1	4

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:00 AM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
% Approach Total	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Exiting Leg					0					0					2					1	3
Total					2					1					2					1	6

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Brookline Avenue from North							Riverway from East							Brookline Avenue from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	1	0	0	0	0	1	0	0	0	0	0	0	0	6
Total	0	1	0	0	0	0	1	0	0	0	0	0	9	9	0	1	0	0	0	0	1	0	0	0	0	0	0	0	11
7:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	3	3	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5
7:15 AM	0	2	0	0	1	1	4	0	0	0	0	0	3	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	8
7:30 AM	0	1	0	0	1	0	2	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	1	0	0	0	2	3	9
7:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	5	5	0	1	0	0	0	0	1	0	0	0	0	2	0	2	9
Total	0	4	0	0	3	1	8	0	0	0	0	0	15	15	0	2	0	0	0	1	3	0	1	0	0	2	2	5	31
8:00 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
8:15 AM	0	1	0	0	1	0	2	0	0	0	0	1	1	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5
8:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	6	6	0	3	0	0	0	0	3	0	0	0	0	2	0	2	12
8:45 AM	0	0	0	0	2	0	2	0	0	0	0	0	15	15	0	0	0	0	0	1	1	0	0	0	0	2	0	2	20
Total	0	2	0	0	4	1	7	0	0	0	0	1	22	23	0	4	0	0	0	1	5	0	0	1	0	4	0	5	40
Grand Total	0	7	0	0	7	2	16	0	0	0	0	1	46	47	0	7	0	0	0	2	9	0	1	1	0	6	2	10	82
Approach %	0.0	43.8	0.0	0.0	43.8	12.5		0.0	0.0	0.0	0.0	2.1	97.9		0.0	77.8	0.0	0.0	0.0	22.2		0.0	10.0	10.0	0.0	60.0	20.0		
Total %	0.0	8.5	0.0	0.0	8.5	2.4	19.5	0.0	0.0	0.0	0.0	1.2	56.1	57.3	0.0	8.5	0.0	0.0	0.0	2.4	11.0	0.0	1.2	1.2	0.0	7.3	2.4	12.2	
Exiting Leg Total							17							48							9							8	82

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Brookline Avenue from North							Riverway from East							Brookline Avenue from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
8:15 AM	0	1	0	0	1	0	2	0	0	0	0	1	1	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5
8:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	6	6	0	3	0	0	0	0	3	0	0	0	0	2	0	2	12
8:45 AM	0	0	0	0	2	0	2	0	0	0	0	0	15	15	0	0	0	0	0	1	1	0	0	0	0	2	0	2	20
Total Volume	0	2	0	0	4	1	7	0	0	0	0	1	22	23	0	4	0	0	0	1	5	0	0	1	0	4	0	5	40
% Approach Total	0.0	28.6	0.0	0.0	57.1	14.3		0.0	0.0	0.0	0.0	4.3	95.7		0.0	80.0	0.0	0.0	0.0	20.0		0.0	0.0	20.0	0.0	80.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.250	0.875	0.000	0.000	0.000	0.000	0.250	0.367	0.383	0.000	0.333	0.000	0.000	0.000	0.250	0.417	0.000	0.000	0.250	0.000	0.500	0.000	0.625	0.500
Entering Leg	0	2	0	0	4	1	7	0	0	0	0	1	22	23	0	4	0	0	0	1	5	0	0	1	0	4	0	5	40
Exiting Leg							10							23							3							4	40
Total							17							46							8							9	80

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Brookline Avenue from North							Riverway from East							Brookline Avenue from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	13	13	0	0	0	0	0	3	3	0	0	0	0	0	0	0	17
6:15 AM	0	0	0	0	0	1	1	0	0	0	0	1	16	17	0	0	0	0	1	6	7	0	0	0	0	1	1	2	27
6:30 AM	0	0	0	0	0	2	2	0	0	0	0	1	26	27	0	0	0	0	0	8	8	0	0	0	0	4	0	4	41
6:45 AM	0	0	0	0	3	1	4	0	0	0	0	0	33	33	0	0	0	0	0	7	7	0	0	0	0	4	2	6	50
Total	0	0	0	0	4	4	8	0	0	0	0	2	88	90	0	0	0	0	1	24	25	0	0	0	0	9	3	12	135
7:00 AM	0	0	0	0	5	2	7	0	0	0	0	2	21	23	0	0	0	0	0	7	7	0	0	0	0	10	3	13	50
7:15 AM	0	0	0	0	2	7	9	0	0	0	0	9	26	35	0	0	0	0	5	8	13	0	0	0	0	5	2	7	64
7:30 AM	0	0	0	0	3	0	3	0	0	0	0	4	27	31	0	0	0	0	6	16	22	0	0	0	0	8	5	13	69
7:45 AM	0	0	0	0	0	2	2	0	0	0	0	3	61	64	0	0	0	0	4	33	37	0	0	0	0	7	2	9	112
Total	0	0	0	0	10	11	21	0	0	0	0	18	135	153	0	0	0	0	15	64	79	0	0	0	0	30	12	42	295
8:00 AM	0	0	0	0	0	3	3	0	0	0	0	2	71	73	0	0	0	0	1	31	32	0	0	0	0	8	2	10	118
8:15 AM	0	0	0	0	3	0	3	0	0	0	0	9	75	84	0	0	0	0	4	33	37	0	0	0	0	18	3	21	145
8:30 AM	0	0	0	0	0	3	3	0	0	0	0	3	66	69	0	0	0	0	1	24	25	0	0	0	0	13	1	14	111
8:45 AM	0	0	0	0	4	1	5	0	0	0	0	4	54	58	0	0	0	0	1	17	18	0	0	0	0	16	1	17	98
Total	0	0	0	0	7	7	14	0	0	0	0	18	266	284	0	0	0	0	7	105	112	0	0	0	0	55	7	62	472
Grand Total	0	0	0	0	21	22	43	0	0	0	0	38	489	527	0	0	0	0	23	193	216	0	0	0	0	94	22	116	902
Approach %	0	0	0	0	48.8	51.2		0	0	0	0	7.21	92.8		0	0	0	0	10.6	89.4		0	0	0	0	81	19		
Total %	0	0	0	0	2.33	2.44	4.77	0	0	0	0	4.21	54.2	58.4	0	0	0	0	2.55	21.4	23.9	0	0	0	0	10.4	2.44	12.9	
Exiting Leg Total							43							527							216							116	902

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Brookline Avenue from North							Riverway from East							Brookline Avenue from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	0	2	2	0	0	0	0	3	61	64	0	0	0	0	4	33	37	0	0	0	0	7	2	9	112
8:00 AM	0	0	0	0	0	3	3	0	0	0	0	2	71	73	0	0	0	0	1	31	32	0	0	0	0	8	2	10	118
8:15 AM	0	0	0	0	3	0	3	0	0	0	0	9	75	84	0	0	0	0	4	33	37	0	0	0	0	18	3	21	145
8:30 AM	0	0	0	0	0	3	3	0	0	0	0	3	66	69	0	0	0	0	1	24	25	0	0	0	0	13	1	14	111
Total Volume	0	0	0	0	3	8	11	0	0	0	0	17	273	290	0	0	0	0	10	121	131	0	0	0	0	46	8	54	486
% Approach Total	0.0	0.0	0.0	0.0	27.3	72.7		0.0	0.0	0.0	0.0	5.9	94.1		0.0	0.0	0.0	0.0	7.6	92.4		0.0	0.0	0.0	0.0	85.2	14.8		
PHF	0.000	0.000	0.000	0.000	0.250	0.667	0.917	0.000	0.000	0.000	0.000	0.472	0.910	0.863	0.000	0.000	0.000	0.000	0.625	0.917	0.885	0.000	0.000	0.000	0.000	0.639	0.667	0.643	0.838
Entering Leg	0	0	0	0	3	8	11	0	0	0	0	17	273	290	0	0	0	0	10	121	131	0	0	0	0	46	8	54	486
Exiting Leg							11							290							131							54	486
Total							22							580							262							108	972

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	3	100	134	0	237	43	169	2	0	214	0	63	28	0	91	15	248	0	0	263	805
3:15 PM	7	82	122	0	211	50	195	1	0	246	5	49	26	0	80	11	295	0	0	306	843
3:30 PM	10	95	173	0	278	48	182	1	0	231	5	56	27	0	88	16	233	0	0	249	846
3:45 PM	5	101	112	0	218	54	210	0	0	264	2	46	29	0	77	11	278	0	0	289	848
Total	25	378	541	0	944	195	756	4	0	955	12	214	110	0	336	53	1054	0	0	1107	3342
4:00 PM	4	123	151	0	278	55	166	0	0	221	4	54	31	0	89	2	226	0	0	228	816
4:15 PM	2	111	150	0	263	42	193	0	0	235	2	52	25	0	79	7	232	0	0	239	816
4:30 PM	6	117	140	0	263	65	159	1	0	225	2	63	32	0	97	9	210	0	0	219	804
4:45 PM	4	109	125	0	238	63	200	0	0	263	4	45	22	0	71	10	224	0	0	234	806
Total	16	460	566	0	1042	225	718	1	0	944	12	214	110	0	336	28	892	0	0	920	3242
5:00 PM	6	147	159	0	312	51	173	0	0	224	1	43	29	0	73	11	224	0	0	235	844
5:15 PM	2	111	155	0	268	60	181	1	0	242	9	53	20	0	82	14	216	0	0	230	822
5:30 PM	2	115	167	1	285	51	149	1	0	201	7	69	36	0	112	12	207	0	0	219	817
5:45 PM	1	77	145	0	223	78	178	0	0	256	5	45	24	0	74	18	237	0	0	255	808
Total	11	450	626	1	1088	240	681	2	0	923	22	210	109	0	341	55	884	0	0	939	3291
Grand Total	52	1288	1733	1	3074	660	2155	7	0	2822	46	638	329	0	1013	136	2830	0	0	2966	9875
Approach %	1.7	41.9	56.4	0.0		23.4	76.4	0.2	0.0		4.5	63.0	32.5	0.0		4.6	95.4	0.0	0.0		
Total %	0.5	13.0	17.5	0.0	31.1	6.7	21.8	0.1	0.0	28.6	0.5	6.5	3.3	0.0	10.3	1.4	28.7	0.0	0.0	30.0	
Exiting Leg Total					1299					4609					1431					2536	9875
Cars	51	1223	1723	1	2998	651	2139	6	0	2796	46	578	328	0	952	135	2813	0	0	2948	9694
% Cars	98.1	95.0	99.4	100.0	97.5	98.6	99.3	85.7	0.0	99.1	100.0	90.6	99.7	0.0	94.0	99.3	99.4	0.0	0.0	99.4	98.2
Exiting Leg Total					1230					4582					1364					2518	9694
Heavy Vehicles	1	65	10	0	76	9	16	1	0	26	0	60	1	0	61	1	17	0	0	18	181
% Heavy Vehicles	1.9	5.0	0.6	0.0	2.5	1.4	0.7	14.3	0.0	0.9	0.0	9.4	0.3	0.0	6.0	0.7	0.6	0.0	0.0	0.6	1.8
Exiting Leg Total					69					27					67					18	181

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:15 PM	7	82	122	0	211	50	195	1	0	246	5	49	26	0	80	11	295	0	0	306	843
3:30 PM	10	95	173	0	278	48	182	1	0	231	5	56	27	0	88	16	233	0	0	249	846
3:45 PM	5	101	112	0	218	54	210	0	0	264	2	46	29	0	77	11	278	0	0	289	848
4:00 PM	4	123	151	0	278	55	166	0	0	221	4	54	31	0	89	2	226	0	0	228	816
Total Volume	26	401	558	0	985	207	753	2	0	962	16	205	113	0	334	40	1032	0	0	1072	3353
% Approach Total	2.6	40.7	56.6	0.0		21.5	78.3	0.2	0.0		4.8	61.4	33.8	0.0		3.7	96.3	0.0	0.0		
PHF	0.650	0.815	0.806	0.000	0.886	0.941	0.896	0.500	0.000	0.911	0.800	0.915	0.911	0.000	0.938	0.625	0.875	0.000	0.000	0.876	0.989
Cars	26	376	554	0	956	204	743	2	0	949	16	187	113	0	316	40	1029	0	0	1069	3290
Cars %	100.0	93.8	99.3	0.0	97.1	98.6	98.7	100.0	0.0	98.6	100.0	91.2	100.0	0.0	94.6	100.0	99.7	0.0	0.0	99.7	98.1
Heavy Vehicles	0	25	4	0	29	3	10	0	0	13	0	18	0	0	18	0	3	0	0	3	63
Heavy Vehicles %	0.0	6.2	0.7	0.0	2.9	1.4	1.3	0.0	0.0	1.4	0.0	8.8	0.0	0.0	5.4	0.0	0.3	0.0	0.0	0.3	1.9
Cars Enter Leg	26	376	554	0	956	204	743	2	0	949	16	187	113	0	316	40	1029	0	0	1069	3290
Heavy Enter Leg	0	25	4	0	29	3	10	0	0	13	0	18	0	0	18	0	3	0	0	3	63
Total Entering Leg	26	401	558	0	985	207	753	2	0	962	16	205	113	0	334	40	1032	0	0	1072	3353
Cars Exiting Leg					391					1599					418					882	3290
Heavy Exiting Leg					21					7					25					10	63
Total Exiting Leg					412					1606					443					892	3353

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Cars

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	3	96	134	0	233	43	168	2	0	213	0	58	28	0	86	14	247	0	0	261	793
3:15 PM	7	75	121	0	203	49	192	1	0	242	5	47	26	0	78	11	294	0	0	305	828
3:30 PM	10	88	173	0	271	46	180	1	0	227	5	50	27	0	82	16	233	0	0	249	829
3:45 PM	5	98	112	0	215	54	208	0	0	262	2	43	29	0	74	11	277	0	0	288	839
Total	25	357	540	0	922	192	748	4	0	944	12	198	110	0	320	52	1051	0	0	1103	3289
4:00 PM	4	115	148	0	267	55	163	0	0	218	4	47	31	0	82	2	225	0	0	227	794
4:15 PM	2	109	149	0	260	42	192	0	0	234	2	49	24	0	75	7	227	0	0	234	803
4:30 PM	6	113	140	0	259	65	158	1	0	224	2	56	32	0	90	9	208	0	0	217	790
4:45 PM	3	103	125	0	231	60	199	0	0	259	4	41	22	0	67	10	223	0	0	233	790
Total	15	440	562	0	1017	222	712	1	0	935	12	193	109	0	314	28	883	0	0	911	3177
5:00 PM	6	139	158	0	303	51	173	0	0	224	1	36	29	0	66	11	222	0	0	233	826
5:15 PM	2	106	154	0	262	59	179	1	0	239	9	48	20	0	77	14	214	0	0	228	806
5:30 PM	2	110	165	1	278	51	149	0	0	200	7	65	36	0	108	12	207	0	0	219	805
5:45 PM	1	71	144	0	216	76	178	0	0	254	5	38	24	0	67	18	236	0	0	254	791
Total	11	426	621	1	1059	237	679	1	0	917	22	187	109	0	318	55	879	0	0	934	3228
Grand Total	51	1223	1723	1	2998	651	2139	6	0	2796	46	578	328	0	952	135	2813	0	0	2948	9694
Approach %	1.7	40.8	57.5	0.0		23.3	76.5	0.2	0.0		4.8	60.7	34.5	0.0		4.6	95.4	0.0	0.0		
Total %	0.5	12.6	17.8	0.0	30.9	6.7	22.1	0.1	0.0	28.8	0.5	6.0	3.4	0.0	9.8	1.4	29.0	0.0	0.0	30.4	
Exiting Leg Total					1230					4582					1364					2518	9694

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:15 PM	7	75	121	0	203	49	192	1	0	242	5	47	26	0	78	11	294	0	0	305	828
3:30 PM	10	88	173	0	271	46	180	1	0	227	5	50	27	0	82	16	233	0	0	249	829
3:45 PM	5	98	112	0	215	54	208	0	0	262	2	43	29	0	74	11	277	0	0	288	839
4:00 PM	4	115	148	0	267	55	163	0	0	218	4	47	31	0	82	2	225	0	0	227	794
Total Volume	26	376	554	0	956	204	743	2	0	949	16	187	113	0	316	40	1029	0	0	1069	3290
% Approach Total	2.7	39.3	57.9	0.0		21.5	78.3	0.2	0.0		5.1	59.2	35.8	0.0		3.7	96.3	0.0	0.0		
PHF	0.650	0.817	0.801	0.000	0.882	0.927	0.893	0.500	0.000	0.906	0.800	0.935	0.911	0.000	0.963	0.625	0.875	0.000	0.000	0.876	0.980
Entering Leg	26	376	554	0	956	204	743	2	0	949	16	187	113	0	316	40	1029	0	0	1069	3290
Exiting Leg					391					1599					418					882	3290
Total					1347					2548					734					1951	6580

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	4	0	0	4	0	1	0	0	1	0	5	0	0	5	1	1	0	0	2	12
3:15 PM	0	7	1	0	8	1	3	0	0	4	0	2	0	0	2	0	1	0	0	1	15
3:30 PM	0	7	0	0	7	2	2	0	0	4	0	6	0	0	6	0	0	0	0	0	17
3:45 PM	0	3	0	0	3	0	2	0	0	2	0	3	0	0	3	0	1	0	0	1	9
Total	0	21	1	0	22	3	8	0	0	11	0	16	0	0	16	1	3	0	0	4	53
4:00 PM	0	8	3	0	11	0	3	0	0	3	0	7	0	0	7	0	1	0	0	1	22
4:15 PM	0	2	1	0	3	0	1	0	0	1	0	3	1	0	4	0	5	0	0	5	13
4:30 PM	0	4	0	0	4	0	1	0	0	1	0	7	0	0	7	0	2	0	0	2	14
4:45 PM	1	6	0	0	7	3	1	0	0	4	0	4	0	0	4	0	1	0	0	1	16
Total	1	20	4	0	25	3	6	0	0	9	0	21	1	0	22	0	9	0	0	9	65
5:00 PM	0	8	1	0	9	0	0	0	0	0	0	7	0	0	7	0	2	0	0	2	18
5:15 PM	0	5	1	0	6	1	2	0	0	3	0	5	0	0	5	0	2	0	0	2	16
5:30 PM	0	5	2	0	7	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	12
5:45 PM	0	6	1	0	7	2	0	0	0	2	0	7	0	0	7	0	1	0	0	1	17
Total	0	24	5	0	29	3	2	1	0	6	0	23	0	0	23	0	5	0	0	5	63
Grand Total	1	65	10	0	76	9	16	1	0	26	0	60	1	0	61	1	17	0	0	18	181
Approach %	1.3	85.5	13.2	0.0		34.6	61.5	3.8	0.0		0.0	98.4	1.6	0.0		5.6	94.4	0.0	0.0		
Total %	0.6	35.9	5.5	0.0	42.0	5.0	8.8	0.6	0.0	14.4	0.0	33.1	0.6	0.0	33.7	0.6	9.4	0.0	0.0	9.9	
Exiting Leg Total					69					27					67					18	181
Buses	1	49	4	0	54	4	10	1	0	15	0	51	1	0	52	1	11	0	0	12	133
% Buses	100.0	75.4	40.0	0.0	71.1	44.4	62.5	100.0	0.0	57.7	0.0	85.0	100.0	0.0	85.2	100.0	64.7	0.0	0.0	66.7	73.5
Exiting Leg Total					55					15					51					12	133
Single-Unit Trucks	0	16	6	0	22	5	6	0	0	11	0	8	0	0	8	0	6	0	0	6	47
% Single-Unit	0.0	24.6	60.0	0.0	28.9	55.6	37.5	0.0	0.0	42.3	0.0	13.3	0.0	0.0	13.1	0.0	35.3	0.0	0.0	33.3	26.0
Exiting Leg Total					13					12					16					6	47
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.6
Exiting Leg Total					1					0					0					0	1

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	8	3	0	11	0	3	0	0	3	0	7	0	0	7	0	1	0	0	1	22
4:15 PM	0	2	1	0	3	0	1	0	0	1	0	3	1	0	4	0	5	0	0	5	13
4:30 PM	0	4	0	0	4	0	1	0	0	1	0	7	0	0	7	0	2	0	0	2	14
4:45 PM	1	6	0	0	7	3	1	0	0	4	0	4	0	0	4	0	1	0	0	1	16
Total Volume	1	20	4	0	25	3	6	0	0	9	0	21	1	0	22	0	9	0	0	9	65
% Approach Total	4.0	80.0	16.0	0.0		33.3	66.7	0.0	0.0		0.0	95.5	4.5	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.625	0.333	0.000	0.568	0.250	0.500	0.000	0.000	0.563	0.000	0.750	0.250	0.000	0.786	0.000	0.450	0.000	0.000	0.450	0.739
Buses	1	17	2	0	20	0	3	0	0	3	0	17	1	0	18	0	7	0	0	7	48
Buses %	100.0	85.0	50.0	0.0	80.0	0.0	50.0	0.0	0.0	33.3	0.0	81.0	100.0	0.0	81.8	0.0	77.8	0.0	0.0	77.8	73.8
Single-Unit Trucks	0	3	2	0	5	3	3	0	0	6	0	4	0	0	4	0	2	0	0	2	17
Single-Unit %	0.0	15.0	50.0	0.0	20.0	100.0	50.0	0.0	0.0	66.7	0.0	19.0	0.0	0.0	18.2	0.0	22.2	0.0	0.0	22.2	26.2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	1	17	2	0	20	0	3	0	0	3	0	17	1	0	18	0	7	0	0	7	48
Single-Unit Trucks	0	3	2	0	5	3	3	0	0	6	0	4	0	0	4	0	2	0	0	2	17
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	1	20	4	0	25	3	6	0	0	9	0	21	1	0	22	0	9	0	0	9	65
Buses					17					9					17					5	48
Single-Unit Trucks					7					4					3					3	17
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					24					13					20					8	65

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	9
3:15 PM	0	5	0	0	5	1	2	0	0	3	0	1	0	0	1	0	0	0	0	0	9
3:30 PM	0	6	0	0	6	2	1	0	0	3	0	5	0	0	5	0	0	0	0	0	14
3:45 PM	0	2	0	0	2	0	2	0	0	2	0	3	0	0	3	0	0	0	0	0	7
Total	0	16	0	0	16	3	5	0	0	8	0	14	0	0	14	1	0	0	0	1	39
4:00 PM	0	5	1	0	6	0	3	0	0	3	0	6	0	0	6	0	1	0	0	1	16
4:15 PM	0	2	1	0	3	0	0	0	0	0	0	3	1	0	4	0	4	0	0	4	11
4:30 PM	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	0	1	0	0	1	11
4:45 PM	1	6	0	0	7	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	10
Total	1	17	2	0	20	0	3	0	0	3	0	17	1	0	18	0	7	0	0	7	48
5:00 PM	0	6	1	0	7	0	0	0	0	0	0	6	0	0	6	0	2	0	0	2	15
5:15 PM	0	5	0	0	5	1	2	0	0	3	0	5	0	0	5	0	1	0	0	1	14
5:30 PM	0	0	1	0	1	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	5
5:45 PM	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	0	1	0	0	1	12
Total	0	16	2	0	18	1	2	1	0	4	0	20	0	0	20	0	4	0	0	4	46
Grand Total	1	49	4	0	54	4	10	1	0	15	0	51	1	0	52	1	11	0	0	12	133
Approach %	1.9	90.7	7.4	0.0		26.7	66.7	6.7	0.0		0.0	98.1	1.9	0.0		8.3	91.7	0.0	0.0		
Total %	0.8	36.8	3.0	0.0	40.6	3.0	7.5	0.8	0.0	11.3	0.0	38.3	0.8	0.0	39.1	0.8	8.3	0.0	0.0	9.0	
Exiting Leg Total					55					15					51					12	133

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:30 PM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	0	1	0	0	1	11
4:45 PM	1	6	0	0	7	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	10
5:00 PM	0	6	1	0	7	0	0	0	0	0	0	6	0	0	6	0	2	0	0	2	15
5:15 PM	0	5	0	0	5	1	2	0	0	3	0	5	0	0	5	0	1	0	0	1	14
Total Volume	1	21	1	0	23	1	2	0	0	3	0	19	0	0	19	0	5	0	0	5	50
% Approach Total	4.3	91.3	4.3	0.0		33.3	66.7	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.875	0.250	0.000	0.821	0.250	0.250	0.000	0.000	0.250	0.000	0.792	0.000	0.000	0.792	0.000	0.625	0.000	0.000	0.625	0.833
Entering Leg	1	21	1	0	23	1	2	0	0	3	0	19	0	0	19	0	5	0	0	5	50
Exiting Leg					20					6					21					3	50
Total					43					9					40					8	100

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Single-Unit Trucks

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3
3:15 PM	0	2	1	0	3	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	6
3:30 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
3:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	0	5	1	0	6	0	3	0	0	3	0	1	0	0	1	0	3	0	0	3	13
4:00 PM	0	3	2	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	6
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	3
4:45 PM	0	0	0	0	0	3	1	0	0	4	0	2	0	0	2	0	0	0	0	0	6
Total	0	3	2	0	5	3	3	0	0	6	0	4	0	0	4	0	2	0	0	2	17
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
5:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
5:30 PM	0	5	1	0	6	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	7
5:45 PM	0	1	1	0	2	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	5
Total	0	8	3	0	11	2	0	0	0	2	0	3	0	0	3	0	1	0	0	1	17
Grand Total	0	16	6	0	22	5	6	0	0	11	0	8	0	0	8	0	6	0	0	6	47
Approach %	0.0	72.7	27.3	0.0		45.5	54.5	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	34.0	12.8	0.0	46.8	10.6	12.8	0.0	0.0	23.4	0.0	17.0	0.0	0.0	17.0	0.0	12.8	0.0	0.0	12.8	
Exiting Leg Total					13					12					16					6	47

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	3	1	0	0	4	0	2	0	0	2	0	0	0	0	0	6
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
5:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
5:30 PM	0	5	1	0	6	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	7
Total Volume	0	7	2	0	9	3	1	0	0	4	0	4	0	0	4	0	1	0	0	1	18
% Approach Total	0.0	77.8	22.2	0.0		75.0	25.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.350	0.500	0.000	0.375	0.250	0.250	0.000	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.250	0.643
Entering Leg	0	7	2	0	9	3	1	0	0	4	0	4	0	0	4	0	1	0	0	1	18
Exiting Leg					7					3					7					1	18
Total					16					7					11					2	36

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Articulated Trucks

	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1					0					0					0	1

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Brookline Avenue from North					Riverway from East					Brookline Avenue from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Exiting Leg					1					0					0					0	1
Total					1					0					1					0	2

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Brookline Avenue from North							Riverway from East							Brookline Avenue from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	3	0	0	1	0	4	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7
3:15 PM	0	2	0	0	0	0	2	0	0	0	0	4	1	5	0	0	0	0	0	1	1	0	0	0	0	0	0	0	8
3:30 PM	0	4	0	0	0	0	4	0	0	0	0	1	1	2	0	0	0	0	0	0	0	1	0	0	0	0	1	2	8
3:45 PM	0	1	0	0	0	0	1	0	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7
Total	0	10	0	0	1	0	11	0	0	0	0	11	3	14	0	0	0	0	0	1	1	1	0	0	0	0	3	4	30
4:00 PM	1	1	0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	7
4:15 PM	0	5	0	0	1	0	6	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	1	2	9
4:30 PM	0	5	0	0	0	2	7	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	9
4:45 PM	1	2	0	0	1	0	4	1	0	0	0	2	2	5	0	1	0	0	0	0	1	0	0	0	0	0	2	2	12
Total	2	13	0	0	2	4	21	1	0	0	0	2	2	5	0	4	0	0	0	0	4	0	0	0	0	1	6	7	37
5:00 PM	0	2	0	0	0	0	2	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	0	5	1	0	0	1	7	0	0	0	0	4	0	4	0	2	0	0	0	1	3	0	1	0	0	0	0	1	15
5:30 PM	0	4	1	0	0	1	6	1	0	0	0	4	0	5	0	0	0	0	0	0	0	0	0	1	0	0	0	1	12
5:45 PM	1	1	0	0	1	1	4	0	0	2	0	5	0	7	1	2	0	0	0	0	3	0	0	0	0	0	0	0	14
Total	1	12	2	0	1	3	19	1	0	2	0	16	0	19	1	4	0	0	0	1	6	0	1	1	0	0	0	2	46
Grand Total	3	35	2	0	4	7	51	2	0	2	0	29	5	38	1	8	0	0	0	2	11	1	1	1	0	1	9	13	113
Approach %	5.9	68.6	3.9	0.0	7.8	13.7		5.3	0.0	5.3	0.0	76.3	13.2		9.1	72.7	0.0	0.0	0.0	18.2		7.7	7.7	7.7	0.0	7.7	69.2		
Total %	2.7	31.0	1.8	0.0	3.5	6.2	45.1	1.8	0.0	1.8	0.0	25.7	4.4	33.6	0.9	7.1	0.0	0.0	0.0	1.8	9.7	0.9	0.9	0.9	0.0	0.9	8.0	11.5	
Exiting Leg Total							22							38							40							13	113

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Brookline Avenue from North							Riverway from East							Brookline Avenue from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	2	0	0	0	0	2	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	0	5	1	0	0	1	7	0	0	0	0	4	0	4	0	2	0	0	0	1	3	0	1	0	0	0	0	1	15
5:30 PM	0	4	1	0	0	1	6	1	0	0	0	4	0	5	0	0	0	0	0	0	0	0	0	1	0	0	0	1	12
5:45 PM	1	1	0	0	1	1	4	0	0	2	0	5	0	7	1	2	0	0	0	0	3	0	0	0	0	0	0	0	14
Total Volume	1	12	2	0	1	3	19	1	0	2	0	16	0	19	1	4	0	0	0	1	6	0	1	1	0	0	0	2	46
% Approach Total	5.3	63.2	10.5	0.0	5.3	15.8		5.3	0.0	10.5	0.0	84.2	0.0		16.7	66.7	0.0	0.0	0.0	16.7		0.0	50.0	50.0	0.0	0.0	0.0		
PHF	0.250	0.600	0.500	0.000	0.250	0.750	0.679	0.250	0.000	0.250	0.000	0.800	0.000	0.679	0.250	0.500	0.000	0.000	0.000	0.250	0.500	0.000	0.250	0.250	0.000	0.000	0.000	0.500	0.767
Entering Leg	1	12	2	0	1	3	19	1	0	2	0	16	0	19	1	4	0	0	0	1	6	0	1	1	0	0	0	2	46
Exiting Leg							10							20							15							1	46
Total							29							39							21							3	92

PDI File #: **239743 J**
Location: **N: Brookline Avenue S: Brookline Avenue**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Brookline Avenue from North							Riverway from East							Brookline Avenue from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	2	1	3	0	0	0	0	15	7	22	0	0	0	0	8	2	10	0	0	0	0	2	5	7	42
3:15 PM	0	0	0	0	1	4	5	0	0	0	0	7	7	14	0	0	0	0	7	6	13	0	0	0	0	2	13	15	47
3:30 PM	0	0	0	0	2	3	5	0	0	0	0	16	4	20	0	0	0	0	12	1	13	0	0	0	0	1	8	9	47
3:45 PM	0	0	0	0	5	3	8	0	0	0	0	22	8	30	0	0	0	0	11	3	14	0	0	0	0	1	5	6	58
Total	0	0	0	0	10	11	21	0	0	0	0	60	26	86	0	0	0	0	38	12	50	0	0	0	0	6	31	37	194
4:00 PM	0	0	0	0	3	5	8	0	0	0	0	29	5	34	0	0	0	0	13	2	15	0	0	0	0	2	19	21	78
4:15 PM	0	0	0	0	6	16	22	0	0	0	0	19	5	24	0	0	0	0	17	3	20	0	0	0	0	4	25	29	95
4:30 PM	0	0	0	0	5	9	14	0	0	0	0	29	3	32	0	0	0	0	23	3	26	0	0	0	0	2	31	33	105
4:45 PM	0	0	0	0	1	11	12	0	0	0	0	14	9	23	0	0	0	0	8	1	9	0	0	0	0	1	19	20	64
Total	0	0	0	0	15	41	56	0	0	0	0	91	22	113	0	0	0	0	61	9	70	0	0	0	0	9	94	103	342
5:00 PM	0	0	0	0	4	5	9	0	0	0	0	31	4	35	0	0	0	0	20	1	21	0	0	0	0	3	23	26	91
5:15 PM	0	0	0	0	4	5	9	0	0	0	0	42	3	45	0	0	0	0	33	1	34	0	0	0	0	4	18	22	110
5:30 PM	0	0	0	0	1	3	4	0	0	0	0	39	0	39	0	0	0	0	32	0	32	0	0	0	0	1	17	18	93
5:45 PM	0	0	0	0	3	3	6	0	0	0	0	20	5	25	0	0	0	0	21	2	23	0	0	0	0	0	13	13	67
Total	0	0	0	0	12	16	28	0	0	0	0	132	12	144	0	0	0	0	106	4	110	0	0	0	0	8	71	79	361
Grand Total	0	0	0	0	37	68	105	0	0	0	0	283	60	343	0	0	0	0	205	25	230	0	0	0	0	23	196	219	897
Approach %	0	0	0	0	35.2	64.8		0	0	0	0	82.5	17.5		0	0	0	0	89.1	10.9		0	0	0	0	10.5	89.5		
Total %	0	0	0	0	4.12	7.58	11.7	0	0	0	0	31.5	6.69	38.2	0	0	0	0	22.9	2.79	25.6	0	0	0	0	2.56	21.9	24.4	
Exiting Leg Total							105							343							230							219	897

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:30 PM	Brookline Avenue from North							Riverway from East							Brookline Avenue from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:30 PM	0	0	0	0	5	9	14	0	0	0	0	29	3	32	0	0	0	0	23	3	26	0	0	0	0	2	31	33	105
4:45 PM	0	0	0	0	1	11	12	0	0	0	0	14	9	23	0	0	0	0	8	1	9	0	0	0	0	1	19	20	64
5:00 PM	0	0	0	0	4	5	9	0	0	0	0	31	4	35	0	0	0	0	20	1	21	0	0	0	0	3	23	26	91
5:15 PM	0	0	0	0	4	5	9	0	0	0	0	42	3	45	0	0	0	0	33	1	34	0	0	0	0	4	18	22	110
Total Volume	0	0	0	0	14	30	44	0	0	0	0	116	19	135	0	0	0	0	84	6	90	0	0	0	0	10	91	101	370
% Approach Total	0.0	0.0	0.0	0.0	31.8	68.2		0.0	0.0	0.0	0.0	85.9	14.1		0.0	0.0	0.0	0.0	93.3	6.7		0.0	0.0	0.0	0.0	9.9	90.1		
PHF	0.000	0.000	0.000	0.000	0.700	0.682	0.786	0.000	0.000	0.000	0.000	0.690	0.528	0.750	0.000	0.000	0.000	0.000	0.636	0.500	0.662	0.000	0.000	0.000	0.000	0.625	0.734	0.765	0.841
Entering Leg	0	0	0	0	14	30	44	0	0	0	0	116	19	135	0	0	0	0	84	6	90	0	0	0	0	10	91	101	370
Exiting Leg							44							135							90							101	370
Total							88							270							180							202	740

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	1	56	9	0	66	8	0	1	0	9	2	144	0	0	146	0	2	5	0	7	228
6:15 AM	3	81	13	0	97	6	0	0	0	6	2	190	1	0	193	1	4	9	0	14	310
6:30 AM	2	101	28	0	131	23	1	0	0	24	6	210	0	0	216	1	4	9	0	14	385
6:45 AM	10	124	38	0	172	26	0	0	0	26	11	250	1	0	262	1	6	9	0	16	476
Total	16	362	88	0	466	63	1	1	0	65	21	794	2	0	817	3	16	32	0	51	1399
7:00 AM	8	156	17	0	181	31	0	2	0	33	8	242	1	0	251	0	7	14	0	21	486
7:15 AM	8	160	22	0	190	19	0	1	0	20	7	274	0	0	281	0	4	15	0	19	510
7:30 AM	10	216	20	0	246	30	2	0	0	32	5	275	0	0	280	0	5	15	0	20	578
7:45 AM	16	208	33	0	257	26	2	0	0	28	7	278	0	0	285	0	5	25	0	30	600
Total	42	740	92	0	874	106	4	3	0	113	27	1069	1	0	1097	0	21	69	0	90	2174
8:00 AM	17	194	33	0	244	28	1	0	0	29	5	264	0	0	269	0	7	42	0	49	591
8:15 AM	10	144	18	0	172	15	1	1	0	17	10	294	0	0	304	0	14	31	0	45	538
8:30 AM	10	140	23	0	173	23	2	0	0	25	8	265	2	0	275	0	4	25	0	29	502
8:45 AM	7	122	20	0	149	28	2	0	0	30	3	283	0	0	286	0	4	51	0	55	520
Total	44	600	94	0	738	94	6	1	0	101	26	1106	2	0	1134	0	29	149	0	178	2151
Grand Total	102	1702	274	0	2078	263	11	5	0	279	74	2969	5	0	3048	3	66	250	0	319	5724
Approach %	4.9	81.9	13.2	0.0		94.3	3.9	1.8	0.0		2.4	97.4	0.2	0.0		0.9	20.7	78.4	0.0		
Total %	1.8	29.7	4.8	0.0	36.3	4.6	0.2	0.1	0.0	4.9	1.3	51.9	0.1	0.0	53.2	0.1	1.2	4.4	0.0	5.6	
Exiting Leg Total					3482					414					1710					118	5724
Cars	102	1681	272	0	2055	253	11	5	0	269	73	2948	5	0	3026	3	62	248	0	313	5663
% Cars	100.0	98.8	99.3	0.0	98.9	96.2	100.0	100.0	0.0	96.4	98.6	99.3	100.0	0.0	99.3	100.0	93.9	99.2	0.0	98.1	98.9
Exiting Leg Total					3449					407					1689					118	5663
Heavy Vehicles	0	21	2	0	23	10	0	0	0	10	1	21	0	0	22	0	4	2	0	6	61
% Heavy Vehicles	0.0	1.2	0.7	0.0	1.1	3.8	0.0	0.0	0.0	3.6	1.4	0.7	0.0	0.0	0.7	0.0	6.1	0.8	0.0	1.9	1.1
Exiting Leg Total					33					7					21					0	61

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	10	216	20	0	246	30	2	0	0	32	5	275	0	0	280	0	5	15	0	20	578
7:45 AM	16	208	33	0	257	26	2	0	0	28	7	278	0	0	285	0	5	25	0	30	600
8:00 AM	17	194	33	0	244	28	1	0	0	29	5	264	0	0	269	0	7	42	0	49	591
8:15 AM	10	144	18	0	172	15	1	1	0	17	10	294	0	0	304	0	14	31	0	45	538
Total Volume	53	762	104	0	919	99	6	1	0	106	27	1111	0	0	1138	0	31	113	0	144	2307
% Approach Total	5.8	82.9	11.3	0.0		93.4	5.7	0.9	0.0		2.4	97.6	0.0	0.0		0.0	21.5	78.5	0.0		
PHF	0.779	0.882	0.788	0.000	0.894	0.825	0.750	0.250	0.000	0.828	0.675	0.945	0.000	0.000	0.936	0.000	0.554	0.673	0.000	0.735	0.961
Cars	53	746	103	0	902	93	6	1	0	100	26	1101	0	0	1127	0	28	112	0	140	2269
Cars %	100.0	97.9	99.0	0.0	98.2	93.9	100.0	100.0	0.0	94.3	96.3	99.1	0.0	0.0	99.0	0.0	90.3	99.1	0.0	97.2	98.4
Heavy Vehicles	0	16	1	0	17	6	0	0	0	6	1	10	0	0	11	0	3	1	0	4	38
Heavy Vehicles %	0.0	2.1	1.0	0.0	1.8	6.1	0.0	0.0	0.0	5.7	3.7	0.9	0.0	0.0	1.0	0.0	9.7	0.9	0.0	2.8	1.6
Cars Enter Leg	53	746	103	0	902	93	6	1	0	100	26	1101	0	0	1127	0	28	112	0	140	2269
Heavy Enter Leg	0	16	1	0	17	6	0	0	0	6	1	10	0	0	11	0	3	1	0	4	38
Total Entering Leg	53	762	104	0	919	99	6	1	0	106	27	1111	0	0	1138	0	31	113	0	144	2307
Cars Exiting Leg					1306					157					747					59	2269
Heavy Exiting Leg					17					5					16					0	38
Total Exiting Leg					1323					162					763					59	2307

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	1	56	9	0	66	8	0	1	0	9	2	143	0	0	145	0	2	5	0	7	227
6:15 AM	3	81	13	0	97	6	0	0	0	6	2	189	1	0	192	1	4	9	0	14	309
6:30 AM	2	101	28	0	131	21	1	0	0	22	6	209	0	0	215	1	3	9	0	13	381
6:45 AM	10	123	38	0	171	25	0	0	0	25	11	249	1	0	261	1	6	9	0	16	473
Total	16	361	88	0	465	60	1	1	0	62	21	790	2	0	813	3	15	32	0	50	1390
7:00 AM	8	155	17	0	180	30	0	2	0	32	8	240	1	0	249	0	7	14	0	21	482
7:15 AM	8	159	22	0	189	19	0	1	0	20	7	273	0	0	280	0	4	15	0	19	508
7:30 AM	10	212	20	0	242	29	2	0	0	31	5	274	0	0	279	0	4	15	0	19	571
7:45 AM	16	204	33	0	253	23	2	0	0	25	6	273	0	0	279	0	4	25	0	29	586
Total	42	730	92	0	864	101	4	3	0	108	26	1060	1	0	1087	0	19	69	0	88	2147
8:00 AM	17	188	33	0	238	28	1	0	0	29	5	263	0	0	268	0	7	42	0	49	584
8:15 AM	10	142	17	0	169	13	1	1	0	15	10	291	0	0	301	0	13	30	0	43	528
8:30 AM	10	138	22	0	170	23	2	0	0	25	8	263	2	0	273	0	4	24	0	28	496
8:45 AM	7	122	20	0	149	28	2	0	0	30	3	281	0	0	284	0	4	51	0	55	518
Total	44	590	92	0	726	92	6	1	0	99	26	1098	2	0	1126	0	28	147	0	175	2126
Grand Total	102	1681	272	0	2055	253	11	5	0	269	73	2948	5	0	3026	3	62	248	0	313	5663
Approach %	5.0	81.8	13.2	0.0		94.1	4.1	1.9	0.0		2.4	97.4	0.2	0.0		1.0	19.8	79.2	0.0		
Total %	1.8	29.7	4.8	0.0	36.3	4.5	0.2	0.1	0.0	4.8	1.3	52.1	0.1	0.0	53.4	0.1	1.1	4.4	0.0	5.5	
Exiting Leg Total					3449					407					1689					118	5663

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	10	212	20	0	242	29	2	0	0	31	5	274	0	0	279	0	4	15	0	19	571
7:45 AM	16	204	33	0	253	23	2	0	0	25	6	273	0	0	279	0	4	25	0	29	586
8:00 AM	17	188	33	0	238	28	1	0	0	29	5	263	0	0	268	0	7	42	0	49	584
8:15 AM	10	142	17	0	169	13	1	1	0	15	10	291	0	0	301	0	13	30	0	43	528
Total Volume	53	746	103	0	902	93	6	1	0	100	26	1101	0	0	1127	0	28	112	0	140	2269
% Approach Total	5.9	82.7	11.4	0.0		93.0	6.0	1.0	0.0		2.3	97.7	0.0	0.0		0.0	20.0	80.0	0.0		
PHF	0.779	0.880	0.780	0.000	0.891	0.802	0.750	0.250	0.000	0.806	0.650	0.946	0.000	0.000	0.936	0.000	0.538	0.667	0.000	0.714	0.968
Entering Leg	53	746	103	0	902	93	6	1	0	100	26	1101	0	0	1127	0	28	112	0	140	2269
Exiting Leg					1306					157					747					59	2269
Total					2208					257					1874					199	4538

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	1	0	0	1	4
6:45 AM	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	3
Total	0	1	0	0	1	3	0	0	0	3	0	4	0	0	4	0	1	0	0	1	9
7:00 AM	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	4
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:30 AM	0	4	0	0	4	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	7
7:45 AM	0	4	0	0	4	3	0	0	0	3	1	5	0	0	6	0	1	0	0	1	14
Total	0	10	0	0	10	5	0	0	0	5	1	9	0	0	10	0	2	0	0	2	27
8:00 AM	0	6	0	0	6	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	7
8:15 AM	0	2	1	0	3	2	0	0	0	2	0	3	0	0	3	0	1	1	0	2	10
8:30 AM	0	2	1	0	3	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	6
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total	0	10	2	0	12	2	0	0	0	2	0	8	0	0	8	0	1	2	0	3	25
Grand Total	0	21	2	0	23	10	0	0	0	10	1	21	0	0	22	0	4	2	0	6	61
Approach %	0.0	91.3	8.7	0.0		100.0	0.0	0.0	0.0		4.5	95.5	0.0	0.0		0.0	66.7	33.3	0.0		
Total %	0.0	34.4	3.3	0.0	37.7	16.4	0.0	0.0	0.0	16.4	1.6	34.4	0.0	0.0	36.1	0.0	6.6	3.3	0.0	9.8	
Exiting Leg Total					33					7					21					0	61
Buses	0	17	1	0	18	2	0	0	0	2	0	8	0	0	8	0	3	0	0	3	31
% Buses	0.0	81.0	50.0	0.0	78.3	20.0	0.0	0.0	0.0	20.0	0.0	38.1	0.0	0.0	36.4	0.0	75.0	0.0	0.0	50.0	50.8
Exiting Leg Total					10					4					17					0	31
Single-Unit Trucks	0	4	1	0	5	8	0	0	0	8	1	12	0	0	13	0	1	2	0	3	29
% Single-Unit	0.0	19.0	50.0	0.0	21.7	80.0	0.0	0.0	0.0	80.0	100.0	57.1	0.0	0.0	59.1	0.0	25.0	100.0	0.0	50.0	47.5
Exiting Leg Total					22					3					4					0	29
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	1.6
Exiting Leg Total					1					0					0					0	1

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	4	0	0	4	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	7
7:45 AM	0	4	0	0	4	3	0	0	0	3	1	5	0	0	6	0	1	0	0	1	14
8:00 AM	0	6	0	0	6	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	7
8:15 AM	0	2	1	0	3	2	0	0	0	2	0	3	0	0	3	0	1	1	0	2	10
Total Volume	0	16	1	0	17	6	0	0	0	6	1	10	0	0	11	0	3	1	0	4	38
% Approach Total	0.0	94.1	5.9	0.0		100.0	0.0	0.0	0.0		9.1	90.9	0.0	0.0		0.0	75.0	25.0	0.0		
PHF	0.000	0.667	0.250	0.000	0.708	0.500	0.000	0.000	0.000	0.500	0.250	0.500	0.000	0.000	0.458	0.000	0.750	0.250	0.000	0.500	0.679
Buses	0	14	0	0	14	1	0	0	0	1	0	6	0	0	6	0	2	0	0	2	23
Buses %	0.0	87.5	0.0	0.0	82.4	16.7	0.0	0.0	0.0	16.7	0.0	60.0	0.0	0.0	54.5	0.0	66.7	0.0	0.0	50.0	60.5
Single-Unit Trucks	0	2	1	0	3	5	0	0	0	5	1	4	0	0	5	0	1	1	0	2	15
Single-Unit %	0.0	12.5	100.0	0.0	17.6	83.3	0.0	0.0	0.0	83.3	100.0	40.0	0.0	0.0	45.5	0.0	33.3	100.0	0.0	50.0	39.5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	14	0	0	14	1	0	0	0	1	0	6	0	0	6	0	2	0	0	2	23
Single-Unit Trucks	0	2	1	0	3	5	0	0	0	5	1	4	0	0	5	0	1	1	0	2	15
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	16	1	0	17	6	0	0	0	6	1	10	0	0	11	0	3	1	0	4	38
Buses					7					2					14					0	23
Single-Unit Trucks					10					3					2					0	15
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					17					5					16					0	38

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
6:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	3
7:00 AM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:30 AM	0	4	0	0	4	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	7
7:45 AM	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	1	0	0	1	9
Total	0	10	0	0	10	2	0	0	0	2	0	6	0	0	6	0	2	0	0	2	20
8:00 AM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
8:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	6	1	0	7	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	8
Grand Total	0	17	1	0	18	2	0	0	0	2	0	8	0	0	8	0	3	0	0	3	31
Approach %	0.0	94.4	5.6	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	54.8	3.2	0.0	58.1	6.5	0.0	0.0	0.0	6.5	0.0	25.8	0.0	0.0	25.8	0.0	9.7	0.0	0.0	9.7	
Exiting Leg Total					10					4					17					0	31

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:30 AM	0	4	0	0	4	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	7
7:45 AM	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	1	0	0	1	9
8:00 AM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total Volume	0	14	0	0	14	1	0	0	0	1	0	6	0	0	6	0	2	0	0	2	23
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.700	0.000	0.000	0.700	0.250	0.000	0.000	0.000	0.250	0.000	0.375	0.000	0.000	0.375	0.000	0.500	0.000	0.000	0.500	0.639
Entering Leg	0	14	0	0	14	1	0	0	0	1	0	6	0	0	6	0	2	0	0	2	23
Exiting Leg					7					2					14					0	23
Total					21					3					20					2	46

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	3
6:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	3	0	0	0	3	0	2	0	0	2	0	0	0	0	0	5
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	3	0	0	0	3	1	1	0	0	2	0	0	0	0	0	5
Total	0	0	0	0	0	3	0	0	0	3	1	3	0	0	4	0	0	0	0	0	7
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
8:15 AM	0	1	1	0	2	2	0	0	0	2	0	2	0	0	2	0	1	1	0	2	8
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	5
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total	0	4	1	0	5	2	0	0	0	2	0	7	0	0	7	0	1	2	0	3	17
Grand Total	0	4	1	0	5	8	0	0	0	8	1	12	0	0	13	0	1	2	0	3	29
Approach %	0.0	80.0	20.0	0.0		100.0	0.0	0.0	0.0		7.7	92.3	0.0	0.0		0.0	33.3	66.7	0.0		
Total %	0.0	13.8	3.4	0.0	17.2	27.6	0.0	0.0	0.0	27.6	3.4	41.4	0.0	0.0	44.8	0.0	3.4	6.9	0.0	10.3	
Exiting Leg Total					22					3					4					0	29

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	3	0	0	0	3	1	1	0	0	2	0	0	0	0	0	5
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
8:15 AM	0	1	1	0	2	2	0	0	0	2	0	2	0	0	2	0	1	1	0	2	8
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	5
Total Volume	0	4	1	0	5	5	0	0	0	5	1	6	0	0	7	0	1	2	0	3	20
% Approach Total	0.0	80.0	20.0	0.0		100.0	0.0	0.0	0.0		14.3	85.7	0.0	0.0		0.0	33.3	66.7	0.0		
PHF	0.000	0.500	0.250	0.000	0.625	0.417	0.000	0.000	0.000	0.417	0.250	0.750	0.000	0.000	0.875	0.000	0.250	0.500	0.000	0.375	0.625
Entering Leg	0	4	1	0	5	5	0	0	0	5	1	6	0	0	7	0	1	2	0	3	20
Exiting Leg					13					3					4					0	20
Total					18					8					11					3	40

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Articulated Trucks

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1					0					0					0	1

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:00 AM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Exiting Leg					1					0					0					0	1
Total					1					0					1					0	2

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Riverway from North							Pilgrim Road from East							Riverway from South							Netherlands Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	0	0	0	0	1	0	0	0	0	1	6
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	1	1	0	1	0	0	0	0	1	6
7:45 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
Total	1	0	0	0	0	0	1	0	0	0	0	1	3	4	0	0	0	0	0	1	1	0	3	0	0	0	0	3	9
8:00 AM	1	2	0	0	0	0	3	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0	1	6
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	0	0	0	0	0	2	0	1	0	0	0	0	1	5
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	1	0	0	0	0	0	2	2	0	0	0	0	0	0	0	1	2	0	0	0	0	3	6
Total	1	3	0	0	0	0	4	0	0	0	0	2	3	5	2	0	0	0	0	1	3	2	3	0	0	0	0	5	17
Grand Total	2	3	0	0	0	0	5	0	0	0	0	6	8	14	2	0	0	0	0	2	4	2	7	0	0	0	0	9	32
Approach %	40.0	60.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	42.9	57.1		50.0	0.0	0.0	0.0	0.0	50.0		22.2	77.8	0.0	0.0	0.0	0.0		
Total %	6.3	9.4	0.0	0.0	0.0	0.0	15.6	0.0	0.0	0.0	0.0	18.8	25.0	43.8	6.3	0.0	0.0	0.0	0.0	6.3	12.5	6.3	21.9	0.0	0.0	0.0	0.0	28.1	
Exiting Leg Total							0							23							7							2	32

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway from North							Pilgrim Road from East							Riverway from South							Netherlands Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	1	1	0	1	0	0	0	0	1	6
7:45 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
8:00 AM	1	2	0	0	0	0	3	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0	1	6
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	0	0	0	0	0	2	0	1	0	0	0	0	1	5
Total Volume	2	2	0	0	0	0	4	0	0	0	0	3	4	7	2	0	0	0	0	2	4	1	3	0	0	0	0	4	19
% Approach Total	50.0	50.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	42.9	57.1		50.0	0.0	0.0	0.0	0.0	50.0		25.0	75.0	0.0	0.0	0.0	0.0		
PHF	0.500	0.250	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.375	0.333	0.438	0.250	0.000	0.000	0.000	0.000	0.500	0.500	0.250	0.750	0.000	0.000	0.000	0.000	1.000	0.792
Entering Leg	2	2	0	0	0	0	4	0	0	0	0	3	4	7	2	0	0	0	0	2	4	1	3	0	0	0	0	4	19
Exiting Leg							0							12							5							2	19
Total							4							19							9							6	38

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Riverway from North							Pilgrim Road from East							Riverway from South							Netherlands Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	2	2	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
6:15 AM	0	0	0	0	0	3	3	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5
6:30 AM	0	0	0	0	0	2	2	0	0	0	0	2	0	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	5
6:45 AM	0	0	0	0	0	4	4	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	7
Total	0	0	0	0	0	11	11	0	0	0	0	4	2	6	0	0	0	0	1	3	4	0	0	0	0	0	0	0	21
7:00 AM	0	0	0	0	1	0	1	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
7:15 AM	0	0	0	0	1	1	2	0	0	0	0	2	2	4	0	0	0	0	1	0	1	0	0	0	0	1	0	1	8
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	4	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
7:45 AM	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	2	2	4	0	0	0	0	10	6	16	0	0	0	0	1	0	1	0	0	0	0	1	0	1	22
8:00 AM	0	0	0	0	0	3	3	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	1	2	3	10
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0	0	1	1	2	9
8:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	2	2	4	0	0	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0	0	1	2	3	12
Total	0	0	0	0	2	6	8	0	0	0	0	7	9	16	0	0	0	0	0	0	0	0	0	0	0	3	5	8	32
Grand Total	0	0	0	0	4	19	23	0	0	0	0	21	17	38	0	0	0	0	2	3	5	0	0	0	0	4	5	9	75
Approach %	0	0	0	0	17.4	82.6		0	0	0	0	55.3	44.7		0	0	0	0	40	60		0	0	0	0	44.4	55.6		
Total %	0	0	0	0	5.33	25.3	30.7	0	0	0	0	28	22.7	50.7	0	0	0	0	2.67	4	6.67	0	0	0	0	5.33	6.67	12	
Exiting Leg Total							23							38							5							9	75

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Riverway from North							Pilgrim Road from East							Riverway from South							Netherlands Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	3	3	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	1	2	3	10
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0	0	1	1	2	9
8:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	2	2	4	0	0	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0	0	1	2	3	12
Total Volume	0	0	0	0	2	6	8	0	0	0	0	7	9	16	0	0	0	0	0	0	0	0	0	0	0	3	5	8	32
% Approach Total	0.0	0.0	0.0	0.0	25.0	75.0		0.0	0.0	0.0	0.0	43.8	56.3		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	37.5	62.5		
PHF	0.000	0.000	0.000	0.000	0.250	0.500	0.500	0.000	0.000	0.000	0.000	0.438	0.750	0.571	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.625	0.667	0.667
Entering Leg	0	0	0	0	2	6	8	0	0	0	0	7	9	16	0	0	0	0	0	0	0	0	0	0	0	3	5	8	32
Exiting Leg							8							16							0							8	32
Total							16							32							0							16	64

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	20	307	22	0	349	28	1	3	0	32	4	191	2	0	197	3	1	5	0	9	587
3:15 PM	22	298	17	0	337	39	0	4	0	43	3	218	0	0	221	0	2	2	0	4	605
3:30 PM	22	265	11	0	298	37	0	3	0	40	2	214	1	0	217	0	0	5	0	5	560
3:45 PM	22	277	13	0	312	31	2	0	0	33	2	236	1	0	239	1	4	4	0	9	593
Total	86	1147	63	0	1296	135	3	10	0	148	11	859	4	0	874	4	7	16	0	27	2345
4:00 PM	21	242	15	0	278	37	0	1	0	38	5	196	0	0	201	0	3	4	1	8	525
4:15 PM	24	214	15	0	253	36	0	1	0	37	5	218	0	0	223	1	1	4	0	6	519
4:30 PM	19	246	8	0	273	39	0	2	0	41	3	190	0	0	193	0	2	8	0	10	517
4:45 PM	22	242	8	0	272	33	0	0	0	33	1	228	2	0	231	0	1	6	0	7	543
Total	86	944	46	0	1076	145	0	4	0	149	14	832	2	0	848	1	7	22	1	31	2104
5:00 PM	38	237	7	0	282	41	0	0	0	41	2	189	1	0	192	1	3	16	0	20	535
5:15 PM	17	215	10	0	242	37	2	2	0	41	2	200	1	0	203	1	1	9	0	11	497
5:30 PM	22	236	8	0	266	36	0	0	0	36	1	191	3	0	195	0	4	8	0	12	509
5:45 PM	22	226	12	0	260	23	0	1	0	24	0	204	0	0	204	1	5	9	0	15	503
Total	99	914	37	0	1050	137	2	3	0	142	5	784	5	0	794	3	13	42	0	58	2044
Grand Total	271	3005	146	0	3422	417	5	17	0	439	30	2475	11	0	2516	8	27	80	1	116	6493
Approach %	7.9	87.8	4.3	0.0		95.0	1.1	3.9	0.0		1.2	98.4	0.4	0.0		6.9	23.3	69.0	0.9		
Total %	4.2	46.3	2.2	0.0	52.7	6.4	0.1	0.3	0.0	6.8	0.5	38.1	0.2	0.0	38.7	0.1	0.4	1.2	0.0	1.8	
Exiting Leg Total					2972					203					3030					288	6493
Cars	271	2989	145	0	3405	411	4	17	0	432	28	2458	11	0	2497	8	27	80	1	116	6450
% Cars	100.0	99.5	99.3	0.0	99.5	98.6	80.0	100.0	0.0	98.4	93.3	99.3	100.0	0.0	99.2	100.0	100.0	100.0	100.0	100.0	99.3
Exiting Leg Total					2949					200					3014					287	6450
Heavy Vehicles	0	16	1	0	17	6	1	0	0	7	2	17	0	0	19	0	0	0	0	0	43
% Heavy Vehicles	0.0	0.5	0.7	0.0	0.5	1.4	20.0	0.0	0.0	1.6	6.7	0.7	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.7
Exiting Leg Total					23					3					16					1	43

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	20	307	22	0	349	28	1	3	0	32	4	191	2	0	197	3	1	5	0	9	587
3:15 PM	22	298	17	0	337	39	0	4	0	43	3	218	0	0	221	0	2	2	0	4	605
3:30 PM	22	265	11	0	298	37	0	3	0	40	2	214	1	0	217	0	0	5	0	5	560
3:45 PM	22	277	13	0	312	31	2	0	0	33	2	236	1	0	239	1	4	4	0	9	593
Total Volume	86	1147	63	0	1296	135	3	10	0	148	11	859	4	0	874	4	7	16	0	27	2345
% Approach Total	6.6	88.5	4.9	0.0		91.2	2.0	6.8	0.0		1.3	98.3	0.5	0.0		14.8	25.9	59.3	0.0		
PHF	0.977	0.934	0.716	0.000	0.928	0.865	0.375	0.625	0.000	0.860	0.688	0.910	0.500	0.000	0.914	0.333	0.438	0.800	0.000	0.750	0.969
Cars	86	1143	63	0	1292	133	2	10	0	145	9	852	4	0	865	4	7	16	0	27	2329
Cars %	100.0	99.7	100.0	0.0	99.7	98.5	66.7	100.0	0.0	98.0	81.8	99.2	100.0	0.0	99.0	100.0	100.0	100.0	0.0	100.0	99.3
Heavy Vehicles	0	4	0	0	4	2	1	0	0	3	2	7	0	0	9	0	0	0	0	0	16
Heavy Vehicles %	0.0	0.3	0.0	0.0	0.3	1.5	33.3	0.0	0.0	2.0	18.2	0.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.7
Cars Enter Leg	86	1143	63	0	1292	133	2	10	0	145	9	852	4	0	865	4	7	16	0	27	2329
Heavy Enter Leg	0	4	0	0	4	2	1	0	0	3	2	7	0	0	9	0	0	0	0	0	16
Total Entering Leg	86	1147	63	0	1296	135	3	10	0	148	11	859	4	0	874	4	7	16	0	27	2345
Cars Exiting Leg					1001					79					1157					92	2329
Heavy Exiting Leg					9					2					4					1	16
Total Exiting Leg					1010					81					1161					93	2345

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	20	306	22	0	348	27	1	3	0	31	4	190	2	0	196	3	1	5	0	9	584
3:15 PM	22	296	17	0	335	38	0	4	0	42	2	215	0	0	217	0	2	2	0	4	598
3:30 PM	22	265	11	0	298	37	0	3	0	40	1	213	1	0	215	0	0	5	0	5	558
3:45 PM	22	276	13	0	311	31	1	0	0	32	2	234	1	0	237	1	4	4	0	9	589
Total	86	1143	63	0	1292	133	2	10	0	145	9	852	4	0	865	4	7	16	0	27	2329
4:00 PM	21	241	15	0	277	36	0	1	0	37	5	193	0	0	198	0	3	4	1	8	520
4:15 PM	24	211	15	0	250	36	0	1	0	37	5	216	0	0	221	1	1	4	0	6	514
4:30 PM	19	245	8	0	272	38	0	2	0	40	3	189	0	0	192	0	2	8	0	10	514
4:45 PM	22	240	8	0	270	32	0	0	0	32	1	226	2	0	229	0	1	6	0	7	538
Total	86	937	46	0	1069	142	0	4	0	146	14	824	2	0	840	1	7	22	1	31	2086
5:00 PM	38	235	6	0	279	40	0	0	0	40	2	189	1	0	192	1	3	16	0	20	531
5:15 PM	17	213	10	0	240	37	2	2	0	41	2	198	1	0	201	1	1	9	0	11	493
5:30 PM	22	236	8	0	266	36	0	0	0	36	1	191	3	0	195	0	4	8	0	12	509
5:45 PM	22	225	12	0	259	23	0	1	0	24	0	204	0	0	204	1	5	9	0	15	502
Total	99	909	36	0	1044	136	2	3	0	141	5	782	5	0	792	3	13	42	0	58	2035
Grand Total	271	2989	145	0	3405	411	4	17	0	432	28	2458	11	0	2497	8	27	80	1	116	6450
Approach %	8.0	87.8	4.3	0.0		95.1	0.9	3.9	0.0		1.1	98.4	0.4	0.0		6.9	23.3	69.0	0.9		
Total %	4.2	46.3	2.2	0.0	52.8	6.4	0.1	0.3	0.0	6.7	0.4	38.1	0.2	0.0	38.7	0.1	0.4	1.2	0.0	1.8	
Exiting Leg Total					2949					200					3014					287	6450

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	20	306	22	0	348	27	1	3	0	31	4	190	2	0	196	3	1	5	0	9	584
3:15 PM	22	296	17	0	335	38	0	4	0	42	2	215	0	0	217	0	2	2	0	4	598
3:30 PM	22	265	11	0	298	37	0	3	0	40	1	213	1	0	215	0	0	5	0	5	558
3:45 PM	22	276	13	0	311	31	1	0	0	32	2	234	1	0	237	1	4	4	0	9	589
Total Volume	86	1143	63	0	1292	133	2	10	0	145	9	852	4	0	865	4	7	16	0	27	2329
% Approach Total	6.7	88.5	4.9	0.0		91.7	1.4	6.9	0.0		1.0	98.5	0.5	0.0		14.8	25.9	59.3	0.0		
PHF	0.977	0.934	0.716	0.000	0.928	0.875	0.500	0.625	0.000	0.863	0.563	0.910	0.500	0.000	0.912	0.333	0.438	0.800	0.000	0.750	0.974
Entering Leg	86	1143	63	0	1292	133	2	10	0	145	9	852	4	0	865	4	7	16	0	27	2329
Exiting Leg					1001					79					1157					92	2329
Total					2293					224					2022					119	4658

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	3
3:15 PM	0	2	0	0	2	1	0	0	0	1	1	3	0	0	4	0	0	0	0	0	7
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
3:45 PM	0	1	0	0	1	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	4
Total	0	4	0	0	4	2	1	0	0	3	2	7	0	0	9	0	0	0	0	0	16
4:00 PM	0	1	0	0	1	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	5
4:15 PM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
4:30 PM	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	3
4:45 PM	0	2	0	0	2	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	5
Total	0	7	0	0	7	3	0	0	0	3	0	8	0	0	8	0	0	0	0	0	18
5:00 PM	0	2	1	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	5	1	0	6	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	9
Grand Total	0	16	1	0	17	6	1	0	0	7	2	17	0	0	19	0	0	0	0	0	43
Approach %	0.0	94.1	5.9	0.0		85.7	14.3	0.0	0.0		10.5	89.5	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	37.2	2.3	0.0	39.5	14.0	2.3	0.0	0.0	16.3	4.7	39.5	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					23					3					16					1	43
Buses	0	9	1	0	10	3	0	0	0	3	0	12	0	0	12	0	0	0	0	0	25
% Buses	0.0	56.3	100.0	0.0	58.8	50.0	0.0	0.0	0.0	42.9	0.0	70.6	0.0	0.0	63.2	0.0	0.0	0.0	0.0	0.0	58.1
Exiting Leg Total					15					1					9					0	25
Single-Unit Trucks	0	7	0	0	7	3	1	0	0	4	2	5	0	0	7	0	0	0	0	0	18
% Single-Unit	0.0	43.8	0.0	0.0	41.2	50.0	100.0	0.0	0.0	57.1	100.0	29.4	0.0	0.0	36.8	0.0	0.0	0.0	0.0	0.0	41.9
Exiting Leg Total					8					2					7					1	18
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:15 PM	0	2	0	0	2	1	0	0	0	1	1	3	0	0	4	0	0	0	0	0	7
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
3:45 PM	0	1	0	0	1	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	4
4:00 PM	0	1	0	0	1	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	5
Total Volume	0	4	0	0	4	2	1	0	0	3	2	9	0	0	11	0	0	0	0	0	18
% Approach Total	0.0	100.0	0.0	0.0		66.7	33.3	0.0	0.0		18.2	81.8	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.500	0.250	0.000	0.000	0.750	0.500	0.750	0.000	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.643
Buses	0	2	0	0	2	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	11
Buses %	0.0	50.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	33.3	0.0	88.9	0.0	0.0	72.7	0.0	0.0	0.0	0.0	0.0	61.1
Single-Unit Trucks	0	2	0	0	2	1	1	0	0	2	2	1	0	0	3	0	0	0	0	0	7
Single-Unit %	0.0	50.0	0.0	0.0	50.0	50.0	100.0	0.0	0.0	66.7	100.0	11.1	0.0	0.0	27.3	0.0	0.0	0.0	0.0	0.0	38.9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	2	0	0	2	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	11
Single-Unit Trucks	0	2	0	0	2	1	1	0	0	2	2	1	0	0	3	0	0	0	0	0	7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	4	0	0	4	2	1	0	0	3	2	9	0	0	11	0	0	0	0	0	18
Buses					9					0					2					0	11
Single-Unit Trucks					2					2					2					1	7
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					11					2					4					1	18

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total	0	1	0	0	1	1	0	0	0	1	0	5	0	0	5	0	0	0	0	0	7
4:00 PM	0	1	0	0	1	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	5
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
4:30 PM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	0	4	0	0	4	2	0	0	0	2	0	5	0	0	5	0	0	0	0	0	11
5:00 PM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	4	1	0	5	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	7
Grand Total	0	9	1	0	10	3	0	0	0	3	0	12	0	0	12	0	0	0	0	0	25
Approach %	0.0	90.0	10.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	36.0	4.0	0.0	40.0	12.0	0.0	0.0	0.0	12.0	0.0	48.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					15					1					9					0	25

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:15 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:00 PM	0	1	0	0	1	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	5
Total Volume	0	2	0	0	2	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	11
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.250	0.000	0.000	0.000	0.250	0.000	0.667	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.550
Entering Leg	0	2	0	0	2	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	11
Exiting Leg					9					0					2					0	11
Total					11					1					10					0	22

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
3:15 PM	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	4
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
3:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	3	0	0	3	1	1	0	0	2	2	2	0	0	4	0	0	0	0	0	9
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:45 PM	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	3
Total	0	3	0	0	3	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	7
5:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	7	0	0	7	3	1	0	0	4	2	5	0	0	7	0	0	0	0	0	18
Approach %	0.0	100.0	0.0	0.0		75.0	25.0	0.0	0.0		28.6	71.4	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	38.9	0.0	0.0	38.9	16.7	5.6	0.0	0.0	22.2	11.1	27.8	0.0	0.0	38.9	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					8					2					7					1	18

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
3:15 PM	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	4
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
3:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	3	0	0	3	1	1	0	0	2	2	2	0	0	4	0	0	0	0	0	9
% Approach Total	0.0	100.0	0.0	0.0		50.0	50.0	0.0	0.0		50.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.750	0.250	0.250	0.000	0.000	0.500	0.500	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.563
Entering Leg	0	3	0	0	3	1	1	0	0	2	2	2	0	0	4	0	0	0	0	0	9
Exiting Leg					3					2					3					1	9
Total					6					4					7					1	18

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Articulated Trucks**

	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from North					Pilgrim Road from East					Riverway from South					Netherlands Road from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Riverway from North							Pilgrim Road from East							Riverway from South							Netherlands Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	1	0	0	0	1	2	4	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	1	0	0	5	3	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
5:00 PM	1	0	0	0	0	0	1	0	1	0	0	2	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	1	0	0	0	0	0	1	1	1	0	0	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Total	2	0	0	0	0	0	2	1	2	0	0	3	2	8	0	0	0	0	0	0	0	0	1	0	0	0	0	1	11
Grand Total	2	0	0	0	0	0	2	2	3	0	0	9	7	21	0	1	0	0	0	0	1	0	1	0	0	0	0	1	25
Approach %	100.0	0.0	0.0	0.0	0.0	0.0		9.5	14.3	0.0	0.0	42.9	33.3		0.0	100.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
Total %	8.0	0.0	0.0	0.0	0.0	0.0	8.0	8.0	12.0	0.0	0.0	36.0	28.0	84.0	0.0	4.0	0.0	0.0	0.0	0.0	4.0	0.0	4.0	0.0	0.0	0.0	0.0	4.0	
Exiting Leg Total							3							17							0							5	25

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:30 PM	Riverway from North							Pilgrim Road from East							Riverway from South							Netherlands Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	1	0	0	0	0	0	1	0	1	0	0	2	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	1	0	0	0	0	0	1	1	1	0	0	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total Volume	2	0	0	0	0	0	2	1	3	0	0	5	2	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
% Approach Total	100.0	0.0	0.0	0.0	0.0	0.0		9.1	27.3	0.0	0.0	45.5	18.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.750	0.000	0.000	0.625	0.500	0.688	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.650
Entering Leg	2	0	0	0	0	0	2	1	3	0	0	5	2	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Exiting Leg							1							7							0							5	13
Total							3							18							0							5	26

PDI File #: **239743 P**
Location: **N: Riverway S: Riverway**
Location: **E: Pilgrim Road W: Netherlands Road**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Riverway from North							Pilgrim Road from East							Riverway from South							Netherlands Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	5	2	7	0	0	0	0	0	0	0	0	0	0	0	0	1	1	8
3:15 PM	0	0	0	0	1	0	1	0	0	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0	0	2	0	2	10
3:30 PM	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	2	0	2	6
3:45 PM	0	0	0	0	5	1	6	0	0	0	0	4	5	9	0	0	0	0	0	0	0	0	0	0	0	0	1	1	16
Total	0	0	0	0	6	2	8	0	0	0	0	13	12	25	0	0	0	0	1	0	1	0	0	0	0	4	2	6	40
4:00 PM	0	0	0	0	1	2	3	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1	8
4:15 PM	0	0	0	0	1	0	1	0	0	0	0	5	4	9	0	0	0	0	0	0	0	0	0	0	0	1	0	1	11
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	1	1	2	9
4:45 PM	0	0	0	0	1	5	6	0	0	0	0	8	1	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Total	0	0	0	0	4	7	11	0	0	0	0	20	8	28	0	0	0	0	0	0	0	0	0	0	0	3	1	4	43
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	3	5	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	1	0	1	0	0	0	0	1	0	1	6
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	5	4	9	0	0	0	0	0	0	0	0	0	0	0	1	0	1	10
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	0	0	0	0	0	1	1	0	0	0	0	16	10	26	0	0	0	0	1	0	1	0	0	0	0	2	0	2	30
Grand Total	0	0	0	0	10	10	20	0	0	0	0	49	30	79	0	0	0	0	2	0	2	0	0	0	0	9	3	12	113
Approach %	0	0	0	0	50	50		0	0	0	0	62	38		0	0	0	0	100	0		0	0	0	0	75	25		
Total %	0	0	0	0	8.85	8.85	17.7	0	0	0	0	43.4	26.5	69.9	0	0	0	0	1.77	0	1.77	0	0	0	0	7.96	2.65	10.6	
Exiting Leg Total							20							79							2							12	113

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Riverway from North							Pilgrim Road from East							Riverway from South							Netherlands Road from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:45 PM	0	0	0	0	5	1	6	0	0	0	0	4	5	9	0	0	0	0	0	0	0	0	0	0	0	0	1	1	16
4:00 PM	0	0	0	0	1	2	3	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1	8
4:15 PM	0	0	0	0	1	0	1	0	0	0	0	5	4	9	0	0	0	0	0	0	0	0	0	0	0	1	0	1	11
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	1	1	2	9
Total Volume	0	0	0	0	8	3	11	0	0	0	0	16	12	28	0	0	0	0	0	0	0	0	0	0	0	3	2	5	44
% Approach Total	0.0	0.0	0.0	0.0	72.7	27.3		0.0	0.0	0.0	0.0	57.1	42.9		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	60.0	40.0		
PHF	0.000	0.000	0.000	0.000	0.400	0.375	0.458	0.000	0.000	0.000	0.000	0.667	0.600	0.778	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.500	0.625	0.688
Entering Leg	0	0	0	0	8	3	11	0	0	0	0	16	12	28	0	0	0	0	0	0	0	0	0	0	0	3	2	5	44
Exiting Leg							11							28							0							5	44
Total							22							56							0							10	88

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	7	60	0	0	67	0	17	2	0	19	13	92	40	0	145	8	17	3	0	28	259
6:15 AM	6	86	0	0	92	4	20	2	0	26	31	109	31	0	171	21	57	17	0	95	384
6:30 AM	7	121	1	0	129	4	30	4	0	38	40	127	51	0	218	22	69	7	0	98	483
6:45 AM	9	150	0	0	159	4	41	6	0	51	29	143	71	0	243	27	61	12	0	100	553
Total	29	417	1	0	447	12	108	14	0	134	113	471	193	0	777	78	204	39	0	321	1679
7:00 AM	12	142	0	0	154	12	50	15	0	77	30	176	62	0	268	19	74	14	0	107	606
7:15 AM	11	159	0	0	170	16	66	16	0	98	21	186	49	0	256	20	69	12	0	101	625
7:30 AM	15	186	0	0	201	15	64	21	0	100	20	225	69	0	314	18	67	22	0	107	722
7:45 AM	18	215	0	0	233	10	69	17	0	96	23	189	64	0	276	19	63	30	0	112	717
Total	56	702	0	0	758	53	249	69	0	371	94	776	244	0	1114	76	273	78	0	427	2670
8:00 AM	31	229	0	0	260	6	49	5	0	60	31	207	79	0	317	24	64	27	0	115	752
8:15 AM	10	166	0	0	176	5	45	3	0	53	18	240	59	0	317	15	64	23	0	102	648
8:30 AM	17	149	0	0	166	9	43	3	0	55	9	222	68	0	299	29	82	22	0	133	653
8:45 AM	10	155	0	0	165	8	41	3	0	52	28	242	66	0	336	20	72	20	0	112	665
Total	68	699	0	0	767	28	178	14	0	220	86	911	272	0	1269	88	282	92	0	462	2718
Grand Total	153	1818	1	0	1972	93	535	97	0	725	293	2158	709	0	3160	242	759	209	0	1210	7067
Approach %	7.8	92.2	0.1	0.0		12.8	73.8	13.4	0.0		9.3	68.3	22.4	0.0		20.0	62.7	17.3	0.0		
Total %	2.2	25.7	0.0	0.0	27.9	1.3	7.6	1.4	0.0	10.3	4.1	30.5	10.0	0.0	44.7	3.4	10.7	3.0	0.0	17.1	
Exiting Leg Total					2460					1053					2157					1397	7067
Cars	152	1791	1	0	1944	79	521	96	0	696	291	2147	695	0	3133	239	738	203	0	1180	6953
% Cars	99.3	98.5	100.0	0.0	98.6	84.9	97.4	99.0	0.0	96.0	99.3	99.5	98.0	0.0	99.1	98.8	97.2	97.1	0.0	97.5	98.4
Exiting Leg Total					2429					1030					2126					1368	6953
Heavy Vehicles	1	27	0	0	28	14	14	1	0	29	2	11	14	0	27	3	21	6	0	30	114
% Heavy Vehicles	0.7	1.5	0.0	0.0	1.4	15.1	2.6	1.0	0.0	4.0	0.7	0.5	2.0	0.0	0.9	1.2	2.8	2.9	0.0	2.5	1.6
Exiting Leg Total					31					23					31					29	114

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	15	186	0	0	201	15	64	21	0	100	20	225	69	0	314	18	67	22	0	107	722
7:45 AM	18	215	0	0	233	10	69	17	0	96	23	189	64	0	276	19	63	30	0	112	717
8:00 AM	31	229	0	0	260	6	49	5	0	60	31	207	79	0	317	24	64	27	0	115	752
8:15 AM	10	166	0	0	176	5	45	3	0	53	18	240	59	0	317	15	64	23	0	102	648
Total Volume	74	796	0	0	870	36	227	46	0	309	92	861	271	0	1224	76	258	102	0	436	2839
% Approach Total	8.5	91.5	0.0	0.0		11.7	73.5	14.9	0.0		7.5	70.3	22.1	0.0		17.4	59.2	23.4	0.0		
PHF	0.597	0.869	0.000	0.000	0.837	0.600	0.822	0.548	0.000	0.773	0.742	0.897	0.858	0.000	0.965	0.792	0.963	0.850	0.000	0.948	0.944
Cars	73	777	0	0	850	31	223	46	0	300	91	858	261	0	1210	74	248	97	0	419	2779
Cars %	98.6	97.6	0.0	0.0	97.7	86.1	98.2	100.0	0.0	97.1	98.9	99.7	96.3	0.0	98.9	97.4	96.1	95.1	0.0	96.1	97.9
Heavy Vehicles	1	19	0	0	20	5	4	0	0	9	1	3	10	0	14	2	10	5	0	17	60
Heavy Vehicles %	1.4	2.4	0.0	0.0	2.3	13.9	1.8	0.0	0.0	2.9	1.1	0.3	3.7	0.0	1.1	2.6	3.9	4.9	0.0	3.9	2.1
Cars Enter Leg	73	777	0	0	850	31	223	46	0	300	91	858	261	0	1210	74	248	97	0	419	2779
Heavy Enter Leg	1	19	0	0	20	5	4	0	0	9	1	3	10	0	14	2	10	5	0	17	60
Total Entering Leg	74	796	0	0	870	36	227	46	0	309	92	861	271	0	1224	76	258	102	0	436	2839
Cars Exiting Leg					986					339					897					557	2779
Heavy Exiting Leg					13					11					21					15	60
Total Exiting Leg					999					350					918					572	2839

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	7	60	0	0	67	0	17	2	0	19	13	92	40	0	145	8	16	3	0	27	258
6:15 AM	6	86	0	0	92	4	20	2	0	26	31	109	31	0	171	21	55	17	0	93	382
6:30 AM	7	121	1	0	129	4	30	4	0	38	40	127	49	0	216	22	68	7	0	97	480
6:45 AM	9	149	0	0	158	4	39	6	0	49	29	142	71	0	242	27	58	12	0	97	546
Total	29	416	1	0	446	12	106	14	0	132	113	470	191	0	774	78	197	39	0	314	1666
7:00 AM	12	140	0	0	152	11	49	15	0	75	30	174	62	0	266	19	72	14	0	105	598
7:15 AM	11	158	0	0	169	14	64	16	0	94	21	185	48	0	254	20	68	11	0	99	616
7:30 AM	15	182	0	0	197	15	64	21	0	100	20	225	67	0	312	17	64	22	0	103	712
7:45 AM	18	210	0	0	228	8	66	17	0	91	23	188	59	0	270	19	59	27	0	105	694
Total	56	690	0	0	746	48	243	69	0	360	94	772	236	0	1102	75	263	74	0	412	2620
8:00 AM	30	224	0	0	254	4	49	5	0	58	31	206	79	0	316	23	62	26	0	111	739
8:15 AM	10	161	0	0	171	4	44	3	0	51	17	239	56	0	312	15	63	22	0	100	634
8:30 AM	17	148	0	0	165	6	40	2	0	48	8	220	67	0	295	28	81	22	0	131	639
8:45 AM	10	152	0	0	162	5	39	3	0	47	28	240	66	0	334	20	72	20	0	112	655
Total	67	685	0	0	752	19	172	13	0	204	84	905	268	0	1257	86	278	90	0	454	2667
Grand Total	152	1791	1	0	1944	79	521	96	0	696	291	2147	695	0	3133	239	738	203	0	1180	6953
Approach %	7.8	92.1	0.1	0.0		11.4	74.9	13.8	0.0		9.3	68.5	22.2	0.0		20.3	62.5	17.2	0.0		
Total %	2.2	25.8	0.0	0.0	28.0	1.1	7.5	1.4	0.0	10.0	4.2	30.9	10.0	0.0	45.1	3.4	10.6	2.9	0.0	17.0	
Exiting Leg Total					2429					1030					2126					1368	6953

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	15	182	0	0	197	15	64	21	0	100	20	225	67	0	312	17	64	22	0	103	712
7:45 AM	18	210	0	0	228	8	66	17	0	91	23	188	59	0	270	19	59	27	0	105	694
8:00 AM	30	224	0	0	254	4	49	5	0	58	31	206	79	0	316	23	62	26	0	111	739
8:15 AM	10	161	0	0	171	4	44	3	0	51	17	239	56	0	312	15	63	22	0	100	634
Total Volume	73	777	0	0	850	31	223	46	0	300	91	858	261	0	1210	74	248	97	0	419	2779
% Approach Total	8.6	91.4	0.0	0.0		10.3	74.3	15.3	0.0		7.5	70.9	21.6	0.0		17.7	59.2	23.2	0.0		
PHF	0.608	0.867	0.000	0.000	0.837	0.517	0.845	0.548	0.000	0.750	0.734	0.897	0.826	0.000	0.957	0.804	0.969	0.898	0.000	0.944	0.940
Entering Leg	73	777	0	0	850	31	223	46	0	300	91	858	261	0	1210	74	248	97	0	419	2779
Exiting Leg					986					339					897					557	2779
Total					1836					639					2107					976	5558

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	0	1	3
6:45 AM	0	1	0	0	1	0	2	0	0	2	0	1	0	0	1	0	3	0	0	3	7
Total	0	1	0	0	1	0	2	0	0	2	0	1	2	0	3	0	7	0	0	7	13
7:00 AM	0	2	0	0	2	1	1	0	0	2	0	2	0	0	2	0	2	0	0	2	8
7:15 AM	0	1	0	0	1	2	2	0	0	4	0	1	1	0	2	0	1	1	0	2	9
7:30 AM	0	4	0	0	4	0	0	0	0	0	0	0	2	0	2	1	3	0	0	4	10
7:45 AM	0	5	0	0	5	2	3	0	0	5	0	1	5	0	6	0	4	3	0	7	23
Total	0	12	0	0	12	5	6	0	0	11	0	4	8	0	12	1	10	4	0	15	50
8:00 AM	1	5	0	0	6	2	0	0	0	2	0	1	0	0	1	1	2	1	0	4	13
8:15 AM	0	5	0	0	5	1	1	0	0	2	1	1	3	0	5	0	1	1	0	2	14
8:30 AM	0	1	0	0	1	3	3	1	0	7	1	2	1	0	4	1	1	0	0	2	14
8:45 AM	0	3	0	0	3	3	2	0	0	5	0	2	0	0	2	0	0	0	0	0	10
Total	1	14	0	0	15	9	6	1	0	16	2	6	4	0	12	2	4	2	0	8	51
Grand Total	1	27	0	0	28	14	14	1	0	29	2	11	14	0	27	3	21	6	0	30	114
Approach %	3.6	96.4	0.0	0.0		48.3	48.3	3.4	0.0		7.4	40.7	51.9	0.0		10.0	70.0	20.0	0.0		
Total %	0.9	23.7	0.0	0.0	24.6	12.3	12.3	0.9	0.0	25.4	1.8	9.6	12.3	0.0	23.7	2.6	18.4	5.3	0.0	26.3	
Exiting Leg Total					31					23					31					29	114
Buses	0	20	0	0	20	11	1	1	0	13	0	3	7	0	10	2	6	4	0	12	55
% Buses	0.0	74.1	0.0	0.0	71.4	78.6	7.1	100.0	0.0	44.8	0.0	27.3	50.0	0.0	37.0	66.7	28.6	66.7	0.0	40.0	48.2
Exiting Leg Total					18					6					23					8	55
Single-Unit Trucks	1	7	0	0	8	2	13	0	0	15	2	8	7	0	17	1	15	2	0	18	58
% Single-Unit	100.0	25.9	0.0	0.0	28.6	14.3	92.9	0.0	0.0	51.7	100.0	72.7	50.0	0.0	63.0	33.3	71.4	33.3	0.0	60.0	50.9
Exiting Leg Total					12					17					8					21	58
Articulated Trucks	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Exiting Leg Total					1					0					0					0	1

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	5	0	0	5	2	3	0	0	5	0	1	5	0	6	0	4	3	0	7	23
8:00 AM	1	5	0	0	6	2	0	0	0	2	0	1	0	0	1	1	2	1	0	4	13
8:15 AM	0	5	0	0	5	1	1	0	0	2	1	1	3	0	5	0	1	1	0	2	14
8:30 AM	0	1	0	0	1	3	3	1	0	7	1	2	1	0	4	1	1	0	0	2	14
Total Volume	1	16	0	0	17	8	7	1	0	16	2	5	9	0	16	2	8	5	0	15	64
% Approach Total	5.9	94.1	0.0	0.0		50.0	43.8	6.3	0.0		12.5	31.3	56.3	0.0		13.3	53.3	33.3	0.0		
PHF	0.250	0.800	0.000	0.000	0.708	0.667	0.583	0.250	0.000	0.571	0.500	0.625	0.450	0.000	0.667	0.500	0.500	0.417	0.000	0.536	0.696
Buses	0	12	0	0	12	7	0	1	0	8	0	1	4	0	5	1	2	4	0	7	32
Buses %	0.0	75.0	0.0	0.0	70.6	87.5	0.0	100.0	0.0	50.0	0.0	20.0	44.4	0.0	31.3	50.0	25.0	80.0	0.0	46.7	50.0
Single-Unit Trucks	1	4	0	0	5	1	7	0	0	8	2	4	5	0	11	1	6	1	0	8	32
Single-Unit %	100.0	25.0	0.0	0.0	29.4	12.5	100.0	0.0	0.0	50.0	100.0	80.0	55.6	0.0	68.8	50.0	75.0	20.0	0.0	53.3	50.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	12	0	0	12	7	0	1	0	8	0	1	4	0	5	1	2	4	0	7	32
Single-Unit Trucks	1	4	0	0	5	1	7	0	0	8	2	4	5	0	11	1	6	1	0	8	32
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	1	16	0	0	17	8	7	1	0	16	2	5	9	0	16	2	8	5	0	15	64
Buses					12					2					14					4	32
Single-Unit Trucks					6					8					5					13	32
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					18					10					19					17	64

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
7:00 AM	0	2	0	0	2	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	4
7:15 AM	0	1	0	0	1	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	4
7:30 AM	0	3	0	0	3	0	0	0	0	0	0	0	2	0	2	1	2	0	0	3	8
7:45 AM	0	5	0	0	5	2	0	0	0	2	0	1	3	0	4	0	1	3	0	4	15
Total	0	11	0	0	11	4	0	0	0	4	0	2	6	0	8	1	4	3	0	8	31
8:00 AM	0	4	0	0	4	2	0	0	0	2	0	0	0	0	0	1	1	1	0	3	9
8:15 AM	0	2	0	0	2	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	4
8:30 AM	0	1	0	0	1	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	4
8:45 AM	0	2	0	0	2	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	5
Total	0	9	0	0	9	7	1	1	0	9	0	0	1	0	1	1	1	1	0	3	22
Grand Total	0	20	0	0	20	11	1	1	0	13	0	3	7	0	10	2	6	4	0	12	55
Approach %	0.0	100.0	0.0	0.0		84.6	7.7	7.7	0.0		0.0	30.0	70.0	0.0		16.7	50.0	33.3	0.0		
Total %	0.0	36.4	0.0	0.0	36.4	20.0	1.8	1.8	0.0	23.6	0.0	5.5	12.7	0.0	18.2	3.6	10.9	7.3	0.0	21.8	
Exiting Leg Total					18					6					23					8	55

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	1	0	0	1	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	4
7:30 AM	0	3	0	0	3	0	0	0	0	0	0	0	2	0	2	1	2	0	0	3	8
7:45 AM	0	5	0	0	5	2	0	0	0	2	0	1	3	0	4	0	1	3	0	4	15
8:00 AM	0	4	0	0	4	2	0	0	0	2	0	0	0	0	0	1	1	1	0	3	9
Total Volume	0	13	0	0	13	5	0	0	0	5	0	2	6	0	8	2	4	4	0	10	36
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	25.0	75.0	0.0		20.0	40.0	40.0	0.0		
PHF	0.000	0.650	0.000	0.000	0.650	0.625	0.000	0.000	0.000	0.625	0.000	0.500	0.500	0.000	0.500	0.500	0.500	0.333	0.000	0.625	0.600
Entering Leg	0	13	0	0	13	5	0	0	0	5	0	2	6	0	8	2	4	4	0	10	36
Exiting Leg					11					4					15					6	36
Total					24					9					23					16	72

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	0	1	3
6:45 AM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	5
Total	0	1	0	0	1	0	2	0	0	2	0	0	2	0	2	0	6	0	0	6	11
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	0	1	0	0	1	4
7:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	1	0	2	4
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	2	0	2	0	3	0	0	3	8
Total	0	1	0	0	1	0	6	0	0	6	0	2	2	0	4	0	6	1	0	7	18
8:00 AM	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	4
8:15 AM	0	3	0	0	3	0	1	0	0	1	1	1	2	0	4	0	1	1	0	2	10
8:30 AM	0	0	0	0	0	1	3	0	0	4	1	2	1	0	4	1	1	0	0	2	10
8:45 AM	0	1	0	0	1	1	1	0	0	2	0	2	0	0	2	0	0	0	0	0	5
Total	1	5	0	0	6	2	5	0	0	7	2	6	3	0	11	1	3	1	0	5	29
Grand Total	1	7	0	0	8	2	13	0	0	15	2	8	7	0	17	1	15	2	0	18	58
Approach %	12.5	87.5	0.0	0.0		13.3	86.7	0.0	0.0		11.8	47.1	41.2	0.0		5.6	83.3	11.1	0.0		
Total %	1.7	12.1	0.0	0.0	13.8	3.4	22.4	0.0	0.0	25.9	3.4	13.8	12.1	0.0	29.3	1.7	25.9	3.4	0.0	31.0	
Exiting Leg Total					12					17					8					21	58

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	2	0	2	0	3	0	0	3	8
8:00 AM	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	4
8:15 AM	0	3	0	0	3	0	1	0	0	1	1	1	2	0	4	0	1	1	0	2	10
8:30 AM	0	0	0	0	0	1	3	0	0	4	1	2	1	0	4	1	1	0	0	2	10
Total Volume	1	4	0	0	5	1	7	0	0	8	2	4	5	0	11	1	6	1	0	8	32
% Approach Total	20.0	80.0	0.0	0.0		12.5	87.5	0.0	0.0		18.2	36.4	45.5	0.0		12.5	75.0	12.5	0.0		
PHF	0.250	0.333	0.000	0.000	0.417	0.250	0.583	0.000	0.000	0.500	0.500	0.500	0.625	0.000	0.688	0.250	0.500	0.250	0.000	0.667	0.800
Entering Leg	1	4	0	0	5	1	7	0	0	8	2	4	5	0	11	1	6	1	0	8	32
Exiting Leg					6					8					5					13	32
Total					11					16					16					21	64

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1					0					0					0	1

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:30 AM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg					1					0					0					0	1
Total					1					1					0					0	2

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Bicycles (on Roadway and Crosswalks)

	Riverway from North							Longwood Avenue from East							Riverway from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	0	0	0	1	5
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	11	0	0	0	0	11	12
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
6:45 AM	0	0	0	0	0	1	1	0	2	0	0	0	1	3	0	0	0	0	0	0	0	0	22	0	0	0	0	22	26
Total	0	0	0	0	1	1	2	0	2	0	0	0	1	3	0	0	0	0	4	0	4	0	48	0	0	0	0	48	57
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	7	0	0	0	0	7	8
7:15 AM	0	0	0	0	1	2	3	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	15	0	0	0	0	15	19
7:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	21
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	25	0	0	0	0	26	27
Total	0	0	0	0	1	3	4	0	3	0	0	0	0	3	0	0	0	0	0	0	0	1	67	0	0	0	0	68	75
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	25	0	0	0	0	27	28
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	21	0	0	0	0	21	22
8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	1	0	28	0	0	1	0	29	31
8:45 AM	0	0	0	0	1	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	0	2	42	0	0	0	0	44	47
Total	0	0	0	0	1	0	1	0	5	0	0	0	0	5	0	0	0	0	1	0	1	4	116	0	0	1	0	121	128
Grand Total	0	0	0	0	3	4	7	0	10	0	0	0	1	11	0	0	0	0	5	0	5	5	231	0	0	1	0	237	260
Approach %	0.0	0.0	0.0	0.0	42.9	57.1		0.0	90.9	0.0	0.0	0.0	9.1		0.0	0.0	0.0	0.0	100.0	0.0		2.1	97.5	0.0	0.0	0.4	0.0		
Total %	0.0	0.0	0.0	0.0	1.2	1.5	2.7	0.0	3.8	0.0	0.0	0.0	0.4	4.2	0.0	0.0	0.0	0.0	1.9	0.0	1.9	1.9	88.8	0.0	0.0	0.4	0.0	91.2	
Exiting Leg Total							7							232							10							11	260

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Riverway from North							Longwood Avenue from East							Riverway from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	25	0	0	0	0	27	28
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	21	0	0	0	0	21	22
8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	1	0	28	0	0	1	0	29	31
8:45 AM	0	0	0	0	1	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	0	2	42	0	0	0	0	44	47
Total Volume	0	0	0	0	1	0	1	0	5	0	0	0	0	5	0	0	0	0	1	0	1	4	116	0	0	1	0	121	128
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		3.3	95.9	0.0	0.0	0.8	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.625	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.500	0.690	0.000	0.000	0.250	0.000	0.688	0.681
Entering Leg	0	0	0	0	1	0	1	0	5	0	0	0	0	5	0	0	0	0	1	0	1	4	116	0	0	1	0	121	128
Exiting Leg							1							116							5							6	128
Total							2							121							6							127	256

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Riverway from North							Longwood Avenue from East							Riverway from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0	22	0	22	0	0	0	0	0	0	0	32
6:15 AM	0	0	0	0	4	2	6	0	0	0	0	0	0	0	0	0	0	0	29	0	29	0	0	0	0	0	0	0	35
6:30 AM	0	0	0	0	20	0	20	0	0	0	0	0	0	0	0	0	0	0	75	2	77	0	0	0	0	1	0	1	98
6:45 AM	0	0	0	0	23	2	25	0	0	0	0	0	0	0	0	0	0	0	30	2	32	0	0	0	0	1	0	1	58
Total	0	0	0	0	57	4	61	0	0	0	0	0	0	0	0	0	0	0	156	4	160	0	0	0	0	2	0	2	223
7:00 AM	0	0	0	0	17	0	17	0	0	0	0	0	1	1	0	0	0	0	72	3	75	0	0	0	0	0	0	0	93
7:15 AM	0	0	0	0	34	7	41	0	0	0	0	0	1	1	0	0	0	0	69	8	77	0	0	0	0	1	1	2	121
7:30 AM	0	0	0	0	41	4	45	0	0	0	0	0	0	0	0	0	0	0	70	10	80	0	0	0	0	1	0	1	126
7:45 AM	0	0	0	0	49	11	60	0	0	0	0	0	0	0	0	0	0	0	91	3	94	0	0	0	0	1	0	1	155
Total	0	0	0	0	141	22	163	0	0	0	0	0	2	2	0	0	0	0	302	24	326	0	0	0	0	3	1	4	495
8:00 AM	0	0	0	0	63	5	68	0	0	0	0	0	0	0	0	0	0	0	76	6	82	0	0	0	0	4	0	4	154
8:15 AM	0	0	0	0	49	7	56	0	0	0	0	0	0	0	0	0	0	0	90	7	97	0	0	0	0	0	1	1	154
8:30 AM	0	0	0	0	58	4	62	0	0	0	0	0	0	0	0	0	0	0	86	4	90	0	0	0	0	4	0	4	156
8:45 AM	0	0	0	0	81	8	89	0	0	0	0	1	1	2	0	0	0	0	110	4	114	0	0	0	0	3	1	4	209
Total	0	0	0	0	251	24	275	0	0	0	0	1	1	2	0	0	0	0	362	21	383	0	0	0	0	11	2	13	673
Grand Total	0	0	0	0	449	50	499	0	0	0	0	1	3	4	0	0	0	0	820	49	869	0	0	0	0	16	3	19	1391
Approach %	0	0	0	0	90	10		0	0	0	0	25	75		0	0	0	0	94.4	5.64		0	0	0	0	84.2	15.8		
Total %	0	0	0	0	32.3	3.59	35.9	0	0	0	0	0.07	0.22	0.29	0	0	0	0	59	3.52	62.5	0	0	0	0	1.15	0.22	1.37	
Exiting Leg Total							499							4							869							19	1391

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Riverway from North							Longwood Avenue from East							Riverway from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	63	5	68	0	0	0	0	0	0	0	0	0	0	0	76	6	82	0	0	0	0	4	0	4	154
8:15 AM	0	0	0	0	49	7	56	0	0	0	0	0	0	0	0	0	0	0	90	7	97	0	0	0	0	0	1	1	154
8:30 AM	0	0	0	0	58	4	62	0	0	0	0	0	0	0	0	0	0	0	86	4	90	0	0	0	0	4	0	4	156
8:45 AM	0	0	0	0	81	8	89	0	0	0	0	1	1	2	0	0	0	0	110	4	114	0	0	0	0	3	1	4	209
Total Volume	0	0	0	0	251	24	275	0	0	0	0	1	1	2	0	0	0	0	362	21	383	0	0	0	0	11	2	13	673
% Approach Total	0.0	0.0	0.0	0.0	91.3	8.7		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	94.5	5.5		0.0	0.0	0.0	0.0	84.6	15.4		
PHF	0.000	0.000	0.000	0.000	0.775	0.750	0.772	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.000	0.000	0.000	0.823	0.750	0.840	0.000	0.000	0.000	0.000	0.688	0.500	0.813	0.805
Entering Leg	0	0	0	0	251	24	275	0	0	0	0	1	1	2	0	0	0	0	362	21	383	0	0	0	0	11	2	13	673
Exiting Leg							275							2							383							13	673
Total							550							4							766							26	1346

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	20	267	1	0	288	12	58	20	0	90	3	156	64	0	223	48	55	23	0	126	727
3:15 PM	18	224	0	0	242	13	71	22	0	106	4	165	75	0	244	42	45	31	0	118	710
3:30 PM	18	253	0	0	271	21	73	16	0	110	2	192	64	0	258	52	43	20	0	115	754
3:45 PM	18	275	0	0	293	9	77	22	0	108	2	191	67	0	260	39	57	26	0	122	783
Total	74	1019	1	0	1094	55	279	80	0	414	11	704	270	0	985	181	200	100	0	481	2974
4:00 PM	22	226	0	0	248	8	85	11	0	104	10	193	57	0	260	30	43	24	0	97	709
4:15 PM	23	232	0	0	255	14	71	15	0	100	5	192	73	0	270	17	42	18	0	77	702
4:30 PM	29	275	0	0	304	9	63	10	0	82	5	189	69	0	263	41	48	22	0	111	760
4:45 PM	28	239	0	0	267	11	70	16	0	97	6	160	73	0	239	36	60	26	0	122	725
Total	102	972	0	0	1074	42	289	52	0	383	26	734	272	0	1032	124	193	90	0	407	2896
5:00 PM	44	209	0	0	253	11	58	13	0	82	4	141	63	0	208	34	46	26	0	106	649
5:15 PM	30	200	0	0	230	8	79	14	0	101	1	126	60	0	187	33	40	21	0	94	612
5:30 PM	29	199	0	0	228	6	73	15	0	94	4	110	60	0	174	51	49	20	0	120	616
5:45 PM	30	220	0	0	250	11	75	5	0	91	5	124	51	0	180	48	59	24	0	131	652
Total	133	828	0	0	961	36	285	47	0	368	14	501	234	0	749	166	194	91	0	451	2529
Grand Total	309	2819	1	0	3129	133	853	179	0	1165	51	1939	776	0	2766	471	587	281	0	1339	8399
Approach %	9.9	90.1	0.0	0.0		11.4	73.2	15.4	0.0		1.8	70.1	28.1	0.0		35.2	43.8	21.0	0.0		
Total %	3.7	33.6	0.0	0.0	37.3	1.6	10.2	2.1	0.0	13.9	0.6	23.1	9.2	0.0	32.9	5.6	7.0	3.3	0.0	15.9	
Exiting Leg Total					2353					639					3469					1938	8399
Cars	307	2798	1	0	3106	124	845	179	0	1148	51	1924	768	0	2743	471	575	279	0	1325	8322
% Cars	99.4	99.3	100.0	0.0	99.3	93.2	99.1	100.0	0.0	98.5	100.0	99.2	99.0	0.0	99.2	100.0	98.0	99.3	0.0	99.0	99.1
Exiting Leg Total					2327					627					3448					1920	8322
Heavy Vehicles	2	21	0	0	23	9	8	0	0	17	0	15	8	0	23	0	12	2	0	14	77
% Heavy Vehicles	0.6	0.7	0.0	0.0	0.7	6.8	0.9	0.0	0.0	1.5	0.0	0.8	1.0	0.0	0.8	0.0	2.0	0.7	0.0	1.0	0.9
Exiting Leg Total					26					12					21					18	77

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	20	267	1	0	288	12	58	20	0	90	3	156	64	0	223	48	55	23	0	126	727
3:15 PM	18	224	0	0	242	13	71	22	0	106	4	165	75	0	244	42	45	31	0	118	710
3:30 PM	18	253	0	0	271	21	73	16	0	110	2	192	64	0	258	52	43	20	0	115	754
3:45 PM	18	275	0	0	293	9	77	22	0	108	2	191	67	0	260	39	57	26	0	122	783
Total Volume	74	1019	1	0	1094	55	279	80	0	414	11	704	270	0	985	181	200	100	0	481	2974
% Approach Total	6.8	93.1	0.1	0.0		13.3	67.4	19.3	0.0		1.1	71.5	27.4	0.0		37.6	41.6	20.8	0.0		
PHF	0.925	0.926	0.250	0.000	0.933	0.655	0.906	0.909	0.000	0.941	0.688	0.917	0.900	0.000	0.947	0.870	0.877	0.806	0.000	0.954	0.950
Cars	72	1011	1	0	1084	51	275	80	0	406	11	698	267	0	976	181	198	99	0	478	2944
Cars %	97.3	99.2	100.0	0.0	99.1	92.7	98.6	100.0	0.0	98.1	100.0	99.1	98.9	0.0	99.1	100.0	99.0	99.0	0.0	99.4	99.0
Heavy Vehicles	2	8	0	0	10	4	4	0	0	8	0	6	3	0	9	0	2	1	0	3	30
Heavy Vehicles %	2.7	0.8	0.0	0.0	0.9	7.3	1.4	0.0	0.0	1.9	0.0	0.9	1.1	0.0	0.9	0.0	1.0	1.0	0.0	0.6	1.0
Cars Enter Leg	72	1011	1	0	1084	51	275	80	0	406	11	698	267	0	976	181	198	99	0	478	2944
Heavy Enter Leg	2	8	0	0	10	4	4	0	0	8	0	6	3	0	9	0	2	1	0	3	30
Total Entering Leg	74	1019	1	0	1094	55	279	80	0	414	11	704	270	0	985	181	200	100	0	481	2974
Cars Exiting Leg					848					210					1272					614	2944
Heavy Exiting Leg					11					2					8					9	30
Total Exiting Leg					859					212					1280					623	2974

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	18	263	1	0	282	10	57	20	0	87	3	155	63	0	221	48	53	23	0	124	714
3:15 PM	18	223	0	0	241	13	69	22	0	104	4	163	74	0	241	42	45	31	0	118	704
3:30 PM	18	252	0	0	270	20	73	16	0	109	2	191	63	0	256	52	43	19	0	114	749
3:45 PM	18	273	0	0	291	8	76	22	0	106	2	189	67	0	258	39	57	26	0	122	777
Total	72	1011	1	0	1084	51	275	80	0	406	11	698	267	0	976	181	198	99	0	478	2944
4:00 PM	22	225	0	0	247	6	84	11	0	101	10	190	55	0	255	30	41	23	0	94	697
4:15 PM	23	228	0	0	251	14	71	15	0	100	5	189	73	0	267	17	42	18	0	77	695
4:30 PM	29	273	0	0	302	9	62	10	0	81	5	189	67	0	261	41	45	22	0	108	752
4:45 PM	28	237	0	0	265	9	70	16	0	95	6	159	73	0	238	36	58	26	0	120	718
Total	102	963	0	0	1065	38	287	52	0	377	26	727	268	0	1021	124	186	89	0	399	2862
5:00 PM	44	208	0	0	252	11	58	13	0	82	4	141	63	0	208	34	46	26	0	106	648
5:15 PM	30	198	0	0	228	8	77	14	0	99	1	125	60	0	186	33	39	21	0	93	606
5:30 PM	29	199	0	0	228	5	73	15	0	93	4	109	59	0	172	51	49	20	0	120	613
5:45 PM	30	219	0	0	249	11	75	5	0	91	5	124	51	0	180	48	57	24	0	129	649
Total	133	824	0	0	957	35	283	47	0	365	14	499	233	0	746	166	191	91	0	448	2516
Grand Total	307	2798	1	0	3106	124	845	179	0	1148	51	1924	768	0	2743	471	575	279	0	1325	8322
Approach %	9.9	90.1	0.0	0.0		10.8	73.6	15.6	0.0		1.9	70.1	28.0	0.0		35.5	43.4	21.1	0.0		
Total %	3.7	33.6	0.0	0.0	37.3	1.5	10.2	2.2	0.0	13.8	0.6	23.1	9.2	0.0	33.0	5.7	6.9	3.4	0.0	15.9	
Exiting Leg Total					2327					627					3448					1920	8322

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	18	263	1	0	282	10	57	20	0	87	3	155	63	0	221	48	53	23	0	124	714
3:15 PM	18	223	0	0	241	13	69	22	0	104	4	163	74	0	241	42	45	31	0	118	704
3:30 PM	18	252	0	0	270	20	73	16	0	109	2	191	63	0	256	52	43	19	0	114	749
3:45 PM	18	273	0	0	291	8	76	22	0	106	2	189	67	0	258	39	57	26	0	122	777
Total Volume	72	1011	1	0	1084	51	275	80	0	406	11	698	267	0	976	181	198	99	0	478	2944
% Approach Total	6.6	93.3	0.1	0.0		12.6	67.7	19.7	0.0		1.1	71.5	27.4	0.0		37.9	41.4	20.7	0.0		
PHF	1.000	0.926	0.250	0.000	0.931	0.638	0.905	0.909	0.000	0.931	0.688	0.914	0.902	0.000	0.946	0.870	0.868	0.798	0.000	0.964	0.947
Entering Leg	72	1011	1	0	1084	51	275	80	0	406	11	698	267	0	976	181	198	99	0	478	2944
Exiting Leg					848					210					1272					614	2944
Total					1932					616					2248					1092	5888

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	2	4	0	0	6	2	1	0	0	3	0	1	1	0	2	0	2	0	0	2	13
3:15 PM	0	1	0	0	1	0	2	0	0	2	0	2	1	0	3	0	0	0	0	0	6
3:30 PM	0	1	0	0	1	1	0	0	0	1	0	1	1	0	2	0	0	1	0	1	5
3:45 PM	0	2	0	0	2	1	1	0	0	2	0	2	0	0	2	0	0	0	0	0	6
Total	2	8	0	0	10	4	4	0	0	8	0	6	3	0	9	0	2	1	0	3	30
4:00 PM	0	1	0	0	1	2	1	0	0	3	0	3	2	0	5	0	2	1	0	3	12
4:15 PM	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
4:30 PM	0	2	0	0	2	0	1	0	0	1	0	0	2	0	2	0	3	0	0	3	8
4:45 PM	0	2	0	0	2	2	0	0	0	2	0	1	0	0	1	0	2	0	0	2	7
Total	0	9	0	0	9	4	2	0	0	6	0	7	4	0	11	0	7	1	0	8	34
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	2	0	0	2	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1	6
5:30 PM	0	0	0	0	0	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	3
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
Total	0	4	0	0	4	1	2	0	0	3	0	2	1	0	3	0	3	0	0	3	13
Grand Total	2	21	0	0	23	9	8	0	0	17	0	15	8	0	23	0	12	2	0	14	77
Approach %	8.7	91.3	0.0	0.0		52.9	47.1	0.0	0.0		0.0	65.2	34.8	0.0		0.0	85.7	14.3	0.0		
Total %	2.6	27.3	0.0	0.0	29.9	11.7	10.4	0.0	0.0	22.1	0.0	19.5	10.4	0.0	29.9	0.0	15.6	2.6	0.0	18.2	
Exiting Leg Total					26					12					21					18	77
Buses	2	16	0	0	18	9	6	0	0	15	0	8	7	0	15	0	6	2	0	8	56
% Buses	100.0	76.2	0.0	0.0	78.3	100.0	75.0	0.0	0.0	88.2	0.0	53.3	87.5	0.0	65.2	0.0	50.0	100.0	0.0	57.1	72.7
Exiting Leg Total					19					6					16					15	56
Single-Unit Trucks	0	5	0	0	5	0	2	0	0	2	0	7	1	0	8	0	4	0	0	4	19
% Single-Unit	0.0	23.8	0.0	0.0	21.7	0.0	25.0	0.0	0.0	11.8	0.0	46.7	12.5	0.0	34.8	0.0	33.3	0.0	0.0	28.6	24.7
Exiting Leg Total					7					4					5					3	19
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	14.3	2.6
Exiting Leg Total					0					2					0					0	2

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	1	0	0	1	2	1	0	0	3	0	3	2	0	5	0	2	1	0	3	12
4:15 PM	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
4:30 PM	0	2	0	0	2	0	1	0	0	1	0	0	2	0	2	0	3	0	0	3	8
4:45 PM	0	2	0	0	2	2	0	0	0	2	0	1	0	0	1	0	2	0	0	2	7
Total Volume	0	9	0	0	9	4	2	0	0	6	0	7	4	0	11	0	7	1	0	8	34
% Approach Total	0.0	100.0	0.0	0.0		66.7	33.3	0.0	0.0		0.0	63.6	36.4	0.0		0.0	87.5	12.5	0.0		
PHF	0.000	0.563	0.000	0.000	0.563	0.500	0.500	0.000	0.000	0.500	0.000	0.583	0.500	0.000	0.550	0.000	0.583	0.250	0.000	0.667	0.708
Buses	0	8	0	0	8	4	1	0	0	5	0	4	3	0	7	0	3	1	0	4	24
Buses %	0.0	88.9	0.0	0.0	88.9	100.0	50.0	0.0	0.0	83.3	0.0	57.1	75.0	0.0	63.6	0.0	42.9	100.0	0.0	50.0	70.6
Single-Unit Trucks	0	1	0	0	1	0	1	0	0	1	0	3	1	0	4	0	3	0	0	3	9
Single-Unit %	0.0	11.1	0.0	0.0	11.1	0.0	50.0	0.0	0.0	16.7	0.0	42.9	25.0	0.0	36.4	0.0	42.9	0.0	0.0	37.5	26.5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	12.5	2.9
Buses	0	8	0	0	8	4	1	0	0	5	0	4	3	0	7	0	3	1	0	4	24
Single-Unit Trucks	0	1	0	0	1	0	1	0	0	1	0	3	1	0	4	0	3	0	0	3	9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Entering Leg	0	9	0	0	9	4	2	0	0	6	0	7	4	0	11	0	7	1	0	8	34
Buses					9					3					8					4	24
Single-Unit Trucks					3					3					1					2	9
Articulated Trucks					0					1					0					0	1
Total Exiting Leg					12					7					9					6	34

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	2	3	0	0	5	2	1	0	0	3	0	0	1	0	1	0	2	0	0	2	11
3:15 PM	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	3
3:30 PM	0	1	0	0	1	1	0	0	0	1	0	1	1	0	2	0	0	1	0	1	5
3:45 PM	0	1	0	0	1	1	1	0	0	2	0	2	0	0	2	0	0	0	0	0	5
Total	2	6	0	0	8	4	3	0	0	7	0	3	3	0	6	0	2	1	0	3	24
4:00 PM	0	1	0	0	1	2	0	0	0	2	0	2	2	0	4	0	2	1	0	3	10
4:15 PM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5
4:30 PM	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	4
4:45 PM	0	2	0	0	2	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	5
Total	0	8	0	0	8	4	1	0	0	5	0	4	3	0	7	0	3	1	0	4	24
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	1	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	2
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	0	2	0	0	2	1	2	0	0	3	0	1	1	0	2	0	1	0	0	1	8
Grand Total	2	16	0	0	18	9	6	0	0	15	0	8	7	0	15	0	6	2	0	8	56
Approach %	11.1	88.9	0.0	0.0		60.0	40.0	0.0	0.0		0.0	53.3	46.7	0.0		0.0	75.0	25.0	0.0		
Total %	3.6	28.6	0.0	0.0	32.1	16.1	10.7	0.0	0.0	26.8	0.0	14.3	12.5	0.0	26.8	0.0	10.7	3.6	0.0	14.3	
Exiting Leg Total					19					6					16					15	56

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:30 PM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:30 PM	0	1	0	0	1	1	0	0	0	1	0	1	1	0	2	0	0	1	0	1	5
3:45 PM	0	1	0	0	1	1	1	0	0	2	0	2	0	0	2	0	0	0	0	0	5
4:00 PM	0	1	0	0	1	2	0	0	0	2	0	2	2	0	4	0	2	1	0	3	10
4:15 PM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5
Total Volume	0	7	0	0	7	4	1	0	0	5	0	6	3	0	9	0	2	2	0	4	25
% Approach Total	0.0	100.0	0.0	0.0		80.0	20.0	0.0	0.0		0.0	66.7	33.3	0.0		0.0	50.0	50.0	0.0		
PHF	0.000	0.438	0.000	0.000	0.438	0.500	0.250	0.000	0.000	0.625	0.000	0.750	0.375	0.000	0.563	0.000	0.250	0.500	0.000	0.333	0.625
Entering Leg	0	7	0	0	7	4	1	0	0	5	0	6	3	0	9	0	2	2	0	4	25
Exiting Leg					12					2					7					4	25
Total					19					7					16					8	50

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
3:15 PM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	3
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	2	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	6
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	1	0	0	1	0	1	0	0	1	0	3	1	0	4	0	3	0	0	3	9
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	4
Grand Total	0	5	0	0	5	0	2	0	0	2	0	7	1	0	8	0	4	0	0	4	19
Approach %	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	87.5	12.5	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	26.3	0.0	0.0	26.3	0.0	10.5	0.0	0.0	10.5	0.0	36.8	5.3	0.0	42.1	0.0	21.1	0.0	0.0	21.1	
Exiting Leg Total					7					4					5					3	19

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total Volume	0	1	0	0	1	0	1	0	0	1	0	3	1	0	4	0	3	0	0	3	9
% Approach Total	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	75.0	25.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.000	0.375	0.250	0.000	0.500	0.000	0.375	0.000	0.000	0.375	0.750
Entering Leg	0	1	0	0	1	0	1	0	0	1	0	3	1	0	4	0	3	0	0	3	9
Exiting Leg					3					3					1					2	9
Total					4					4					5					5	18

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Articulated Trucks

	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	
Exiting Leg Total					0					2					0					0	2

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Riverway from North					Longwood Avenue from East					Riverway from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Exiting Leg					0					1					0					0	1
Total					0					1					0					1	2

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Riverway from North							Longwood Avenue from East							Riverway from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	1	1	0	2	0	0	0	0	2	0	0	0	0	1	1	2	0	3	0	0	0	0	3	8
3:15 PM	0	0	0	0	0	0	0	0	10	0	0	0	0	10	0	0	0	0	0	2	2	0	1	0	0	0	0	1	13
3:30 PM	0	0	0	0	0	0	0	0	6	0	0	0	0	6	0	0	0	0	1	1	2	0	1	0	0	0	0	1	9
3:45 PM	0	0	0	0	0	0	0	0	10	0	0	0	0	10	0	0	0	0	0	1	1	0	3	0	0	0	0	3	14
Total	0	0	0	0	0	1	1	0	28	0	0	0	0	28	0	0	0	0	2	5	7	0	8	0	0	0	0	8	44
4:00 PM	0	0	0	0	0	3	3	0	9	0	0	0	0	9	0	0	0	0	0	1	1	0	2	0	0	0	0	2	15
4:15 PM	0	0	0	0	0	0	0	0	18	0	0	0	0	18	0	0	0	0	0	3	3	0	2	0	0	0	0	2	23
4:30 PM	0	0	0	0	0	0	0	0	9	0	0	0	0	9	0	0	0	0	0	2	2	0	3	0	0	0	0	3	14
4:45 PM	0	0	0	0	0	0	0	0	14	0	0	0	0	14	0	0	0	0	0	1	1	0	4	0	0	0	0	4	19
Total	0	0	0	0	0	3	3	0	50	0	0	0	0	50	0	0	0	0	0	7	7	0	11	0	0	0	0	11	71
5:00 PM	0	0	0	0	0	12	12	0	4	0	0	0	3	7	0	0	0	0	0	1	1	0	2	0	0	0	0	2	22
5:15 PM	0	0	0	0	0	17	17	0	5	0	0	1	0	6	0	0	0	0	0	1	1	0	4	0	0	0	0	4	28
5:30 PM	0	0	0	0	0	10	10	0	4	0	0	0	0	4	0	0	0	0	0	1	1	0	1	0	0	0	0	1	16
5:45 PM	0	0	0	0	1	18	19	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	4	0	0	0	0	4	31
Total	0	0	0	0	1	57	58	0	21	0	0	1	3	25	0	0	0	0	0	3	3	0	11	0	0	0	0	11	97
Grand Total	0	0	0	0	1	61	62	0	99	0	0	1	3	103	0	0	0	0	2	15	17	0	30	0	0	0	0	30	212
Approach %	0.0	0.0	0.0	0.0	1.6	98.4		0.0	96.1	0.0	0.0	1.0	2.9		0.0	0.0	0.0	0.0	11.8	88.2		0.0	100.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.5	28.8	29.2	0.0	46.7	0.0	0.0	0.5	1.4	48.6	0.0	0.0	0.0	0.0	0.9	7.1	8.0	0.0	14.2	0.0	0.0	0.0	0.0	14.2	
Exiting Leg Total							62							34							17							99	212

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Riverway from North							Longwood Avenue from East							Riverway from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	12	12	0	4	0	0	0	3	7	0	0	0	0	0	1	1	0	2	0	0	0	0	2	22
5:15 PM	0	0	0	0	0	17	17	0	5	0	0	1	0	6	0	0	0	0	0	1	1	0	4	0	0	0	0	4	28
5:30 PM	0	0	0	0	0	10	10	0	4	0	0	0	0	4	0	0	0	0	0	1	1	0	1	0	0	0	0	1	16
5:45 PM	0	0	0	0	1	18	19	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	4	0	0	0	0	4	31
Total Volume	0	0	0	0	1	57	58	0	21	0	0	1	3	25	0	0	0	0	0	3	3	0	11	0	0	0	0	11	97
% Approach Total	0.0	0.0	0.0	0.0	1.7	98.3		0.0	84.0	0.0	0.0	4.0	12.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.792	0.763	0.000	0.656	0.000	0.000	0.250	0.250	0.781	0.000	0.000	0.000	0.000	0.000	0.750	0.750	0.000	0.688	0.000	0.000	0.000	0.000	0.688	0.782
Entering Leg	0	0	0	0	1	57	58	0	21	0	0	1	3	25	0	0	0	0	0	3	3	0	11	0	0	0	0	11	97
Exiting Leg							58							15							3							21	97
Total							116							40							6							32	194

PDI File #: **239743 T**
Location: **N: Riverway S: Riverway**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/S. Yashin**
Site Code: **16164.00**
Count Date: **Thursday, December 7, 2023**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Riverway from North							Longwood Avenue from East							Riverway from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	10	28	38	0	0	0	0	1	0	1	0	0	0	0	10	13	23	0	0	0	0	1	0	1	63
3:15 PM	0	0	0	0	4	35	39	0	0	0	0	0	0	0	0	0	0	0	8	58	66	0	0	0	0	5	4	9	114
3:30 PM	0	0	0	0	11	32	43	0	0	0	0	0	0	0	0	0	0	0	8	60	68	0	0	0	0	1	1	2	113
3:45 PM	0	0	0	0	6	34	40	0	0	0	0	0	0	0	0	0	0	0	9	50	59	0	0	0	0	3	7	10	109
Total	0	0	0	0	31	129	160	0	0	0	0	1	0	1	0	0	0	0	35	181	216	0	0	0	0	10	12	22	399
4:00 PM	0	0	0	0	11	46	57	0	0	0	0	0	1	1	0	0	0	0	9	62	71	0	0	0	0	0	1	1	130
4:15 PM	0	0	0	0	10	60	70	0	0	0	0	0	0	0	0	0	0	0	8	46	54	0	0	0	0	0	0	0	124
4:30 PM	0	0	0	0	5	73	78	0	0	0	0	0	0	0	0	0	0	0	3	61	64	0	0	0	0	0	1	1	143
4:45 PM	0	0	0	0	8	70	78	0	0	0	0	0	0	0	0	0	0	0	7	59	66	0	0	0	0	1	1	2	146
Total	0	0	0	0	34	249	283	0	0	0	0	0	1	1	0	0	0	0	27	228	255	0	0	0	0	1	3	4	543
5:00 PM	0	0	0	0	14	156	170	0	0	0	0	1	0	1	0	0	0	0	8	107	115	0	0	0	0	1	0	1	287
5:15 PM	0	0	0	0	13	153	166	0	0	0	0	0	0	0	0	0	0	0	8	70	78	0	0	0	0	0	2	2	246
5:30 PM	0	0	0	0	8	145	153	0	0	0	0	0	0	0	0	0	0	0	6	81	87	0	0	0	0	0	1	1	241
5:45 PM	0	0	0	0	14	151	165	0	0	0	0	0	0	0	0	0	0	0	14	55	69	0	0	0	0	0	2	2	236
Total	0	0	0	0	49	605	654	0	0	0	0	1	0	1	0	0	0	0	36	313	349	0	0	0	0	1	5	6	1010
Grand Total	0	0	0	0	114	983	1097	0	0	0	0	2	1	3	0	0	0	0	98	722	820	0	0	0	0	12	20	32	1952
Approach %	0	0	0	0	10.4	89.6		0	0	0	0	66.7	33.3		0	0	0	0	12	88		0	0	0	0	37.5	62.5		
Total %	0	0	0	0	5.84	50.4	56.2	0	0	0	0	0.1	0.05	0.15	0	0	0	0	5.02	37	42	0	0	0	0	0.61	1.02	1.64	
Exiting Leg Total							1097							3							820							32	1952

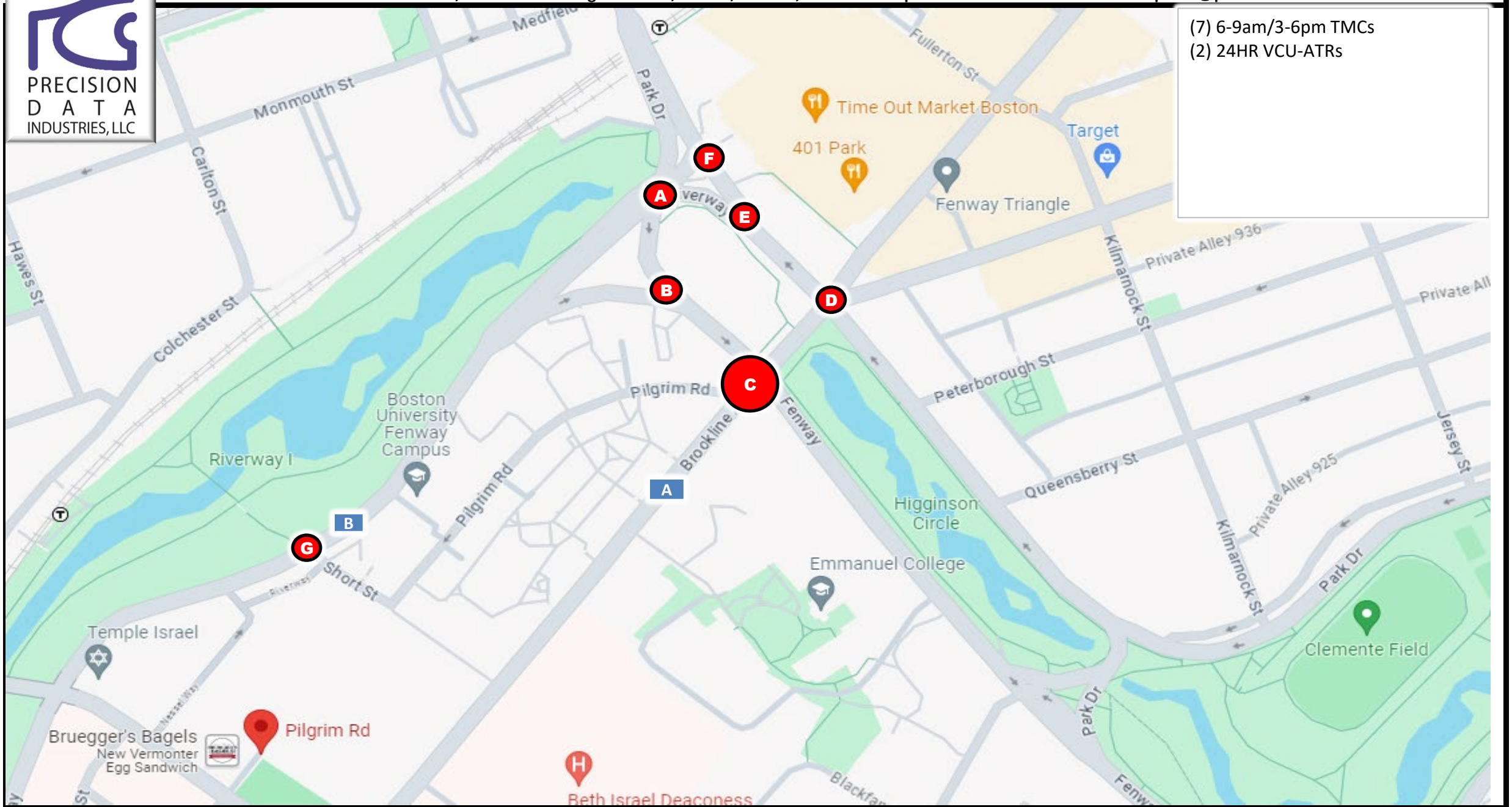
Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Riverway from North							Longwood Avenue from East							Riverway from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	14	156	170	0	0	0	0	1	0	1	0	0	0	0	8	107	115	0	0	0	0	1	0	1	287
5:15 PM	0	0	0	0	13	153	166	0	0	0	0	0	0	0	0	0	0	0	8	70	78	0	0	0	0	0	2	2	246
5:30 PM	0	0	0	0	8	145	153	0	0	0	0	0	0	0	0	0	0	0	6	81	87	0	0	0	0	0	1	1	241
5:45 PM	0	0	0	0	14	151	165	0	0	0	0	0	0	0	0	0	0	0	14	55	69	0	0	0	0	0	2	2	236
Total Volume	0	0	0	0	49	605	654	0	0	0	0	1	0	1	0	0	0	0	36	313	349	0	0	0	0	1	5	6	1010
% Approach Total	0.0	0.0	0.0	0.0	7.5	92.5		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	10.3	89.7		0.0	0.0	0.0	0.0	16.7	83.3		
PHF	0.000	0.000	0.000	0.000	0.875	0.970	0.962	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.643	0.731	0.759	0.000	0.000	0.000	0.000	0.250	0.625	0.750	0.880
Entering Leg	0	0	0	0	49	605	654	0	0	0	0	1	0	1	0	0	0	0	36	313	349	0	0	0	0	1	5	6	1010
Exiting Leg							654							1							349							6	1010
Total							1308							2							698							12	2020

Location Map: 249980 Boston, MA

Precision Data Industries, LLC 157 Washington Street, Suite 2, Hudson, MA 01749 ph: 508-875-0100 email: datarequests@pdillc.com

(7) 6-9am/3-6pm TMCs
(2) 24HR VCU-ATRs



Client:	Engineer:	Site Code:	Date:	PDI Job #	City, State:
VHB	M. Burmeister	14481.02	Thur 5/9/24	249980	Boston, MA

Brookline Avenue
w/o Pilgrim Road
City, State: Boston, MA
Client: VHB/ M. Burmeister
Site Code: 14481.02

PDI File #: 249980 ATR-A

Count Date: Thursday, May 9, 2024
Direction: EB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	35	0	0	0	35
12:15 AM	0	1	28	2	1	0	32
12:30 AM	0	0	31	0	0	0	31
12:45 AM	0	0	17	1	1	0	19
1:00 AM	0	0	16	1	0	0	17
1:15 AM	0	0	23	0	0	2	25
1:30 AM	0	0	9	0	0	0	9
1:45 AM	0	0	18	0	0	0	18
2:00 AM	0	0	19	0	0	0	19
2:15 AM	0	0	14	0	1	0	15
2:30 AM	0	0	14	0	1	1	16
2:45 AM	0	0	10	0	0	0	10
3:00 AM	0	0	6	0	0	0	6
3:15 AM	0	0	7	0	0	0	7
3:30 AM	0	0	6	0	1	0	7
3:45 AM	0	0	14	0	0	1	15
4:00 AM	0	0	13	0	1	0	14
4:15 AM	0	0	18	0	2	1	21
4:30 AM	0	0	22	0	1	0	23
4:45 AM	0	0	20	0	0	1	21
5:00 AM	0	0	21	0	0	0	21
5:15 AM	0	0	34	2	1	0	37
5:30 AM	0	0	56	2	1	0	59
5:45 AM	1	0	38	2	0	1	42
6:00 AM	0	0	51	6	1	0	58
6:15 AM	0	0	91	10	2	0	103
6:30 AM	0	0	94	6	4	1	105
6:45 AM	0	0	112	12	3	0	127
7:00 AM	0	0	133	9	2	1	145
7:15 AM	0	0	170	6	5	0	181
7:30 AM	0	0	172	15	2	0	189
7:45 AM	1	0	146	12	4	0	163
8:00 AM	0	1	133	17	3	1	155
8:15 AM	0	0	120	9	3	0	132
8:30 AM	0	0	106	9	4	0	119
8:45 AM	0	0	119	7	3	0	129
9:00 AM	0	0	128	13	3	0	144
9:15 AM	0	0	96	8	1	0	105
9:30 AM	1	0	89	8	0	1	99
9:45 AM	0	0	114	6	1	1	122
10:00 AM	0	1	110	3	3	0	117
10:15 AM	1	0	75	10	2	0	88
10:30 AM	0	1	81	1	4	0	87
10:45 AM	0	0	119	3	3	1	126
11:00 AM	0	1	98	4	2	0	105
11:15 AM	0	0	118	7	4	0	129
11:30 AM	0	0	109	1	1	0	111
11:45 AM	0	1	114	3	5	0	123
AM Total	**4**	**6**	**3187**	**195**	**76**	**13**	**3481**
Percentage	**0.11%**	**0.17%**	**91.55%**	**5.60%**	**2.18%**	**0.37%**	
AM Peak	**9:30 AM**	**9:45 AM**	**7:00 AM**	**7:30 AM**	**6:30 AM**	**12:30 AM**	**7:15 AM**
Volume	**2**	**2**	**621**	**53**	**14**	**2**	**688**

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	1	3	84	4	2	0	94
12:15 PM	0	1	107	5	2	1	116
12:30 PM	2	2	93	6	4	0	107
12:45 PM	0	3	91	5	3	0	102
1:00 PM	0	2	126	2	2	0	132
1:15 PM	0	1	110	3	2	0	116
1:30 PM	0	1	113	3	4	1	122
1:45 PM	0	4	104	4	0	0	112
2:00 PM	0	2	125	7	0	0	134
2:15 PM	0	2	96	1	0	0	99
2:30 PM	0	1	120	6	0	0	127
2:45 PM	0	0	103	5	0	0	108
3:00 PM	0	1	118	5	2	0	126
3:15 PM	0	1	75	4	1	0	81
3:30 PM	0	1	90	5	1	0	97
3:45 PM	0	2	63	2	0	1	68
4:00 PM	0	0	99	3	0	0	102
4:15 PM	0	3	89	6	1	0	99
4:30 PM	0	2	86	7	2	0	97
4:45 PM	0	2	80	5	1	0	88
5:00 PM	1	1	109	7	1	1	120
5:15 PM	1	2	108	8	0	0	119
5:30 PM	0	2	113	8	1	0	124
5:45 PM	0	0	100	5	1	0	106
6:00 PM	0	2	137	5	0	0	144
6:15 PM	0	2	96	6	0	0	104
6:30 PM	0	3	118	4	3	0	128
6:45 PM	0	0	96	4	0	0	100
7:00 PM	0	2	125	7	0	1	135
7:15 PM	0	2	105	5	0	0	112
7:30 PM	0	1	117	7	0	0	125
7:45 PM	0	3	92	2	0	0	97
8:00 PM	0	2	105	4	0	0	111
8:15 PM	0	4	110	7	0	1	122
8:30 PM	0	1	86	4	0	0	91
8:45 PM	0	1	89	2	0	0	92
9:00 PM	0	1	96	2	1	0	100
9:15 PM	0	1	80	0	1	0	82
9:30 PM	0	2	105	2	0	1	110
9:45 PM	1	1	89	2	0	0	93
10:00 PM	0	0	73	0	0	0	73
10:15 PM	0	0	57	1	0	0	58
10:30 PM	0	1	55	2	0	0	58
10:45 PM	0	4	71	0	0	0	75
11:00 PM	0	0	83	1	0	0	84
11:15 PM	0	0	73	1	0	0	74
11:30 PM	0	1	66	1	1	0	69
11:45 PM	1	1	45	0	0	0	47
PM Total	**7**	**74**	**4571**	**185**	**36**	**7**	**4880**
Percentage	**0.14%**	**1.52%**	**93.67%**	**3.79%**	**0.74%**	**0.14%**	
PM Peak	**12:00 PM**	**7:30 PM**	**5:15 PM**	**4:45 PM**	**12:00 PM**	**12:00 PM**	**5:15 PM**
Volume	**3**	**10**	**458**	**28**	**11**	**1**	**493**
Day Total	**11**	**80**	**7758**	**380**	**112**	**20**	**8361**
Percentage	**0.13%**	**0.96%**	**92.79%**	**4.54%**	**1.34%**	**0.24%**	

Brookline Avenue
w/o Pilgrim Road
City, State: Boston, MA
Client: VHB/ M. Burmeister
Site Code: 14481.02

PDI File #: 249980 ATR-A

Count Date: Thursday, May 9, 2024
Direction: WB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	1	48	0	0	0	49
12:15 AM	0	0	39	2	1	0	42
12:30 AM	0	0	31	3	0	0	34
12:45 AM	0	1	30	1	0	0	32
1:00 AM	0	1	23	1	0	0	25
1:15 AM	0	0	24	0	0	0	24
1:30 AM	0	1	32	0	1	0	34
1:45 AM	0	1	24	0	0	0	25
2:00 AM	0	0	22	0	0	1	23
2:15 AM	0	1	12	0	1	0	14
2:30 AM	0	0	16	0	0	0	16
2:45 AM	0	0	23	0	0	0	23
3:00 AM	0	0	12	0	0	0	12
3:15 AM	0	0	17	0	1	0	18
3:30 AM	0	0	14	0	2	0	16
3:45 AM	0	0	22	0	2	0	24
4:00 AM	0	0	24	0	1	0	25
4:15 AM	0	0	24	0	1	0	25
4:30 AM	0	0	47	0	2	0	49
4:45 AM	0	0	56	0	0	1	57
5:00 AM	0	0	55	1	0	0	56
5:15 AM	2	0	96	1	3	0	102
5:30 AM	2	1	162	2	2	0	169
5:45 AM	3	3	153	8	2	0	169
6:00 AM	5	0	202	5	0	0	212
6:15 AM	7	0	239	8	1	0	255
6:30 AM	5	1	293	8	0	0	307
6:45 AM	6	1	254	11	0	0	272
7:00 AM	4	2	252	9	3	0	270
7:15 AM	4	0	214	12	2	1	233
7:30 AM	6	1	237	11	8	0	263
7:45 AM	10	0	230	12	1	0	253
8:00 AM	7	1	222	11	5	0	246
8:15 AM	8	1	235	12	3	0	259
8:30 AM	11	1	231	9	2	1	255
8:45 AM	4	2	216	9	8	0	239
9:00 AM	8	0	196	10	3	0	217
9:15 AM	4	0	191	11	1	0	207
9:30 AM	1	0	236	6	4	2	249
9:45 AM	6	0	226	9	8	0	249
10:00 AM	2	0	230	8	5	0	245
10:15 AM	7	1	219	5	8	0	240
10:30 AM	6	2	186	7	5	0	206
10:45 AM	2	1	216	5	3	0	227
11:00 AM	6	0	216	4	1	0	227
11:15 AM	3	1	210	4	1	0	219
11:30 AM	4	2	192	7	2	1	208
11:45 AM	8	11	154	2	4	0	179
AM Total	**141**	**38**	**6303**	**214**	**97**	**7**	**6800**
Percentage	**2.07%**	**0.56%**	**92.69%**	**3.15%**	**1.43%**	**0.10%**	
AM Peak	**7:45 AM**	**11:00 AM**	**6:15 AM**	**7:15 AM**	**9:45 AM**	**8:45 AM**	**6:15 AM**
Volume	**36**	**14**	**1038**	**46**	**26**	**2**	**1104**

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	1	5	210	5	4	0	225
12:15 PM	1	3	217	4	2	0	227
12:30 PM	1	11	188	9	5	0	214
12:45 PM	5	6	203	4	4	0	222
1:00 PM	2	3	186	6	4	0	201
1:15 PM	6	5	205	4	3	0	223
1:30 PM	2	1	214	5	5	1	228
1:45 PM	4	4	203	8	3	0	222
2:00 PM	3	2	202	8	2	0	217
2:15 PM	5	4	230	4	1	0	244
2:30 PM	2	3	218	14	2	0	239
2:45 PM	3	3	229	9	3	0	247
3:00 PM	4	0	221	7	2	0	234
3:15 PM	6	1	218	11	2	0	238
3:30 PM	3	8	235	9	2	0	257
3:45 PM	4	4	202	16	1	0	227
4:00 PM	4	8	189	12	2	0	215
4:15 PM	3	1	168	7	1	0	180
4:30 PM	12	1	175	9	0	0	197
4:45 PM	6	8	204	10	3	0	231
5:00 PM	6	5	181	15	3	0	210
5:15 PM	5	0	137	8	0	0	150
5:30 PM	5	5	163	12	1	0	186
5:45 PM	5	3	149	10	1	0	168
6:00 PM	4	5	170	12	3	1	195
6:15 PM	4	2	204	7	1	0	218
6:30 PM	6	5	249	13	0	0	273
6:45 PM	8	4	235	10	0	0	257
7:00 PM	4	3	186	8	1	0	202
7:15 PM	10	5	172	4	0	0	191
7:30 PM	9	5	144	6	0	0	164
7:45 PM	4	9	155	4	2	0	174
8:00 PM	5	5	124	6	1	0	141
8:15 PM	4	4	131	4	0	0	143
8:30 PM	0	7	124	3	1	0	135
8:45 PM	3	4	147	5	1	0	160
9:00 PM	2	2	110	1	0	0	115
9:15 PM	2	3	123	3	2	0	133
9:30 PM	0	3	145	0	0	0	148
9:45 PM	0	4	142	3	0	0	149
10:00 PM	1	1	152	0	0	0	154
10:15 PM	1	3	162	5	0	0	171
10:30 PM	1	0	145	0	1	0	147
10:45 PM	1	1	150	1	0	0	153
11:00 PM	1	0	99	2	2	0	104
11:15 PM	1	0	95	0	1	0	97
11:30 PM	0	2	91	1	0	0	94
11:45 PM	0	1	99	4	0	0	104
PM Total	**169**	**172**	**8301**	**308**	**72**	**2**	**9024**
Percentage	**1.87%**	**1.91%**	**91.99%**	**3.41%**	**0.80%**	**0.02%**	
PM Peak	**6:45 PM**	**12:00 PM**	**2:45 PM**	**3:15 PM**	**12:30 PM**	**12:45 PM**	**2:45 PM**
Volume	**31**	**25**	**903**	**48**	**16**	**1**	**976**
Day Total	**310**	**210**	**14604**	**522**	**169**	**9**	**15824**
Percentage	**1.96%**	**1.33%**	**92.29%**	**3.30%**	**1.07%**	**0.06%**	

Riverway **PDI File #: 249980 ATR-B**
e/o Short Street
City, State: Boston, MA
Client: VHB/ M. Burmeister
Site Code: 14481.02

Count Date: Thursday, May 9, 2024
Direction: EB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	21	1	0	0	22
12:15 AM	0	0	20	0	0	0	20
12:30 AM	0	0	16	1	0	0	17
12:45 AM	0	0	12	0	1	0	13
1:00 AM	0	0	8	0	0	0	8
1:15 AM	0	0	8	1	0	0	9
1:30 AM	0	0	11	0	0	0	11
1:45 AM	0	0	11	0	0	0	11
2:00 AM	0	0	7	0	1	0	8
2:15 AM	0	0	4	0	0	0	4
2:30 AM	0	0	4	0	0	0	4
2:45 AM	0	0	5	0	0	0	5
3:00 AM	0	0	5	0	0	0	5
3:15 AM	0	0	7	0	0	0	7
3:30 AM	0	0	4	0	0	0	4
3:45 AM	0	0	6	0	1	0	7
4:00 AM	0	0	10	0	0	0	10
4:15 AM	0	0	15	0	1	0	16
4:30 AM	0	0	20	0	1	0	21
4:45 AM	0	0	28	0	0	0	28
5:00 AM	0	1	37	0	0	0	38
5:15 AM	0	0	55	0	0	0	55
5:30 AM	0	0	103	0	1	0	104
5:45 AM	0	0	81	0	0	0	81
6:00 AM	0	2	107	0	2	0	111
6:15 AM	0	1	152	0	0	0	153
6:30 AM	0	3	184	1	1	0	189
6:45 AM	0	1	163	2	1	0	167
7:00 AM	0	0	181	2	0	0	183
7:15 AM	0	0	229	1	1	0	231
7:30 AM	0	2	281	2	3	0	288
7:45 AM	0	1	241	3	2	0	247
8:00 AM	0	1	298	2	3	0	304
8:15 AM	0	0	258	2	3	0	263
8:30 AM	0	1	251	2	3	0	257
8:45 AM	0	0	264	2	2	0	268
9:00 AM	0	1	320	2	3	0	326
9:15 AM	0	0	234	1	1	0	236
9:30 AM	0	1	212	3	3	0	219
9:45 AM	1	0	200	7	5	0	213
10:00 AM	1	1	211	6	4	0	223
10:15 AM	0	1	202	2	3	0	208
10:30 AM	0	0	183	2	1	0	186
10:45 AM	0	0	199	2	6	0	207
11:00 AM	0	0	169	4	7	0	180
11:15 AM	0	0	219	1	3	0	223
11:30 AM	0	1	191	3	1	0	196
11:45 AM	0	2	196	2	1	0	201
AM Total	**2**	**20**	**5643**	**57**	**65**	**0**	**5787**
Percentage	**0.03%**	**0.35%**	**97.51%**	**0.98%**	**1.12%**	**0.00%**	
AM Peak	**9:15 AM**	**6:00 AM**	**8:15 AM**	**9:30 AM**	**10:15 AM**	**12:00 AM**	**8:15 AM**
Volume	**2**	**7**	**1093**	**18**	**17**	**0**	**1114**

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	2	206	2	2	0	212
12:15 PM	0	1	207	4	4	0	216
12:30 PM	0	1	202	2	3	0	208
12:45 PM	0	0	193	2	1	0	196
1:00 PM	0	0	206	1	2	0	209
1:15 PM	1	1	192	2	2	0	198
1:30 PM	0	0	211	2	1	0	214
1:45 PM	0	3	234	2	2	0	241
2:00 PM	0	1	197	0	1	0	199
2:15 PM	0	0	227	2	1	0	230
2:30 PM	0	0	215	3	1	0	219
2:45 PM	0	0	251	2	4	1	258
3:00 PM	0	0	240	6	0	1	247
3:15 PM	0	0	255	1	1	0	257
3:30 PM	0	1	224	2	1	0	228
3:45 PM	0	0	203	4	1	0	208
4:00 PM	0	1	239	2	3	0	245
4:15 PM	0	0	224	3	2	0	229
4:30 PM	0	0	244	1	2	0	247
4:45 PM	0	2	238	2	3	0	245
5:00 PM	0	2	218	0	0	0	220
5:15 PM	0	1	236	0	0	0	237
5:30 PM	0	1	276	2	0	0	279
5:45 PM	2	0	220	0	1	0	223
6:00 PM	0	0	233	0	1	0	234
6:15 PM	1	0	196	0	0	0	197
6:30 PM	0	0	192	0	1	0	193
6:45 PM	1	0	185	0	3	0	189
7:00 PM	1	0	233	0	0	0	234
7:15 PM	2	0	197	0	1	0	200
7:30 PM	2	0	152	0	0	0	154
7:45 PM	0	0	164	1	0	0	165
8:00 PM	3	0	149	0	0	0	152
8:15 PM	0	0	119	1	0	0	120
8:30 PM	0	0	96	0	0	0	96
8:45 PM	0	0	109	0	0	0	109
9:00 PM	0	0	122	0	0	0	122
9:15 PM	0	0	101	0	0	0	101
9:30 PM	0	1	101	0	0	0	102
9:45 PM	0	0	113	0	0	0	113
10:00 PM	0	0	77	0	0	0	77
10:15 PM	0	0	86	1	0	0	87
10:30 PM	0	0	76	1	0	0	77
10:45 PM	0	0	64	0	0	0	64
11:00 PM	0	0	75	1	0	0	76
11:15 PM	0	0	60	1	0	0	61
11:30 PM	0	0	51	0	0	0	51
11:45 PM	0	0	41	1	1	0	43
PM Total	**13**	**18**	**8350**	**54**	**45**	**2**	**8482**
Percentage	**0.15%**	**0.21%**	**98.44%**	**0.64%**	**0.53%**	**0.02%**	
PM Peak	**7:15 PM**	**4:45 PM**	**2:45 PM**	**2:15 PM**	**12:00 PM**	**2:15 PM**	**2:45 PM**
Volume	**7**	**6**	**970**	**13**	**10**	**2**	**990**
Day Total	**15**	**38**	**13993**	**111**	**110**	**2**	**14269**
Percentage	**0.11%**	**0.27%**	**98.07%**	**0.78%**	**0.77%**	**0.01%**	

Riverway **PDI File #: 249980 ATR-B**
e/o Short Street
City, State: Boston, MA
Client: VHB/ M. Burmeister
Site Code: 14481.02

Count Date: Thursday, May 9, 2024
Direction: WB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	47	0	0	0	47
12:15 AM	0	0	38	0	0	0	38
12:30 AM	0	0	41	1	0	1	43
12:45 AM	0	0	25	0	0	0	25
1:00 AM	0	0	23	0	0	0	23
1:15 AM	0	1	19	0	0	0	20
1:30 AM	0	0	23	0	0	0	23
1:45 AM	0	0	18	0	0	0	18
2:00 AM	0	0	7	0	0	0	7
2:15 AM	0	0	10	0	0	0	10
2:30 AM	0	0	7	0	0	0	7
2:45 AM	0	0	8	0	0	0	8
3:00 AM	0	0	6	1	0	0	7
3:15 AM	0	0	7	0	0	0	7
3:30 AM	0	0	8	0	0	0	8
3:45 AM	0	0	2	0	0	0	2
4:00 AM	0	0	6	0	0	0	6
4:15 AM	0	0	7	0	0	0	7
4:30 AM	0	0	13	0	1	0	14
4:45 AM	0	0	18	0	0	0	18
5:00 AM	0	0	20	0	0	0	20
5:15 AM	0	0	32	0	0	0	32
5:30 AM	0	0	35	0	0	0	35
5:45 AM	0	0	41	0	1	1	43
6:00 AM	0	0	81	0	1	0	82
6:15 AM	0	0	120	0	0	0	120
6:30 AM	0	0	149	0	0	0	149
6:45 AM	1	0	163	1	0	0	165
7:00 AM	0	0	167	1	0	0	168
7:15 AM	0	0	175	1	1	0	177
7:30 AM	0	2	214	5	2	0	223
7:45 AM	0	0	206	3	3	0	212
8:00 AM	0	0	193	3	1	0	197
8:15 AM	0	0	153	4	2	0	159
8:30 AM	0	0	192	2	2	0	196
8:45 AM	0	0	157	1	2	0	160
9:00 AM	0	0	160	2	2	1	165
9:15 AM	0	0	160	1	4	0	165
9:30 AM	0	0	143	0	3	0	146
9:45 AM	0	1	175	1	3	0	180
10:00 AM	0	0	110	5	2	0	117
10:15 AM	0	1	162	2	1	0	166
10:30 AM	0	1	138	1	1	0	141
10:45 AM	0	0	160	1	1	0	162
11:00 AM	0	0	155	1	0	0	156
11:15 AM	0	0	154	1	2	0	157
11:30 AM	0	0	182	1	1	0	184
11:45 AM	0	0	153	2	1	0	156
AM Total	**1**	**6**	**4283**	**41**	**37**	**3**	**4371**
Percentage	**0.02%**	**0.14%**	**97.99%**	**0.94%**	**0.85%**	**0.07%**	
AM Peak	**6:00 AM**	**9:45 AM**	**7:15 AM**	**7:30 AM**	**9:00 AM**	**12:00 AM**	**7:15 AM**
Volume	**1**	**3**	**788**	**15**	**12**	**1**	**809**

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	1	174	1	1	0	177
12:15 PM	0	0	159	1	1	0	161
12:30 PM	0	0	166	1	3	0	170
12:45 PM	0	3	180	5	1	0	189
1:00 PM	0	2	172	1	1	0	176
1:15 PM	0	1	197	3	1	0	202
1:30 PM	0	0	238	3	1	0	242
1:45 PM	0	1	218	3	0	0	222
2:00 PM	0	0	247	2	3	0	252
2:15 PM	0	0	253	0	2	0	255
2:30 PM	0	1	196	2	2	0	201
2:45 PM	1	1	243	0	4	0	249
3:00 PM	0	1	287	1	0	0	289
3:15 PM	0	3	222	0	0	0	225
3:30 PM	0	0	243	1	1	0	245
3:45 PM	0	1	230	2	0	0	233
4:00 PM	1	0	265	2	3	0	271
4:15 PM	0	3	251	0	3	0	257
4:30 PM	0	1	290	4	0	0	295
4:45 PM	0	0	206	2	0	0	208
5:00 PM	1	0	248	2	1	0	252
5:15 PM	0	1	235	0	0	0	236
5:30 PM	0	1	266	1	0	0	268
5:45 PM	1	0	269	2	0	0	272
6:00 PM	0	2	182	0	0	0	184
6:15 PM	0	1	185	0	1	0	187
6:30 PM	0	0	183	0	0	0	183
6:45 PM	0	0	199	0	0	0	199
7:00 PM	0	0	216	0	0	0	216
7:15 PM	0	0	188	0	0	0	188
7:30 PM	0	0	185	0	0	0	185
7:45 PM	0	0	184	1	0	0	185
8:00 PM	0	2	151	1	0	0	154
8:15 PM	0	1	156	0	0	0	157
8:30 PM	0	0	139	0	0	0	139
8:45 PM	0	1	145	0	0	0	146
9:00 PM	0	1	145	1	0	0	147
9:15 PM	0	0	154	1	0	0	155
9:30 PM	0	0	123	0	0	0	123
9:45 PM	0	0	124	0	0	0	124
10:00 PM	0	0	123	0	0	0	123
10:15 PM	0	0	174	0	0	0	174
10:30 PM	0	0	146	0	1	0	147
10:45 PM	0	0	134	0	1	0	135
11:00 PM	0	0	111	0	0	0	111
11:15 PM	1	1	79	0	0	0	81
11:30 PM	0	0	81	0	0	0	81
11:45 PM	0	0	63	0	1	0	64
PM Total	**5**	**30**	**9025**	**43**	**32**	**0**	**9135**
Percentage	**0.05%**	**0.33%**	**98.80%**	**0.47%**	**0.35%**	**0.00%**	
PM Peak	**5:00 PM**	**12:30 PM**	**3:45 PM**	**12:45 PM**	**2:00 PM**	**12:00 PM**	**3:45 PM**
Volume	**2**	**6**	**1036**	**12**	**11**	**0**	**1056**
Day Total	**6**	**36**	**13308**	**84**	**69**	**3**	**13506**
Percentage	**0.04%**	**0.27%**	**98.53%**	**0.62%**	**0.51%**	**0.02%**	

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
6:00 AM	29	30	0	0	0	59	0	0	0	0	0	0	0	0	56	25	0	81	0	0	0	0	0	0	0	0	27	0	0	27	167
6:15 AM	48	38	0	0	0	86	0	0	0	0	0	0	0	0	73	28	0	101	0	0	0	0	0	0	0	0	51	0	0	51	238
6:30 AM	62	67	0	0	0	129	0	0	0	0	0	0	0	0	77	29	0	106	0	0	0	0	0	0	0	0	68	0	0	68	303
6:45 AM	87	72	0	0	0	159	0	0	0	0	0	0	0	0	67	46	0	113	0	0	0	0	0	0	0	0	48	0	0	48	320
Total	226	207	0	0	0	433	0	0	0	0	0	0	0	0	273	128	0	401	0	0	0	0	0	0	0	0	194	0	0	194	1028
7:00 AM	81	71	0	0	0	152	0	0	0	0	0	0	0	0	86	54	0	140	0	0	0	0	0	0	0	0	39	0	0	39	331
7:15 AM	92	83	0	0	0	175	0	0	0	0	0	0	0	0	80	64	0	144	0	0	0	0	0	0	0	0	61	0	0	61	380
7:30 AM	109	99	0	0	0	208	0	0	0	0	0	0	0	0	121	53	0	174	0	0	0	0	0	0	0	0	74	0	0	74	456
7:45 AM	82	92	0	0	0	174	0	0	0	0	0	0	0	0	126	62	0	188	0	0	0	0	0	0	0	0	88	0	0	88	450
Total	364	345	0	0	0	709	0	0	0	0	0	0	0	0	413	233	0	646	0	0	0	0	0	0	0	0	262	0	0	262	1617
8:00 AM	87	91	0	0	0	178	0	0	0	0	0	0	0	0	86	35	0	121	0	0	0	0	0	0	0	0	116	0	0	116	415
8:15 AM	65	103	0	0	0	168	0	0	0	0	0	0	0	0	72	35	0	107	0	0	0	0	0	0	0	0	82	0	0	82	357
8:30 AM	66	87	0	0	0	153	0	0	0	0	0	0	0	0	107	40	0	147	0	0	0	0	0	0	0	0	67	0	0	67	367
8:45 AM	26	100	0	0	0	126	0	0	0	0	0	0	0	0	96	49	0	145	0	0	0	0	0	0	1	0	76	0	0	77	348
Total	244	381	0	0	0	625	0	0	0	0	0	0	0	0	361	159	0	520	0	0	0	0	0	0	1	0	341	0	0	342	1487
Grand Total	834	933	0	0	0	1767	0	0	0	0	0	0	0	0	1047	520	0	1567	0	0	0	0	0	0	1	0	797	0	0	798	4132
Approach %	47.2	52.8	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	66.8	33.2	0.0		0.0	0.0	0.0	0.0	0.0		0.1	0.0	99.9	0.0	0.0		
Total %	20.2	22.6	0.0	0.0	0.0	42.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.3	12.6	0.0	37.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3	0.0	0.0	19.3	
Exiting Leg Total						0						797						0						1454						1881	4132
Cars	819	885	0	0	0	1704	0	0	0	0	0	0	0	0	1024	478	0	1502	0	0	0	0	0	0	1	0	784	0	0	785	3991
% Cars	98.2	94.9	0.0	0.0	0.0	96.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.8	91.9	0.0	95.9	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	98.4	0.0	0.0	98.4	96.6
Exiting Leg Total						0						784						0						1364						1843	3991
Heavy Vehicles	15	48	0	0	0	63	0	0	0	0	0	0	0	0	23	42	0	65	0	0	0	0	0	0	0	0	13	0	0	13	141
% Heavy Vehicles	1.8	5.1	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	8.1	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	1.6	3.4
Exiting Leg Total						0						13						0						90						38	141

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:15 AM	92	83	0	0	0	175	0	0	0	0	0	0	0	0	80	64	0	144	0	0	0	0	0	0	0	0	61	0	0	61	380
7:30 AM	109	99	0	0	0	208	0	0	0	0	0	0	0	0	121	53	0	174	0	0	0	0	0	0	0	0	74	0	0	74	456
7:45 AM	82	92	0	0	0	174	0	0	0	0	0	0	0	0	126	62	0	188	0	0	0	0	0	0	0	0	88	0	0	88	450
8:00 AM	87	91	0	0	0	178	0	0	0	0	0	0	0	0	86	35	0	121	0	0	0	0	0	0	0	0	116	0	0	116	415
Total Volume	370	365	0	0	0	735	0	0	0	0	0	0	0	0	413	214	0	627	0	0	0	0	0	0	0	0	339	0	0	339	1701
% Approach Total	50.3	49.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	65.9	34.1	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.849	0.922	0.000	0.000	0.000	0.883	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.819	0.836	0.000	0.834	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.731	0.000	0.000	0.731	0.933
Cars	359	348	0	0	0	707	0	0	0	0	0	0	0	0	401	192	0	593	0	0	0	0	0	0	0	0	335	0	0	335	1635
Cars %	97.0	95.3	0.0	0.0	0.0	96.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.1	89.7	0.0	94.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.8	0.0	0.0	98.8	96.1
Heavy Vehicles	11	17	0	0	0	28	0	0	0	0	0	0	0	0	12	22	0	34	0	0	0	0	0	0	0	0	4	0	0	4	66
Heavy Vehicles %	3.0	4.7	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	10.3	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.2	3.9
Cars Enter Leg	359	348	0	0	0	707	0	0	0	0	0	0	0	0	401	192	0	593	0	0	0	0	0	0	0	0	335	0	0	335	1635
Heavy Enter Leg	11	17	0	0	0	28	0	0	0	0	0	0	0	0	12	22	0	34	0	0	0	0	0	0	0	0	4	0	0	4	66
Total Entering Leg	370	365	0	0	0	735	0	0	0	0	0	0	0	0	413	214	0	627	0	0	0	0	0	0	0	0	339	0	0	339	1701
Cars Exiting Leg						0						335						0						540						760	1635
Heavy Exiting Leg						0						4						0						39						23	66
Total Exiting Leg						0						339						0						579						783	1701

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
6:00 AM	28	29	0	0	0	57	0	0	0	0	0	0	0	0	56	25	0	81	0	0	0	0	0	0	0	0	26	0	0	26	164
6:15 AM	48	36	0	0	0	84	0	0	0	0	0	0	0	0	73	28	0	101	0	0	0	0	0	0	0	0	51	0	0	51	236
6:30 AM	62	63	0	0	0	125	0	0	0	0	0	0	0	0	77	28	0	105	0	0	0	0	0	0	0	0	67	0	0	67	297
6:45 AM	86	69	0	0	0	155	0	0	0	0	0	0	0	0	66	43	0	109	0	0	0	0	0	0	0	0	48	0	0	48	312
Total	224	197	0	0	0	421	0	0	0	0	0	0	0	0	272	124	0	396	0	0	0	0	0	0	0	0	192	0	0	192	1009
7:00 AM	81	66	0	0	0	147	0	0	0	0	0	0	0	0	85	53	0	138	0	0	0	0	0	0	0	0	39	0	0	39	324
7:15 AM	90	80	0	0	0	170	0	0	0	0	0	0	0	0	78	60	0	138	0	0	0	0	0	0	0	0	60	0	0	60	368
7:30 AM	105	94	0	0	0	199	0	0	0	0	0	0	0	0	116	47	0	163	0	0	0	0	0	0	0	0	73	0	0	73	435
7:45 AM	79	87	0	0	0	166	0	0	0	0	0	0	0	0	123	52	0	175	0	0	0	0	0	0	0	0	87	0	0	87	428
Total	355	327	0	0	0	682	0	0	0	0	0	0	0	0	402	212	0	614	0	0	0	0	0	0	0	0	259	0	0	259	1555
8:00 AM	85	87	0	0	0	172	0	0	0	0	0	0	0	0	84	33	0	117	0	0	0	0	0	0	0	0	115	0	0	115	404
8:15 AM	63	99	0	0	0	162	0	0	0	0	0	0	0	0	69	33	0	102	0	0	0	0	0	0	0	0	80	0	0	80	344
8:30 AM	66	82	0	0	0	148	0	0	0	0	0	0	0	0	103	33	0	136	0	0	0	0	0	0	0	0	64	0	0	64	348
8:45 AM	26	93	0	0	0	119	0	0	0	0	0	0	0	0	94	43	0	137	0	0	0	0	0	0	1	0	74	0	0	75	331
Total	240	361	0	0	0	601	0	0	0	0	0	0	0	0	350	142	0	492	0	0	0	0	0	0	1	0	333	0	0	334	1427
Grand Total	819	885	0	0	0	1704	0	0	0	0	0	0	0	0	1024	478	0	1502	0	0	0	0	0	0	1	0	784	0	0	785	3991
Approach %	48.1	51.9	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	68.2	31.8	0.0		0.0	0.0	0.0	0.0	0.0		0.1	0.0	99.9	0.0	0.0		
Total %	20.5	22.2	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.7	12.0	0.0	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.6	0.0	0.0	19.7	
Exiting Leg Total						0						784						0						1364						1843	3991

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:15 AM	90	80	0	0	0	170	0	0	0	0	0	0	0	0	78	60	0	138	0	0	0	0	0	0	0	0	60	0	0	60	368
7:30 AM	105	94	0	0	0	199	0	0	0	0	0	0	0	0	116	47	0	163	0	0	0	0	0	0	0	0	73	0	0	73	435
7:45 AM	79	87	0	0	0	166	0	0	0	0	0	0	0	0	123	52	0	175	0	0	0	0	0	0	0	0	87	0	0	87	428
8:00 AM	85	87	0	0	0	172	0	0	0	0	0	0	0	0	84	33	0	117	0	0	0	0	0	0	0	0	115	0	0	115	404
Total Volume	359	348	0	0	0	707	0	0	0	0	0	0	0	0	401	192	0	593	0	0	0	0	0	0	0	0	335	0	0	335	1635
% Approach Total	50.8	49.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	67.6	32.4	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.855	0.926	0.000	0.000	0.000	0.888	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.815	0.800	0.000	0.847	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.728	0.000	0.000	0.728	0.940
Entering Leg	359	348	0	0	0	707	0	0	0	0	0	0	0	0	401	192	0	593	0	0	0	0	0	0	0	0	335	0	0	335	1635
Exiting Leg						0						335						0						540						760	1635
Total						707						335						593						540						1095	3270

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
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Class:

PRECISION DATA INDUSTRIES, LLC
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Office: 508-875-0100 Fax: 508-875-0118

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
6:00 AM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
6:15 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:30 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	6
6:45 AM	1	3	0	0	0	4	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	8
Total	2	10	0	0	0	12	0	0	0	0	0	0	0	0	1	4	0	5	0	0	0	0	0	0	0	0	2	0	0	2	19
7:00 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7
7:15 AM	2	3	0	0	0	5	0	0	0	0	0	0	0	0	2	4	0	6	0	0	0	0	0	0	0	0	1	0	0	1	12
7:30 AM	4	5	0	0	0	9	0	0	0	0	0	0	0	0	5	6	0	11	0	0	0	0	0	0	0	0	1	0	0	1	21
7:45 AM	3	5	0	0	0	8	0	0	0	0	0	0	0	0	3	10	0	13	0	0	0	0	0	0	0	0	1	0	0	1	22
Total	9	18	0	0	0	27	0	0	0	0	0	0	0	0	11	21	0	32	0	0	0	0	0	0	0	0	3	0	0	3	62
8:00 AM	2	4	0	0	0	6	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	0	0	1	0	0	1	11
8:15 AM	2	4	0	0	0	6	0	0	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	0	0	0	2	0	0	2	13
8:30 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	4	7	0	11	0	0	0	0	0	0	0	0	3	0	0	3	19
8:45 AM	0	7	0	0	0	7	0	0	0	0	0	0	0	0	2	6	0	8	0	0	0	0	0	0	0	0	2	0	0	2	17
Total	4	20	0	0	0	24	0	0	0	0	0	0	0	0	11	17	0	28	0	0	0	0	0	0	0	0	8	0	0	8	60
Grand Total	15	48	0	0	0	63	0	0	0	0	0	0	0	0	23	42	0	65	0	0	0	0	0	0	0	0	13	0	0	13	141
Approach %	23.8	76.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	35.4	64.6	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
Total %	10.6	34.0	0.0	0.0	0.0	44.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.3	29.8	0.0	46.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	9.2	
Exiting Leg Total						0						13						0						90						38	141
Buses	7	27	0	0	0	34	0	0	0	0	0	0	0	0	14	25	0	39	0	0	0	0	0	0	0	0	1	0	0	1	74
% Buses	46.7	56.3	0.0	0.0	0.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.9	59.5	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	7.7	52.5
Exiting Leg Total						0						1						0						52						21	74
Single-Unit Trucks	8	18	0	0	0	26	0	0	0	0	0	0	0	0	9	15	0	24	0	0	0	0	0	0	0	0	12	0	0	12	62
% Single-Unit	53.3	37.5	0.0	0.0	0.0	41.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.1	35.7	0.0	36.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.3	0.0	0.0	92.3	44.0
Exiting Leg Total						0						12						0						33						17	62
Articulated Trucks	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	5
% Articulated	0.0	6.3	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
Exiting Leg Total						0						0						0						5						0	5

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:30 AM	4	5	0	0	0	9	0	0	0	0	0	0	0	0	5	6	0	11	0	0	0	0	0	0	0	0	1	0	0	1	21
7:45 AM	3	5	0	0	0	8	0	0	0	0	0	0	0	0	3	10	0	13	0	0	0	0	0	0	0	0	1	0	0	1	22
8:00 AM	2	4	0	0	0	6	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	0	0	1	0	0	1	11
8:15 AM	2	4	0	0	0	6	0	0	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	0	0	0	2	0	0	2	13
Total Volume	11	18	0	0	0	29	0	0	0	0	0	0	0	0	13	20	0	33	0	0	0	0	0	0	0	0	5	0	0	5	67
% Approach Total	37.9	62.1	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	39.4	60.6	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.688	0.900	0.000	0.000	0.000	0.806	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.650	0.500	0.000	0.635	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.761
Buses	7	10	0	0	0	17	0	0	0	0	0	0	0	0	7	11	0	18	0	0	0	0	0	0	0	0	1	0	0	1	36
Buses %	63.6	55.6	0.0	0.0	0.0	58.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.8	55.0	0.0	54.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	20.0	53.7
Single-Unit Trucks	4	7	0	0	0	11	0	0	0	0	0	0	0	0	6	9	0	15	0	0	0	0	0	0	0	0	4	0	0	4	30
Single-Unit %	36.4	38.9	0.0	0.0	0.0	37.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.2	45.0	0.0	45.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80.0	0.0	0.0	80.0	44.8
Articulated Trucks	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Articulated %	0.0	5.6	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Buses	7	10	0	0	0	17	0	0	0	0	0	0	0	0	7	11	0	18	0	0	0	0	0	0	0	0	1	0	0	1	36
Single-Unit Trucks	4	7	0	0	0	11	0	0	0	0	0	0	0	0	6	9	0	15	0	0	0	0	0	0	0	0	4	0	0	4	30
Articulated Trucks	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
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Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
Total Entering Leg	11	18	0	0	0	29	0	0	0	0	0	0	0	0	13	20	0	33	0	0	0	0	0	0	0	0	5	0	0	5	67
Buses						0						1						0						21						14	36
Single-Unit Trucks						0						4						0						16						10	30
Articulated Trucks						0						0						0						1						0	1
Total Exiting Leg						0						5						0						38						24	67

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Buses

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
6:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
6:45 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	0	8	0	0	0	8	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	12
7:00 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	6
7:30 AM	4	3	0	0	0	7	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	11
7:45 AM	2	3	0	0	0	5	0	0	0	0	0	0	0	0	1	5	0	6	0	0	0	0	0	0	0	0	0	0	0	0	11
Total	6	9	0	0	0	15	0	0	0	0	0	0	0	0	5	12	0	17	0	0	0	0	0	0	0	0	0	0	0	0	32
8:00 AM	1	2	0	0	0	3	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	0	0	1	0	0	1	8
8:15 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	2	4	0	6	0	0	0	0	0	0	0	0	0	0	0	0	9
8:45 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	1	10	0	0	0	11	0	0	0	0	0	0	0	0	8	10	0	18	0	0	0	0	0	0	0	0	1	0	0	1	30
Grand Total	7	27	0	0	0	34	0	0	0	0	0	0	0	0	14	25	0	39	0	0	0	0	0	0	0	0	1	0	0	1	74
Approach %	20.6	79.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	35.9	64.1	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
Total %	9.5	36.5	0.0	0.0	0.0	45.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.9	33.8	0.0	52.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	
Exiting Leg Total						0						1						0						52						21	74

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	6
7:30 AM	4	3	0	0	0	7	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	11
7:45 AM	2	3	0	0	0	5	0	0	0	0	0	0	0	0	1	5	0	6	0	0	0	0	0	0	0	0	0	0	0	0	11
8:00 AM	1	2	0	0	0	3	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	0	0	1	0	0	1	8
Total Volume	7	9	0	0	0	16	0	0	0	0	0	0	0	0	6	13	0	19	0	0	0	0	0	0	0	0	1	0	0	1	36
% Approach Total	43.8	56.3	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	31.6	68.4	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.438	0.750	0.000	0.000	0.000	0.571	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.650	0.000	0.792	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.818
Entering Leg	7	9	0	0	0	16	0	0	0	0	0	0	0	0	6	13	0	19	0	0	0	0	0	0	0	0	1	0	0	1	36
Exiting Leg						0						1						0						22						13	36
Total						16						1						19						22						14	72

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	Park Drive						Riverway						Riverway						Park Drive						Riverway						
	from North						from Northeast						from East						from South						from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
6:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
6:15 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
6:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	2	2	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0	0	2	7
7:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	2	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
7:30 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4	3	0	7	0	0	0	0	0	0	0	0	1	0	0	1	10
7:45 AM	1	2	0	0	0	3	0	0	0	0	0	0	0	0	2	5	0	7	0	0	0	0	0	0	0	0	1	0	0	1	11
Total	3	7	0	0	0	10	0	0	0	0	0	0	0	0	6	8	0	14	0	0	0	0	0	0	0	0	3	0	0	3	27
8:00 AM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	2	2	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0	0	2	7
8:30 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	2	3	0	5	0	0	0	0	0	0	0	0	3	0	0	3	10
8:45 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	2	0	0	2	9
Total	3	9	0	0	0	12	0	0	0	0	0	0	0	0	3	6	0	9	0	0	0	0	0	0	0	0	7	0	0	7	28
Grand Total	8	18	0	0	0	26	0	0	0	0	0	0	0	0	9	15	0	24	0	0	0	0	0	0	0	0	12	0	0	12	62
Approach %	30.8	69.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	37.5	62.5	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
Total %	12.9	29.0	0.0	0.0	0.0	41.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5	24.2	0.0	38.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.4	0.0	0.0	19.4	
Exiting Leg Total						0						12						0						33						17	62

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Park Drive						Riverway						Riverway						Park Drive						Riverway						
	from North						from Northeast						from East						from South						from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:30 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4	3	0	7	0	0	0	0	0	0	0	0	1	0	0	1	10
7:45 AM	1	2	0	0	0	3	0	0	0	0	0	0	0	0	2	5	0	7	0	0	0	0	0	0	0	0	1	0	0	1	11
8:00 AM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	2	2	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0	0	2	7
Total Volume	4	7	0	0	0	11	0	0	0	0	0	0	0	0	6	9	0	15	0	0	0	0	0	0	0	0	4	0	0	4	30
% Approach Total	36.4	63.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	40.0	60.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.500	0.875	0.000	0.000	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.450	0.000	0.536	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.682
Entering Leg	4	7	0	0	0	11	0	0	0	0	0	0	0	0	6	9	0	15	0	0	0	0	0	0	0	0	4	0	0	4	30
Exiting Leg						0						4						0						16						10	30
Total						11						4						15						16						14	60

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	5
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	60.0	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						0						5						0	5

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:30 AM	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Exiting Leg						0						0						0						3						0	3
Total						2						0						1						3						0	6

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Park Drive from North								Riverway from Northeast								Riverway from East								Park Drive from South								Riverway from West								
	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
6:15 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	3
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1
Total	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	1	5	6
7:00 AM	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	3	5
7:45 AM	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	4
Total	0	7	0	0	0	0	0	7	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3	5	14
8:00 AM	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	4
8:15 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
8:30 AM	0	3	0	0	0	0	0	3	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	3	10
8:45 AM	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	5
Total	0	9	0	0	0	0	0	9	0	0	0	0	0	1	0	1	0	0	0	0	0	3	1	4	0	0	0	0	0	0	1	1	3	0	0	0	0	0	3	6	21
Grand Total	0	17	0	0	0	0	0	17	0	0	2	0	0	1	0	3	0	0	0	0	0	3	1	4	0	0	0	0	0	0	1	1	6	0	3	0	0	0	7	16	41
Approach %	0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	66.7	0.0	0.0	33.3	0.0		0.0	0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	0.0	0.0	100.0		37.5	0.0	18.8	0.0	0.0	0.0	43.8		
Total %	0.0	41.5	0.0	0.0	0.0	0.0	0.0	41.5	0.0	0.0	4.9	0.0	0.0	2.4	0.0	7.3	0.0	0.0	0.0	0.0	0.0	7.3	2.4	9.8	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	14.6	0.0	7.3	0.0	0.0	0.0	17.1	39.0	
Exiting Leg Total								0								4								4								26								7	41

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Park Drive from North								Riverway from Northeast								Riverway from East								Park Drive from South								Riverway from West								
	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	4
8:15 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
8:30 AM	0	3	0	0	0	0	0	3	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	3	10
8:45 AM	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	5
Total Volume	0	9	0	0	0	0	0	9	0	0	0	0	0	1	0	1	0	0	0	0	0	3	1	4	0	0	0	0	0	0	1	1	3	0	0	0	0	0	3	6	21
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	0.0	0.0	100.0		50.0	0.0	0.0	0.0	0.0	0.0	50.0		
PHF	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.375	0.000	0.000	0.000	0.000	0.000	0.750	0.500	0.525
Entering Leg	0	9	0	0	0	0	0	9	0	0	0	0	0	1	0	1	0	0	0	0	0	3	1	4	0	0	0	0	0	0	1	1	3	0	0	0	0	0	3	6	21
Exiting Leg								0								1								4								13								3	21
Total								9								2								8								14								9	42

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Park Drive from North								Riverway from Northeast								Riverway from East								Park Drive from South								Riverway from West								
	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	2	2	4	0	0	0	0	0	2	1	3	0	0	0	0	0	3	2	5	15
6:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5
6:30 AM	0	0	0	0	0	3	2	5	0	0	0	0	0	2	1	3	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	5	5	15
6:45 AM	0	0	0	0	0	2	3	5	0	0	0	0	0	2	4	6	0	0	0	0	0	2	4	6	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2	20
Total	0	0	0	0	0	9	5	14	0	0	0	0	0	6	5	11	0	0	0	0	0	5	7	12	0	0	0	0	0	3	2	5	0	0	0	0	0	3	10	13	55
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	6	5	11	0	0	0	0	0	3	0	3	0	0	0	0	0	4	4	8	25
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	3	1	4	0	0	0	0	0	1	0	1	0	0	0	0	0	2	2	4	11
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	5	4	9	0	0	0	0	0	2	2	4	0	0	0	0	0	2	9	11	27
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	5	1	6	0	0	0	0	0	3	1	4	0	0	0	0	0	4	14	18	30
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	4	6	10	0	0	0	0	0	19	11	30	0	0	0	0	0	9	3	12	0	0	0	0	0	12	29	41	93
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	1	4	5	0	0	0	0	0	0	2	2	0	0	0	0	0	8	13	21	32
8:15 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	3	2	5	0	0	0	0	0	2	4	6	0	0	0	0	0	1	1	2	0	0	0	0	0	9	7	16	31
8:30 AM	0	0	0	0	0	5	1	6	0	0	0	0	0	2	3	5	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	6	6	20
8:45 AM	0	0	0	0	0	9	1	10	0	0	0	0	0	4	2	6	0	0	0	0	0	3	5	8	0	0	0	0	0	1	4	5	0	0	0	0	0	2	12	14	43
Total	0	0	0	0	0	15	3	18	0	0	0	0	0	12	8	20	0	0	0	0	0	7	14	21	0	0	0	0	0	2	8	10	0	0	0	0	0	19	38	57	126
Grand Total	0	0	0	0	0	24	8	32	0	0	0	0	0	22	19	41	0	0	0	0	0	31	32	63	0	0	0	0	0	14	13	27	0	0	0	0	0	34	77	111	274
Approach %	0	0	0	0	0	75	25		0	0	0	0	0	53.7	46.3		0	0	0	0	0	49.2	50.8		0	0	0	0	0	51.9	48.1		0	0	0	0	0	30.6	69.4		
Total %	0	0	0	0	0	8.76	2.92	11.7	0	0	0	0	0	8.03	6.93	15	0	0	0	0	0	11.3	11.7	23	0	0	0	0	0	5.11	4.74	9.85	0	0	0	0	0	12.4	28.1	40.5	
Exiting Leg Total								32								41								63								27								111	274

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Park Drive from North								Riverway from Northeast								Riverway from East								Park Drive from South								Riverway from West								
	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	1	4	5	0	0	0	0	0	0	2	2	0	0	0	0	0	8	13	21	32
8:15 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	3	2	5	0	0	0	0	0	2	4	6	0	0	0	0	0	1	1	2	0	0	0	0	0	9	7	16	31
8:30 AM	0	0	0	0	0	5	1	6	0	0	0	0	0	2	3	5	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	6	6	20
8:45 AM	0	0	0	0	0	9	1	10	0	0	0	0	0	4	2	6	0	0	0	0	0	3	5	8	0	0	0	0	0	1	4	5	0	0	0	0	0	2	12	14	43
Total Volume	0	0	0	0	0	15	3	18	0	0	0	0	0	12	8	20	0	0	0	0	0	7	14	21	0	0	0	0	0	2	8	10	0	0	0	0	0	19	38	57	126
% Approach Total	0.0	0.0	0.0	0.0	0.0	83.3	16.7		0.0	0.0	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	0.0	20.0	80.0		0.0	0.0	0.0	0.0	0.0	33.3	66.7		
PHF	0.000	0.000	0.000	0.000	0.000	0.417	0.750	0.450	0.000	0.000	0.000	0.000	0.000	0.750	0.667	0.833	0.000	0.000	0.000	0.000	0.000	0.583	0.700	0.656	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.528	0.731	0.679	0.733
Entering Leg	0	0	0	0	0	15	3	18	0	0	0	0	0	12	8	20	0	0	0	0	0	7	14	21	0	0	0	0	0	2	8	10	0	0	0	0	0	19	38	57	126
Exiting Leg								18								20								21								10								57	126
Total								36								40								42								20								114	252

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
3:00 PM	125	85	0	0	0	210	0	0	0	0	0	0	0	0	165	24	0	189	0	0	0	0	0	0	1	0	127	0	0	128	527
3:15 PM	103	100	0	0	0	203	0	0	0	0	0	0	0	0	118	38	0	156	0	0	0	0	0	0	0	0	119	0	0	119	478
3:30 PM	107	78	0	0	0	185	0	0	0	0	0	0	0	0	134	42	0	176	0	0	0	0	0	0	1	0	128	0	0	129	490
3:45 PM	90	75	0	0	0	165	0	0	0	0	0	0	0	0	139	34	0	173	0	0	0	0	0	0	0	0	110	0	0	110	448
Total	425	338	0	0	0	763	0	0	0	0	0	0	0	0	556	138	0	694	0	0	0	0	0	0	2	0	484	0	0	486	1943
4:00 PM	129	79	0	0	0	208	0	0	0	0	0	0	0	0	145	44	0	189	0	0	0	0	0	0	1	0	99	0	0	100	497
4:15 PM	114	58	0	0	0	172	0	0	0	0	0	0	0	0	158	40	0	198	0	0	0	0	0	0	0	0	112	0	0	112	482
4:30 PM	139	82	0	0	0	221	0	0	0	0	0	0	0	0	153	46	0	199	0	0	0	0	0	0	0	0	94	0	0	94	514
4:45 PM	111	73	0	0	0	184	0	0	0	0	0	0	0	0	115	31	0	146	0	0	0	0	0	0	1	0	106	0	0	107	437
Total	493	292	0	0	0	785	0	0	0	0	0	0	0	0	571	161	0	732	0	0	0	0	0	0	2	0	411	0	0	413	1930
5:00 PM	106	74	0	0	0	180	0	0	0	0	0	0	0	0	122	39	0	161	0	0	0	0	0	0	0	0	116	0	0	116	457
5:15 PM	99	60	0	0	0	159	0	0	0	0	0	0	0	0	168	33	0	201	0	0	0	0	0	0	0	0	117	0	0	117	477
5:30 PM	108	87	0	0	0	195	0	0	0	0	0	0	0	0	146	39	0	185	0	0	0	0	0	0	0	0	146	0	0	146	526
5:45 PM	113	69	0	0	0	182	0	0	0	0	0	0	0	0	151	38	0	189	0	0	0	0	0	0	0	0	118	0	0	118	489
Total	426	290	0	0	0	716	0	0	0	0	0	0	0	0	587	149	0	736	0	0	0	0	0	0	0	0	497	0	0	497	1949
Grand Total	1344	920	0	0	0	2264	0	0	0	0	0	0	0	0	1714	448	0	2162	0	0	0	0	0	0	4	0	1392	0	0	1396	5822
Approach %	59.4	40.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	79.3	20.7	0.0		0.0	0.0	0.0	0.0	0.0		0.3	0.0	99.7	0.0	0.0		
Total %	23.1	15.8	0.0	0.0	0.0	38.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.4	7.7	0.0	37.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	23.9	0.0	0.0	24.0	
Exiting Leg Total						0						1392						0						1372						3058	5822
Cars	1337	877	0	0	0	2214	0	0	0	0	0	0	0	0	1695	413	0	2108	0	0	0	0	0	0	4	0	1374	0	0	1378	5700
% Cars	99.5	95.3	0.0	0.0	0.0	97.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.9	92.2	0.0	97.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	98.7	0.0	0.0	98.7	97.9
Exiting Leg Total						0						1374						0						1294						3032	5700
Heavy Vehicles	7	43	0	0	0	50	0	0	0	0	0	0	0	0	19	35	0	54	0	0	0	0	0	0	0	0	18	0	0	18	122
% Heavy Vehicles	0.5	4.7	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	7.8	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.3	2.1
Exiting Leg Total						0						18						0						78						26	122

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
5:00 PM	106	74	0	0	0	180	0	0	0	0	0	0	0	0	122	39	0	161	0	0	0	0	0	0	0	0	116	0	0	116	457
5:15 PM	99	60	0	0	0	159	0	0	0	0	0	0	0	0	168	33	0	201	0	0	0	0	0	0	0	0	117	0	0	117	477
5:30 PM	108	87	0	0	0	195	0	0	0	0	0	0	0	0	146	39	0	185	0	0	0	0	0	0	0	0	146	0	0	146	526
5:45 PM	113	69	0	0	0	182	0	0	0	0	0	0	0	0	151	38	0	189	0	0	0	0	0	0	0	0	118	0	0	118	489
Total Volume	426	290	0	0	0	716	0	0	0	0	0	0	0	0	587	149	0	736	0	0	0	0	0	0	0	0	497	0	0	497	1949
% Approach Total	59.5	40.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	79.8	20.2	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.942	0.833	0.000	0.000	0.000	0.918	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.874	0.955	0.000	0.915	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.851	0.000	0.000	0.851	0.926
Cars	424	278	0	0	0	702	0	0	0	0	0	0	0	0	583	136	0	719	0	0	0	0	0	0	0	0	496	0	0	496	1917
Cars %	99.5	95.9	0.0	0.0	0.0	98.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.3	91.3	0.0	97.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.8	0.0	0.0	99.8	98.4
Heavy Vehicles	2	12	0	0	0	14	0	0	0	0	0	0	0	0	4	13	0	17	0	0	0	0	0	0	0	0	1	0	0	1	32
Heavy Vehicles %	0.5	4.1	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	8.7	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	1.6
Cars Enter Leg	424	278	0	0	0	702	0	0	0	0	0	0	0	0	583	136	0	719	0	0	0	0	0	0	0	0	496	0	0	496	1917
Heavy Enter Leg	2	12	0	0	0	14	0	0	0	0	0	0	0	0	4	13	0	17	0	0	0	0	0	0	0	0	1	0	0	1	32
Total Entering Leg	426	290	0	0	0	716	0	0	0	0	0	0	0	0	587	149	0	736	0	0	0	0	0	0	0	0	497	0	0	497	1949
Cars Exiting Leg						0						496						0						414						1007	1917
Heavy Exiting Leg						0						1						0						25						6	32
Total Exiting Leg						0						497						0						439						1013	1949

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
3:00 PM	125	81	0	0	0	206	0	0	0	0	0	0	0	0	163	23	0	186	0	0	0	0	0	0	1	0	124	0	0	125	517
3:15 PM	103	97	0	0	0	200	0	0	0	0	0	0	0	0	118	34	0	152	0	0	0	0	0	0	0	0	119	0	0	119	471
3:30 PM	106	75	0	0	0	181	0	0	0	0	0	0	0	0	132	41	0	173	0	0	0	0	0	0	1	0	124	0	0	125	479
3:45 PM	89	69	0	0	0	158	0	0	0	0	0	0	0	0	139	31	0	170	0	0	0	0	0	0	0	0	109	0	0	109	437
Total	423	322	0	0	0	745	0	0	0	0	0	0	0	0	552	129	0	681	0	0	0	0	0	0	2	0	476	0	0	478	1904
4:00 PM	129	75	0	0	0	204	0	0	0	0	0	0	0	0	141	40	0	181	0	0	0	0	0	0	1	0	97	0	0	98	483
4:15 PM	114	53	0	0	0	167	0	0	0	0	0	0	0	0	155	36	0	191	0	0	0	0	0	0	0	0	108	0	0	108	466
4:30 PM	136	78	0	0	0	214	0	0	0	0	0	0	0	0	150	44	0	194	0	0	0	0	0	0	0	0	93	0	0	93	501
4:45 PM	111	71	0	0	0	182	0	0	0	0	0	0	0	0	114	28	0	142	0	0	0	0	0	0	1	0	104	0	0	105	429
Total	490	277	0	0	0	767	0	0	0	0	0	0	0	0	560	148	0	708	0	0	0	0	0	0	2	0	402	0	0	404	1879
5:00 PM	104	68	0	0	0	172	0	0	0	0	0	0	0	0	121	35	0	156	0	0	0	0	0	0	0	0	116	0	0	116	444
5:15 PM	99	59	0	0	0	158	0	0	0	0	0	0	0	0	168	31	0	199	0	0	0	0	0	0	0	0	117	0	0	117	474
5:30 PM	108	83	0	0	0	191	0	0	0	0	0	0	0	0	145	34	0	179	0	0	0	0	0	0	0	0	146	0	0	146	516
5:45 PM	113	68	0	0	0	181	0	0	0	0	0	0	0	0	149	36	0	185	0	0	0	0	0	0	0	0	117	0	0	117	483
Total	424	278	0	0	0	702	0	0	0	0	0	0	0	0	583	136	0	719	0	0	0	0	0	0	0	0	496	0	0	496	1917
Grand Total	1337	877	0	0	0	2214	0	0	0	0	0	0	0	0	1695	413	0	2108	0	0	0	0	0	0	4	0	1374	0	0	1378	5700
Approach %	60.4	39.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	80.4	19.6	0.0		0.0	0.0	0.0	0.0	0.0		0.3	0.0	99.7	0.0	0.0		
Total %	23.5	15.4	0.0	0.0	0.0	38.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.7	7.2	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	24.1	0.0	0.0	24.2	
Exiting Leg Total						0						1374						0						1294						3032	5700

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
5:00 PM	104	68	0	0	0	172	0	0	0	0	0	0	0	0	121	35	0	156	0	0	0	0	0	0	0	0	116	0	0	116	444
5:15 PM	99	59	0	0	0	158	0	0	0	0	0	0	0	0	168	31	0	199	0	0	0	0	0	0	0	0	117	0	0	117	474
5:30 PM	108	83	0	0	0	191	0	0	0	0	0	0	0	0	145	34	0	179	0	0	0	0	0	0	0	0	146	0	0	146	516
5:45 PM	113	68	0	0	0	181	0	0	0	0	0	0	0	0	149	36	0	185	0	0	0	0	0	0	0	0	117	0	0	117	483
Total Volume	424	278	0	0	0	702	0	0	0	0	0	0	0	0	583	136	0	719	0	0	0	0	0	0	0	0	496	0	0	496	1917
% Approach Total	60.4	39.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	81.1	18.9	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.938	0.837	0.000	0.000	0.000	0.919	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.868	0.944	0.000	0.903	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.849	0.000	0.000	0.849	0.929
Entering Leg	424	278	0	0	0	702	0	0	0	0	0	0	0	0	583	136	0	719	0	0	0	0	0	0	0	0	496	0	0	496	1917
Exiting Leg						0						496						0						414						1007	1917
Total						702						496						719						414						1503	3834

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
3:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	3	0	0	3	10
3:15 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	7
3:30 PM	1	3	0	0	0	4	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	4	0	0	4	11
3:45 PM	1	6	0	0	0	7	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	1	0	0	1	11
Total	2	16	0	0	0	18	0	0	0	0	0	0	0	0	4	9	0	13	0	0	0	0	0	0	0	0	8	0	0	8	39
4:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	4	4	0	8	0	0	0	0	0	0	0	0	2	0	0	2	14
4:15 PM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	3	4	0	7	0	0	0	0	0	0	0	0	4	0	0	4	16
4:30 PM	3	4	0	0	0	7	0	0	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	0	0	0	1	0	0	1	13
4:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	0	0	0	2	0	0	2	8
Total	3	15	0	0	0	18	0	0	0	0	0	0	0	0	11	13	0	24	0	0	0	0	0	0	0	0	9	0	0	9	51
5:00 PM	2	6	0	0	0	8	0	0	0	0	0	0	0	0	1	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	13
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	1	5	0	6	0	0	0	0	0	0	0	0	0	0	0	0	10
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	0	0	1	0	0	1	6
Total	2	12	0	0	0	14	0	0	0	0	0	0	0	0	4	13	0	17	0	0	0	0	0	0	0	0	1	0	0	1	32
Grand Total	7	43	0	0	0	50	0	0	0	0	0	0	0	0	19	35	0	54	0	0	0	0	0	0	0	0	18	0	0	18	122
Approach %	14.0	86.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	35.2	64.8	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
Total %	5.7	35.2	0.0	0.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6	28.7	0.0	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.8	0.0	0.0	14.8	
Exiting Leg Total						0						18						0						78						26	122
Buses	5	30	0	0	0	35	0	0	0	0	0	0	0	0	12	26	0	38	0	0	0	0	0	0	0	0	9	0	0	9	82
% Buses	71.4	69.8	0.0	0.0	0.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.2	74.3	0.0	70.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	67.2
Exiting Leg Total						0						9						0						56						17	82
Single-Unit Trucks	2	11	0	0	0	13	0	0	0	0	0	0	0	0	7	8	0	15	0	0	0	0	0	0	0	0	8	0	0	8	36
% Single-Unit	28.6	25.6	0.0	0.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	22.9	0.0	27.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	0.0	44.4	29.5
Exiting Leg Total						0						8						0						19						9	36
Articulated Trucks	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	4
% Articulated	0.0	4.7	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	5.6	3.3
Exiting Leg Total						0						1						0						3						0	4

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
3:45 PM	1	6	0	0	0	7	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	1	0	0	1	11
4:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	4	4	0	8	0	0	0	0	0	0	0	0	2	0	0	2	14
4:15 PM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	3	4	0	7	0	0	0	0	0	0	0	0	4	0	0	4	16
4:30 PM	3	4	0	0	0	7	0	0	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	0	0	0	1	0	0	1	13
Total Volume	4	19	0	0	0	23	0	0	0	0	0	0	0	0	10	13	0	23	0	0	0	0	0	0	0	0	8	0	0	8	54
% Approach Total	17.4	82.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	43.5	56.5	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.333	0.792	0.000	0.000	0.000	0.821	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.813	0.000	0.719	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.844
Buses	3	14	0	0	0	17	0	0	0	0	0	0	0	0	5	9	0	14	0	0	0	0	0	0	0	0	3	0	0	3	34
Buses %	75.0	73.7	0.0	0.0	0.0	73.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	69.2	0.0	60.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5	0.0	0.0	37.5	63.0
Single-Unit Trucks	1	3	0	0	0	4	0	0	0	0	0	0	0	0	5	4	0	9	0	0	0	0	0	0	0	0	4	0	0	4	17
Single-Unit %	25.0	15.8	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	30.8	0.0	39.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	31.5
Articulated Trucks	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
Articulated %	0.0	10.5	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	12.5	5.6
Buses	3	14	0	0	0	17	0	0	0	0	0	0	0	0	5	9	0	14	0	0	0	0	0	0	0	0	3	0	0	3	34
Single-Unit Trucks	1	3	0	0	0	4	0	0	0	0	0	0	0	0	5	4	0	9	0	0	0	0	0	0	0	0	4	0	0	4	17
Articulated Trucks	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

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Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
Total Entering Leg	4	19	0	0	0	23	0	0	0	0	0	0	0	0	10	13	0	23	0	0	0	0	0	0	0	0	8	0	0	8	54
Buses						0						3						0						23						8	34
Single-Unit Trucks						0						4						0						7						6	17
Articulated Trucks						0						1						0						2						0	3
Total Exiting Leg						0						8						0						32						14	54

PDI File #: **249980 A**
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Buses

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2	0	0	2	4
3:15 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	7
3:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	4	0	0	4	7
3:45 PM	1	5	0	0	0	6	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	1	0	0	1	9
Total	1	9	0	0	0	10	0	0	0	0	0	0	0	0	3	7	0	10	0	0	0	0	0	0	0	0	7	0	0	7	27
4:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	4	3	0	7	0	0	0	0	0	0	0	0	1	0	0	1	11
4:15 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	1	0	0	1	6
4:30 PM	2	3	0	0	0	5	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	8
4:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	2	11	0	0	0	13	0	0	0	0	0	0	0	0	6	8	0	14	0	0	0	0	0	0	0	0	2	0	0	2	29
5:00 PM	2	5	0	0	0	7	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	10
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	1	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	8
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	2	10	0	0	0	12	0	0	0	0	0	0	0	0	3	11	0	14	0	0	0	0	0	0	0	0	0	0	0	0	26
Grand Total	5	30	0	0	0	35	0	0	0	0	0	0	0	0	12	26	0	38	0	0	0	0	0	0	0	0	9	0	0	9	82
Approach %	14.3	85.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	31.6	68.4	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
Total %	6.1	36.6	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.6	31.7	0.0	46.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0	11.0	
Exiting Leg Total						0						9						0						56						17	82

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
3:15 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	7
3:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	4	0	0	4	7
3:45 PM	1	5	0	0	0	6	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	1	0	0	1	9
4:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	4	3	0	7	0	0	0	0	0	0	0	0	1	0	0	1	11
Total Volume	1	12	0	0	0	13	0	0	0	0	0	0	0	0	6	9	0	15	0	0	0	0	0	0	0	0	6	0	0	6	34
% Approach Total	7.7	92.3	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	40.0	60.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.250	0.600	0.000	0.000	0.000	0.542	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.563	0.000	0.536	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.375	0.773
Entering Leg	1	12	0	0	0	13	0	0	0	0	0	0	0	0	6	9	0	15	0	0	0	0	0	0	0	0	6	0	0	6	34
Exiting Leg						0						6						0						21						7	34
Total						13						6						15						21						13	68

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
3:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	6
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	1	2	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4
3:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	1	7	0	0	0	8	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	1	0	0	1	12
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	3
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	0	0	0	2	0	0	2	8
4:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0	0	2	3
Total	1	2	0	0	0	3	0	0	0	0	0	0	0	0	5	4	0	9	0	0	0	0	0	0	0	0	6	0	0	6	18
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	1	0	0	1	6
Grand Total	2	11	0	0	0	13	0	0	0	0	0	0	0	0	7	8	0	15	0	0	0	0	0	0	0	0	8	0	0	8	36
Approach %	15.4	84.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	46.7	53.3	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
Total %	5.6	30.6	0.0	0.0	0.0	36.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.4	22.2	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	0.0	0.0	22.2	
Exiting Leg Total						0						8						0						19						9	36

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	3
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	0	0	0	2	0	0	2	8
4:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0	0	2	3
Total Volume	1	2	0	0	0	3	0	0	0	0	0	0	0	0	5	4	0	9	0	0	0	0	0	0	0	0	6	0	0	6	18
% Approach Total	33.3	66.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	55.6	44.4	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.250	0.500	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.500	0.000	0.450	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.563
Entering Leg	1	2	0	0	0	3	0	0	0	0	0	0	0	0	5	4	0	9	0	0	0	0	0	0	0	0	6	0	0	6	18
Exiting Leg						0						6						0						6						6	18
Total						3						6						9						6						12	36

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
4:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	4
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
Total %	0.0	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	
Exiting Leg Total						0						1						0						3						0	4

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Park Drive from North						Riverway from Northeast						Riverway from East						Park Drive from South						Riverway from West						
	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
4:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	4
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.500
Entering Leg	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	4
Exiting Leg						0						1						0						3						0	4
Total						2						1						1						3						1	8

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Park Drive from North								Riverway from Northeast								Riverway from East								Park Drive from South								Riverway from West								
	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	2	2
3:30 PM	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	5
3:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
Total	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	1	1	2	9
4:00 PM	0	1	0	0	0	0	1	2	0	0	0	0	0	0	3	3	0	0	0	0	0	0	3	3	0	0	0	0	0	3	0	3	0	0	0	0	0	4	1	5	16
4:15 PM	0	0	1	0	0	1	1	3	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	8
4:30 PM	0	1	0	0	0	0	3	4	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	7
4:45 PM	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	4	1	0	0	1	5	11	0	0	0	0	0	0	5	5	0	0	0	0	0	1	4	5	0	0	0	0	0	3	1	4	1	0	0	0	0	4	3	8	33
5:00 PM	0	2	0	0	0	1	1	4	0	0	0	0	0	2	1	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	9
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	8
5:30 PM	1	2	0	0	0	1	3	7	0	0	0	0	0	1	0	1	0	0	1	0	0	1	0	2	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	12
5:45 PM	0	1	0	0	0	1	4	6	0	0	0	0	0	2	1	3	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	14
Total	1	5	0	0	0	3	8	17	0	0	0	0	0	5	2	7	0	0	1	2	0	5	2	10	0	0	0	0	0	2	3	5	0	0	1	0	0	0	3	4	43
Grand Total	1	13	1	0	0	4	13	32	0	0	0	0	0	5	7	12	0	0	1	2	0	6	6	15	0	0	0	0	0	7	5	12	1	0	1	0	0	5	7	14	85
Approach %	3.1	40.6	3.1	0.0	0.0	12.5	40.6		0.0	0.0	0.0	0.0	0.0	41.7	58.3		0.0	0.0	6.7	13.3	0.0	40.0	40.0		0.0	0.0	0.0	0.0	0.0	58.3	41.7		7.1	0.0	7.1	0.0	0.0	35.7	50.0		
Total %	1.2	15.3	1.2	0.0	0.0	4.7	15.3	37.6	0.0	0.0	0.0	0.0	0.0	5.9	8.2	14.1	0.0	0.0	1.2	2.4	0.0	7.1	7.1	17.6	0.0	0.0	0.0	0.0	0.0	8.2	5.9	14.1	1.2	0.0	1.2	0.0	0.0	5.9	8.2	16.5	
Exiting Leg Total								17								13								13								28								14	85

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Park Drive from North								Riverway from Northeast								Riverway from East								Park Drive from South								Riverway from West								
	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	2	0	0	0	1	1	4	0	0	0	0	0	2	1	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	9
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	8
5:30 PM	1	2	0	0	0	1	3	7	0	0	0	0	0	1	0	1	0	0	1	0	0	1	0	2	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	12
5:45 PM	0	1	0	0	0	1	4	6	0	0	0	0	0	2	1	3	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	14
Total Volume	1	5	0	0	0	3	8	17	0	0	0	0	0	5	2	7	0	0	1	2	0	5	2	10	0	0	0	0	0	2	3	5	0	0	1	0	0	0	3	4	43
% Approach Total	5.9	29.4	0.0	0.0	0.0	17.6	47.1		0.0	0.0	0.0	0.0	0.0	71.4	28.6		0.0	0.0	10.0	20.0	0.0	50.0	20.0		0.0	0.0	0.0	0.0	0.0	40.0	60.0		0.0	0.0	25.0	0.0	0.0	0.0	75.0		
PHF	0.250	0.625	0.000	0.000	0.000	0.750	0.500	0.607	0.000	0.000	0.000	0.000	0.000	0.625	0.500	0.583	0.000	0.000	0.250	0.250	0.000	0.625	0.500	0.625	0.000	0.000	0.000	0.000	0.000	0.250	0.375	0.625	0.000	0.000	0.250	0.000	0.000	0.000	0.375	0.500	0.768
Entering Leg	1	5	0	0	0	3	8	17	0	0	0	0	0	5	2	7	0	0	1	2	0	5	2	10	0	0	0	0	0	2	3	5	0	0	1	0	0	0	3	4	43
Exiting Leg								11								8								7								12								5	43
Total								28								15								17								17								9	86

PDI File #: **249980 A**
Location: **N: Park Drive S: Park Drive NE: Riverway**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Park Drive from North								Riverway from Northeast								Riverway from East								Park Drive from South								Riverway from West								
	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	6	6	12	0	0	0	0	0	7	6	13	0	0	0	0	0	5	4	9	0	0	0	0	0	4	4	8	0	0	0	0	0	13	12	25	67
3:15 PM	0	0	0	0	0	12	5	17	0	0	0	0	0	16	4	20	0	0	0	0	0	2	4	6	0	0	0	0	0	6	10	16	0	0	0	0	0	7	15	22	81
3:30 PM	0	0	0	0	0	4	1	5	0	0	0	0	0	3	1	4	0	0	0	0	0	2	4	6	0	0	0	0	0	5	5	10	0	0	0	0	0	11	14	25	50
3:45 PM	0	0	0	0	0	5	2	7	0	0	0	0	0	4	0	4	0	0	0	0	0	5	3	8	0	0	0	0	0	1	5	6	0	0	0	0	0	8	15	23	48
Total	0	0	0	0	0	27	14	41	0	0	0	0	0	30	11	41	0	0	0	0	0	14	15	29	0	0	0	0	0	16	24	40	0	0	0	0	0	39	56	95	246
4:00 PM	0	0	0	0	0	3	4	7	0	0	0	0	0	5	4	9	0	0	0	0	0	2	5	7	0	0	0	0	0	0	2	2	0	0	0	0	0	12	7	19	44
4:15 PM	0	0	0	0	0	7	8	15	0	0	0	0	0	7	3	10	0	0	0	0	0	5	13	18	0	0	0	0	0	3	4	7	0	0	0	0	0	9	9	18	68
4:30 PM	0	0	0	0	0	5	5	10	0	0	0	0	0	7	4	11	0	0	0	0	0	14	4	18	0	0	0	0	0	12	3	15	0	0	0	0	0	11	11	22	76
4:45 PM	0	0	0	0	0	4	5	9	0	0	0	0	0	3	5	8	0	0	0	0	0	6	6	12	0	0	0	0	0	13	1	14	0	0	0	0	0	27	18	45	88
Total	0	0	0	0	0	19	22	41	0	0	0	0	0	22	16	38	0	0	0	0	0	27	28	55	0	0	0	0	0	28	10	38	0	0	0	0	0	59	45	104	276
5:00 PM	0	0	0	0	0	2	6	8	0	0	0	0	0	4	10	14	0	0	0	0	0	14	13	27	0	0	0	0	0	8	3	11	0	0	0	0	0	13	8	21	81
5:15 PM	0	0	0	0	0	4	6	10	0	0	0	0	0	6	8	14	0	0	0	0	0	8	8	16	0	0	0	0	0	10	4	14	0	0	0	0	0	17	24	41	95
5:30 PM	0	0	0	0	0	2	6	8	0	0	0	0	0	5	9	14	0	0	0	0	0	0	12	12	0	0	0	0	0	2	6	8	0	0	0	0	0	26	9	35	77
5:45 PM	0	0	0	0	0	2	3	5	0	0	0	0	0	6	8	14	0	0	0	0	0	4	10	14	0	0	0	0	0	3	7	10	0	0	0	0	0	17	21	38	81
Total	0	0	0	0	0	10	21	31	0	0	0	0	0	21	35	56	0	0	0	0	0	26	43	69	0	0	0	0	0	23	20	43	0	0	0	0	0	73	62	135	334
Grand Total	0	0	0	0	0	56	57	113	0	0	0	0	0	73	62	135	0	0	0	0	0	67	86	153	0	0	0	0	0	67	54	121	0	0	0	0	0	171	163	334	856
Approach %	0	0	0	0	0	49.6	50.4		0	0	0	0	0	54.1	45.9		0	0	0	0	0	43.8	56.2		0	0	0	0	0	55.4	44.6		0	0	0	0	51.2	48.8		
Total %	0	0	0	0	0	6.54	6.66	13.2	0	0	0	0	0	8.53	7.24	15.8	0	0	0	0	0	7.83	10	17.9	0	0	0	0	0	7.83	6.31	14.1	0	0	0	0	0	20	19	39	
Exiting Leg Total								113								135								153								121								334	856

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Park Drive from North								Riverway from Northeast								Riverway from East								Park Drive from South								Riverway from West								
	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:45 PM	0	0	0	0	0	4	5	9	0	0	0	0	0	3	5	8	0	0	0	0	0	6	6	12	0	0	0	0	0	13	1	14	0	0	0	0	0	27	18	45	88
5:00 PM	0	0	0	0	0	2	6	8	0	0	0	0	0	4	10	14	0	0	0	0	0	14	13	27	0	0	0	0	0	8	3	11	0	0	0	0	0	13	8	21	81
5:15 PM	0	0	0	0	0	4	6	10	0	0	0	0	0	6	8	14	0	0	0	0	0	8	8	16	0	0	0	0	0	10	4	14	0	0	0	0	0	17	24	41	95
5:30 PM	0	0	0	0	0	2	6	8	0	0	0	0	0	5	9	14	0	0	0	0	0	0	12	12	0	0	0	0	0	2	6	8	0	0	0	0	0	26	9	35	77
Total Volume	0	0	0	0	0	12	23	35	0	0	0	0	0	18	32	50	0	0	0	0	0	28	39	67	0	0	0	0	0	33	14	47	0	0	0	0	0	83	59	142	341
% Approach Total	0.0	0.0	0.0	0.0	0.0	34.3	65.7		0.0	0.0	0.0	0.0	0.0	36.0	64.0		0.0	0.0	0.0	0.0	0.0	41.8	58.2		0.0	0.0	0.0	0.0	0.0	70.2	29.8		0.0	0.0	0.0	0.0	0.0	58.5	41.5		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.958	0.875	0.000	0.000	0.000	0.000	0.000	0.750	0.800	0.893	0.000	0.000	0.000	0.000	0.000	0.500	0.750	0.620	0.000	0.000	0.000	0.000	0.000	0.635	0.583	0.839	0.000	0.000	0.000	0.000	0.000	0.769	0.615	0.789	0.897
Entering Leg	0	0	0	0	0	12	23	35	0	0	0	0	0	18	32	50	0	0	0	0	0	28	39	67	0	0	0	0	0	33	14	47	0	0	0	0	0	83	59	142	341
Exiting Leg								35								50								67								47								142	341
Total								70								100								134								94								284	682

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**

Class: **Cars and Heavy Vehicles (Combined)**

	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	0	58	0	58	0	0	0	0	71	0	0	71	129
6:15 AM	0	67	0	67	0	0	0	0	98	0	0	98	165
6:30 AM	0	92	0	92	0	0	0	0	124	0	0	124	216
6:45 AM	0	119	0	119	0	0	0	0	136	0	0	136	255
Total	0	336	0	336	0	0	0	0	429	0	0	429	765
7:00 AM	0	129	0	129	0	0	0	0	132	0	0	132	261
7:15 AM	0	143	0	143	0	0	0	0	171	0	0	171	314
7:30 AM	0	149	0	149	0	0	0	0	206	0	0	206	355
7:45 AM	0	165	0	165	0	0	0	0	154	0	0	154	319
Total	0	586	0	586	0	0	0	0	663	0	0	663	1249
8:00 AM	0	123	0	123	0	0	0	0	187	0	0	187	310
8:15 AM	0	132	0	132	0	0	0	0	188	0	0	188	320
8:30 AM	0	133	0	133	0	0	0	0	186	0	0	186	319
8:45 AM	0	144	0	144	0	0	0	0	184	0	0	184	328
Total	0	532	0	532	0	0	0	0	745	0	0	745	1277
Grand Total	0	1454	0	1454	0	0	0	0	1837	0	0	1837	3291
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	44.2	0.0	44.2	0.0	0.0	0.0	0.0	55.8	0.0	0.0	55.8	
Exiting Leg Total				0				3291				0	3291
Cars	0	1378	0	1378	0	0	0	0	1811	0	0	1811	3189
% Cars	0.0	94.8	0.0	94.8	0.0	0.0	0.0	0.0	98.6	0.0	0.0	98.6	96.9
Exiting Leg Total				0				3189				0	3189
Heavy Vehicles	0	76	0	76	0	0	0	0	26	0	0	26	102
% Heavy Vehicles	0.0	5.2	0.0	5.2	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	3.1
Exiting Leg Total				0				102				0	102

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:30 AM	0	149	0	149	0	0	0	0	206	0	0	206	355
7:45 AM	0	165	0	165	0	0	0	0	154	0	0	154	319
8:00 AM	0	123	0	123	0	0	0	0	187	0	0	187	310
8:15 AM	0	132	0	132	0	0	0	0	188	0	0	188	320
Total Volume	0	569	0	569	0	0	0	0	735	0	0	735	1304
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.862	0.000	0.862	0.000	0.000	0.000	0.000	0.892	0.000	0.000	0.892	0.918
Cars	0	537	0	537	0	0	0	0	720	0	0	720	1257
Cars %	0.0	94.4	0.0	94.4	0.0	0.0	0.0	0.0	98.0	0.0	0.0	98.0	96.4
Heavy Vehicles	0	32	0	32	0	0	0	0	15	0	0	15	47
Heavy Vehicles %	0.0	5.6	0.0	5.6	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	3.6
Cars Enter Leg	0	537	0	537	0	0	0	0	720	0	0	720	1257
Heavy Enter Leg	0	32	0	32	0	0	0	0	15	0	0	15	47
Total Entering Leg	0	569	0	569	0	0	0	0	735	0	0	735	1304
Cars Exiting Leg				0				1257				0	1257
Heavy Exiting Leg				0				47				0	47
Total Exiting Leg				0				1304				0	1304

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Cars**

	Park Drive				Riverway				Riverway				
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	0	57	0	57	0	0	0	0	70	0	0	70	127
6:15 AM	0	66	0	66	0	0	0	0	98	0	0	98	164
6:30 AM	0	86	0	86	0	0	0	0	123	0	0	123	209
6:45 AM	0	113	0	113	0	0	0	0	134	0	0	134	247
Total	0	322	0	322	0	0	0	0	425	0	0	425	747
7:00 AM	0	123	0	123	0	0	0	0	130	0	0	130	253
7:15 AM	0	136	0	136	0	0	0	0	170	0	0	170	306
7:30 AM	0	139	0	139	0	0	0	0	200	0	0	200	339
7:45 AM	0	152	0	152	0	0	0	0	150	0	0	150	302
Total	0	550	0	550	0	0	0	0	650	0	0	650	1200
8:00 AM	0	118	0	118	0	0	0	0	183	0	0	183	301
8:15 AM	0	128	0	128	0	0	0	0	187	0	0	187	315
8:30 AM	0	125	0	125	0	0	0	0	182	0	0	182	307
8:45 AM	0	135	0	135	0	0	0	0	184	0	0	184	319
Total	0	506	0	506	0	0	0	0	736	0	0	736	1242
Grand Total	0	1378	0	1378	0	0	0	0	1811	0	0	1811	3189
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	43.2	0.0	43.2	0.0	0.0	0.0	0.0	56.8	0.0	0.0	56.8	
Exiting Leg Total				0				3189				0	3189

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Park Drive				Riverway				Riverway				
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:30 AM	0	139	0	139	0	0	0	0	200	0	0	200	339
7:45 AM	0	152	0	152	0	0	0	0	150	0	0	150	302
8:00 AM	0	118	0	118	0	0	0	0	183	0	0	183	301
8:15 AM	0	128	0	128	0	0	0	0	187	0	0	187	315
Total Volume	0	537	0	537	0	0	0	0	720	0	0	720	1257
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.883	0.000	0.883	0.000	0.000	0.000	0.000	0.900	0.000	0.000	0.900	0.927
Entering Leg	0	537	0	537	0	0	0	0	720	0	0	720	1257
Exiting Leg				0				1257				0	1257
Total				537				1257				720	2514

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	0	1	0	1	0	0	0	0	1	0	0	1	2
6:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
6:30 AM	0	6	0	6	0	0	0	0	1	0	0	1	7
6:45 AM	0	6	0	6	0	0	0	0	2	0	0	2	8
Total	0	14	0	14	0	0	0	0	4	0	0	4	18
7:00 AM	0	6	0	6	0	0	0	0	2	0	0	2	8
7:15 AM	0	7	0	7	0	0	0	0	1	0	0	1	8
7:30 AM	0	10	0	10	0	0	0	0	6	0	0	6	16
7:45 AM	0	13	0	13	0	0	0	0	4	0	0	4	17
Total	0	36	0	36	0	0	0	0	13	0	0	13	49
8:00 AM	0	5	0	5	0	0	0	0	4	0	0	4	9
8:15 AM	0	4	0	4	0	0	0	0	1	0	0	1	5
8:30 AM	0	8	0	8	0	0	0	0	4	0	0	4	12
8:45 AM	0	9	0	9	0	0	0	0	0	0	0	0	9
Total	0	26	0	26	0	0	0	0	9	0	0	9	35
Grand Total	0	76	0	76	0	0	0	0	26	0	0	26	102
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	74.5	0.0	74.5	0.0	0.0	0.0	0.0	25.5	0.0	0.0	25.5	
Exiting Leg Total				0				102				0	102
Buses	0	49	0	49	0	0	0	0	14	0	0	14	63
% Buses	0.0	64.5	0.0	64.5	0.0	0.0	0.0	0.0	53.8	0.0	0.0	53.8	61.8
Exiting Leg Total				0				63				0	63
Single-Unit Trucks	0	25	0	25	0	0	0	0	9	0	0	9	34
% Single-Unit	0.0	32.9	0.0	32.9	0.0	0.0	0.0	0.0	34.6	0.0	0.0	34.6	33.3
Exiting Leg Total				0				34				0	34
Articulated Trucks	0	2	0	2	0	0	0	0	3	0	0	3	5
% Articulated	0.0	2.6	0.0	2.6	0.0	0.0	0.0	0.0	11.5	0.0	0.0	11.5	4.9
Exiting Leg Total				0				5				0	5

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	0	7	0	7	0	0	0	0	1	0	0	1	8
7:30 AM	0	10	0	10	0	0	0	0	6	0	0	6	16
7:45 AM	0	13	0	13	0	0	0	0	4	0	0	4	17
8:00 AM	0	5	0	5	0	0	0	0	4	0	0	4	9
Total Volume	0	35	0	35	0	0	0	0	15	0	0	15	50
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.673	0.000	0.673	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.735
Buses	0	21	0	21	0	0	0	0	8	0	0	8	29
Buses %	0.0	60.0	0.0	60.0	0.0	0.0	0.0	0.0	53.3	0.0	0.0	53.3	58.0
Single-Unit Trucks	0	13	0	13	0	0	0	0	4	0	0	4	17
Single-Unit %	0.0	37.1	0.0	37.1	0.0	0.0	0.0	0.0	26.7	0.0	0.0	26.7	34.0
Articulated Trucks	0	1	0	1	0	0	0	0	3	0	0	3	4
Articulated %	0.0	2.9	0.0	2.9	0.0	0.0	0.0	0.0	20.0	0.0	0.0	20.0	8.0
Buses	0	21	0	21	0	0	0	0	8	0	0	8	29
Single-Unit Trucks	0	13	0	13	0	0	0	0	4	0	0	4	17
Articulated Trucks	0	1	0	1	0	0	0	0	3	0	0	3	4
Total Entering Leg	0	35	0	35	0	0	0	0	15	0	0	15	50
Buses				0				29				0	29
Single-Unit Trucks				0				17				0	17
Articulated Trucks				0				4				0	4
Total Exiting Leg				0				50				0	50

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Buses**

	Park Drive				Riverway				Riverway				
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	6	0	6	0	0	0	0	1	0	0	1	7
6:45 AM	0	5	0	5	0	0	0	0	2	0	0	2	7
Total	0	12	0	12	0	0	0	0	3	0	0	3	15
7:00 AM	0	3	0	3	0	0	0	0	2	0	0	2	5
7:15 AM	0	4	0	4	0	0	0	0	1	0	0	1	5
7:30 AM	0	5	0	5	0	0	0	0	3	0	0	3	8
7:45 AM	0	7	0	7	0	0	0	0	3	0	0	3	10
Total	0	19	0	19	0	0	0	0	9	0	0	9	28
8:00 AM	0	5	0	5	0	0	0	0	1	0	0	1	6
8:15 AM	0	4	0	4	0	0	0	0	1	0	0	1	5
8:30 AM	0	4	0	4	0	0	0	0	0	0	0	0	4
8:45 AM	0	5	0	5	0	0	0	0	0	0	0	0	5
Total	0	18	0	18	0	0	0	0	2	0	0	2	20
Grand Total	0	49	0	49	0	0	0	0	14	0	0	14	63
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	77.8	0.0	77.8	0.0	0.0	0.0	0.0	22.2	0.0	0.0	22.2	
Exiting Leg Total				0				63				0	63

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Park Drive				Riverway				Riverway				
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	0	4	0	4	0	0	0	0	1	0	0	1	5
7:30 AM	0	5	0	5	0	0	0	0	3	0	0	3	8
7:45 AM	0	7	0	7	0	0	0	0	3	0	0	3	10
8:00 AM	0	5	0	5	0	0	0	0	1	0	0	1	6
Total Volume	0	21	0	21	0	0	0	0	8	0	0	8	29
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.750	0.000	0.000	0.000	0.000	0.667	0.000	0.000	0.667	0.725
Entering Leg	0	21	0	21	0	0	0	0	8	0	0	8	29
Exiting Leg				0				29				0	29
Total				21				29				8	58

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**

Class: **Single-Unit Trucks**

	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
6:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	2	0	2	0	0	0	0	1	0	0	1	3
7:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
7:15 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
7:30 AM	0	5	0	5	0	0	0	0	3	0	0	3	8
7:45 AM	0	6	0	6	0	0	0	0	1	0	0	1	7
Total	0	15	0	15	0	0	0	0	4	0	0	4	19
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	4	0	4	0	0	0	0	4	0	0	4	8
8:45 AM	0	4	0	4	0	0	0	0	0	0	0	0	4
Total	0	8	0	8	0	0	0	0	4	0	0	4	12
Grand Total	0	25	0	25	0	0	0	0	9	0	0	9	34
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	73.5	0.0	73.5	0.0	0.0	0.0	0.0	26.5	0.0	0.0	26.5	
Exiting Leg Total				0				34				0	34

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:00 AM	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
7:15 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
7:30 AM	0	5	0	5	0	0	0	0	3	0	0	3	8
7:45 AM	0	6	0	6	0	0	0	0	1	0	0	1	7
Total Volume	0	15	0	15	0	0	0	0	4	0	0	4	19
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.625	0.000	0.625	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.333	0.594
Entering Leg	0	15	0	15	0	0	0	0	4	0	0	4	19
Exiting Leg				0				19				0	19
Total				15				19				4	38

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Articulated Trucks**

	Park Drive				Riverway				Riverway				
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	3	0	0	3	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	3	0	0	3	3
Grand Total	0	2	0	2	0	0	0	0	3	0	0	3	5
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	40.0	0.0	40.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	60.0	
Exiting Leg Total				0				5				0	5

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Park Drive				Riverway				Riverway				
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	3	0	0	3	3
Total Volume	0	1	0	1	0	0	0	0	3	0	0	3	4
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.333
Entering Leg	0	1	0	1	0	0	0	0	3	0	0	3	4
Exiting Leg				0				4				0	4
Total				1				4				3	8

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

Bicycles (on Roadway and Crosswalks)

	Park Drive from North						Riverway from East						Riverway from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
7:00 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	13	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	13
8:00 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
8:45 AM	0	5	0	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	0	12	0	1	0	13	0	0	0	0	0	0	0	0	0	0	0	0	13
Grand Total	0	28	0	1	0	29	0	0	0	0	0	0	0	0	0	0	0	0	29
Approach %	0.0	96.6	0.0	3.4	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	96.6	0.0	3.4	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						1						28						0	29

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:00 AM	Park Drive from North						Riverway from East						Riverway from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
7:00 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	13	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	13
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.813	0.000	0.000	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.813
Entering Leg	0	13	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	13
Exiting Leg						0						13						0	13
Total						13						13						0	26

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

Pedestrians

	Park Drive from North						Riverway from East						Riverway from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
6:00 AM	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	1	2	4
6:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	2	3	4
6:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	5	5	6
6:45 AM	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	3	4	6
Total	0	0	0	3	3	6	0	0	0	0	0	0	0	0	0	3	11	14	20
7:00 AM	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	4	4	8	13
7:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	3	4	5
7:30 AM	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	5	6	8
7:45 AM	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	2	11	13	17
Total	0	0	0	6	6	12	0	0	0	0	0	0	0	0	0	8	23	31	43
8:00 AM	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	9	8	17	22
8:15 AM	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	4	5	9	14
8:30 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	3	5	6
8:45 AM	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	4	8	12	17
Total	0	0	0	12	4	16	0	0	0	0	0	0	0	0	0	19	24	43	59
Grand Total	0	0	0	21	13	34	0	0	0	0	0	0	0	0	0	30	58	88	122
Approach %	0	0	0	61.765	38.235		0	0	0	0	0		0	0	0	34.091	65.909		
Total %	0	0	0	17.213	10.656	27.869	0	0	0	0	0	0	0	0	0	24.59	47.541	72.131	
Exiting Leg Total						34						0						88	122

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Park Drive from North						Riverway from East						Riverway from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
7:30 AM	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	5	6	8
7:45 AM	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	2	11	13	17
8:00 AM	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	9	8	17	22
8:15 AM	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	4	5	9	14
Total Volume	0	0	0	9	7	16	0	0	0	0	0	0	0	0	0	16	29	45	61
% Approach Total	0.0	0.0	0.0	56.3	43.8		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	35.6	64.4		
PHF	0.000	0.000	0.000	0.563	0.583	0.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.444	0.659	0.662	0.693
Entering Leg	0	0	0	9	7	16	0	0	0	0	0	0	0	0	0	16	29	45	61
Exiting Leg						16						0						45	61
Total						32						0						90	122

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**

Class: **Cars and Heavy Vehicles (Combined)**

	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	0	109	0	109	0	0	0	0	123	0	0	123	232
3:15 PM	0	123	0	123	0	0	0	0	128	0	0	128	251
3:30 PM	0	122	0	122	0	0	0	0	101	0	0	101	223
3:45 PM	0	91	0	91	0	0	0	0	113	0	0	113	204
Total	0	445	0	445	0	0	0	0	465	0	0	465	910
4:00 PM	0	130	0	130	0	0	0	0	132	0	0	132	262
4:15 PM	0	96	0	96	0	0	0	0	127	0	0	127	223
4:30 PM	0	127	0	127	0	0	0	0	124	0	0	124	251
4:45 PM	0	102	0	102	0	0	0	0	145	0	0	145	247
Total	0	455	0	455	0	0	0	0	528	0	0	528	983
5:00 PM	0	121	0	121	0	0	0	0	106	0	0	106	227
5:15 PM	0	90	0	90	0	0	0	0	120	0	0	120	210
5:30 PM	0	129	0	129	0	0	0	0	126	0	0	126	255
5:45 PM	0	106	0	106	0	0	0	0	122	0	0	122	228
Total	0	446	0	446	0	0	0	0	474	0	0	474	920
Grand Total	0	1346	0	1346	0	0	0	0	1467	0	0	1467	2813
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	47.8	0.0	47.8	0.0	0.0	0.0	0.0	52.2	0.0	0.0	52.2	
Exiting Leg Total				0				2813				0	2813
Cars	0	1263	0	1263	0	0	0	0	1438	0	0	1438	2701
% Cars	0.0	93.8	0.0	93.8	0.0	0.0	0.0	0.0	98.0	0.0	0.0	98.0	96.0
Exiting Leg Total				0				2701				0	2701
Heavy Vehicles	0	83	0	83	0	0	0	0	29	0	0	29	112
% Heavy Vehicles	0.0	6.2	0.0	6.2	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	4.0
Exiting Leg Total				0				112				0	112

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	130	0	130	0	0	0	0	132	0	0	132	262
4:15 PM	0	96	0	96	0	0	0	0	127	0	0	127	223
4:30 PM	0	127	0	127	0	0	0	0	124	0	0	124	251
4:45 PM	0	102	0	102	0	0	0	0	145	0	0	145	247
Total Volume	0	455	0	455	0	0	0	0	528	0	0	528	983
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.875	0.000	0.875	0.000	0.000	0.000	0.000	0.910	0.000	0.000	0.910	0.938
Cars	0	428	0	428	0	0	0	0	515	0	0	515	943
Cars %	0.0	94.1	0.0	94.1	0.0	0.0	0.0	0.0	97.5	0.0	0.0	97.5	95.9
Heavy Vehicles	0	27	0	27	0	0	0	0	13	0	0	13	40
Heavy Vehicles %	0.0	5.9	0.0	5.9	0.0	0.0	0.0	0.0	2.5	0.0	0.0	2.5	4.1
Cars Enter Leg	0	428	0	428	0	0	0	0	515	0	0	515	943
Heavy Enter Leg	0	27	0	27	0	0	0	0	13	0	0	13	40
Total Entering Leg	0	455	0	455	0	0	0	0	528	0	0	528	983
Cars Exiting Leg				0				943				0	943
Heavy Exiting Leg				0				40				0	40
Total Exiting Leg				0				983				0	983

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Cars**

	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	0	104	0	104	0	0	0	0	118	0	0	118	222
3:15 PM	0	115	0	115	0	0	0	0	126	0	0	126	241
3:30 PM	0	117	0	117	0	0	0	0	99	0	0	99	216
3:45 PM	0	83	0	83	0	0	0	0	108	0	0	108	191
Total	0	419	0	419	0	0	0	0	451	0	0	451	870
4:00 PM	0	122	0	122	0	0	0	0	130	0	0	130	252
4:15 PM	0	87	0	87	0	0	0	0	125	0	0	125	212
4:30 PM	0	121	0	121	0	0	0	0	122	0	0	122	243
4:45 PM	0	98	0	98	0	0	0	0	138	0	0	138	236
Total	0	428	0	428	0	0	0	0	515	0	0	515	943
5:00 PM	0	109	0	109	0	0	0	0	106	0	0	106	215
5:15 PM	0	87	0	87	0	0	0	0	120	0	0	120	207
5:30 PM	0	118	0	118	0	0	0	0	124	0	0	124	242
5:45 PM	0	102	0	102	0	0	0	0	122	0	0	122	224
Total	0	416	0	416	0	0	0	0	472	0	0	472	888
Grand Total	0	1263	0	1263	0	0	0	0	1438	0	0	1438	2701
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	46.8	0.0	46.8	0.0	0.0	0.0	0.0	53.2	0.0	0.0	53.2	
Exiting Leg Total				0				2701				0	2701

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	0	122	0	122	0	0	0	0	130	0	0	130	252
4:15 PM	0	87	0	87	0	0	0	0	125	0	0	125	212
4:30 PM	0	121	0	121	0	0	0	0	122	0	0	122	243
4:45 PM	0	98	0	98	0	0	0	0	138	0	0	138	236
Total Volume	0	428	0	428	0	0	0	0	515	0	0	515	943
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.877	0.000	0.877	0.000	0.000	0.000	0.000	0.933	0.000	0.000	0.933	0.936
Entering Leg	0	428	0	428	0	0	0	0	515	0	0	515	943
Exiting Leg				0				943				0	943
Total				428				943				515	1886

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	0	5	0	5	0	0	0	0	5	0	0	5	10
3:15 PM	0	8	0	8	0	0	0	0	2	0	0	2	10
3:30 PM	0	5	0	5	0	0	0	0	2	0	0	2	7
3:45 PM	0	8	0	8	0	0	0	0	5	0	0	5	13
Total	0	26	0	26	0	0	0	0	14	0	0	14	40
4:00 PM	0	8	0	8	0	0	0	0	2	0	0	2	10
4:15 PM	0	9	0	9	0	0	0	0	2	0	0	2	11
4:30 PM	0	6	0	6	0	0	0	0	2	0	0	2	8
4:45 PM	0	4	0	4	0	0	0	0	7	0	0	7	11
Total	0	27	0	27	0	0	0	0	13	0	0	13	40
5:00 PM	0	12	0	12	0	0	0	0	0	0	0	0	12
5:15 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
5:30 PM	0	11	0	11	0	0	0	0	2	0	0	2	13
5:45 PM	0	4	0	4	0	0	0	0	0	0	0	0	4
Total	0	30	0	30	0	0	0	0	2	0	0	2	32
Grand Total	0	83	0	83	0	0	0	0	29	0	0	29	112
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	74.1	0.0	74.1	0.0	0.0	0.0	0.0	25.9	0.0	0.0	25.9	
Exiting Leg Total				0				112				0	112
Buses	0	59	0	59	0	0	0	0	16	0	0	16	75
% Buses	0.0	71.1	0.0	71.1	0.0	0.0	0.0	0.0	55.2	0.0	0.0	55.2	67.0
Exiting Leg Total				0				75				0	75
Single-Unit Trucks	0	23	0	23	0	0	0	0	11	0	0	11	34
% Single-Unit	0.0	27.7	0.0	27.7	0.0	0.0	0.0	0.0	37.9	0.0	0.0	37.9	30.4
Exiting Leg Total				0				34				0	34
Articulated Trucks	0	1	0	1	0	0	0	0	2	0	0	2	3
% Articulated	0.0	1.2	0.0	1.2	0.0	0.0	0.0	0.0	6.9	0.0	0.0	6.9	2.7
Exiting Leg Total				0				3				0	3

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:45 PM	0	8	0	8	0	0	0	0	5	0	0	5	13
4:00 PM	0	8	0	8	0	0	0	0	2	0	0	2	10
4:15 PM	0	9	0	9	0	0	0	0	2	0	0	2	11
4:30 PM	0	6	0	6	0	0	0	0	2	0	0	2	8
Total Volume	0	31	0	31	0	0	0	0	11	0	0	11	42
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.861	0.000	0.861	0.000	0.000	0.000	0.000	0.550	0.000	0.000	0.550	0.808
Buses	0	22	0	22	0	0	0	0	7	0	0	7	29
Buses %	0.0	71.0	0.0	71.0	0.0	0.0	0.0	0.0	63.6	0.0	0.0	63.6	69.0
Single-Unit Trucks	0	9	0	9	0	0	0	0	3	0	0	3	12
Single-Unit %	0.0	29.0	0.0	29.0	0.0	0.0	0.0	0.0	27.3	0.0	0.0	27.3	28.6
Articulated Trucks	0	0	0	0	0	0	0	0	1	0	0	1	1
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	9.1	2.4
Buses	0	22	0	22	0	0	0	0	7	0	0	7	29
Single-Unit Trucks	0	9	0	9	0	0	0	0	3	0	0	3	12
Articulated Trucks	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Entering Leg	0	31	0	31	0	0	0	0	11	0	0	11	42
Buses				0				29				0	29
Single-Unit Trucks				0				12				0	12
Articulated Trucks				0				1				0	1
Total Exiting Leg				0				42				0	42

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Buses**

	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	0	1	0	1	0	0	0	0	4	0	0	4	5
3:15 PM	0	7	0	7	0	0	0	0	1	0	0	1	8
3:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
3:45 PM	0	7	0	7	0	0	0	0	3	0	0	3	10
Total	0	16	0	16	0	0	0	0	8	0	0	8	24
4:00 PM	0	6	0	6	0	0	0	0	1	0	0	1	7
4:15 PM	0	4	0	4	0	0	0	0	2	0	0	2	6
4:30 PM	0	5	0	5	0	0	0	0	1	0	0	1	6
4:45 PM	0	2	0	2	0	0	0	0	2	0	0	2	4
Total	0	17	0	17	0	0	0	0	6	0	0	6	23
5:00 PM	0	10	0	10	0	0	0	0	0	0	0	0	10
5:15 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
5:30 PM	0	9	0	9	0	0	0	0	2	0	0	2	11
5:45 PM	0	4	0	4	0	0	0	0	0	0	0	0	4
Total	0	26	0	26	0	0	0	0	2	0	0	2	28
Grand Total	0	59	0	59	0	0	0	0	16	0	0	16	75
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	78.7	0.0	78.7	0.0	0.0	0.0	0.0	21.3	0.0	0.0	21.3	
Exiting Leg Total				0				75				0	75

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:45 PM	0	7	0	7	0	0	0	0	3	0	0	3	10
4:00 PM	0	6	0	6	0	0	0	0	1	0	0	1	7
4:15 PM	0	4	0	4	0	0	0	0	2	0	0	2	6
4:30 PM	0	5	0	5	0	0	0	0	1	0	0	1	6
Total Volume	0	22	0	22	0	0	0	0	7	0	0	7	29
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.786	0.000	0.786	0.000	0.000	0.000	0.000	0.583	0.000	0.000	0.583	0.725
Entering Leg	0	22	0	22	0	0	0	0	7	0	0	7	29
Exiting Leg				0				29				0	29
Total				22				29				7	58

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**

Class: **Single-Unit Trucks**

	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	0	4	0	4	0	0	0	0	0	0	0	0	4
3:15 PM	0	1	0	1	0	0	0	0	1	0	0	1	2
3:30 PM	0	4	0	4	0	0	0	0	2	0	0	2	6
3:45 PM	0	1	0	1	0	0	0	0	1	0	0	1	2
Total	0	10	0	10	0	0	0	0	4	0	0	4	14
4:00 PM	0	2	0	2	0	0	0	0	1	0	0	1	3
4:15 PM	0	5	0	5	0	0	0	0	0	0	0	0	5
4:30 PM	0	1	0	1	0	0	0	0	1	0	0	1	2
4:45 PM	0	1	0	1	0	0	0	0	5	0	0	5	6
Total	0	9	0	9	0	0	0	0	7	0	0	7	16
5:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	4	0	4	0	0	0	0	0	0	0	0	4
Grand Total	0	23	0	23	0	0	0	0	11	0	0	11	34
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	67.6	0.0	67.6	0.0	0.0	0.0	0.0	32.4	0.0	0.0	32.4	
Exiting Leg Total				0				34				0	34

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:30 PM	Park Drive from North				Riverway from East				Riverway from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:30 PM	0	4	0	4	0	0	0	0	2	0	0	2	6
3:45 PM	0	1	0	1	0	0	0	0	1	0	0	1	2
4:00 PM	0	2	0	2	0	0	0	0	1	0	0	1	3
4:15 PM	0	5	0	5	0	0	0	0	0	0	0	0	5
Total Volume	0	12	0	12	0	0	0	0	4	0	0	4	16
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.600	0.000	0.600	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.667
Entering Leg	0	12	0	12	0	0	0	0	4	0	0	4	16
Exiting Leg				0				16				0	16
Total				12				16				4	32

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**

Class: **Articulated Trucks**

	Park Drive				Riverway				Riverway				
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	2	0	0	2	2
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	2	0	0	2	3
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.0	33.3	0.0	33.3	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	
Exiting Leg Total				0				3				0	3

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Park Drive				Riverway				Riverway				
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2	2
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.500
Entering Leg	0	0	0	0	0	0	0	0	2	0	0	2	2
Exiting Leg				0				2				0	2
Total				0				2				2	4

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Bicycles (on Roadway and Crosswalks)**

	Park Drive from North						Riverway from East						Riverway from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	1	1	2	4
4:15 PM	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	1	3
4:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	3	0	2	1	6	0	0	0	0	0	0	0	0	0	1	2	3	9
5:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	3	0	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	5
5:45 PM	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
Total	0	8	0	3	0	11	0	0	0	0	0	0	0	0	0	2	0	2	13
Grand Total	0	11	0	5	1	17	0	0	0	0	0	0	0	0	0	3	2	5	22
Approach %	0.0	64.7	0.0	29.4	5.9		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	60.0	40.0		
Total %	0.0	50.0	0.0	22.7	4.5	77.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	9.1	22.7	
Exiting Leg Total						6						11						5	22

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Park Drive from North						Riverway from East						Riverway from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
5:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	3	0	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	5
5:45 PM	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
Total Volume	0	8	0	3	0	11	0	0	0	0	0	0	0	0	0	2	0	2	13
% Approach Total	0.0	72.7	0.0	27.3	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.667	0.000	0.750	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.650
Entering Leg	0	8	0	3	0	11	0	0	0	0	0	0	0	0	0	2	0	2	13
Exiting Leg						3						8						2	13
Total						14						8						4	26

PDI File #: **249980 B**
Location: **N: Park Drive S: Riverway**
Location: **E: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Pedestrians**

	Park Drive from North						Riverway from East						Riverway from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
3:00 PM	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	4	5	9	17
3:15 PM	0	0	0	4	3	7	0	0	0	0	0	0	0	0	0	3	4	7	14
3:30 PM	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	4	1	5	13
3:45 PM	0	0	0	0	5	5	0	0	0	1	0	1	0	0	0	0	7	7	13
Total	0	0	0	12	16	28	0	0	0	1	0	1	0	0	0	11	17	28	57
4:00 PM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	6	2	8	10
4:15 PM	0	0	0	10	5	15	0	0	0	0	0	0	0	0	0	13	6	19	34
4:30 PM	0	0	0	6	6	12	0	0	0	0	0	0	0	0	0	8	8	16	28
4:45 PM	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	10	7	17	22
Total	0	0	0	22	12	34	0	0	0	0	0	0	0	0	0	37	23	60	94
5:00 PM	0	0	0	10	8	18	0	0	0	0	0	0	0	0	0	15	10	25	43
5:15 PM	0	0	0	8	4	12	0	0	0	0	0	0	0	0	0	14	6	20	32
5:30 PM	0	0	0	7	1	8	0	0	0	0	0	0	0	0	0	23	2	25	33
5:45 PM	0	0	0	3	4	7	0	0	0	0	0	0	0	0	0	8	11	19	26
Total	0	0	0	28	17	45	0	0	0	0	0	0	0	0	0	60	29	89	134
Grand Total	0	0	0	62	45	107	0	0	0	1	0	1	0	0	0	108	69	177	285
Approach %	0	0	0	57.944	42.056		0	0	0	100	0		0	0	0	61.017	38.983		
Total %	0	0	0	21.754	15.789	37.544	0	0	0	0.3509	0	0.3509	0	0	0	37.895	24.211	62.105	
Exiting Leg Total						107						1						177	285

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Park Drive from North						Riverway from East						Riverway from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	Total
5:00 PM	0	0	0	10	8	18	0	0	0	0	0	0	0	0	0	15	10	25	43
5:15 PM	0	0	0	8	4	12	0	0	0	0	0	0	0	0	0	14	6	20	32
5:30 PM	0	0	0	7	1	8	0	0	0	0	0	0	0	0	0	23	2	25	33
5:45 PM	0	0	0	3	4	7	0	0	0	0	0	0	0	0	0	8	11	19	26
Total Volume	0	0	0	28	17	45	0	0	0	0	0	0	0	0	0	60	29	89	134
% Approach Total	0.0	0.0	0.0	62.2	37.8		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	67.4	32.6		
PHF	0.000	0.000	0.000	0.700	0.531	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.652	0.659	0.890	0.779
Entering Leg	0	0	0	28	17	45	0	0	0	0	0	0	0	0	0	60	29	89	134
Exiting Leg						45						0						89	134
Total						90						0						178	268

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	1	176	1	0	178	0	0	0	0	0	0	4	100	0	1	0	105	0	0	0	0	0	0	3	18	50	57	0	128	411
6:15 AM	0	3	238	0	0	241	0	0	0	0	0	0	5	128	0	2	0	135	0	0	0	0	0	0	2	18	55	78	0	153	529
6:30 AM	0	2	274	0	0	276	0	0	0	0	0	0	3	106	0	1	0	110	0	0	0	0	0	0	5	31	74	107	0	217	603
6:45 AM	0	8	244	0	0	252	0	0	0	0	0	0	5	125	0	3	0	133	0	0	0	0	0	0	4	30	107	103	0	244	629
Total	0	14	932	1	0	947	0	0	0	0	0	0	17	459	0	7	0	483	0	0	0	0	0	0	14	97	286	345	0	742	2172
7:00 AM	0	8	242	0	0	250	0	0	0	0	0	0	12	150	0	0	0	162	0	0	0	0	0	0	12	22	117	98	0	249	661
7:15 AM	0	2	202	0	0	204	0	0	0	0	0	0	17	172	0	0	0	189	0	0	0	0	0	0	5	20	161	135	0	321	714
7:30 AM	0	11	225	0	0	236	0	0	0	0	0	0	11	189	0	0	0	200	0	0	0	0	0	0	5	21	190	141	0	357	793
7:45 AM	0	33	217	0	0	250	0	0	0	0	0	0	14	181	0	1	0	196	0	0	0	0	0	0	26	27	125	125	0	303	749
Total	0	54	886	0	0	940	0	0	0	0	0	0	54	692	0	1	0	747	0	0	0	0	0	0	48	90	593	499	0	1230	2917
8:00 AM	0	28	202	1	0	231	0	0	0	0	0	0	12	146	0	1	0	159	0	0	0	0	0	0	22	26	116	150	0	314	704
8:15 AM	0	7	221	2	0	230	0	0	0	0	0	0	12	136	0	2	0	150	0	0	0	0	0	0	12	23	119	164	0	318	698
8:30 AM	0	3	204	0	0	207	0	0	0	0	0	0	11	124	0	1	0	136	0	0	0	0	0	0	7	24	128	156	0	315	658
8:45 AM	0	2	206	0	0	208	0	0	0	0	0	0	9	137	0	0	0	146	0	0	0	0	0	0	9	26	142	154	0	331	685
Total	0	40	833	3	0	876	0	0	0	0	0	0	44	543	0	4	0	591	0	0	0	0	0	0	50	99	505	624	0	1278	2745
Grand Total	0	108	2651	4	0	2763	0	0	0	0	0	0	115	1694	0	12	0	1821	0	0	0	0	0	0	112	286	1384	1468	0	3250	7834
Approach %	0.0	3.9	95.9	0.1	0.0		0.0	0.0	0.0	0.0	0.0		6.3	93.0	0.0	0.7	0.0		0.0	0.0	0.0	0.0	0.0		3.4	8.8	42.6	45.2	0.0		
Total %	0.0	1.4	33.8	0.1	0.0	35.3	0.0	0.0	0.0	0.0	0.0	0.0	1.5	21.6	0.0	0.2	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.7	17.7	18.7	0.0	41.5	
Exiting Leg Total						3162						1503						2937						232						0	7834
Cars	0	106	2523	4	0	2633	0	0	0	0	0	0	105	1524	0	12	0	1641	0	0	0	0	0	0	111	260	1327	1432	0	3130	7404
% Cars	0.0	98.1	95.2	100.0	0.0	95.3	0.0	0.0	0.0	0.0	0.0	0.0	91.3	90.0	0.0	100.0	0.0	90.1	0.0	0.0	0.0	0.0	0.0	0.0	99.1	90.9	95.9	97.5	0.0	96.3	94.5
Exiting Leg Total						2956						1436						2783						229						0	7404
Heavy Vehicles	0	2	128	0	0	130	0	0	0	0	0	0	10	170	0	0	0	180	0	0	0	0	0	0	1	26	57	36	0	120	430
% Heavy Vehicles	0.0	1.9	4.8	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	8.7	10.0	0.0	0.0	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	9.1	4.1	2.5	0.0	3.7	5.5
Exiting Leg Total						206						67						154						3						0	430

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	2	202	0	0	204	0	0	0	0	0	0	17	172	0	0	0	189	0	0	0	0	0	0	5	20	161	135	0	321	714
7:30 AM	0	11	225	0	0	236	0	0	0	0	0	0	11	189	0	0	0	200	0	0	0	0	0	0	5	21	190	141	0	357	793
7:45 AM	0	33	217	0	0	250	0	0	0	0	0	0	14	181	0	1	0	196	0	0	0	0	0	0	26	27	125	125	0	303	749
8:00 AM	0	28	202	1	0	231	0	0	0	0	0	0	12	146	0	1	0	159	0	0	0	0	0	0	22	26	116	150	0	314	704
Total Volume	0	74	846	1	0	921	0	0	0	0	0	0	54	688	0	2	0	744	0	0	0	0	0	0	58	94	592	551	0	1295	2960
% Approach Total	0.0	8.0	91.9	0.1	0.0		0.0	0.0	0.0	0.0	0.0		7.3	92.5	0.0	0.3	0.0		0.0	0.0	0.0	0.0	0.0		4.5	7.3	45.7	42.5	0.0		
PHF	0.000	0.561	0.940	0.250	0.000	0.921	0.000	0.000	0.000	0.000	0.000	0.000	0.794	0.910	0.000	0.500	0.000	0.930	0.000	0.000	0.000	0.000	0.000	0.000	0.558	0.870	0.779	0.918	0.000	0.907	0.933
Cars	0	73	793	1	0	867	0	0	0	0	0	0	50	625	0	2	0	677	0	0	0	0	0	0	58	82	568	533	0	1241	2785
Cars %	0.0	98.6	93.7	100.0	0.0	94.1	0.0	0.0	0.0	0.0	0.0	0.0	92.6	90.8	0.0	100.0	0.0	91.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	87.2	95.9	96.7	0.0	95.8	94.1
Heavy Vehicles	0	1	53	0	0	54	0	0	0	0	0	0	4	63	0	0	0	67	0	0	0	0	0	0	0	12	24	18	0	54	175
Heavy Vehicles %	0.0	1.4	6.3	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	7.4	9.2	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.8	4.1	3.3	0.0	4.2	5.9
Cars Enter Leg	0	73	793	1	0	867	0	0	0	0	0	0	50	625	0	2	0	677	0	0	0	0	0	0	58	82	568	533	0	1241	2785
Heavy Enter Leg	0	1	53	0	0	54	0	0	0	0	0	0	4	63	0	0	0	67	0	0	0	0	0	0	0	12	24	18	0	54	175
Total Entering Leg	0	74	846	1	0	921	0	0	0	0	0	0	54	688	0	2	0	744	0	0	0	0	0	0	58	94	592	551	0	1295	2960
Cars Exiting Leg						1158						619						875						133						0	2785

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
Heavy Exiting Leg						81						28						65						1						0	175
Total Exiting Leg						1239						647						940						134						0	2960

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	1	172	1	0	174	0	0	0	0	0	0	3	90	0	1	0	94	0	0	0	0	0	0	3	17	50	56	0	126	394
6:15 AM	0	3	230	0	0	233	0	0	0	0	0	0	3	117	0	2	0	122	0	0	0	0	0	0	2	18	54	78	0	152	507
6:30 AM	0	2	268	0	0	270	0	0	0	0	0	0	3	92	0	1	0	96	0	0	0	0	0	0	5	29	71	106	0	211	577
6:45 AM	0	7	234	0	0	241	0	0	0	0	0	0	4	109	0	3	0	116	0	0	0	0	0	0	4	30	101	101	0	236	593
Total	0	13	904	1	0	918	0	0	0	0	0	0	13	408	0	7	0	428	0	0	0	0	0	0	14	94	276	341	0	725	2071
7:00 AM	0	8	231	0	0	239	0	0	0	0	0	0	11	137	0	0	0	148	0	0	0	0	0	0	12	20	115	95	0	242	629
7:15 AM	0	2	191	0	0	193	0	0	0	0	0	0	16	162	0	0	0	178	0	0	0	0	0	0	5	15	159	134	0	313	684
7:30 AM	0	11	209	0	0	220	0	0	0	0	0	0	10	176	0	0	0	186	0	0	0	0	0	0	5	18	184	136	0	343	749
7:45 AM	0	32	206	0	0	238	0	0	0	0	0	0	13	160	0	1	0	174	0	0	0	0	0	0	26	25	117	116	0	284	696
Total	0	53	837	0	0	890	0	0	0	0	0	0	50	635	0	1	0	686	0	0	0	0	0	0	48	78	575	481	0	1182	2758
8:00 AM	0	28	187	1	0	216	0	0	0	0	0	0	11	127	0	1	0	139	0	0	0	0	0	0	22	24	108	147	0	301	656
8:15 AM	0	7	208	2	0	217	0	0	0	0	0	0	12	122	0	2	0	136	0	0	0	0	0	0	11	21	115	161	0	308	661
8:30 AM	0	3	193	0	0	196	0	0	0	0	0	0	10	110	0	1	0	121	0	0	0	0	0	0	7	22	118	152	0	299	616
8:45 AM	0	2	194	0	0	196	0	0	0	0	0	0	9	122	0	0	0	131	0	0	0	0	0	0	9	21	135	150	0	315	642
Total	0	40	782	3	0	825	0	0	0	0	0	0	42	481	0	4	0	527	0	0	0	0	0	0	49	88	476	610	0	1223	2575
Grand Total	0	106	2523	4	0	2633	0	0	0	0	0	0	105	1524	0	12	0	1641	0	0	0	0	0	0	111	260	1327	1432	0	3130	7404
Approach %	0.0	4.0	95.8	0.2	0.0		0.0	0.0	0.0	0.0	0.0		6.4	92.9	0.0	0.7	0.0		0.0	0.0	0.0	0.0	0.0		3.5	8.3	42.4	45.8	0.0		
Total %	0.0	1.4	34.1	0.1	0.0	35.6	0.0	0.0	0.0	0.0	0.0	0.0	1.4	20.6	0.0	0.2	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.5	17.9	19.3	0.0	42.3	
Exiting Leg Total						2956						1436						2783						229						0	7404

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	2	191	0	0	193	0	0	0	0	0	0	16	162	0	0	0	178	0	0	0	0	0	0	5	15	159	134	0	313	684
7:30 AM	0	11	209	0	0	220	0	0	0	0	0	0	10	176	0	0	0	186	0	0	0	0	0	0	5	18	184	136	0	343	749
7:45 AM	0	32	206	0	0	238	0	0	0	0	0	0	13	160	0	1	0	174	0	0	0	0	0	0	26	25	117	116	0	284	696
8:00 AM	0	28	187	1	0	216	0	0	0	0	0	0	11	127	0	1	0	139	0	0	0	0	0	0	22	24	108	147	0	301	656
Total Volume	0	73	793	1	0	867	0	0	0	0	0	0	50	625	0	2	0	677	0	0	0	0	0	0	58	82	568	533	0	1241	2785
% Approach Total	0.0	8.4	91.5	0.1	0.0		0.0	0.0	0.0	0.0	0.0		7.4	92.3	0.0	0.3	0.0		0.0	0.0	0.0	0.0	0.0		4.7	6.6	45.8	42.9	0.0		
PHF	0.000	0.570	0.949	0.250	0.000	0.911	0.000	0.000	0.000	0.000	0.000	0.000	0.781	0.888	0.000	0.500	0.000	0.910	0.000	0.000	0.000	0.000	0.000	0.000	0.558	0.820	0.772	0.906	0.000	0.905	0.930
Entering Leg	0	73	793	1	0	867	0	0	0	0	0	0	50	625	0	2	0	677	0	0	0	0	0	0	58	82	568	533	0	1241	2785
Exiting Leg						1158						619						875						133						0	2785
Total						2025						619						1552						133						1241	5570

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	4	0	0	4	0	0	0	0	0	0	1	10	0	0	0	11	0	0	0	0	0	0	0	1	0	1	0	2	17
6:15 AM	0	0	8	0	0	8	0	0	0	0	0	0	2	11	0	0	0	13	0	0	0	0	0	0	0	0	1	0	0	1	22
6:30 AM	0	0	6	0	0	6	0	0	0	0	0	0	0	14	0	0	0	14	0	0	0	0	0	0	0	2	3	1	0	6	26
6:45 AM	0	1	10	0	0	11	0	0	0	0	0	0	1	16	0	0	0	17	0	0	0	0	0	0	0	0	6	2	0	8	36
Total	0	1	28	0	0	29	0	0	0	0	0	0	4	51	0	0	0	55	0	0	0	0	0	0	0	3	10	4	0	17	101
7:00 AM	0	0	11	0	0	11	0	0	0	0	0	0	1	13	0	0	0	14	0	0	0	0	0	0	0	2	2	3	0	7	32
7:15 AM	0	0	11	0	0	11	0	0	0	0	0	0	1	10	0	0	0	11	0	0	0	0	0	0	0	5	2	1	0	8	30
7:30 AM	0	0	16	0	0	16	0	0	0	0	0	0	1	13	0	0	0	14	0	0	0	0	0	0	0	3	6	5	0	14	44
7:45 AM	0	1	11	0	0	12	0	0	0	0	0	0	1	21	0	0	0	22	0	0	0	0	0	0	0	2	8	9	0	19	53
Total	0	1	49	0	0	50	0	0	0	0	0	0	4	57	0	0	0	61	0	0	0	0	0	0	0	12	18	18	0	48	159
8:00 AM	0	0	15	0	0	15	0	0	0	0	0	0	1	19	0	0	0	20	0	0	0	0	0	0	0	2	8	3	0	13	48
8:15 AM	0	0	13	0	0	13	0	0	0	0	0	0	0	14	0	0	0	14	0	0	0	0	0	0	1	2	4	3	0	10	37
8:30 AM	0	0	11	0	0	11	0	0	0	0	0	0	1	14	0	0	0	15	0	0	0	0	0	0	0	2	10	4	0	16	42
8:45 AM	0	0	12	0	0	12	0	0	0	0	0	0	0	15	0	0	0	15	0	0	0	0	0	0	0	5	7	4	0	16	43
Total	0	0	51	0	0	51	0	0	0	0	0	0	2	62	0	0	0	64	0	0	0	0	0	0	1	11	29	14	0	55	170
Grand Total	0	2	128	0	0	130	0	0	0	0	0	0	10	170	0	0	0	180	0	0	0	0	0	0	1	26	57	36	0	120	430
Approach %	0.0	1.5	98.5	0.0	0.0		0.0	0.0	0.0	0.0	0.0		5.6	94.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.8	21.7	47.5	30.0	0.0		
Total %	0.0	0.5	29.8	0.0	0.0	30.2	0.0	0.0	0.0	0.0	0.0	0.0	2.3	39.5	0.0	0.0	0.0	41.9	0.0	0.0	0.0	0.0	0.0	0.0	0.2	6.0	13.3	8.4	0.0	27.9	
Exiting Leg Total						206						67						154						3						0	430
Buses	0	0	97	0	0	97	0	0	0	0	0	0	9	130	0	0	0	139	0	0	0	0	0	0	0	19	40	16	0	75	311
% Buses	0.0	0.0	75.8	0.0	0.0	74.6	0.0	0.0	0.0	0.0	0.0	0.0	90.0	76.5	0.0	0.0	0.0	77.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.1	70.2	44.4	0.0	62.5	72.3
Exiting Leg Total						146						49						116						0						0	311
Single-Unit Trucks	0	2	30	0	0	32	0	0	0	0	0	0	1	39	0	0	0	40	0	0	0	0	0	0	1	6	16	19	0	42	114
% Single-Unit	0.0	100.0	23.4	0.0	0.0	24.6	0.0	0.0	0.0	0.0	0.0	0.0	10.0	22.9	0.0	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0	23.1	28.1	52.8	0.0	35.0	26.5
Exiting Leg Total						58						17						36						3						0	114
Articulated Trucks	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	3	5
% Articulated	0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	1.8	2.8	0.0	2.5	1.2
Exiting Leg Total						2						1						2						0						0	5

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	16	0	0	16	0	0	0	0	0	0	1	13	0	0	0	14	0	0	0	0	0	0	0	3	6	5	0	14	44
7:45 AM	0	1	11	0	0	12	0	0	0	0	0	0	1	21	0	0	0	22	0	0	0	0	0	0	0	2	8	9	0	19	53
8:00 AM	0	0	15	0	0	15	0	0	0	0	0	0	1	19	0	0	0	20	0	0	0	0	0	0	0	2	8	3	0	13	48
8:15 AM	0	0	13	0	0	13	0	0	0	0	0	0	0	14	0	0	0	14	0	0	0	0	0	0	1	2	4	3	0	10	37
Total Volume	0	1	55	0	0	56	0	0	0	0	0	0	3	67	0	0	0	70	0	0	0	0	0	0	1	9	26	20	0	56	182
% Approach Total	0.0	1.8	98.2	0.0	0.0		0.0	0.0	0.0	0.0	0.0		4.3	95.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		1.8	16.1	46.4	35.7	0.0		
PHF	0.000	0.250	0.859	0.000	0.000	0.875	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.798	0.000	0.000	0.000	0.795	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.750	0.813	0.556	0.000	0.737	0.858
Buses	0	0	35	0	0	35	0	0	0	0	0	0	3	54	0	0	0	57	0	0	0	0	0	0	0	8	16	8	0	32	124
Buses %	0.0	0.0	63.6	0.0	0.0	62.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	80.6	0.0	0.0	0.0	81.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	88.9	61.5	40.0	0.0	57.1	68.1
Single-Unit Trucks	0	1	20	0	0	21	0	0	0	0	0	0	0	13	0	0	0	13	0	0	0	0	0	0	1	1	10	12	0	24	58
Single-Unit %	0.0	100.0	36.4	0.0	0.0	37.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.4	0.0	0.0	0.0	18.6	0.0	0.0	0.0	0.0	0.0	0.0	100.0	11.1	38.5	60.0	0.0	42.9	31.9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	35	0	0	35	0	0	0	0	0	0	3	54	0	0	0	57	0	0	0	0	0	0	0	8	16	8	0	32	124
Single-Unit Trucks	0	1	20	0	0	21	0	0	0	0	0	0	0	13	0	0	0	13	0	0	0	0	0	0	1	1	10	12	0	24	58
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	1	55	0	0	56	0	0	0	0	0	0	3	67	0	0	0	70	0	0	0	0	0	0	1	9	26	20	0	56	182
Buses						62						19						43						0						0	124
Single-Unit Trucks						25						10						21						2						0	58
Articulated Trucks						0						0						0						0						0	0
Total Exiting Leg						87						29						64						2						0	182

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
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Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	4	0	0	4	0	0	0	0	0	0	1	9	0	0	0	10	0	0	0	0	0	0	0	1	0	0	0	1	15
6:15 AM	0	0	8	0	0	8	0	0	0	0	0	0	1	9	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	18
6:30 AM	0	0	6	0	0	6	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	2	3	1	0	6	20
6:45 AM	0	0	9	0	0	9	0	0	0	0	0	0	1	12	0	0	0	13	0	0	0	0	0	0	0	0	5	2	0	7	29
Total	0	0	27	0	0	27	0	0	0	0	0	0	3	38	0	0	0	41	0	0	0	0	0	0	0	3	8	3	0	14	82
7:00 AM	0	0	9	0	0	9	0	0	0	0	0	0	1	11	0	0	0	12	0	0	0	0	0	0	0	1	2	2	0	5	26
7:15 AM	0	0	10	0	0	10	0	0	0	0	0	0	1	8	0	0	0	9	0	0	0	0	0	0	0	2	2	1	0	5	24
7:30 AM	0	0	7	0	0	7	0	0	0	0	0	0	1	12	0	0	0	13	0	0	0	0	0	0	0	2	3	1	0	6	26
7:45 AM	0	0	8	0	0	8	0	0	0	0	0	0	1	14	0	0	0	15	0	0	0	0	0	0	0	2	6	4	0	12	35
Total	0	0	34	0	0	34	0	0	0	0	0	0	4	45	0	0	0	49	0	0	0	0	0	0	0	7	13	8	0	28	111
8:00 AM	0	0	9	0	0	9	0	0	0	0	0	0	1	18	0	0	0	19	0	0	0	0	0	0	0	2	4	1	0	7	35
8:15 AM	0	0	11	0	0	11	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	2	3	2	0	7	28
8:30 AM	0	0	7	0	0	7	0	0	0	0	0	0	1	9	0	0	0	10	0	0	0	0	0	0	0	2	7	1	0	10	27
8:45 AM	0	0	9	0	0	9	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	3	5	1	0	9	28
Total	0	0	36	0	0	36	0	0	0	0	0	0	2	47	0	0	0	49	0	0	0	0	0	0	0	9	19	5	0	33	118
Grand Total	0	0	97	0	0	97	0	0	0	0	0	0	9	130	0	0	0	139	0	0	0	0	0	0	0	19	40	16	0	75	311
Approach %	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		6.5	93.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	25.3	53.3	21.3	0.0		
Total %	0.0	0.0	31.2	0.0	0.0	31.2	0.0	0.0	0.0	0.0	0.0	0.0	2.9	41.8	0.0	0.0	0.0	44.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	12.9	5.1	0.0	24.1	
Exiting Leg Total						146						49						116						0						0	311

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	8	0	0	8	0	0	0	0	0	0	1	14	0	0	0	15	0	0	0	0	0	0	0	2	6	4	0	12	35
8:00 AM	0	0	9	0	0	9	0	0	0	0	0	0	1	18	0	0	0	19	0	0	0	0	0	0	0	2	4	1	0	7	35
8:15 AM	0	0	11	0	0	11	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	2	3	2	0	7	28
8:30 AM	0	0	7	0	0	7	0	0	0	0	0	0	1	9	0	0	0	10	0	0	0	0	0	0	0	2	7	1	0	10	27
Total Volume	0	0	35	0	0	35	0	0	0	0	0	0	3	51	0	0	0	54	0	0	0	0	0	0	0	8	20	8	0	36	125
% Approach Total	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		5.6	94.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	22.2	55.6	22.2	0.0		
PHF	0.000	0.000	0.795	0.000	0.000	0.795	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.708	0.000	0.000	0.000	0.711	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.714	0.500	0.000	0.750	0.893
Entering Leg	0	0	35	0	0	35	0	0	0	0	0	0	3	51	0	0	0	54	0	0	0	0	0	0	0	8	20	8	0	36	125
Exiting Leg						59						23						43						0						0	125
Total						94						23						97						0						36	250

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	1	4
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
6:45 AM	0	1	1	0	0	2	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	1	0	0	1	7
Total	0	1	1	0	0	2	0	0	0	0	0	0	1	12	0	0	0	13	0	0	0	0	0	0	0	0	2	1	0	3	18
7:00 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	5
7:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	2	5
7:30 AM	0	0	9	0	0	9	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	3	4	0	8	18
7:45 AM	0	1	3	0	0	4	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	2	5	0	7	18
Total	0	1	15	0	0	16	0	0	0	0	0	0	0	12	0	0	0	12	0	0	0	0	0	0	0	4	5	9	0	18	46
8:00 AM	0	0	6	0	0	6	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	4	2	0	6	13
8:15 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	1	0	1	1	0	3	9
8:30 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	3	3	0	6	14
8:45 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	2	1	3	0	6	14
Total	0	0	14	0	0	14	0	0	0	0	0	0	0	15	0	0	0	15	0	0	0	0	0	0	1	2	9	9	0	21	50
Grand Total	0	2	30	0	0	32	0	0	0	0	0	0	1	39	0	0	0	40	0	0	0	0	0	0	1	6	16	19	0	42	114
Approach %	0.0	6.3	93.8	0.0	0.0		0.0	0.0	0.0	0.0	0.0		2.5	97.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		2.4	14.3	38.1	45.2	0.0		
Total %	0.0	1.8	26.3	0.0	0.0	28.1	0.0	0.0	0.0	0.0	0.0	0.0	0.9	34.2	0.0	0.0	0.0	35.1	0.0	0.0	0.0	0.0	0.0	0.0	0.9	5.3	14.0	16.7	0.0	36.8	
Exiting Leg Total						58						17						36						3						0	114

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	9	0	0	9	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	3	4	0	8	18
7:45 AM	0	1	3	0	0	4	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	2	5	0	7	18
8:00 AM	0	0	6	0	0	6	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	4	2	0	6	13
8:15 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	1	0	1	1	0	3	9
Total Volume	0	1	20	0	0	21	0	0	0	0	0	0	0	13	0	0	0	13	0	0	0	0	0	0	1	1	10	12	0	24	58
% Approach Total	0.0	4.8	95.2	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		4.2	4.2	41.7	50.0	0.0		
PHF	0.000	0.250	0.556	0.000	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.464	0.000	0.000	0.000	0.464	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.625	0.600	0.000	0.750	0.806
Entering Leg	0	1	20	0	0	21	0	0	0	0	0	0	0	13	0	0	0	13	0	0	0	0	0	0	1	1	10	12	0	24	58
Exiting Leg						25						10						21						2						0	58
Total						46						10						34						2						24	116

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Grand Total	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	3	5
Approach %	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	33.3	33.3	33.3	0.0		
Total %	0.0	0.0	20.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	0.0	60.0	
Exiting Leg Total						2						1						2						0						0	5

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:30 AM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2	3
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	50.0	0.0	50.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.750
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2	3
Exiting Leg						2						0						1						0						0	3
Total						2						0						2						0						2	6

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Riverway from North								Brookline Avenue from East								Fenway from South								Southwest from Southwest								Brookline Avenue from West								
	Right	Bear Righ	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5	7	13
6:15 AM	0	0	6	0	0	0	0	6	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	4	12
6:30 AM	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	7
6:45 AM	0	0	5	0	0	0	0	5	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	4	4	13
Total	0	0	19	0	0	0	0	19	0	0	0	0	0	3	0	3	0	2	0	0	0	0	2	4	0	0	0	0	0	0	1	1	0	1	2	0	0	1	14	18	45
7:00 AM	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	1	0	0	0	1	2	0	2	1	0	0	0	1	4	12
7:15 AM	0	0	3	0	0	0	0	3	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	4	0	0	0	6	11	16
7:30 AM	0	0	4	0	0	0	0	4	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	1	2	6	11
7:45 AM	0	1	9	0	0	0	0	10	0	0	0	0	0	0	3	3	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	8	25
Total	0	1	20	0	0	0	0	21	0	0	0	0	0	1	4	5	0	7	0	0	0	0	0	7	0	0	1	0	0	0	1	2	0	5	9	1	0	1	13	29	64
8:00 AM	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	1	0	0	0	7	11	15
8:15 AM	0	0	5	2	0	0	0	7	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	1	3	0	0	1	4	9	20
8:30 AM	0	0	8	0	0	0	0	8	0	0	0	0	0	1	0	1	0	5	0	0	0	0	0	5	0	0	0	0	0	0	1	1	0	0	5	0	0	0	4	9	24
8:45 AM	0	0	4	1	0	0	0	5	0	0	0	0	0	2	0	2	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6	0	0	1	2	9	19
Total	0	0	20	3	0	0	0	23	0	0	0	0	0	3	2	5	1	8	0	0	0	0	0	9	0	1	0	0	0	1	1	3	1	3	15	0	0	2	17	38	78
Grand Total	0	1	59	3	0	0	0	63	0	0	0	0	0	7	6	13	1	17	0	0	0	0	2	20	0	1	1	0	0	1	3	6	1	9	26	1	0	4	44	85	187
Approach %	0.0	1.6	93.7	4.8	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	53.8	46.2		5.0	85.0	0.0	0.0	0.0	0.0	10.0		0.0	16.7	16.7	0.0	0.0	16.7	50.0		1.2	10.6	30.6	1.2	0.0	4.7	51.8		
Total %	0.0	0.5	31.6	1.6	0.0	0.0	0.0	33.7	0.0	0.0	0.0	0.0	0.0	3.7	3.2	7.0	0.5	9.1	0.0	0.0	0.0	0.0	1.1	10.7	0.0	0.5	0.5	0.0	0.0	0.5	1.6	3.2	0.5	4.8	13.9	0.5	0.0	2.1	23.5	45.5	
Exiting Leg Total								19								44								70								6								48	187

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Riverway from North								Brookline Avenue from East								Fenway from South								Southwest from Southwest								Brookline Avenue from West								
	Right	Bear Righ	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	1	9	0	0	0	0	10	0	0	0	0	0	0	3	3	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	8	25
8:00 AM	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	1	0	0	0	7	11	15
8:15 AM	0	0	5	2	0	0	0	7	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	1	3	0	0	1	4	9	20
8:30 AM	0	0	8	0	0	0	0	8	0	0	0	0	0	1	0	1	0	5	0	0	0	0	0	5	0	0	0	0	0	0	1	1	0	0	5	0	0	0	4	9	24
Total Volume	0	1	25	2	0	0	0	28	0	0	0	0	0	1	5	6	1	9	0	0	0	0	0	10	0	1	0	0	0	1	1	3	1	3	12	1	0	1	19	37	84
% Approach Total	0.0	3.6	89.3	7.1	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	16.7	83.3		10.0	90.0	0.0	0.0	0.0	0.0	0.0		0.0	33.3	0.0	0.0	0.0	33.3	33.3		2.7	8.1	32.4	2.7	0.0	2.7	51.4		
PHF	0.000	0.250	0.694	0.250	0.000	0.000	0.000	0.700	0.000	0.000	0.000	0.000	0.000	0.250	0.417	0.500	0.250	0.450	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.250	0.250	0.375	0.250	0.375	0.600	0.250	0.000	0.250	0.679	0.841	0.840
Entering Leg	0	1	25	2	0	0	0	28	0	0	0	0	0	1	5	6	1	9	0	0	0	0	0	10	0	1	0	0	0	1	1	3	1	3	12	1	0	1	19	37	84
Exiting Leg								10								22								28								4								20	84
Total								38								28								38								7								57	168

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Riverway from North								Brookline Avenue from East								Fenway from South								Southwest from Southwest								Brookline Avenue from West								
	Right	Bear Righ	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	23	10	33	0	0	0	0	0	3	4	7	0	0	0	0	0	1	5	6	0	0	0	0	0	3	6	9	56
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	33	4	37	0	0	0	0	0	3	9	12	0	0	0	0	0	6	14	20	0	0	0	0	0	5	13	18	87
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	46	6	52	0	0	0	0	0	4	9	13	0	0	0	0	0	14	13	27	0	0	0	0	0	8	18	26	118
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	47	5	52	0	0	0	0	0	5	9	14	0	0	0	0	0	8	15	23	0	0	0	0	0	4	13	17	106
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	149	25	174	0	0	0	0	0	15	31	46	0	0	0	0	0	29	47	76	0	0	0	0	0	20	50	70	367
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	51	4	55	0	0	0	0	0	0	0	0	0	0	0	0	0	12	16	28	0	0	0	0	0	2	16	18	101
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	21	13	34	0	0	0	0	0	0	0	0	0	0	0	0	0	16	7	23	0	0	0	0	0	6	12	18	75
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	59	14	73	0	0	0	0	0	0	0	0	0	0	0	0	0	23	12	35	0	0	0	0	0	4	21	25	133
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	96	23	119	0	0	0	0	0	0	0	0	0	0	0	0	0	9	19	28	0	0	0	0	0	5	42	47	194
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	227	54	281	0	0	0	0	0	0	0	0	0	0	0	0	0	60	54	114	0	0	0	0	0	17	91	108	503
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	39	9	48	0	0	0	0	0	0	0	0	0	0	0	0	0	15	14	29	0	0	0	0	0	15	14	29	106
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	40	12	52	0	0	0	0	0	0	0	0	0	0	0	0	0	8	11	19	0	0	0	0	0	12	15	27	98
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	48	14	62	0	0	0	0	0	0	0	0	0	0	0	0	0	8	17	25	0	0	0	0	0	11	24	35	122
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	62	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	11	9	20	0	0	0	0	0	15	21	36	131
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	189	48	237	0	0	0	0	0	0	0	0	0	0	0	0	0	42	51	93	0	0	0	0	0	53	74	127	457
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	0	565	127	692	0	0	0	0	0	15	31	46	0	0	0	0	0	131	152	283	0	0	0	0	0	90	215	305	1327
Approach %	0	0	0	0	0	100	0		0	0	0	0	0	81.6	18.4		0	0	0	0	0	32.6	67.4		0	0	0	0	0	46.3	53.7		0	0	0	0	0	29.5	70.5		
Total %	0	0	0	0	0	0.08	0	0.08	0	0	0	0	0	42.6	9.57	52.1	0	0	0	0	0	1.13	2.34	3.47	0	0	0	0	0	9.87	11.5	21.3	0	0	0	0	0	6.78	16.2	23	
Exiting Leg Total								1								692								46								283								305	1327

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway from North								Brookline Avenue from East								Fenway from South								Southwest from Southwest								Brookline Avenue from West								
	Right	Bear Righ	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	59	14	73	0	0	0	0	0	0	0	0	0	0	0	0	0	23	12	35	0	0	0	0	0	4	21	25	133
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	96	23	119	0	0	0	0	0	0	0	0	0	0	0	0	0	9	19	28	0	0	0	0	0	5	42	47	194
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	39	9	48	0	0	0	0	0	0	0	0	0	0	0	0	0	15	14	29	0	0	0	0	0	15	14	29	106
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	40	12	52	0	0	0	0	0	0	0	0	0	0	0	0	0	8	11	19	0	0	0	0	0	12	15	27	98
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	234	58	292	0	0	0	0	0	0	0	0	0	0	0	0	0	55	56	111	0	0	0	0	0	36	92	128	531
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	80.1	19.9		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	49.5	50.5		0.0	0.0	0.0	0.0	0.0	28.1	71.9		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.609	0.630	0.613	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.598	0.737	0.793	0.000	0.000	0.000	0.000	0.000	0.600	0.548	0.681	0.684
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	234	58	292	0	0	0	0	0	0	0	0	0	0	0	0	0	55	56	111	0	0	0	0	0	36	92	128	531
Exiting Leg								0								292								0								111								128	531
Total								0								584								0								222								256	1062

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	6	197	2	0	205	0	0	0	0	0	0	15	192	0	2	0	209	0	0	0	0	0	0	13	27	85	113	0	238	652
3:15 PM	0	8	204	4	0	216	0	0	0	0	0	0	18	139	0	2	0	159	0	0	0	0	0	0	9	32	120	97	0	258	633
3:30 PM	0	11	234	3	1	249	0	0	0	0	0	0	15	187	0	2	0	204	0	0	0	0	0	0	5	15	119	87	0	226	679
3:45 PM	0	6	200	0	0	206	0	0	0	0	0	0	4	156	0	2	0	162	0	0	0	0	0	0	4	23	91	102	0	220	588
Total	0	31	835	9	1	876	0	0	0	0	0	0	52	674	0	8	0	734	0	0	0	0	0	0	31	97	415	399	0	942	2552
4:00 PM	0	17	189	0	0	206	0	0	0	0	0	0	9	194	0	3	0	206	0	0	0	0	0	0	9	20	113	109	0	251	663
4:15 PM	0	15	182	1	0	198	0	0	0	0	0	0	16	193	0	3	0	212	0	0	0	0	0	0	13	13	94	117	0	237	647
4:30 PM	0	16	193	3	0	212	0	0	0	0	0	0	16	197	0	4	0	217	0	0	0	0	0	0	15	5	123	96	0	239	668
4:45 PM	0	19	231	1	0	251	0	0	0	0	0	0	17	160	0	2	0	179	0	0	0	0	0	0	20	18	109	112	0	259	689
Total	0	67	795	5	0	867	0	0	0	0	0	0	58	744	0	12	0	814	0	0	0	0	0	0	57	56	439	434	0	986	2667
5:00 PM	0	15	181	2	2	200	0	0	0	0	0	0	5	187	0	0	0	192	1	0	0	0	0	1	9	12	109	98	0	228	621
5:15 PM	0	17	135	0	0	152	0	0	0	0	0	0	24	153	0	2	0	179	0	0	0	0	0	0	9	9	106	103	0	227	558
5:30 PM	0	16	154	0	0	170	0	0	0	0	0	0	23	189	0	1	0	213	0	0	0	0	0	0	9	14	113	106	0	242	625
5:45 PM	0	10	156	1	0	167	0	0	0	0	0	0	4	168	0	4	0	176	0	0	0	0	0	0	13	7	112	104	0	236	579
Total	0	58	626	3	2	689	0	0	0	0	0	0	56	697	0	7	0	760	1	0	0	0	0	1	40	42	440	411	0	933	2383
Grand Total	0	156	2256	17	3	2432	0	0	0	0	0	0	166	2115	0	27	0	2308	1	0	0	0	0	1	128	195	1294	1244	0	2861	7602
Approach %	0.0	6.4	92.8	0.7	0.1		0.0	0.0	0.0	0.0	0.0		7.2	91.6	0.0	1.2	0.0		100.0	0.0	0.0	0.0	0.0		4.5	6.8	45.2	43.5	0.0		
Total %	0.0	2.1	29.7	0.2	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	27.8	0.0	0.4	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.6	17.0	16.4	0.0	37.6	
Exiting Leg Total						3362						1477						2452						311						0	7602
Cars	0	154	2124	17	3	2298	0	0	0	0	0	0	157	1987	0	27	0	2171	1	0	0	0	0	1	126	179	1229	1215	0	2749	7219
% Cars	0.0	98.7	94.1	100.0	100.0	94.5	0.0	0.0	0.0	0.0	0.0	0.0	94.6	93.9	0.0	100.0	0.0	94.1	100.0	0.0	0.0	0.0	0.0	100.0	98.4	91.8	95.0	97.7	0.0	96.1	95.0
Exiting Leg Total						3205						1403						2304						307						0	7219
Heavy Vehicles	0	2	132	0	0	134	0	0	0	0	0	0	9	128	0	0	0	137	0	0	0	0	0	0	2	16	65	29	0	112	383
% Heavy Vehicles	0.0	1.3	5.9	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	5.4	6.1	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	1.6	8.2	5.0	2.3	0.0	3.9	5.0
Exiting Leg Total						157						74						148						4						0	383

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	17	189	0	0	206	0	0	0	0	0	0	9	194	0	3	0	206	0	0	0	0	0	0	9	20	113	109	0	251	663
4:15 PM	0	15	182	1	0	198	0	0	0	0	0	0	16	193	0	3	0	212	0	0	0	0	0	0	13	13	94	117	0	237	647
4:30 PM	0	16	193	3	0	212	0	0	0	0	0	0	16	197	0	4	0	217	0	0	0	0	0	0	15	5	123	96	0	239	668
4:45 PM	0	19	231	1	0	251	0	0	0	0	0	0	17	160	0	2	0	179	0	0	0	0	0	0	20	18	109	112	0	259	689
Total Volume	0	67	795	5	0	867	0	0	0	0	0	0	58	744	0	12	0	814	0	0	0	0	0	0	57	56	439	434	0	986	2667
% Approach Total	0.0	7.7	91.7	0.6	0.0		0.0	0.0	0.0	0.0	0.0		7.1	91.4	0.0	1.5	0.0		0.0	0.0	0.0	0.0	0.0		5.8	5.7	44.5	44.0	0.0		
PHF	0.000	0.882	0.860	0.417	0.000	0.864	0.000	0.000	0.000	0.000	0.000	0.000	0.853	0.944	0.000	0.750	0.000	0.938	0.000	0.000	0.000	0.000	0.000	0.000	0.713	0.700	0.892	0.927	0.000	0.952	0.968
Cars	0	67	752	5	0	824	0	0	0	0	0	0	55	698	0	12	0	765	0	0	0	0	0	0	56	52	415	423	0	946	2535
Cars %	0.0	100.0	94.6	100.0	0.0	95.0	0.0	0.0	0.0	0.0	0.0	0.0	94.8	93.8	0.0	100.0	0.0	94.0	0.0	0.0	0.0	0.0	0.0	0.0	98.2	92.9	94.5	97.5	0.0	95.9	95.1
Heavy Vehicles	0	0	43	0	0	43	0	0	0	0	0	0	3	46	0	0	0	49	0	0	0	0	0	0	1	4	24	11	0	40	132
Heavy Vehicles %	0.0	0.0	5.4	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	6.2	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	7.1	5.5	2.5	0.0	4.1	4.9
Cars Enter Leg	0	67	752	5	0	824	0	0	0	0	0	0	55	698	0	12	0	765	0	0	0	0	0	0	56	52	415	423	0	946	2535
Heavy Enter Leg	0	0	43	0	0	43	0	0	0	0	0	0	3	46	0	0	0	49	0	0	0	0	0	0	1	4	24	11	0	40	132
Total Entering Leg	0	67	795	5	0	867	0	0	0	0	0	0	58	744	0	12	0	814	0	0	0	0	0	0	57	56	439	434	0	986	2667
Cars Exiting Leg						1121						475						804						135						0	2535

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
Heavy Exiting Leg						57						27						47						1						0	132
Total Exiting Leg						1178						502						851						136						0	2667

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	6	188	2	0	196	0	0	0	0	0	0	14	179	0	2	0	195	0	0	0	0	0	0	12	26	80	110	0	228	619
3:15 PM	0	8	192	4	0	204	0	0	0	0	0	0	18	132	0	2	0	152	0	0	0	0	0	0	9	30	113	95	0	247	603
3:30 PM	0	11	224	3	1	239	0	0	0	0	0	0	14	175	0	2	0	191	0	0	0	0	0	0	5	15	116	84	0	220	650
3:45 PM	0	6	186	0	0	192	0	0	0	0	0	0	4	150	0	2	0	156	0	0	0	0	0	0	4	21	83	97	0	205	553
Total	0	31	790	9	1	831	0	0	0	0	0	0	50	636	0	8	0	694	0	0	0	0	0	0	30	92	392	386	0	900	2425
4:00 PM	0	17	174	0	0	191	0	0	0	0	0	0	8	183	0	3	0	194	0	0	0	0	0	0	8	18	109	107	0	242	627
4:15 PM	0	15	174	1	0	190	0	0	0	0	0	0	16	182	0	3	0	201	0	0	0	0	0	0	13	12	87	112	0	224	615
4:30 PM	0	16	185	3	0	204	0	0	0	0	0	0	15	185	0	4	0	204	0	0	0	0	0	0	15	5	115	94	0	229	637
4:45 PM	0	19	219	1	0	239	0	0	0	0	0	0	16	148	0	2	0	166	0	0	0	0	0	0	20	17	104	110	0	251	656
Total	0	67	752	5	0	824	0	0	0	0	0	0	55	698	0	12	0	765	0	0	0	0	0	0	56	52	415	423	0	946	2535
5:00 PM	0	15	167	2	2	186	0	0	0	0	0	0	5	176	0	0	0	181	1	0	0	0	0	1	9	8	104	96	0	217	585
5:15 PM	0	16	126	0	0	142	0	0	0	0	0	0	22	140	0	2	0	164	0	0	0	0	0	0	9	9	102	103	0	223	529
5:30 PM	0	15	142	0	0	157	0	0	0	0	0	0	21	180	0	1	0	202	0	0	0	0	0	0	9	12	106	104	0	231	590
5:45 PM	0	10	147	1	0	158	0	0	0	0	0	0	4	157	0	4	0	165	0	0	0	0	0	0	13	6	110	103	0	232	555
Total	0	56	582	3	2	643	0	0	0	0	0	0	52	653	0	7	0	712	1	0	0	0	0	1	40	35	422	406	0	903	2259
Grand Total	0	154	2124	17	3	2298	0	0	0	0	0	0	157	1987	0	27	0	2171	1	0	0	0	0	1	126	179	1229	1215	0	2749	7219
Approach %	0.0	6.7	92.4	0.7	0.1		0.0	0.0	0.0	0.0	0.0		7.2	91.5	0.0	1.2	0.0		100.0	0.0	0.0	0.0	0.0		4.6	6.5	44.7	44.2	0.0		
Total %	0.0	2.1	29.4	0.2	0.0	31.8	0.0	0.0	0.0	0.0	0.0	0.0	2.2	27.5	0.0	0.4	0.0	30.1	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.5	17.0	16.8	0.0	38.1	
Exiting Leg Total						3205						1403						2304						307						0	7219

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	17	174	0	0	191	0	0	0	0	0	0	8	183	0	3	0	194	0	0	0	0	0	0	8	18	109	107	0	242	627
4:15 PM	0	15	174	1	0	190	0	0	0	0	0	0	16	182	0	3	0	201	0	0	0	0	0	0	13	12	87	112	0	224	615
4:30 PM	0	16	185	3	0	204	0	0	0	0	0	0	15	185	0	4	0	204	0	0	0	0	0	0	15	5	115	94	0	229	637
4:45 PM	0	19	219	1	0	239	0	0	0	0	0	0	16	148	0	2	0	166	0	0	0	0	0	0	20	17	104	110	0	251	656
Total Volume	0	67	752	5	0	824	0	0	0	0	0	0	55	698	0	12	0	765	0	0	0	0	0	0	56	52	415	423	0	946	2535
% Approach Total	0.0	8.1	91.3	0.6	0.0		0.0	0.0	0.0	0.0	0.0		7.2	91.2	0.0	1.6	0.0		0.0	0.0	0.0	0.0	0.0		5.9	5.5	43.9	44.7	0.0		
PHF	0.000	0.882	0.858	0.417	0.000	0.862	0.000	0.000	0.000	0.000	0.000	0.000	0.859	0.943	0.000	0.750	0.000	0.938	0.000	0.000	0.000	0.000	0.000	0.000	0.700	0.722	0.902	0.944	0.000	0.942	0.966
Entering Leg	0	67	752	5	0	824	0	0	0	0	0	0	55	698	0	12	0	765	0	0	0	0	0	0	56	52	415	423	0	946	2535
Exiting Leg						1121						475						804						135						0	2535
Total						1945						475						1569						135						946	5070

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	9	0	0	9	0	0	0	0	0	0	1	13	0	0	0	14	0	0	0	0	0	0	1	1	5	3	0	10	33
3:15 PM	0	0	12	0	0	12	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	2	7	2	0	11	30
3:30 PM	0	0	10	0	0	10	0	0	0	0	0	0	1	12	0	0	0	13	0	0	0	0	0	0	0	0	3	3	0	6	29
3:45 PM	0	0	14	0	0	14	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	2	8	5	0	15	35
Total	0	0	45	0	0	45	0	0	0	0	0	0	2	38	0	0	0	40	0	0	0	0	0	0	1	5	23	13	0	42	127
4:00 PM	0	0	15	0	0	15	0	0	0	0	0	0	1	11	0	0	0	12	0	0	0	0	0	0	1	2	4	2	0	9	36
4:15 PM	0	0	8	0	0	8	0	0	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	1	7	5	0	13	32
4:30 PM	0	0	8	0	0	8	0	0	0	0	0	0	1	12	0	0	0	13	0	0	0	0	0	0	0	0	8	2	0	10	31
4:45 PM	0	0	12	0	0	12	0	0	0	0	0	0	1	12	0	0	0	13	0	0	0	0	0	0	0	1	5	2	0	8	33
Total	0	0	43	0	0	43	0	0	0	0	0	0	3	46	0	0	0	49	0	0	0	0	0	0	1	4	24	11	0	40	132
5:00 PM	0	0	14	0	0	14	0	0	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	4	5	2	0	11	36
5:15 PM	0	1	9	0	0	10	0	0	0	0	0	0	2	13	0	0	0	15	0	0	0	0	0	0	0	0	4	0	0	4	29
5:30 PM	0	1	12	0	0	13	0	0	0	0	0	0	2	9	0	0	0	11	0	0	0	0	0	0	0	2	7	2	0	11	35
5:45 PM	0	0	9	0	0	9	0	0	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	1	2	1	0	4	24
Total	0	2	44	0	0	46	0	0	0	0	0	0	4	44	0	0	0	48	0	0	0	0	0	0	0	7	18	5	0	30	124
Grand Total	0	2	132	0	0	134	0	0	0	0	0	0	9	128	0	0	0	137	0	0	0	0	0	0	2	16	65	29	0	112	383
Approach %	0.0	1.5	98.5	0.0	0.0		0.0	0.0	0.0	0.0	0.0		6.6	93.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		1.8	14.3	58.0	25.9	0.0		
Total %	0.0	0.5	34.5	0.0	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	33.4	0.0	0.0	0.0	35.8	0.0	0.0	0.0	0.0	0.0	0.0	0.5	4.2	17.0	7.6	0.0	29.2	
Exiting Leg Total						157						74						148						4						0	383
Buses	0	0	115	0	0	115	0	0	0	0	0	0	8	108	0	0	0	116	0	0	0	0	0	0	1	15	54	10	0	80	311
% Buses	0.0	0.0	87.1	0.0	0.0	85.8	0.0	0.0	0.0	0.0	0.0	0.0	88.9	84.4	0.0	0.0	0.0	84.7	0.0	0.0	0.0	0.0	0.0	0.0	50.0	93.8	83.1	34.5	0.0	71.4	81.2
Exiting Leg Total						118						62						130						1						0	311
Single-Unit Trucks	0	2	17	0	0	19	0	0	0	0	0	0	1	17	0	0	0	18	0	0	0	0	0	0	1	1	9	18	0	29	66
% Single-Unit	0.0	100.0	12.9	0.0	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	11.1	13.3	0.0	0.0	0.0	13.1	0.0	0.0	0.0	0.0	0.0	0.0	50.0	6.3	13.8	62.1	0.0	25.9	17.2
Exiting Leg Total						35						10						18						3						0	66
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	2	1	0	3	6
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	3.4	0.0	2.7	1.6
Exiting Leg Total						4						2						0						0						0	6

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
3:45 PM	0	0	14	0	0	14	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	2	8	5	0	15	35
4:00 PM	0	0	15	0	0	15	0	0	0	0	0	0	1	11	0	0	0	12	0	0	0	0	0	0	1	2	4	2	0	9	36
4:15 PM	0	0	8	0	0	8	0	0	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	1	7	5	0	13	32
4:30 PM	0	0	8	0	0	8	0	0	0	0	0	0	1	12	0	0	0	13	0	0	0	0	0	0	0	0	8	2	0	10	31
Total Volume	0	0	45	0	0	45	0	0	0	0	0	0	2	40	0	0	0	42	0	0	0	0	0	0	1	5	27	14	0	47	134
% Approach Total	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		4.8	95.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		2.1	10.6	57.4	29.8	0.0		
PHF	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.833	0.000	0.000	0.000	0.808	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.625	0.844	0.700	0.000	0.783	0.931
Buses	0	0	40	0	0	40	0	0	0	0	0	0	2	33	0	0	0	35	0	0	0	0	0	0	1	5	23	5	0	34	109
Buses %	0.0	0.0	88.9	0.0	0.0	88.9	0.0	0.0	0.0	0.0	0.0	0.0	100.0	82.5	0.0	0.0	0.0	83.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	85.2	35.7	0.0	72.3	81.3
Single-Unit Trucks	0	0	5	0	0	5	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	4	8	0	12	23
Single-Unit %	0.0	0.0	11.1	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.8	57.1	0.0	25.5	17.2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
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Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	2.1	1.5
Buses	0	0	40	0	0	40	0	0	0	0	0	0	2	33	0	0	0	35	0	0	0	0	0	0	1	5	23	5	0	34	109
Single-Unit Trucks	0	0	5	0	0	5	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	4	8	0	12	23
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total Entering Leg	0	0	45	0	0	45	0	0	0	0	0	0	2	40	0	0	0	42	0	0	0	0	0	0	1	5	27	14	0	47	134
Buses						38						25						45						1						0	109
Single-Unit Trucks						14						4						5						0						0	23
Articulated Trucks						2						0						0						0						0	2
Total Exiting Leg						54						29						50						1						0	134

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
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Buses

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	6	0	0	6	0	0	0	0	0	0	1	10	0	0	0	11	0	0	0	0	0	0	0	1	2	1	0	4	21
3:15 PM	0	0	10	0	0	10	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	2	6	1	0	9	25
3:30 PM	0	0	8	0	0	8	0	0	0	0	0	0	1	11	0	0	0	12	0	0	0	0	0	0	0	0	1	0	0	1	21
3:45 PM	0	0	13	0	0	13	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	2	6	3	0	11	28
Total	0	0	37	0	0	37	0	0	0	0	0	0	2	31	0	0	0	33	0	0	0	0	0	0	0	5	15	5	0	25	95
4:00 PM	0	0	12	0	0	12	0	0	0	0	0	0	1	9	0	0	0	10	0	0	0	0	0	0	1	2	4	0	0	7	29
4:15 PM	0	0	7	0	0	7	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	1	5	2	0	8	25
4:30 PM	0	0	8	0	0	8	0	0	0	0	0	0	1	10	0	0	0	11	0	0	0	0	0	0	0	0	8	0	0	8	27
4:45 PM	0	0	10	0	0	10	0	0	0	0	0	0	1	11	0	0	0	12	0	0	0	0	0	0	0	1	4	0	0	5	27
Total	0	0	37	0	0	37	0	0	0	0	0	0	3	40	0	0	0	43	0	0	0	0	0	0	1	4	21	2	0	28	108
5:00 PM	0	0	12	0	0	12	0	0	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	3	5	1	0	9	30
5:15 PM	0	0	9	0	0	9	0	0	0	0	0	0	2	12	0	0	0	14	0	0	0	0	0	0	0	0	4	0	0	4	27
5:30 PM	0	0	11	0	0	11	0	0	0	0	0	0	1	7	0	0	0	8	0	0	0	0	0	0	0	2	7	1	0	10	29
5:45 PM	0	0	9	0	0	9	0	0	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	1	2	1	0	4	22
Total	0	0	41	0	0	41	0	0	0	0	0	0	3	37	0	0	0	40	0	0	0	0	0	0	0	6	18	3	0	27	108
Grand Total	0	0	115	0	0	115	0	0	0	0	0	0	8	108	0	0	0	116	0	0	0	0	0	0	1	15	54	10	0	80	311
Approach %	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		6.9	93.1	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		1.3	18.8	67.5	12.5	0.0		
Total %	0.0	0.0	37.0	0.0	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	34.7	0.0	0.0	0.0	37.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	4.8	17.4	3.2	0.0	25.7	
Exiting Leg Total						118						62						130						1						0	311

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	10	0	0	10	0	0	0	0	0	0	1	11	0	0	0	12	0	0	0	0	0	0	0	1	4	0	0	5	27
5:00 PM	0	0	12	0	0	12	0	0	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	3	5	1	0	9	30
5:15 PM	0	0	9	0	0	9	0	0	0	0	0	0	2	12	0	0	0	14	0	0	0	0	0	0	0	0	4	0	0	4	27
5:30 PM	0	0	11	0	0	11	0	0	0	0	0	0	1	7	0	0	0	8	0	0	0	0	0	0	0	2	7	1	0	10	29
Total Volume	0	0	42	0	0	42	0	0	0	0	0	0	4	39	0	0	0	43	0	0	0	0	0	0	0	6	20	2	0	28	113
% Approach Total	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		9.3	90.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	21.4	71.4	7.1	0.0		
PHF	0.000	0.000	0.875	0.000	0.000	0.875	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.813	0.000	0.000	0.000	0.768	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.714	0.500	0.000	0.700	0.942
Entering Leg	0	0	42	0	0	42	0	0	0	0	0	0	4	39	0	0	0	43	0	0	0	0	0	0	0	6	20	2	0	28	113
Exiting Leg						41						24						48						0						0	113
Total						83						24						91						0						28	226

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	3	0	0	3	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	1	0	2	2	0	5	11
3:15 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	2	5
3:30 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	3	0	5	8
3:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	2	0	4	6
Total	0	0	8	0	0	8	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	1	0	7	8	0	16	30
4:00 PM	0	0	3	0	0	3	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	2	7
4:15 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	3	0	5	7
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
4:45 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4
Total	0	0	6	0	0	6	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	2	8	0	10	21
5:00 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2	5
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	1	1	0	0	2	0	0	0	0	0	0	1	2	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	1	6
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	2	3	0	0	5	0	0	0	0	0	0	1	6	0	0	0	7	0	0	0	0	0	0	0	1	0	2	0	3	15
Grand Total	0	2	17	0	0	19	0	0	0	0	0	0	1	17	0	0	0	18	0	0	0	0	0	0	1	1	9	18	0	29	66
Approach %	0.0	10.5	89.5	0.0	0.0		0.0	0.0	0.0	0.0	0.0		5.6	94.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		3.4	3.4	31.0	62.1	0.0		
Total %	0.0	3.0	25.8	0.0	0.0	28.8	0.0	0.0	0.0	0.0	0.0	0.0	1.5	25.8	0.0	0.0	0.0	27.3	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	13.6	27.3	0.0	43.9	
Exiting Leg Total						35						10						18						3						0	66

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	3	0	0	3	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	1	0	2	2	0	5	11
3:15 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	2	5
3:30 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	3	0	5	8
3:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	2	0	4	6
Total Volume	0	0	8	0	0	8	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	1	0	7	8	0	16	30
% Approach Total	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		6.3	0.0	43.8	50.0	0.0		
PHF	0.000	0.000	0.667	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.875	0.667	0.000	0.800	0.682
Entering Leg	0	0	8	0	0	8	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	1	0	7	8	0	16	30
Exiting Leg						14						7						8						1						0	30
Total						22						7						14						1						16	60

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	2	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	2	1	0	3	6
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	66.7	33.3	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	16.7	0.0	50.0	
Exiting Leg Total						4						2						0						0						0	6

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:15 PM	Riverway						Brookline Avenue						Fenway						Southwest						Brookline Avenue						
	from North						from East						from South						from Southwest						from West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	1	0	2	4
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	50.0	50.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.500	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	1	0	2	4
Exiting Leg						3						1						0						0						0	4
Total						3						1						2						0						2	8

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Riverway from North								Brookline Avenue from East								Fenway from South								Southwest from Southwest								Brookline Avenue from West								
	Right	Bear Righ	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	1	3	0	0	0	0	4	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	8
3:15 PM	1	0	5	0	0	1	0	7	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	11
3:30 PM	0	1	2	0	0	0	1	4	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	1	0	0	0	0	0	1	2	0	0	3	0	0	0	1	4	14
3:45 PM	2	0	4	0	0	0	0	6	0	0	0	0	0	4	0	4	0	6	0	0	0	0	0	6	0	0	0	0	0	1	0	1	0	0	1	0	0	1	1	3	20
Total	3	2	14	0	0	1	1	21	0	0	0	0	0	4	0	4	0	14	0	0	0	0	0	14	1	0	0	0	0	1	1	3	0	1	4	0	0	1	5	11	53
4:00 PM	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	7	0	0	0	1	0	9	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	13
4:15 PM	0	1	1	0	0	0	0	2	1	0	0	0	0	0	0	1	0	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
4:30 PM	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	8	0	0	0	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
4:45 PM	0	0	4	0	0	0	0	4	0	0	0	0	0	2	0	2	0	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Total	0	1	15	0	0	0	0	16	1	0	0	0	0	2	0	3	1	43	0	0	0	2	0	46	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	66
5:00 PM	0	0	5	0	0	0	0	5	1	0	0	0	0	0	0	1	0	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1	4	16
5:15 PM	0	1	5	0	0	0	0	6	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	20
5:30 PM	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
5:45 PM	1	0	4	0	0	0	0	5	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	6	15
Total	1	1	20	0	0	0	0	22	1	0	0	0	0	0	0	1	0	27	0	0	0	0	0	27	0	0	0	0	0	0	0	0	1	2	0	1	0	3	5	12	62
Grand Total	4	4	49	0	0	1	1	59	2	0	0	0	0	6	0	8	1	84	0	0	0	2	0	87	1	0	0	0	0	1	1	3	1	4	4	1	0	4	10	24	181
Approach %	6.8	6.8	83.1	0.0	0.0	1.7	1.7		25.0	0.0	0.0	0.0	0.0	75.0	0.0		1.1	96.6	0.0	0.0	0.0	2.3	0.0		33.3	0.0	0.0	0.0	0.0	33.3	33.3		4.2	16.7	16.7	4.2	0.0	16.7	41.7		
Total %	2.2	2.2	27.1	0.0	0.0	0.6	0.6	32.6	1.1	0.0	0.0	0.0	0.0	3.3	0.0	4.4	0.6	46.4	0.0	0.0	0.0	1.1	0.0	48.1	0.6	0.0	0.0	0.0	0.0	0.6	0.6	1.7	0.6	2.2	2.2	0.6	0.0	2.2	5.5	13.3	
Exiting Leg Total								89								11								56								7								18	181

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:30 PM	Riverway from North								Brookline Avenue from East								Fenway from South								Southwest from Southwest								Brookline Avenue from West								
	Right	Bear Righ	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:30 PM	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	8	0	0	0	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
4:45 PM	0	0	4	0	0	0	0	4	0	0	0	0	0	2	0	2	0	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
5:00 PM	0	0	5	0	0	0	0	5	1	0	0	0	0	0	0	1	0	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1	4	16
5:15 PM	0	1	5	0	0	0	0	6	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	20
Total Volume	0	1	21	0	0	0	0	22	1	0	0	0	0	2	0	3	0	40	0	0	0	1	0	41	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2	6	72
% Approach Total	0.0	4.5	95.5	0.0	0.0	0.0	0.0		33.3	0.0	0.0	0.0	0.0	66.7	0.0		0.0	97.6	0.0	0.0	0.0	2.4	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		16.7	16.7	0.0	16.7	0.0	16.7	33.3		
PHF	0.000	0.250	0.750	0.000	0.000	0.000	0.000	0.786	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.375	0.000	0.714	0.000	0.000	0.000	0.250	0.000	0.732	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.250	0.000	0.250	0.500	0.375	0.900
Entering Leg	0	1	21	0	0	0	0	22	1	0	0	0	0	2	0	3	0	40	0	0	0	1	0	41	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2	6	72
Exiting Leg								42								2								23								2								3	72
Total								64								5								64								2								9	144

PDI File #: **249980 C**
Location: **N: Riverway S: Fenway**
Location: **E: Brookline Avenue W: Brookline Avenue SW: Southwest**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Riverway								Brookline Avenue								Fenway								Southwest								Brookline Avenue								
	from North								from East								from South								from Southwest								from West								
	Right	Bear Righ	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	32	40	72	0	0	0	0	0	1	0	1	0	0	0	0	0	20	32	52	0	0	0	0	0	27	41	68	193
3:15 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	38	54	92	0	0	0	0	0	0	0	0	0	0	0	0	0	29	13	42	0	0	0	0	0	27	14	41	178
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	31	43	74	0	0	0	0	0	0	0	0	0	0	0	0	0	20	16	36	0	0	0	0	0	22	17	39	149
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	34	71	105	0	0	0	0	0	0	0	0	0	0	0	0	0	31	29	60	0	0	0	0	0	26	29	55	220
Total	0	0	0	0	0	3	0	3	0	0	0	0	0	135	208	343	0	0	0	0	0	1	0	1	0	0	0	0	0	100	90	190	0	0	0	0	0	102	101	203	740
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	28	61	89	0	0	0	0	0	30	17	47	0	0	0	0	0	14	15	29	0	0	0	0	0	28	22	50	215
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	28	55	83	0	0	0	0	0	33	18	51	0	0	0	0	0	28	20	48	0	0	0	0	0	40	18	58	240
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	36	76	112	0	0	0	0	0	36	19	55	0	0	0	0	0	41	17	58	0	0	0	0	0	55	26	81	306
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	26	77	103	0	0	0	0	0	35	22	57	0	0	0	0	0	29	20	49	0	0	0	0	0	38	14	52	261
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	118	269	387	0	0	0	0	0	134	76	210	0	0	0	0	0	112	72	184	0	0	0	0	0	161	80	241	1022
5:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	38	89	127	0	0	0	0	0	0	0	0	0	0	0	0	0	21	28	49	0	0	0	0	0	40	26	66	244
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	69	67	136	0	0	0	0	0	0	0	0	0	0	0	0	0	31	20	51	0	0	0	0	0	45	28	73	260
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	45	88	133	0	0	0	0	0	0	0	0	0	0	0	0	0	37	23	60	0	0	0	0	0	54	37	91	284
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	36	80	116	0	0	0	0	0	0	0	0	0	0	0	0	0	16	24	40	0	0	0	0	0	20	25	45	201
Total	0	0	0	0	0	2	0	2	0	0	0	0	0	188	324	512	0	0	0	0	0	0	0	0	0	0	0	0	0	105	95	200	0	0	0	0	0	159	116	275	989
Grand Total	0	0	0	0	0	5	0	5	0	0	0	0	0	441	801	1242	0	0	0	0	0	135	76	211	0	0	0	0	0	317	257	574	0	0	0	0	0	422	297	719	2751
Approach %	0	0	0	0	0	100	0		0	0	0	0	0	35.5	64.5		0	0	0	0	0	64	36		0	0	0	0	0	55.2	44.8		0	0	0	0	0	58.7	41.3		
Total %	0	0	0	0	0	0.18	0	0.18	0	0	0	0	0	16	29.1	45.1	0	0	0	0	0	4.91	2.76	7.67	0	0	0	0	0	11.5	9.34	20.9	0	0	0	0	0	15.3	10.8	26.1	
Exiting Leg Total								5								1242								211								574								719	2751

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:30 PM	Riverway								Brookline Avenue								Fenway								Southwest								Brookline Avenue								
	from North								from East								from South								from Southwest								from West								
	Right	Bear Righ	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	36	76	112	0	0	0	0	0	36	19	55	0	0	0	0	0	41	17	58	0	0	0	0	0	55	26	81	306
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	26	77	103	0	0	0	0	0	35	22	57	0	0	0	0	0	29	20	49	0	0	0	0	0	38	14	52	261
5:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	38	89	127	0	0	0	0	0	0	0	0	0	0	0	0	0	21	28	49	0	0	0	0	0	40	26	66	244
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	69	67	136	0	0	0	0	0	0	0	0	0	0	0	0	0	31	20	51	0	0	0	0	0	45	28	73	260
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	169	309	478	0	0	0	0	0	71	41	112	0	0	0	0	0	122	85	207	0	0	0	0	0	178	94	272	1071
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	35.4	64.6		0.0	0.0	0.0	0.0	0.0	63.4	36.6		0.0	0.0	0.0	0.0	0.0	58.9	41.1		0.0	0.0	0.0	0.0	0.0	65.4	34.6		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.612	0.868	0.879	0.000	0.000	0.000	0.000	0.000	0.493	0.466	0.491	0.000	0.000	0.000	0.000	0.000	0.744	0.759	0.892	0.000	0.000	0.000	0.000	0.000	0.809	0.839	0.840	0.875
Entering Leg	0	0	0	0	0	2	0	2	0	0	0	0	0	169	309	478	0	0	0	0	0	71	41	112	0	0	0	0	0	122	85	207	0	0	0	0	0	178	94	272	1071
Exiting Leg								2								478								112								207								272	1071
Total								4								956								224								414								544	2142

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	7	37	0	0	0	44	1	30	101	0	0	132	16	9	63	50	0	138	0	118	30	9	0	157	471
6:15 AM	0	0	0	0	0	0	11	59	0	0	0	70	0	28	104	0	0	132	8	4	86	66	0	164	0	156	33	12	0	201	567
6:30 AM	0	0	0	0	0	0	18	62	0	0	0	80	2	24	114	0	0	140	6	11	116	96	0	229	0	158	44	13	0	215	664
6:45 AM	0	0	0	0	0	0	30	64	0	0	0	94	3	24	103	0	0	130	19	18	101	75	0	213	0	167	46	15	0	228	665
Total	0	0	0	0	0	0	66	222	0	0	0	288	6	106	422	0	0	534	49	42	366	287	0	744	0	599	153	49	0	801	2367
7:00 AM	0	0	0	0	0	0	18	72	0	0	0	90	1	27	105	0	0	133	12	18	130	65	0	225	0	190	47	16	0	253	701
7:15 AM	0	0	0	0	0	0	30	60	0	0	0	90	1	29	105	0	0	135	27	16	142	45	0	230	0	259	38	8	0	305	760
7:30 AM	0	0	0	0	0	0	34	64	0	1	0	99	0	33	99	0	0	132	27	20	153	75	0	275	0	259	66	18	0	343	849
7:45 AM	0	0	0	0	0	0	31	76	0	0	0	107	3	32	103	0	0	138	23	16	139	63	0	241	0	204	72	25	0	301	787
Total	0	0	0	0	0	0	113	272	0	1	0	386	5	121	412	0	0	538	89	70	564	248	0	971	0	912	223	67	0	1202	3097
8:00 AM	0	0	0	0	0	0	39	65	0	0	0	104	3	23	91	0	0	117	23	24	122	77	0	246	0	215	57	10	0	282	749
8:15 AM	0	0	0	0	0	0	42	43	0	0	0	85	4	29	98	0	0	131	26	23	111	83	0	243	0	225	56	13	0	294	753
8:30 AM	0	0	0	0	0	0	29	62	0	0	1	92	2	32	81	0	0	115	14	21	127	67	0	229	0	214	52	14	0	280	716
8:45 AM	0	0	0	0	0	0	25	38	0	0	0	63	3	29	96	0	0	128	20	22	153	70	0	265	0	208	64	13	0	285	741
Total	0	0	0	0	0	0	135	208	0	0	1	344	12	113	366	0	0	491	83	90	513	297	0	983	0	862	229	50	0	1141	2959
Grand Total	0	0	0	0	0	0	314	702	0	1	1	1018	23	340	1200	0	0	1563	221	202	1443	832	0	2698	0	2373	605	166	0	3144	8423
Approach %	0.0	0.0	0.0	0.0	0.0		30.8	69.0	0.0	0.1	0.1		1.5	21.8	76.8	0.0	0.0		8.2	7.5	53.5	30.8	0.0		0.0	75.5	19.2	5.3	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	3.7	8.3	0.0	0.0	0.0	12.1	0.3	4.0	14.2	0.0	0.0	18.6	2.6	2.4	17.1	9.9	0.0	32.0	0.0	28.2	7.2	2.0	0.0	37.3	
Exiting Leg Total						2263						831						2595						0						2734	8423
Cars	0	0	0	0	0	0	268	610	0	1	1	880	22	324	1179	0	0	1525	200	193	1402	812	0	2607	0	2323	489	131	0	2943	7955
% Cars	0.0	0.0	0.0	0.0	0.0	0.0	85.4	86.9	0.0	100.0	100.0	86.4	95.7	95.3	98.3	0.0	0.0	97.6	90.5	95.5	97.2	97.6	0.0	96.6	0.0	97.9	80.8	78.9	0.0	93.6	94.4
Exiting Leg Total						2125						705						2524						0						2601	7955
Heavy Vehicles	0	0	0	0	0	0	46	92	0	0	0	138	1	16	21	0	0	38	21	9	41	20	0	91	0	50	116	35	0	201	468
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	14.6	13.1	0.0	0.0	0.0	13.6	4.3	4.7	1.8	0.0	0.0	2.4	9.5	4.5	2.8	2.4	0.0	3.4	0.0	2.1	19.2	21.1	0.0	6.4	5.6
Exiting Leg Total						138						126						71						0						133	468

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	30	60	0	0	0	90	1	29	105	0	0	135	27	16	142	45	0	230	0	259	38	8	0	305	760
7:30 AM	0	0	0	0	0	0	34	64	0	1	0	99	0	33	99	0	0	132	27	20	153	75	0	275	0	259	66	18	0	343	849
7:45 AM	0	0	0	0	0	0	31	76	0	0	0	107	3	32	103	0	0	138	23	16	139	63	0	241	0	204	72	25	0	301	787
8:00 AM	0	0	0	0	0	0	39	65	0	0	0	104	3	23	91	0	0	117	23	24	122	77	0	246	0	215	57	10	0	282	749
Total Volume	0	0	0	0	0	0	134	265	0	1	0	400	7	117	398	0	0	522	100	76	556	260	0	992	0	937	233	61	0	1231	3145
% Approach Total	0.0	0.0	0.0	0.0	0.0		33.5	66.3	0.0	0.3	0.0		1.3	22.4	76.2	0.0	0.0		10.1	7.7	56.0	26.2	0.0		0.0	76.1	18.9	5.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.859	0.872	0.000	0.250	0.000	0.935	0.583	0.886	0.948	0.000	0.000	0.946	0.926	0.792	0.908	0.844	0.000	0.902	0.000	0.904	0.809	0.610	0.000	0.897	0.926
Cars	0	0	0	0	0	0	113	228	0	1	0	342	7	111	389	0	0	507	91	74	540	253	0	958	0	919	191	44	0	1154	2961
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	84.3	86.0	0.0	100.0	0.0	85.5	100.0	94.9	97.7	0.0	0.0	97.1	91.0	97.4	97.1	97.3	0.0	96.6	0.0	98.1	82.0	72.1	0.0	93.7	94.1
Heavy Vehicles	0	0	0	0	0	0	21	37	0	0	0	58	0	6	9	0	0	15	9	2	16	7	0	34	0	18	42	17	0	77	184
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	15.7	14.0	0.0	0.0	0.0	14.5	0.0	5.1	2.3	0.0	0.0	2.9	9.0	2.6	2.9	2.7	0.0	3.4	0.0	1.9	18.0	27.9	0.0	6.3	5.9
Cars Enter Leg	0	0	0	0	0	0	113	228	0	1	0	342	7	111	389	0	0	507	91	74	540	253	0	958	0	919	191	44	0	1154	2961
Heavy Enter Leg	0	0	0	0	0	0	21	37	0	0	0	58	0	6	9	0	0	15	9	2	16	7	0	34	0	18	42	17	0	77	184
Total Entering Leg	0	0	0	0	0	0	134	265	0	1	0	400	7	117	398	0	0	522	100	76	556	260	0	992	0	937	233	61	0	1231	3145
Cars Exiting Leg						808						272						1011						0						870	2961

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
Heavy Exiting Leg						60						44						27						0						53	184
Total Exiting Leg						868						316						1038						0						923	3145

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
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PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	7	33	0	0	0	40	1	29	101	0	0	131	14	9	62	50	0	135	0	116	23	7	0	146	452
6:15 AM	0	0	0	0	0	0	11	52	0	0	0	63	0	26	103	0	0	129	5	4	86	65	0	160	0	153	26	11	0	190	542
6:30 AM	0	0	0	0	0	0	13	57	0	0	0	70	2	24	114	0	0	140	6	10	115	95	0	226	0	155	36	11	0	202	638
6:45 AM	0	0	0	0	0	0	26	59	0	0	0	85	2	23	100	0	0	125	18	15	100	71	0	204	0	162	36	12	0	210	624
Total	0	0	0	0	0	0	57	201	0	0	0	258	5	102	418	0	0	525	43	38	363	281	0	725	0	586	121	41	0	748	2256
7:00 AM	0	0	0	0	0	0	15	63	0	0	0	78	1	27	105	0	0	133	10	18	125	63	0	216	0	184	36	15	0	235	662
7:15 AM	0	0	0	0	0	0	25	51	0	0	0	76	1	27	104	0	0	132	23	16	139	43	0	221	0	255	32	7	0	294	723
7:30 AM	0	0	0	0	0	0	27	56	0	1	0	84	0	32	95	0	0	127	25	20	148	72	0	265	0	257	57	12	0	326	802
7:45 AM	0	0	0	0	0	0	26	66	0	0	0	92	3	31	102	0	0	136	22	15	135	63	0	235	0	196	60	17	0	273	736
Total	0	0	0	0	0	0	93	236	0	1	0	330	5	117	406	0	0	528	80	69	547	241	0	937	0	892	185	51	0	1128	2923
8:00 AM	0	0	0	0	0	0	35	55	0	0	0	90	3	21	88	0	0	112	21	23	118	75	0	237	0	211	42	8	0	261	700
8:15 AM	0	0	0	0	0	0	39	35	0	0	0	74	4	27	94	0	0	125	24	22	105	82	0	233	0	223	43	12	0	278	710
8:30 AM	0	0	0	0	0	0	24	52	0	0	1	77	2	32	79	0	0	113	13	20	120	66	0	219	0	209	42	9	0	260	669
8:45 AM	0	0	0	0	0	0	20	31	0	0	0	51	3	25	94	0	0	122	19	21	149	67	0	256	0	202	56	10	0	268	697
Total	0	0	0	0	0	0	118	173	0	0	1	292	12	105	355	0	0	472	77	86	492	290	0	945	0	845	183	39	0	1067	2776
Grand Total	0	0	0	0	0	0	268	610	0	1	1	880	22	324	1179	0	0	1525	200	193	1402	812	0	2607	0	2323	489	131	0	2943	7955
Approach %	0.0	0.0	0.0	0.0	0.0		30.5	69.3	0.0	0.1	0.1		1.4	21.2	77.3	0.0	0.0		7.7	7.4	53.8	31.1	0.0		0.0	78.9	16.6	4.5	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	3.4	7.7	0.0	0.0	0.0	11.1	0.3	4.1	14.8	0.0	0.0	19.2	2.5	2.4	17.6	10.2	0.0	32.8	0.0	29.2	6.1	1.6	0.0	37.0	
Exiting Leg Total						2125						705						2524						0						2601	7955

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	25	51	0	0	0	76	1	27	104	0	0	132	23	16	139	43	0	221	0	255	32	7	0	294	723
7:30 AM	0	0	0	0	0	0	27	56	0	1	0	84	0	32	95	0	0	127	25	20	148	72	0	265	0	257	57	12	0	326	802
7:45 AM	0	0	0	0	0	0	26	66	0	0	0	92	3	31	102	0	0	136	22	15	135	63	0	235	0	196	60	17	0	273	736
8:00 AM	0	0	0	0	0	0	35	55	0	0	0	90	3	21	88	0	0	112	21	23	118	75	0	237	0	211	42	8	0	261	700
Total Volume	0	0	0	0	0	0	113	228	0	1	0	342	7	111	389	0	0	507	91	74	540	253	0	958	0	919	191	44	0	1154	2961
% Approach Total	0.0	0.0	0.0	0.0	0.0		33.0	66.7	0.0	0.3	0.0		1.4	21.9	76.7	0.0	0.0		9.5	7.7	56.4	26.4	0.0		0.0	79.6	16.6	3.8	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.807	0.864	0.000	0.250	0.000	0.929	0.583	0.867	0.935	0.000	0.000	0.932	0.910	0.804	0.912	0.843	0.000	0.904	0.000	0.894	0.796	0.647	0.000	0.885	0.923
Entering Leg	0	0	0	0	0	0	113	228	0	1	0	342	7	111	389	0	0	507	91	74	540	253	0	958	0	919	191	44	0	1154	2961
Exiting Leg						808						272						1011						0						870	2961
Total						808						614						1518						958						2024	5922

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	4	0	0	0	4	0	1	0	0	0	1	2	0	1	0	0	3	0	2	7	2	0	11	19
6:15 AM	0	0	0	0	0	0	0	7	0	0	0	7	0	2	1	0	0	3	3	0	0	1	0	4	0	3	7	1	0	11	25
6:30 AM	0	0	0	0	0	0	5	5	0	0	0	10	0	0	0	0	0	0	0	1	1	1	0	3	0	3	8	2	0	13	26
6:45 AM	0	0	0	0	0	0	4	5	0	0	0	9	1	1	3	0	0	5	1	3	1	4	0	9	0	5	10	3	0	18	41
Total	0	0	0	0	0	0	9	21	0	0	0	30	1	4	4	0	0	9	6	4	3	6	0	19	0	13	32	8	0	53	111
7:00 AM	0	0	0	0	0	0	3	9	0	0	0	12	0	0	0	0	0	0	2	0	5	2	0	9	0	6	11	1	0	18	39
7:15 AM	0	0	0	0	0	0	5	9	0	0	0	14	0	2	1	0	0	3	4	0	3	2	0	9	0	4	6	1	0	11	37
7:30 AM	0	0	0	0	0	0	7	8	0	0	0	15	0	1	4	0	0	5	2	0	5	3	0	10	0	2	9	6	0	17	47
7:45 AM	0	0	0	0	0	0	5	10	0	0	0	15	0	1	1	0	0	2	1	1	4	0	0	6	0	8	12	8	0	28	51
Total	0	0	0	0	0	0	20	36	0	0	0	56	0	4	6	0	0	10	9	1	17	7	0	34	0	20	38	16	0	74	174
8:00 AM	0	0	0	0	0	0	4	10	0	0	0	14	0	2	3	0	0	5	2	1	4	2	0	9	0	4	15	2	0	21	49
8:15 AM	0	0	0	0	0	0	3	8	0	0	0	11	0	2	4	0	0	6	2	1	6	1	0	10	0	2	13	1	0	16	43
8:30 AM	0	0	0	0	0	0	5	10	0	0	0	15	0	0	2	0	0	2	1	1	7	1	0	10	0	5	10	5	0	20	47
8:45 AM	0	0	0	0	0	0	5	7	0	0	0	12	0	4	2	0	0	6	1	1	4	3	0	9	0	6	8	3	0	17	44
Total	0	0	0	0	0	0	17	35	0	0	0	52	0	8	11	0	0	19	6	4	21	7	0	38	0	17	46	11	0	74	183
Grand Total	0	0	0	0	0	0	46	92	0	0	0	138	1	16	21	0	0	38	21	9	41	20	0	91	0	50	116	35	0	201	468
Approach %	0.0	0.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0	0.0		2.6	42.1	55.3	0.0	0.0		23.1	9.9	45.1	22.0	0.0		0.0	24.9	57.7	17.4	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	9.8	19.7	0.0	0.0	0.0	29.5	0.2	3.4	4.5	0.0	0.0	8.1	4.5	1.9	8.8	4.3	0.0	19.4	0.0	10.7	24.8	7.5	0.0	42.9	
Exiting Leg Total						138						126						71						0						133	468
Buses	0	0	0	0	0	0	25	72	0	0	0	97	0	5	15	0	0	20	8	5	20	14	0	47	0	28	98	21	0	147	311
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	54.3	78.3	0.0	0.0	0.0	70.3	0.0	31.3	71.4	0.0	0.0	52.6	38.1	55.6	48.8	70.0	0.0	51.6	0.0	56.0	84.5	60.0	0.0	73.1	66.5
Exiting Leg Total						71						103						36						0						101	311
Single-Unit Trucks	0	0	0	0	0	0	21	18	0	0	0	39	1	9	6	0	0	16	12	4	21	4	0	41	0	21	17	14	0	52	148
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	45.7	19.6	0.0	0.0	0.0	28.3	100.0	56.3	28.6	0.0	0.0	42.1	57.1	44.4	51.2	20.0	0.0	45.1	0.0	42.0	14.7	40.0	0.0	25.9	31.6
Exiting Leg Total						65						22						33						0						28	148
Articulated Trucks	0	0	0	0	0	0	0	2	0	0	0	2	0	2	0	0	0	2	1	0	0	2	0	3	0	1	1	0	0	2	9
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	1.4	0.0	12.5	0.0	0.0	0.0	5.3	4.8	0.0	0.0	10.0	0.0	3.3	0.0	2.0	0.9	0.0	0.0	1.0	1.9
Exiting Leg Total						2						1						2						0						4	9

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	7	8	0	0	0	15	0	1	4	0	0	5	2	0	5	3	0	10	0	2	9	6	0	17	47
7:45 AM	0	0	0	0	0	0	5	10	0	0	0	15	0	1	1	0	0	2	1	1	4	0	0	6	0	8	12	8	0	28	51
8:00 AM	0	0	0	0	0	0	4	10	0	0	0	14	0	2	3	0	0	5	2	1	4	2	0	9	0	4	15	2	0	21	49
8:15 AM	0	0	0	0	0	0	3	8	0	0	0	11	0	2	4	0	0	6	2	1	6	1	0	10	0	2	13	1	0	16	43
Total Volume	0	0	0	0	0	0	19	36	0	0	0	55	0	6	12	0	0	18	7	3	19	6	0	35	0	16	49	17	0	82	190
% Approach Total	0.0	0.0	0.0	0.0	0.0		34.5	65.5	0.0	0.0	0.0		0.0	33.3	66.7	0.0	0.0		20.0	8.6	54.3	17.1	0.0		0.0	19.5	59.8	20.7	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.679	0.900	0.000	0.000	0.000	0.917	0.000	0.750	0.750	0.000	0.000	0.750	0.875	0.750	0.792	0.500	0.000	0.875	0.000	0.500	0.817	0.531	0.000	0.732	0.931
Buses	0	0	0	0	0	0	10	23	0	0	0	33	0	2	8	0	0	10	2	2	9	5	0	18	0	12	42	7	0	61	122
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	52.6	63.9	0.0	0.0	0.0	60.0	0.0	33.3	66.7	0.0	0.0	55.6	28.6	66.7	47.4	83.3	0.0	51.4	0.0	75.0	85.7	41.2	0.0	74.4	64.2
Single-Unit Trucks	0	0	0	0	0	0	9	12	0	0	0	21	0	3	4	0	0	7	5	1	10	1	0	17	0	4	7	10	0	21	66
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	47.4	33.3	0.0	0.0	0.0	38.2	0.0	50.0	33.3	0.0	0.0	38.9	71.4	33.3	52.6	16.7	0.0	48.6	0.0	25.0	14.3	58.8	0.0	25.6	34.7
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

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Office: 508-875-0100 Fax: 508-875-0118

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	1.8	0.0	16.7	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Buses	0	0	0	0	0	0	10	23	0	0	0	33	0	2	8	0	0	10	2	2	9	5	0	18	0	12	42	7	0	61	122
Single-Unit Trucks	0	0	0	0	0	0	9	12	0	0	0	21	0	3	4	0	0	7	5	1	10	1	0	17	0	4	7	10	0	21	66
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Entering Leg	0	0	0	0	0	0	19	36	0	0	0	55	0	6	12	0	0	18	7	3	19	6	0	35	0	16	49	17	0	82	190
Buses						28						44						14						0						36	122
Single-Unit Trucks						32						8						9						0						17	66
Articulated Trucks						1						0						0						0						1	2
Total Exiting Leg						61						52						23						0						54	190

PDI File #: **249980 D**
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Buses

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	2	0	0	0	0	2	0	1	6	2	0	9	15
6:15 AM	0	0	0	0	0	0	0	7	0	0	0	7	0	0	1	0	0	1	0	0	0	0	0	0	0	1	7	1	0	9	17
6:30 AM	0	0	0	0	0	0	1	5	0	0	0	6	0	0	0	0	0	0	0	1	0	1	0	2	0	2	4	2	0	8	16
6:45 AM	0	0	0	0	0	0	2	5	0	0	0	7	0	0	3	0	0	3	0	2	1	3	0	6	0	2	9	3	0	14	30
Total	0	0	0	0	0	0	3	21	0	0	0	24	0	0	4	0	0	4	2	3	1	4	0	10	0	6	26	8	0	40	78
7:00 AM	0	0	0	0	0	0	2	8	0	0	0	10	0	0	0	0	0	0	1	0	4	1	0	6	0	5	9	1	0	15	31
7:15 AM	0	0	0	0	0	0	4	8	0	0	0	12	0	1	1	0	0	2	2	0	2	2	0	6	0	2	6	1	0	9	29
7:30 AM	0	0	0	0	0	0	3	4	0	0	0	7	0	0	2	0	0	2	0	0	2	2	0	4	0	1	9	2	0	12	25
7:45 AM	0	0	0	0	0	0	4	7	0	0	0	11	0	0	1	0	0	1	1	1	1	0	0	3	0	7	7	3	0	17	32
Total	0	0	0	0	0	0	13	27	0	0	0	40	0	1	4	0	0	5	4	1	9	5	0	19	0	15	31	7	0	53	117
8:00 AM	0	0	0	0	0	0	2	5	0	0	0	7	0	1	2	0	0	3	1	1	3	2	0	7	0	3	14	2	0	19	36
8:15 AM	0	0	0	0	0	0	1	7	0	0	0	8	0	1	3	0	0	4	0	0	3	1	0	4	0	1	12	0	0	13	29
8:30 AM	0	0	0	0	0	0	4	7	0	0	0	11	0	0	0	0	0	0	1	0	3	0	0	4	0	1	7	3	0	11	26
8:45 AM	0	0	0	0	0	0	2	5	0	0	0	7	0	2	2	0	0	4	0	0	1	2	0	3	0	2	8	1	0	11	25
Total	0	0	0	0	0	0	9	24	0	0	0	33	0	4	7	0	0	11	2	1	10	5	0	18	0	7	41	6	0	54	116
Grand Total	0	0	0	0	0	0	25	72	0	0	0	97	0	5	15	0	0	20	8	5	20	14	0	47	0	28	98	21	0	147	311
Approach %	0.0	0.0	0.0	0.0	0.0		25.8	74.2	0.0	0.0	0.0		0.0	25.0	75.0	0.0	0.0		17.0	10.6	42.6	29.8	0.0		0.0	19.0	66.7	14.3	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	8.0	23.2	0.0	0.0	0.0	31.2	0.0	1.6	4.8	0.0	0.0	6.4	2.6	1.6	6.4	4.5	0.0	15.1	0.0	9.0	31.5	6.8	0.0	47.3	
Exiting Leg Total						71						103						36						0						101	311

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	0	4	7	0	0	0	11	0	0	1	0	0	1	1	1	1	0	0	3	0	7	7	3	0	17	32
8:00 AM	0	0	0	0	0	0	2	5	0	0	0	7	0	1	2	0	0	3	1	1	3	2	0	7	0	3	14	2	0	19	36
8:15 AM	0	0	0	0	0	0	1	7	0	0	0	8	0	1	3	0	0	4	0	0	3	1	0	4	0	1	12	0	0	13	29
8:30 AM	0	0	0	0	0	0	4	7	0	0	0	11	0	0	0	0	0	0	1	0	3	0	0	4	0	1	7	3	0	11	26
Total Volume	0	0	0	0	0	0	11	26	0	0	0	37	0	2	6	0	0	8	3	2	10	3	0	18	0	12	40	8	0	60	123
% Approach Total	0.0	0.0	0.0	0.0	0.0		29.7	70.3	0.0	0.0	0.0		0.0	25.0	75.0	0.0	0.0		16.7	11.1	55.6	16.7	0.0		0.0	20.0	66.7	13.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.688	0.929	0.000	0.000	0.000	0.841	0.000	0.500	0.500	0.000	0.000	0.500	0.750	0.500	0.833	0.375	0.000	0.643	0.000	0.429	0.714	0.667	0.000	0.789	0.854
Entering Leg	0	0	0	0	0	0	11	26	0	0	0	37	0	2	6	0	0	8	3	2	10	3	0	18	0	12	40	8	0	60	123
Exiting Leg						31						42						15						0						35	123
Total						31						79						23						18						95	246

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	1	1	0	0	2	4
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	1	0	3	0	2	0	0	0	2	7
6:30 AM	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	1	0	0	1	0	1	4	0	0	5	10
6:45 AM	0	0	0	0	0	0	2	0	0	0	0	2	1	0	0	0	0	1	1	1	0	1	0	3	0	3	0	0	0	3	9
Total	0	0	0	0	0	0	6	0	0	0	0	6	1	3	0	0	0	4	3	1	2	2	0	8	0	7	5	0	0	12	30
7:00 AM	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	1	0	1	0	0	2	0	0	2	0	0	2	6
7:15 AM	0	0	0	0	0	0	1	1	0	0	0	2	0	1	0	0	0	1	2	0	1	0	0	3	0	2	0	0	0	2	8
7:30 AM	0	0	0	0	0	0	4	4	0	0	0	8	0	1	2	0	0	3	2	0	3	1	0	6	0	1	0	4	0	5	22
7:45 AM	0	0	0	0	0	0	1	3	0	0	0	4	0	1	0	0	0	1	0	0	3	0	0	3	0	1	5	5	0	11	19
Total	0	0	0	0	0	0	7	9	0	0	0	16	0	3	2	0	0	5	5	0	8	1	0	14	0	4	7	9	0	20	55
8:00 AM	0	0	0	0	0	0	2	4	0	0	0	6	0	1	1	0	0	2	1	0	1	0	0	2	0	1	1	0	0	2	12
8:15 AM	0	0	0	0	0	0	2	1	0	0	0	3	0	0	1	0	0	1	2	1	3	0	0	6	0	1	1	1	0	3	13
8:30 AM	0	0	0	0	0	0	1	2	0	0	0	3	0	0	2	0	0	2	0	1	4	0	0	5	0	4	3	2	0	9	19
8:45 AM	0	0	0	0	0	0	3	2	0	0	0	5	0	2	0	0	0	2	1	1	3	1	0	6	0	4	0	2	0	6	19
Total	0	0	0	0	0	0	8	9	0	0	0	17	0	3	4	0	0	7	4	3	11	1	0	19	0	10	5	5	0	20	63
Grand Total	0	0	0	0	0	0	21	18	0	0	0	39	1	9	6	0	0	16	12	4	21	4	0	41	0	21	17	14	0	52	148
Approach %	0.0	0.0	0.0	0.0	0.0		53.8	46.2	0.0	0.0	0.0		6.3	56.3	37.5	0.0	0.0		29.3	9.8	51.2	9.8	0.0		0.0	40.4	32.7	26.9	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	14.2	12.2	0.0	0.0	0.0	26.4	0.7	6.1	4.1	0.0	0.0	10.8	8.1	2.7	14.2	2.7	0.0	27.7	0.0	14.2	11.5	9.5	0.0	35.1	
Exiting Leg Total						65						22						33						0						28	148

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	4	4	0	0	0	8	0	1	2	0	0	3	2	0	3	1	0	6	0	1	0	4	0	5	22
7:45 AM	0	0	0	0	0	0	1	3	0	0	0	4	0	1	0	0	0	1	0	0	3	0	0	3	0	1	5	5	0	11	19
8:00 AM	0	0	0	0	0	0	2	4	0	0	0	6	0	1	1	0	0	2	1	0	1	0	0	2	0	1	1	0	0	2	12
8:15 AM	0	0	0	0	0	0	2	1	0	0	0	3	0	0	1	0	0	1	2	1	3	0	0	6	0	1	1	1	0	3	13
Total Volume	0	0	0	0	0	0	9	12	0	0	0	21	0	3	4	0	0	7	5	1	10	1	0	17	0	4	7	10	0	21	66
% Approach Total	0.0	0.0	0.0	0.0	0.0		42.9	57.1	0.0	0.0	0.0		0.0	42.9	57.1	0.0	0.0		29.4	5.9	58.8	5.9	0.0		0.0	19.0	33.3	47.6	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.563	0.750	0.000	0.000	0.000	0.656	0.000	0.750	0.500	0.000	0.000	0.583	0.625	0.250	0.833	0.250	0.000	0.708	0.000	1.000	0.350	0.500	0.000	0.477	0.750
Entering Leg	0	0	0	0	0	0	9	12	0	0	0	21	0	3	4	0	0	7	5	1	10	1	0	17	0	4	7	10	0	21	66
Exiting Leg						32						8						9						0						17	66
Total						32						29						16						17						38	132

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	0	0	1	0	0	1	3
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	2
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	2	0	0	0	2	0	1	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	4
Grand Total	0	0	0	0	0	0	0	2	0	0	0	2	0	2	0	0	0	2	1	0	0	2	0	3	0	1	1	0	0	2	9
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		33.3	0.0	0.0	66.7	0.0		0.0	50.0	50.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	0.0	0.0	0.0	22.2	0.0	22.2	0.0	0.0	0.0	22.2	11.1	0.0	0.0	22.2	0.0	33.3	0.0	11.1	11.1	0.0	0.0	22.2	
Exiting Leg Total						2						1						2						0						4	9

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:15 AM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	2	0	1	1	0	0	2	5
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		50.0	0.0	0.0	50.0	0.0		0.0	50.0	50.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.250	0.000	0.500	0.000	0.250	0.250	0.000	0.000	0.500	0.625
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	2	0	1	1	0	0	2	5
Exiting Leg						1						1						2						0						1	5
Total						1						1						3						2						3	10

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Park Drive from North								Brookline Avenue from East								Boylston Street from Southeast								Park Drive from South								Brookline Avenue from West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	2	2	1	2	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
6:15 AM	0	0	0	0	0	0	5	5	0	6	0	0	0	2	1	9	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	0	1	1	0	0	0	0	2	19
6:30 AM	0	0	0	0	0	1	1	2	1	2	0	0	0	0	2	5	0	0	0	0	0	0	2	2	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	1	11
6:45 AM	0	0	0	0	0	0	2	2	2	4	0	0	0	0	2	8	0	1	0	0	0	0	2	3	0	0	0	0	0	1	1	2	0	1	2	0	0	1	0	4	19
Total	0	0	0	0	0	1	10	11	4	14	0	0	0	2	5	25	0	1	0	0	0	0	5	6	0	0	0	0	0	4	1	5	0	3	3	0	0	1	0	7	54
7:00 AM	0	1	0	0	0	0	2	3	1	2	0	0	0	1	0	4	0	1	0	0	0	0	0	1	0	0	1	0	0	1	1	3	0	0	2	0	0	0	0	2	13
7:15 AM	0	0	0	0	0	0	2	2	1	6	0	1	0	0	2	10	0	0	0	0	0	0	2	2	0	0	0	0	0	1	0	1	0	3	0	0	0	0	0	3	18
7:30 AM	0	0	0	0	0	0	1	1	1	6	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
7:45 AM	0	0	0	0	0	0	6	6	2	6	0	0	0	2	0	10	0	0	3	0	0	0	0	3	0	0	0	0	0	1	2	3	0	5	1	0	0	0	0	6	28
Total	0	1	0	0	0	0	11	12	5	20	0	1	0	3	2	31	0	1	3	0	0	0	2	6	0	0	1	0	0	3	3	7	0	8	3	0	0	0	0	11	67
8:00 AM	0	0	0	0	0	0	4	4	2	3	0	0	0	3	0	8	0	1	0	0	0	0	0	1	0	0	0	0	0	2	0	2	0	1	0	0	0	0	0	1	16
8:15 AM	0	0	0	0	0	1	0	1	0	6	0	0	0	2	3	11	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	4	0	0	0	0	0	4	18
8:30 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	4	0	7	0	0	1	0	0	1	0	2	0	1	1	2	0	0	1	5	0	3	3	0	0	1	0	7	21
8:45 AM	0	0	0	0	0	0	0	0	1	5	0	0	0	2	1	9	0	0	1	0	0	0	0	1	0	2	1	0	0	0	0	3	0	1	4	0	0	0	0	5	18
Total	0	0	0	0	0	1	4	5	4	16	0	0	0	11	4	35	0	1	3	0	0	1	0	5	0	3	2	2	0	2	2	11	0	9	7	0	0	1	0	17	73
Grand Total	0	1	0	0	0	2	25	28	13	50	0	1	0	16	11	91	0	3	6	0	0	1	7	17	0	3	3	2	0	9	6	23	0	20	13	0	0	2	0	35	194
Approach %	0.0	3.6	0.0	0.0	0.0	7.1	89.3		14.3	54.9	0.0	1.1	0.0	17.6	12.1		0.0	17.6	35.3	0.0	0.0	5.9	41.2		0.0	13.0	13.0	8.7	0.0	39.1	26.1		0.0	57.1	37.1	0.0	0.0	5.7	0.0		
Total %	0.0	0.5	0.0	0.0	0.0	1.0	12.9	14.4	6.7	25.8	0.0	0.5	0.0	8.2	5.7	46.9	0.0	1.5	3.1	0.0	0.0	0.5	3.6	8.8	0.0	1.5	1.5	1.0	0.0	4.6	3.1	11.9	0.0	10.3	6.7	0.0	0.0	1.0	0.0	18.0	
Exiting Leg Total								46								43								29								16								60	194

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Park Drive from North								Brookline Avenue from East								Boylston Street from Southeast								Park Drive from South								Brookline Avenue from West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	0	0	6	6	2	6	0	0	0	2	0	10	0	0	3	0	0	0	0	3	0	0	0	0	0	1	2	3	0	5	1	0	0	0	0	6	28
8:00 AM	0	0	0	0	0	0	4	4	2	3	0	0	0	3	0	8	0	1	0	0	0	0	0	1	0	0	0	0	0	2	0	2	0	1	0	0	0	0	0	1	16
8:15 AM	0	0	0	0	0	1	0	1	0	6	0	0	0	2	3	11	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	4	0	0	0	0	0	4	18
8:30 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	4	0	7	0	0	1	0	0	1	0	2	0	1	1	2	0	0	1	5	0	3	3	0	0	1	0	7	21
Total Volume	0	0	0	0	0	1	10	11	5	17	0	0	0	11	3	36	0	1	5	0	0	1	0	7	0	1	1	2	0	3	4	11	0	13	4	0	0	1	0	18	83
% Approach Total	0.0	0.0	0.0	0.0	0.0	9.1	90.9		13.9	47.2	0.0	0.0	0.0	30.6	8.3		0.0	14.3	71.4	0.0	0.0	14.3	0.0		0.0	9.1	9.1	18.2	0.0	27.3	36.4		0.0	72.2	22.2	0.0	0.0	5.6	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.417	0.458	0.625	0.708	0.000	0.000	0.000	0.688	0.250	0.818	0.000	0.250	0.417	0.000	0.000	0.250	0.000	0.583	0.000	0.250	0.250	0.250	0.000	0.375	0.500	0.550	0.000	0.650	0.333	0.000	0.000	0.250	0.000	0.643	0.741
Entering Leg	0	0	0	0	0	1	10	11	5	17	0	0	0	11	3	36	0	1	5	0	0	1	0	7	0	1	1	2	0	3	4	11	0	13	4	0	0	1	0	18	83
Exiting Leg								18								19								14								7								25	83
Total								29								55								21								18								43	166

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Park Drive from North								Brookline Avenue from East								Boylston Street from Southeast								Park Drive from South								Brookline Avenue from West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	1	12	13	0	0	0	0	0	3	5	8	0	0	0	0	0	12	9	21	0	0	0	0	0	25	9	34	0	0	0	0	0	0	0	0	76
6:15 AM	0	0	0	0	0	4	14	18	0	0	0	0	0	4	10	14	0	0	0	0	0	20	6	26	0	0	0	0	0	28	5	33	0	0	0	0	0	0	0	0	91
6:30 AM	0	0	0	0	0	10	18	28	0	0	0	0	0	7	16	23	0	0	0	0	0	22	12	34	0	0	0	0	0	39	5	44	0	0	0	0	0	1	0	1	130
6:45 AM	0	0	0	0	0	8	15	23	0	0	0	0	0	8	19	27	0	0	0	0	0	15	24	39	0	0	0	0	0	35	9	44	0	0	0	0	0	3	0	3	136
Total	0	0	0	0	0	23	59	82	0	0	0	0	0	22	50	72	0	0	0	0	0	69	51	120	0	0	0	0	0	127	28	155	0	0	0	0	0	4	0	4	433
7:00 AM	0	0	0	0	0	2	16	18	0	0	0	0	0	5	9	14	0	0	0	0	0	27	9	36	0	0	0	0	0	40	6	46	0	0	0	0	0	0	0	0	114
7:15 AM	0	0	0	0	0	4	9	13	0	0	0	0	0	8	13	21	0	0	0	0	0	16	14	30	0	0	0	0	0	27	16	43	0	0	0	0	0	0	0	0	107
7:30 AM	0	0	0	0	0	4	19	23	0	0	0	0	0	18	28	46	0	0	0	0	0	32	11	43	0	0	0	0	0	59	18	77	0	0	0	0	0	2	2	4	193
7:45 AM	0	0	0	0	0	8	42	50	0	0	0	0	0	22	23	45	0	0	0	0	0	25	12	37	0	0	0	0	0	80	24	104	0	0	0	0	0	2	0	2	238
Total	0	0	0	0	0	18	86	104	0	0	0	0	0	53	73	126	0	0	0	0	0	100	46	146	0	0	0	0	0	206	64	270	0	0	0	0	0	4	2	6	652
8:00 AM	0	0	0	0	0	12	11	23	0	0	0	0	0	10	27	37	0	0	0	0	0	27	23	50	0	0	0	0	0	35	12	47	0	0	0	0	0	0	1	1	158
8:15 AM	0	0	0	0	0	19	12	31	0	0	0	0	0	18	23	41	0	0	0	0	0	31	25	56	0	0	0	0	0	37	16	53	0	0	0	0	0	1	0	1	182
8:30 AM	0	0	0	0	0	10	23	33	0	0	0	0	0	14	34	48	0	0	0	0	0	44	29	73	0	0	0	0	0	51	16	67	0	0	0	0	0	3	1	4	225
8:45 AM	0	0	0	0	0	19	24	43	0	0	0	0	0	18	34	52	0	0	0	0	0	37	40	77	0	0	0	0	0	62	28	90	0	0	0	0	0	4	2	6	268
Total	0	0	0	0	0	60	70	130	0	0	0	0	0	60	118	178	0	0	0	0	0	139	117	256	0	0	0	0	0	185	72	257	0	0	0	0	0	8	4	12	833
Grand Total	0	0	0	0	0	101	215	316	0	0	0	0	0	135	241	376	0	0	0	0	0	308	214	522	0	0	0	0	0	518	164	682	0	0	0	0	0	16	6	22	1918
Approach %	0	0	0	0	0	32	68		0	0	0	0	0	35.9	64.1		0	0	0	0	0	59	41		0	0	0	0	0	76	24		0	0	0	0	0	72.7	27.3		
Total %	0	0	0	0	0	5.27	11.2	16.5	0	0	0	0	0	7.04	12.6	19.6	0	0	0	0	0	16.1	11.2	27.2	0	0	0	0	0	27	8.55	35.6	0	0	0	0	0	0.83	0.31	1.15	
Exiting Leg Total								316								376								522								682								22	1918

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Park Drive from North								Brookline Avenue from East								Boylston Street from Southeast								Park Drive from South								Brookline Avenue from West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	12	11	23	0	0	0	0	0	10	27	37	0	0	0	0	0	27	23	50	0	0	0	0	0	35	12	47	0	0	0	0	0	0	1	1	158
8:15 AM	0	0	0	0	0	19	12	31	0	0	0	0	0	18	23	41	0	0	0	0	0	31	25	56	0	0	0	0	0	37	16	53	0	0	0	0	0	1	0	1	182
8:30 AM	0	0	0	0	0	10	23	33	0	0	0	0	0	14	34	48	0	0	0	0	0	44	29	73	0	0	0	0	0	51	16	67	0	0	0	0	0	3	1	4	225
8:45 AM	0	0	0	0	0	19	24	43	0	0	0	0	0	18	34	52	0	0	0	0	0	37	40	77	0	0	0	0	0	62	28	90	0	0	0	0	0	4	2	6	268
Total Volume	0	0	0	0	0	60	70	130	0	0	0	0	0	60	118	178	0	0	0	0	0	139	117	256	0	0	0	0	0	185	72	257	0	0	0	0	0	8	4	12	833
% Approach Total	0.0	0.0	0.0	0.0	0.0	46.2	53.8		0.0	0.0	0.0	0.0	0.0	33.7	66.3		0.0	0.0	0.0	0.0	0.0	54.3	45.7		0.0	0.0	0.0	0.0	0.0	72.0	28.0		0.0	0.0	0.0	0.0	0.0	66.7	33.3		
PHF	0.000	0.000	0.000	0.000	0.000	0.789	0.729	0.756	0.000	0.000	0.000	0.000	0.000	0.833	0.868	0.856	0.000	0.000	0.000	0.000	0.000	0.790	0.731	0.831	0.000	0.000	0.000	0.000	0.000	0.746	0.643	0.714	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.777
Entering Leg	0	0	0	0	0	60	70	130	0	0	0	0	0	60	118	178	0	0	0	0	0	139	117	256	0	0	0	0	0	185	72	257	0	0	0	0	0	8	4	12	833
Exiting Leg								130								178								256								257								12	833
Total								260								356								512								514								24	1666

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	49	58	0	0	0	107	4	69	100	0	0	173	20	23	131	51	0	225	0	215	70	26	0	311	816
3:15 PM	0	0	0	0	0	0	47	66	0	0	0	113	3	63	95	0	0	161	20	13	128	59	0	220	0	163	39	26	0	228	722
3:30 PM	0	0	0	0	0	0	49	44	0	0	0	93	1	58	142	0	0	201	23	13	130	53	0	219	0	199	56	26	1	282	795
3:45 PM	0	0	0	0	0	0	53	52	0	0	0	105	4	60	108	0	0	172	26	20	146	55	0	247	0	184	54	19	0	257	781
Total	0	0	0	0	0	0	198	220	0	0	0	418	12	250	445	0	0	707	89	69	535	218	0	911	0	761	219	97	1	1078	3114
4:00 PM	0	0	0	0	1	1	55	52	0	0	0	107	2	77	103	0	0	182	15	12	111	29	0	167	0	241	61	13	0	315	772
4:15 PM	0	0	0	0	0	0	56	48	0	0	0	104	4	75	85	0	0	164	14	13	194	45	0	266	0	211	59	31	1	302	836
4:30 PM	0	0	0	0	0	0	51	45	0	0	0	96	3	86	97	0	0	186	11	10	142	45	0	208	0	225	53	25	0	303	793
4:45 PM	0	0	0	0	0	0	42	66	0	0	0	108	4	56	115	0	0	175	29	18	143	46	0	236	0	193	51	24	0	268	787
Total	0	0	0	0	1	1	204	211	0	0	0	415	13	294	400	0	0	707	69	53	590	165	0	877	0	870	224	93	1	1188	3188
5:00 PM	0	0	0	0	0	0	38	43	0	0	0	81	3	69	108	0	0	180	14	13	152	43	0	222	0	217	61	22	0	300	783
5:15 PM	0	0	0	0	0	0	46	46	0	0	0	92	2	73	66	0	0	141	10	7	200	45	0	262	0	159	55	31	0	245	740
5:30 PM	0	0	0	0	0	0	38	42	0	0	0	80	7	64	91	0	0	162	14	14	175	30	0	233	0	227	57	26	0	310	785
5:45 PM	0	0	0	0	0	0	42	55	0	0	0	97	13	52	80	0	0	145	18	25	169	38	0	250	0	187	55	27	0	269	761
Total	0	0	0	0	0	0	164	186	0	0	0	350	25	258	345	0	0	628	56	59	696	156	0	967	0	790	228	106	0	1124	3069
Grand Total	0	0	0	0	1	1	566	617	0	0	0	1183	50	802	1190	0	0	2042	214	181	1821	539	0	2755	0	2421	671	296	2	3390	9371
Approach %	0.0	0.0	0.0	0.0	100.0		47.8	52.2	0.0	0.0	0.0		2.4	39.3	58.3	0.0	0.0		7.8	6.6	66.1	19.6	0.0		0.0	71.4	19.8	8.7	0.1		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	6.0	6.6	0.0	0.0	0.0	12.6	0.5	8.6	12.7	0.0	0.0	21.8	2.3	1.9	19.4	5.8	0.0	29.4	0.0	25.8	7.2	3.2	0.0	36.2	
Exiting Leg Total						3486						902						2635						0						2348	9371
Cars	0	0	0	0	1	1	529	560	0	0	0	1089	47	784	1158	0	0	1989	211	170	1783	504	0	2668	0	2379	584	270	2	3235	8982
% Cars	0.0	0.0	0.0	0.0	100.0	100.0	93.5	90.8	0.0	0.0	0.0	92.1	94.0	97.8	97.3	0.0	0.0	97.4	98.6	93.9	97.9	93.5	0.0	96.8	0.0	98.3	87.0	91.2	100.0	95.4	95.8
Exiting Leg Total						3367						801						2590						0						2224	8982
Heavy Vehicles	0	0	0	0	0	0	37	57	0	0	0	94	3	18	32	0	0	53	3	11	38	35	0	87	0	42	87	26	0	155	389
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	6.5	9.2	0.0	0.0	0.0	7.9	6.0	2.2	2.7	0.0	0.0	2.6	1.4	6.1	2.1	6.5	0.0	3.2	0.0	1.7	13.0	8.8	0.0	4.6	4.2
Exiting Leg Total						119						101						45						0						124	389

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:15 PM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
4:15 PM	0	0	0	0	0	0	56	48	0	0	0	104	4	75	85	0	0	164	14	13	194	45	0	266	0	211	59	31	1	302	836
4:30 PM	0	0	0	0	0	0	51	45	0	0	0	96	3	86	97	0	0	186	11	10	142	45	0	208	0	225	53	25	0	303	793
4:45 PM	0	0	0	0	0	0	42	66	0	0	0	108	4	56	115	0	0	175	29	18	143	46	0	236	0	193	51	24	0	268	787
5:00 PM	0	0	0	0	0	0	38	43	0	0	0	81	3	69	108	0	0	180	14	13	152	43	0	222	0	217	61	22	0	300	783
Total Volume	0	0	0	0	0	0	187	202	0	0	0	389	14	286	405	0	0	705	68	54	631	179	0	932	0	846	224	102	1	1173	3199
% Approach Total	0.0	0.0	0.0	0.0	0.0		48.1	51.9	0.0	0.0	0.0		2.0	40.6	57.4	0.0	0.0		7.3	5.8	67.7	19.2	0.0		0.0	72.1	19.1	8.7	0.1		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.835	0.765	0.000	0.000	0.000	0.900	0.875	0.831	0.880	0.000	0.000	0.948	0.586	0.750	0.813	0.973	0.000	0.876	0.000	0.940	0.918	0.823	0.250	0.968	0.957
Cars	0	0	0	0	0	0	172	183	0	0	0	355	13	278	396	0	0	687	67	52	617	168	0	904	0	830	191	91	1	1113	3059
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	92.0	90.6	0.0	0.0	0.0	91.3	92.9	97.2	97.8	0.0	0.0	97.4	98.5	96.3	97.8	93.9	0.0	97.0	0.0	98.1	85.3	89.2	100.0	94.9	95.6
Heavy Vehicles	0	0	0	0	0	0	15	19	0	0	0	34	1	8	9	0	0	18	1	2	14	11	0	28	0	16	33	11	0	60	140
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	8.0	9.4	0.0	0.0	0.0	8.7	7.1	2.8	2.2	0.0	0.0	2.6	1.5	3.7	2.2	6.1	0.0	3.0	0.0	1.9	14.7	10.8	0.0	5.1	4.4
Cars Enter Leg	0	0	0	0	0	0	172	183	0	0	0	355	13	278	396	0	0	687	67	52	617	168	0	904	0	830	191	91	1	1113	3059
Heavy Enter Leg	0	0	0	0	0	0	15	19	0	0	0	34	1	8	9	0	0	18	1	2	14	11	0	28	0	16	33	11	0	60	140
Total Entering Leg	0	0	0	0	0	0	187	202	0	0	0	389	14	286	405	0	0	705	68	54	631	179	0	932	0	846	224	102	1	1173	3199
Cars Exiting Leg						1158						256						897						0						748	3059

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
Heavy Exiting Leg						48						36						17						0						39	140
Total Exiting Leg						1206						292						914						0						787	3199

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
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Count Date: **Thursday, May 9, 2024**
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PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	47	57	0	0	0	104	3	69	94	0	0	166	19	21	127	47	0	214	0	210	62	26	0	298	782
3:15 PM	0	0	0	0	0	0	44	60	0	0	0	104	3	62	94	0	0	159	20	10	127	56	0	213	0	160	34	24	0	218	694
3:30 PM	0	0	0	0	0	0	47	42	0	0	0	89	1	55	137	0	0	193	23	12	128	51	0	214	0	196	46	25	1	268	764
3:45 PM	0	0	0	0	0	0	50	44	0	0	0	94	4	60	107	0	0	171	26	19	140	49	0	234	0	180	49	17	0	246	745
Total	0	0	0	0	0	0	188	203	0	0	0	391	11	246	432	0	0	689	88	62	522	203	0	875	0	746	191	92	1	1030	2985
4:00 PM	0	0	0	0	1	1	51	49	0	0	0	100	2	75	98	0	0	175	14	10	109	27	0	160	0	236	55	11	0	302	738
4:15 PM	0	0	0	0	0	0	51	43	0	0	0	94	4	72	84	0	0	160	14	11	187	43	0	255	0	207	50	27	1	285	794
4:30 PM	0	0	0	0	0	0	45	42	0	0	0	87	2	84	97	0	0	183	11	10	141	41	0	203	0	222	43	23	0	288	761
4:45 PM	0	0	0	0	0	0	42	60	0	0	0	102	4	54	112	0	0	170	29	18	140	44	0	231	0	189	45	21	0	255	758
Total	0	0	0	0	1	1	189	194	0	0	0	383	12	285	391	0	0	688	68	49	577	155	0	849	0	854	193	82	1	1130	3051
5:00 PM	0	0	0	0	0	0	34	38	0	0	0	72	3	68	103	0	0	174	13	13	149	40	0	215	0	212	53	20	0	285	746
5:15 PM	0	0	0	0	0	0	44	40	0	0	0	84	2	72	65	0	0	139	10	7	199	42	0	258	0	157	47	28	0	232	713
5:30 PM	0	0	0	0	0	0	34	36	0	0	0	70	7	61	89	0	0	157	14	14	172	28	0	228	0	224	53	23	0	300	755
5:45 PM	0	0	0	0	0	0	40	49	0	0	0	89	12	52	78	0	0	142	18	25	164	36	0	243	0	186	47	25	0	258	732
Total	0	0	0	0	0	0	152	163	0	0	0	315	24	253	335	0	0	612	55	59	684	146	0	944	0	779	200	96	0	1075	2946
Grand Total	0	0	0	0	1	1	529	560	0	0	0	1089	47	784	1158	0	0	1989	211	170	1783	504	0	2668	0	2379	584	270	2	3235	8982
Approach %	0.0	0.0	0.0	0.0	100.0		48.6	51.4	0.0	0.0	0.0		2.4	39.4	58.2	0.0	0.0		7.9	6.4	66.8	18.9	0.0		0.0	73.5	18.1	8.3	0.1		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	5.9	6.2	0.0	0.0	0.0	12.1	0.5	8.7	12.9	0.0	0.0	22.1	2.3	1.9	19.9	5.6	0.0	29.7	0.0	26.5	6.5	3.0	0.0	36.0	
Exiting Leg Total						3367						801						2590						0						2224	8982

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:15 PM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
4:15 PM	0	0	0	0	0	0	51	43	0	0	0	94	4	72	84	0	0	160	14	11	187	43	0	255	0	207	50	27	1	285	794
4:30 PM	0	0	0	0	0	0	45	42	0	0	0	87	2	84	97	0	0	183	11	10	141	41	0	203	0	222	43	23	0	288	761
4:45 PM	0	0	0	0	0	0	42	60	0	0	0	102	4	54	112	0	0	170	29	18	140	44	0	231	0	189	45	21	0	255	758
5:00 PM	0	0	0	0	0	0	34	38	0	0	0	72	3	68	103	0	0	174	13	13	149	40	0	215	0	212	53	20	0	285	746
Total Volume	0	0	0	0	0	0	172	183	0	0	0	355	13	278	396	0	0	687	67	52	617	168	0	904	0	830	191	91	1	1113	3059
% Approach Total	0.0	0.0	0.0	0.0	0.0		48.5	51.5	0.0	0.0	0.0		1.9	40.5	57.6	0.0	0.0		7.4	5.8	68.3	18.6	0.0		0.0	74.6	17.2	8.2	0.1		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.843	0.763	0.000	0.000	0.000	0.870	0.813	0.827	0.884	0.000	0.000	0.939	0.578	0.722	0.825	0.955	0.000	0.886	0.000	0.935	0.901	0.843	0.250	0.966	0.963
Entering Leg	0	0	0	0	0	0	172	183	0	0	0	355	13	278	396	0	0	687	67	52	617	168	0	904	0	830	191	91	1	1113	3059
Exiting Leg						1158						256						897						0						748	3059
Total						1158						611						1584						904						1861	6118

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	2	1	0	0	0	3	1	0	6	0	0	7	1	2	4	4	0	11	0	5	8	0	0	13	34
3:15 PM	0	0	0	0	0	0	3	6	0	0	0	9	0	1	1	0	0	2	0	3	1	3	0	7	0	3	5	2	0	10	28
3:30 PM	0	0	0	0	0	0	2	2	0	0	0	4	0	3	5	0	0	8	0	1	2	2	0	5	0	3	10	1	0	14	31
3:45 PM	0	0	0	0	0	0	3	8	0	0	0	11	0	0	1	0	0	1	0	1	6	6	0	13	0	4	5	2	0	11	36
Total	0	0	0	0	0	0	10	17	0	0	0	27	1	4	13	0	0	18	1	7	13	15	0	36	0	15	28	5	0	48	129
4:00 PM	0	0	0	0	0	0	4	3	0	0	0	7	0	2	5	0	0	7	1	2	2	2	0	7	0	5	6	2	0	13	34
4:15 PM	0	0	0	0	0	0	5	5	0	0	0	10	0	3	1	0	0	4	0	2	7	2	0	11	0	4	9	4	0	17	42
4:30 PM	0	0	0	0	0	0	6	3	0	0	0	9	1	2	0	0	0	3	0	0	1	4	0	5	0	3	10	2	0	15	32
4:45 PM	0	0	0	0	0	0	0	6	0	0	0	6	0	2	3	0	0	5	0	0	3	2	0	5	0	4	6	3	0	13	29
Total	0	0	0	0	0	0	15	17	0	0	0	32	1	9	9	0	0	19	1	4	13	10	0	28	0	16	31	11	0	58	137
5:00 PM	0	0	0	0	0	0	4	5	0	0	0	9	0	1	5	0	0	6	1	0	3	3	0	7	0	5	8	2	0	15	37
5:15 PM	0	0	0	0	0	0	2	6	0	0	0	8	0	1	1	0	0	2	0	0	1	3	0	4	0	2	8	3	0	13	27
5:30 PM	0	0	0	0	0	0	4	6	0	0	0	10	0	3	2	0	0	5	0	0	3	2	0	5	0	3	4	3	0	10	30
5:45 PM	0	0	0	0	0	0	2	6	0	0	0	8	1	0	2	0	0	3	0	0	5	2	0	7	0	1	8	2	0	11	29
Total	0	0	0	0	0	0	12	23	0	0	0	35	1	5	10	0	0	16	1	0	12	10	0	23	0	11	28	10	0	49	123
Grand Total	0	0	0	0	0	0	37	57	0	0	0	94	3	18	32	0	0	53	3	11	38	35	0	87	0	42	87	26	0	155	389
Approach %	0.0	0.0	0.0	0.0	0.0		39.4	60.6	0.0	0.0	0.0		5.7	34.0	60.4	0.0	0.0		3.4	12.6	43.7	40.2	0.0		0.0	27.1	56.1	16.8	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	9.5	14.7	0.0	0.0	0.0	24.2	0.8	4.6	8.2	0.0	0.0	13.6	0.8	2.8	9.8	9.0	0.0	22.4	0.0	10.8	22.4	6.7	0.0	39.8	
Exiting Leg Total						119						101						45						0						124	389
Buses	0	0	0	0	0	0	26	52	0	0	0	78	0	9	21	0	0	30	1	10	31	31	0	73	0	27	72	18	0	117	298
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	70.3	91.2	0.0	0.0	0.0	83.0	0.0	50.0	65.6	0.0	0.0	56.6	33.3	90.9	81.6	88.6	0.0	83.9	0.0	64.3	82.8	69.2	0.0	75.5	76.6
Exiting Leg Total						84						82						28						0						104	298
Single-Unit Trucks	0	0	0	0	0	0	10	5	0	0	0	15	3	9	11	0	0	23	2	1	7	4	0	14	0	14	14	5	0	33	85
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	27.0	8.8	0.0	0.0	0.0	16.0	100.0	50.0	34.4	0.0	0.0	43.4	66.7	9.1	18.4	11.4	0.0	16.1	0.0	33.3	16.1	19.2	0.0	21.3	21.9
Exiting Leg Total						31						18						16						0						20	85
Articulated Trucks	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	5	6
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	1.1	11.5	0.0	3.2	1.5
Exiting Leg Total						4						1						1						0						0	6

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
3:45 PM	0	0	0	0	0	0	3	8	0	0	0	11	0	0	1	0	0	1	0	1	6	6	0	13	0	4	5	2	0	11	36
4:00 PM	0	0	0	0	0	0	4	3	0	0	0	7	0	2	5	0	0	7	1	2	2	2	0	7	0	5	6	2	0	13	34
4:15 PM	0	0	0	0	0	0	5	5	0	0	0	10	0	3	1	0	0	4	0	2	7	2	0	11	0	4	9	4	0	17	42
4:30 PM	0	0	0	0	0	0	6	3	0	0	0	9	1	2	0	0	0	3	0	0	1	4	0	5	0	3	10	2	0	15	32
Total Volume	0	0	0	0	0	0	18	19	0	0	0	37	1	7	7	0	0	15	1	5	16	14	0	36	0	16	30	10	0	56	144
% Approach Total	0.0	0.0	0.0	0.0	0.0		48.6	51.4	0.0	0.0	0.0		6.7	46.7	46.7	0.0	0.0		2.8	13.9	44.4	38.9	0.0		0.0	28.6	53.6	17.9	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.594	0.000	0.000	0.000	0.841	0.250	0.583	0.350	0.000	0.000	0.536	0.250	0.625	0.571	0.583	0.000	0.692	0.000	0.800	0.750	0.625	0.000	0.824	0.857
Buses	0	0	0	0	0	0	10	16	0	0	0	26	0	2	5	0	0	7	0	5	13	11	0	29	0	10	24	5	0	39	101
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	55.6	84.2	0.0	0.0	0.0	70.3	0.0	28.6	71.4	0.0	0.0	46.7	0.0	100.0	81.3	78.6	0.0	80.6	0.0	62.5	80.0	50.0	0.0	69.6	70.1
Single-Unit Trucks	0	0	0	0	0	0	8	3	0	0	0	11	1	5	2	0	0	8	1	0	3	3	0	7	0	6	6	2	0	14	40
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	44.4	15.8	0.0	0.0	0.0	29.7	100.0	71.4	28.6	0.0	0.0	53.3	100.0	0.0	18.8	21.4	0.0	19.4	0.0	37.5	20.0	20.0	0.0	25.0	27.8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
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City, State: **Boston, MA**
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Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
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Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0	5.4	2.1
Buses	0	0	0	0	0	0	10	16	0	0	0	26	0	2	5	0	0	7	0	5	13	11	0	29	0	10	24	5	0	39	101
Single-Unit Trucks	0	0	0	0	0	0	8	3	0	0	0	11	1	5	2	0	0	8	1	0	3	3	0	7	0	6	6	2	0	14	40
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
Total Entering Leg	0	0	0	0	0	0	18	19	0	0	0	37	1	7	7	0	0	15	1	5	16	14	0	36	0	16	30	10	0	56	144
Buses						30						29						10						0						32	101
Single-Unit Trucks						18						7						7						0						8	40
Articulated Trucks						3						0						0						0						0	3
Total Exiting Leg						51						36						17						0						40	144

PDI File #: **249980 D**
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Office: 508-875-0100 Fax: 508-875-0118

Buses

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	1	1	0	0	0	2	0	0	3	0	0	3	0	1	4	3	0	8	0	4	6	0	0	10	23
3:15 PM	0	0	0	0	0	0	3	6	0	0	0	9	0	0	0	0	0	0	0	3	1	3	0	7	0	1	5	2	0	8	24
3:30 PM	0	0	0	0	0	0	2	1	0	0	0	3	0	3	3	0	0	6	0	1	2	2	0	5	0	1	8	1	0	10	24
3:45 PM	0	0	0	0	0	0	2	5	0	0	0	7	0	0	1	0	0	1	0	1	4	4	0	9	0	2	5	1	0	8	25
Total	0	0	0	0	0	0	8	13	0	0	0	21	0	3	7	0	0	10	0	6	11	12	0	29	0	8	24	4	0	36	96
4:00 PM	0	0	0	0	0	0	3	3	0	0	0	6	0	2	3	0	0	5	0	2	2	2	0	6	0	3	5	1	0	9	26
4:15 PM	0	0	0	0	0	0	2	5	0	0	0	7	0	0	1	0	0	1	0	2	7	1	0	10	0	3	6	2	0	11	29
4:30 PM	0	0	0	0	0	0	3	3	0	0	0	6	0	0	0	0	0	0	0	0	0	4	0	4	0	2	8	1	0	11	21
4:45 PM	0	0	0	0	0	0	0	5	0	0	0	5	0	1	1	0	0	2	0	0	3	2	0	5	0	3	5	3	0	11	23
Total	0	0	0	0	0	0	8	16	0	0	0	24	0	3	5	0	0	8	0	4	12	9	0	25	0	11	24	7	0	42	99
5:00 PM	0	0	0	0	0	0	2	5	0	0	0	7	0	1	4	0	0	5	1	0	1	3	0	5	0	4	6	0	0	10	27
5:15 PM	0	0	0	0	0	0	2	6	0	0	0	8	0	1	1	0	0	2	0	0	1	3	0	4	0	1	8	3	0	12	26
5:30 PM	0	0	0	0	0	0	4	6	0	0	0	10	0	1	2	0	0	3	0	0	2	2	0	4	0	2	4	2	0	8	25
5:45 PM	0	0	0	0	0	0	2	6	0	0	0	8	0	0	2	0	0	2	0	0	4	2	0	6	0	1	6	2	0	9	25
Total	0	0	0	0	0	0	10	23	0	0	0	33	0	3	9	0	0	12	1	0	8	10	0	19	0	8	24	7	0	39	103
Grand Total	0	0	0	0	0	0	26	52	0	0	0	78	0	9	21	0	0	30	1	10	31	31	0	73	0	27	72	18	0	117	298
Approach %	0.0	0.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0	0.0		0.0	30.0	70.0	0.0	0.0		1.4	13.7	42.5	42.5	0.0		0.0	23.1	61.5	15.4	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	8.7	17.4	0.0	0.0	0.0	26.2	0.0	3.0	7.0	0.0	0.0	10.1	0.3	3.4	10.4	10.4	0.0	24.5	0.0	9.1	24.2	6.0	0.0	39.3	
Exiting Leg Total						84						82						28						0						104	298

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:30 PM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
3:30 PM	0	0	0	0	0	0	2	1	0	0	0	3	0	3	3	0	0	6	0	1	2	2	0	5	0	1	8	1	0	10	24
3:45 PM	0	0	0	0	0	0	2	5	0	0	0	7	0	0	1	0	0	1	0	1	4	4	0	9	0	2	5	1	0	8	25
4:00 PM	0	0	0	0	0	0	3	3	0	0	0	6	0	2	3	0	0	5	0	2	2	2	0	6	0	3	5	1	0	9	26
4:15 PM	0	0	0	0	0	0	2	5	0	0	0	7	0	0	1	0	0	1	0	2	7	1	0	10	0	3	6	2	0	11	29
Total Volume	0	0	0	0	0	0	9	14	0	0	0	23	0	5	8	0	0	13	0	6	15	9	0	30	0	9	24	5	0	38	104
% Approach Total	0.0	0.0	0.0	0.0	0.0		39.1	60.9	0.0	0.0	0.0		0.0	38.5	61.5	0.0	0.0		0.0	20.0	50.0	30.0	0.0		0.0	23.7	63.2	13.2	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.700	0.000	0.000	0.000	0.821	0.000	0.417	0.667	0.000	0.000	0.542	0.000	0.750	0.536	0.563	0.000	0.750	0.000	0.750	0.750	0.625	0.000	0.864	0.897
Entering Leg	0	0	0	0	0	0	9	14	0	0	0	23	0	5	8	0	0	13	0	6	15	9	0	30	0	9	24	5	0	38	104
Exiting Leg						34						30						9						0						31	104
Total						34						53						22						30						69	208

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	3	0	0	4	1	1	0	1	0	3	0	1	2	0	0	3	11
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	2	0	0	0	2	4
3:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	0	2	2	0	0	4	7
3:45 PM	0	0	0	0	0	0	1	3	0	0	0	4	0	0	0	0	0	0	0	0	2	2	0	4	0	2	0	0	0	2	10
Total	0	0	0	0	0	0	2	4	0	0	0	6	1	1	6	0	0	8	1	1	2	3	0	7	0	7	4	0	0	11	32
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2	0	0	2	1	0	0	0	0	1	0	2	1	1	0	4	8
4:15 PM	0	0	0	0	0	0	3	0	0	0	0	3	0	3	0	0	0	3	0	0	0	1	0	1	0	1	3	1	0	5	12
4:30 PM	0	0	0	0	0	0	3	0	0	0	0	3	1	2	0	0	0	3	0	0	1	0	0	1	0	1	2	0	0	3	10
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	2	0	0	3	0	0	0	0	0	0	0	0	1	0	0	1	5
Total	0	0	0	0	0	0	7	1	0	0	0	8	1	6	4	0	0	11	1	0	1	1	0	3	0	4	7	2	0	13	35
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	2	0	0	2	0	1	1	2	0	4	8
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	0	1	0	1	0	1	0	2	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	2	0	0	2	4
Total	0	0	0	0	0	0	1	0	0	0	0	1	1	2	1	0	0	4	0	0	4	0	0	4	0	3	3	3	0	9	18
Grand Total	0	0	0	0	0	0	10	5	0	0	0	15	3	9	11	0	0	23	2	1	7	4	0	14	0	14	14	5	0	33	85
Approach %	0.0	0.0	0.0	0.0	0.0		66.7	33.3	0.0	0.0	0.0		13.0	39.1	47.8	0.0	0.0		14.3	7.1	50.0	28.6	0.0		0.0	42.4	42.4	15.2	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	11.8	5.9	0.0	0.0	0.0	17.6	3.5	10.6	12.9	0.0	0.0	27.1	2.4	1.2	8.2	4.7	0.0	16.5	0.0	16.5	16.5	5.9	0.0	38.8	
Exiting Leg Total						31						18						16						0						20	85

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
3:45 PM	0	0	0	0	0	0	1	3	0	0	0	4	0	0	0	0	0	0	0	0	2	2	0	4	0	2	0	0	0	2	10
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2	0	0	2	1	0	0	0	0	1	0	2	1	1	0	4	8
4:15 PM	0	0	0	0	0	0	3	0	0	0	0	3	0	3	0	0	0	3	0	0	0	1	0	1	0	1	3	1	0	5	12
4:30 PM	0	0	0	0	0	0	3	0	0	0	0	3	1	2	0	0	0	3	0	0	1	0	0	1	0	1	2	0	0	3	10
Total Volume	0	0	0	0	0	0	8	3	0	0	0	11	1	5	2	0	0	8	1	0	3	3	0	7	0	6	6	2	0	14	40
% Approach Total	0.0	0.0	0.0	0.0	0.0		72.7	27.3	0.0	0.0	0.0		12.5	62.5	25.0	0.0	0.0		14.3	0.0	42.9	42.9	0.0		0.0	42.9	42.9	14.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.250	0.000	0.000	0.000	0.688	0.250	0.417	0.250	0.000	0.000	0.667	0.250	0.000	0.375	0.375	0.000	0.438	0.000	0.750	0.500	0.500	0.000	0.700	0.833
Entering Leg	0	0	0	0	0	0	8	3	0	0	0	11	1	5	2	0	0	8	1	0	3	3	0	7	0	6	6	2	0	14	40
Exiting Leg						18						7						7						0						8	40
Total						18						18						15						7						22	80

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	3
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Grand Total	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	5	6
Approach %	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	20.0	20.0	60.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	16.7	50.0	0.0	83.3	
Exiting Leg Total						4						1						1						0						0	6

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:15 PM	Park Drive from North						Brookline Avenue from East						Boylston Street from Southeast						Park Drive from South						Brookline Avenue from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	4	5
% Approach Total	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	25.0	25.0	50.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	1.000	0.625
Entering Leg	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	4	5
Exiting Leg						3						1						1						0						0	5
Total						3						2						1						0						4	10

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Park Drive from North								Brookline Avenue from East								Boylston Street from Southeast								Park Drive from South								Brookline Avenue from West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	1	0	2	0	0	0	0	0	2	0	2	2	0	0	0	0	4	0	4	3	0	0	0	0	7	16
3:15 PM	0	0	0	0	0	0	4	4	0	1	0	0	0	1	1	3	0	1	0	0	0	1	5	7	0	0	2	0	0	0	3	5	0	2	5	0	0	0	0	7	26
3:30 PM	0	0	0	0	0	1	1	2	1	2	0	0	0	0	0	3	0	0	2	0	0	0	0	2	1	0	0	2	0	1	0	4	0	1	4	1	0	0	0	6	17
3:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	2	3	0	0	2	0	0	0	1	3	0	0	0	0	0	1	2	3	0	1	3	1	0	0	0	5	15
Total	0	0	0	0	0	2	7	9	2	3	0	0	0	2	3	10	0	3	4	0	0	1	6	14	1	2	4	2	0	2	5	16	0	8	15	2	0	0	0	25	74
4:00 PM	0	0	0	0	0	1	1	2	0	3	0	0	0	1	0	4	0	2	1	0	0	1	0	4	0	0	0	0	0	1	2	3	0	3	5	1	0	0	0	9	22
4:15 PM	0	0	0	0	0	0	1	1	1	2	0	0	0	4	2	9	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	6	11	1	0	0	0	18	30
4:30 PM	0	0	0	0	0	0	0	0	1	3	0	0	0	1	0	5	0	1	3	0	0	1	2	7	0	0	3	0	0	0	0	3	0	4	3	0	0	0	0	7	22
4:45 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	1	5	1	0	0	0	0	0	1	2	0	0	2	0	0	0	0	2	0	4	8	0	0	1	0	13	22
Total	0	0	0	0	0	1	2	3	2	11	0	0	0	7	3	23	1	3	4	0	0	2	5	15	0	0	5	0	0	1	2	8	0	17	27	2	0	1	0	47	96
5:00 PM	0	0	0	0	0	0	4	4	3	5	0	0	0	1	2	11	0	0	1	0	0	0	0	1	1	0	2	0	0	0	1	4	0	2	7	0	0	0	0	9	29
5:15 PM	0	0	0	0	0	2	2	4	4	4	0	0	0	1	0	9	1	0	0	0	0	0	0	1	0	1	3	1	0	2	1	8	0	3	7	1	0	0	1	12	34
5:30 PM	0	0	0	0	0	1	1	2	2	5	0	0	0	3	1	11	0	0	1	0	0	0	0	1	0	0	4	0	0	1	0	5	0	5	4	0	0	1	1	11	30
5:45 PM	0	0	0	0	0	1	1	2	1	4	0	0	0	0	1	6	0	0	1	0	0	0	0	1	0	1	5	0	0	0	2	8	0	5	4	0	0	0	0	9	26
Total	0	0	0	0	0	4	8	12	10	18	0	0	0	5	4	37	1	0	3	0	0	0	0	4	1	2	14	1	0	3	4	25	0	15	22	1	0	1	2	41	119
Grand Total	0	0	0	0	0	7	17	24	14	32	0	0	0	14	10	70	2	6	11	0	0	3	11	33	2	4	23	3	0	6	11	49	0	40	64	5	0	2	2	113	289
Approach %	0.0	0.0	0.0	0.0	0.0	29.2	70.8		20.0	45.7	0.0	0.0	0.0	20.0	14.3		6.1	18.2	33.3	0.0	0.0	9.1	33.3		4.1	8.2	46.9	6.1	0.0	12.2	22.4		0.0	35.4	56.6	4.4	0.0	1.8	1.8		
Total %	0.0	0.0	0.0	0.0	0.0	2.4	5.9	8.3	4.8	11.1	0.0	0.0	0.0	4.8	3.5	24.2	0.7	2.1	3.8	0.0	0.0	1.0	3.8	11.4	0.7	1.4	8.0	1.0	0.0	2.1	3.8	17.0	0.0	13.8	22.1	1.7	0.0	0.7	0.7	39.1	
Exiting Leg Total								72								94								56								17								50	289

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Park Drive from North								Brookline Avenue from East								Boylston Street from Southeast								Park Drive from South								Brookline Avenue from West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	0	4	4	3	5	0	0	0	1	2	11	0	0	1	0	0	0	0	1	1	0	2	0	0	0	1	4	0	2	7	0	0	0	0	9	29
5:15 PM	0	0	0	0	0	2	2	4	4	4	0	0	0	1	0	9	1	0	0	0	0	0	0	1	0	1	3	1	0	2	1	8	0	3	7	1	0	0	1	12	34
5:30 PM	0	0	0	0	0	1	1	2	2	5	0	0	0	3	1	11	0	0	1	0	0	0	0	1	0	0	4	0	0	1	0	5	0	5	4	0	0	1	1	11	30
5:45 PM	0	0	0	0	0	1	1	2	1	4	0	0	0	0	1	6	0	0	1	0	0	0	0	1	0	1	5	0	0	0	2	8	0	5	4	0	0	0	0	9	26
Total Volume	0	0	0	0	0	4	8	12	10	18	0	0	0	5	4	37	1	0	3	0	0	0	0	4	1	2	14	1	0	3	4	25	0	15	22	1	0	1	2	41	119
% Approach Total	0.0	0.0	0.0	0.0	0.0	33.3	66.7		27.0	48.6	0.0	0.0	0.0	13.5	10.8		25.0	0.0	75.0	0.0	0.0	0.0	0.0		4.0	8.0	56.0	4.0	0.0	12.0	16.0		0.0	36.6	53.7	2.4	0.0	2.4	4.9		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.750	0.625	0.900	0.000	0.000	0.000	0.417	0.500	0.841	0.250	0.000	0.750	0.000	0.000	0.000	0.000	1.000	0.250	0.500	0.700	0.250	0.000	0.375	0.500	0.781	0.000	0.750	0.786	0.250	0.000	0.250	0.500	0.854	0.875
Entering Leg	0	0	0	0	0	4	8	12	10	18	0	0	0	5	4	37	1	0	3	0	0	0	0	4	1	2	14	1	0	3	4	25	0	15	22	1	0	1	2	41	119
Exiting Leg								37								34								16								7								25	119
Total								49								71								20								32								66	238

PDI File #: **249980 D**
Location: **N: Park Drive S: Park Drive**
Location: **E: Brookline Avenue W: Brookline Avenue SE: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Park Drive from North								Brookline Avenue from East								Boylston Street from Southeast								Park Drive from South								Brookline Avenue from West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	22	36	58	0	0	0	0	0	33	41	74	0	0	0	0	0	35	41	76	0	0	0	0	0	39	56	95	0	0	0	0	0	6	4	10	313
3:15 PM	0	0	0	0	0	39	10	49	0	0	0	0	0	28	41	69	0	0	0	0	0	50	58	108	0	0	0	0	0	40	74	114	0	0	0	0	0	13	3	16	356
3:30 PM	0	0	0	0	0	28	15	43	0	0	0	0	0	30	26	56	0	0	0	0	0	41	30	71	0	0	0	0	0	44	63	107	0	0	0	0	0	4	0	4	281
3:45 PM	0	0	0	0	0	33	19	52	0	0	0	0	0	40	31	71	0	0	0	0	0	38	53	91	0	0	0	0	0	21	78	99	0	0	0	0	0	3	0	3	316
Total	0	0	0	0	0	122	80	202	0	0	0	0	0	131	139	270	0	0	0	0	0	164	182	346	0	0	0	0	0	144	271	415	0	0	0	0	0	26	7	33	1266
4:00 PM	0	0	0	0	0	41	25	66	0	0	0	0	0	40	46	86	0	0	0	0	0	23	51	74	0	0	0	0	0	33	81	114	0	0	0	0	0	18	1	19	359
4:15 PM	0	0	0	0	0	40	20	60	0	0	0	0	0	35	46	81	0	0	0	0	0	30	54	84	0	0	0	0	0	35	73	108	0	0	0	0	0	14	5	19	352
4:30 PM	0	0	0	0	0	53	22	75	0	0	0	0	0	52	63	115	0	0	0	0	0	31	65	96	0	0	0	0	0	47	147	194	0	0	0	0	0	8	1	9	489
4:45 PM	0	0	0	0	0	46	24	70	0	0	0	0	0	47	64	111	0	0	0	0	0	43	69	112	0	0	0	0	0	46	141	187	0	0	0	0	0	20	3	23	503
Total	0	0	0	0	0	180	91	271	0	0	0	0	0	174	219	393	0	0	0	0	0	127	239	366	0	0	0	0	0	161	442	603	0	0	0	0	0	60	10	70	1703
5:00 PM	0	0	0	0	0	51	33	84	0	0	0	0	0	49	60	109	0	0	0	0	0	51	71	122	0	0	0	0	0	55	121	176	0	0	0	0	0	13	6	19	510
5:15 PM	0	0	0	0	0	44	28	72	0	0	0	0	0	56	77	133	0	0	0	0	0	63	102	165	0	0	0	0	0	68	127	195	0	0	0	0	0	16	6	22	587
5:30 PM	0	0	0	0	0	64	33	97	0	0	0	0	0	71	60	131	0	0	0	0	0	39	81	120	0	0	0	0	0	38	157	195	0	0	0	0	0	11	9	20	563
5:45 PM	0	0	0	0	0	54	24	78	0	0	0	0	0	36	63	99	0	0	0	0	0	31	103	134	0	0	0	0	0	29	132	161	0	0	0	0	0	16	8	24	496
Total	0	0	0	0	0	213	118	331	0	0	0	0	0	212	260	472	0	0	0	0	0	184	357	541	0	0	0	0	0	190	537	727	0	0	0	0	0	56	29	85	2156
Grand Total	0	0	0	0	0	515	289	804	0	0	0	0	0	517	618	1135	0	0	0	0	0	475	778	1253	0	0	0	0	0	495	1250	1745	0	0	0	0	0	142	46	188	5125
Approach %	0	0	0	0	0	64.1	35.9		0	0	0	0	0	45.6	54.4		0	0	0	0	0	37.9	62.1		0	0	0	0	0	28.4	71.6		0	0	0	0	0	75.5	24.5		
Total %	0	0	0	0	0	10	5.64	15.7	0	0	0	0	0	10.1	12.1	22.1	0	0	0	0	0	9.27	15.2	24.4	0	0	0	0	0	9.66	24.4	34	0	0	0	0	0	2.77	0.9	3.67	
Exiting Leg Total								804								1135								1253								1745								188	5125

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Park Drive from North								Brookline Avenue from East								Boylston Street from Southeast								Park Drive from South								Brookline Avenue from West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:45 PM	0	0	0	0	0	46	24	70	0	0	0	0	0	47	64	111	0	0	0	0	0	43	69	112	0	0	0	0	0	46	141	187	0	0	0	0	0	20	3	23	503
5:00 PM	0	0	0	0	0	51	33	84	0	0	0	0	0	49	60	109	0	0	0	0	0	51	71	122	0	0	0	0	0	55	121	176	0	0	0	0	0	13	6	19	510
5:15 PM	0	0	0	0	0	44	28	72	0	0	0	0	0	56	77	133	0	0	0	0	0	63	102	165	0	0	0	0	0	68	127	195	0	0	0	0	0	16	6	22	587
5:30 PM	0	0	0	0	0	64	33	97	0	0	0	0	0	71	60	131	0	0	0	0	0	39	81	120	0	0	0	0	0	38	157	195	0	0	0	0	0	11	9	20	563
Total Volume	0	0	0	0	0	205	118	323	0	0	0	0	0	223	261	484	0	0	0	0	0	196	323	519	0	0	0	0	0	207	546	753	0	0	0	0	0	60	24	84	2163
% Approach Total	0.0	0.0	0.0	0.0	0.0	63.5	36.5		0.0	0.0	0.0	0.0	0.0	46.1	53.9		0.0	0.0	0.0	0.0	0.0	37.8	62.2		0.0	0.0	0.0	0.0	0.0	27.5	72.5		0.0	0.0	0.0	0.0	0.0	71.4	28.6		
PHF	0.000	0.000	0.000	0.000	0.000	0.801	0.894	0.832	0.000	0.000	0.000	0.000	0.000	0.785	0.847	0.910	0.000	0.000	0.000	0.000	0.000	0.778	0.792	0.786	0.000	0.000	0.000	0.000	0.000	0.761	0.869	0.965	0.000	0.000	0.000	0.000	0.000	0.750	0.667	0.913	0.921
Entering Leg	0	0	0	0	0	205	118	323	0	0	0	0	0	223	261	484	0	0	0	0	0	196	323	519	0	0	0	0	0	207	546	753	0	0	0	0	0	60	24	84	2163
Exiting Leg								323								484								519								753								84	2163
Total								646								968								1038								1506								168	4326

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

Cars and Heavy Vehicles (Combined)

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	1	0	0	0	1	3	35	80	0	118	0	0	0	0	0	119
6:15 AM	0	0	0	0	0	3	2	0	0	5	4	35	98	0	137	0	0	0	0	0	142
6:30 AM	0	0	0	0	0	1	2	0	0	3	3	48	117	0	168	0	0	0	0	0	171
6:45 AM	0	0	0	0	0	6	4	0	0	10	11	44	109	0	164	0	0	0	0	0	174
Total	0	0	0	0	0	11	8	0	0	19	21	162	404	0	587	0	0	0	0	0	606
7:00 AM	0	0	0	0	0	3	3	0	0	6	7	46	129	0	182	0	0	0	0	0	188
7:15 AM	0	0	0	0	0	0	1	0	0	1	4	46	159	0	209	0	0	0	0	0	210
7:30 AM	0	0	0	0	0	3	1	0	0	4	10	67	176	0	253	0	0	0	0	0	257
7:45 AM	0	0	0	0	0	6	8	0	0	14	5	80	169	0	254	0	0	0	0	0	268
Total	0	0	0	0	0	12	13	0	0	25	26	239	633	0	898	0	0	0	0	0	923
8:00 AM	0	0	0	0	0	2	1	0	0	3	4	70	121	0	195	0	0	0	0	0	198
8:15 AM	0	0	0	0	0	4	4	0	0	8	9	70	116	0	195	0	0	0	0	0	203
8:30 AM	0	0	0	0	0	1	3	0	0	4	4	69	137	0	210	0	0	0	0	0	214
8:45 AM	0	0	0	0	0	2	3	0	0	5	6	79	141	0	226	0	0	0	0	0	231
Total	0	0	0	0	0	9	11	0	0	20	23	288	515	0	826	0	0	0	0	0	846
Grand Total	0	0	0	0	0	32	32	0	0	64	70	689	1552	0	2311	0	0	0	0	0	2375
Approach %	0.0	0.0	0.0	0.0		50.0	50.0	0.0	0.0		3.0	29.8	67.2	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0	2.7	2.9	29.0	65.3	0.0	97.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					721					70					0					1584	2375
Cars	0	0	0	0	0	27	19	0	0	46	59	619	1496	0	2174	0	0	0	0	0	2220
% Cars	0.0	0.0	0.0	0.0	0.0	84.4	59.4	0.0	0.0	71.9	84.3	89.8	96.4	0.0	94.1	0.0	0.0	0.0	0.0	0.0	93.5
Exiting Leg Total					646					59					0					1515	2220
Heavy Vehicles	0	0	0	0	0	5	13	0	0	18	11	70	56	0	137	0	0	0	0	0	155
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	15.6	40.6	0.0	0.0	28.1	15.7	10.2	3.6	0.0	5.9	0.0	0.0	0.0	0.0	0.0	6.5
Exiting Leg Total					75					11					0					69	155

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	1	0	0	1	4	46	159	0	209	0	0	0	0	0	210
7:30 AM	0	0	0	0	0	3	1	0	0	4	10	67	176	0	253	0	0	0	0	0	257
7:45 AM	0	0	0	0	0	6	8	0	0	14	5	80	169	0	254	0	0	0	0	0	268
8:00 AM	0	0	0	0	0	2	1	0	0	3	4	70	121	0	195	0	0	0	0	0	198
Total Volume	0	0	0	0	0	11	11	0	0	22	23	263	625	0	911	0	0	0	0	0	933
% Approach Total	0.0	0.0	0.0	0.0		50.0	50.0	0.0	0.0		2.5	28.9	68.6	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.458	0.344	0.000	0.000	0.393	0.575	0.822	0.888	0.000	0.897	0.000	0.000	0.000	0.000	0.000	0.870
Cars	0	0	0	0	0	9	5	0	0	14	16	240	597	0	853	0	0	0	0	0	867
Cars %	0.0	0.0	0.0	0.0	0.0	81.8	45.5	0.0	0.0	63.6	69.6	91.3	95.5	0.0	93.6	0.0	0.0	0.0	0.0	0.0	92.9
Heavy Vehicles	0	0	0	0	0	2	6	0	0	8	7	23	28	0	58	0	0	0	0	0	66
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	18.2	54.5	0.0	0.0	36.4	30.4	8.7	4.5	0.0	6.4	0.0	0.0	0.0	0.0	0.0	7.1
Cars Enter Leg	0	0	0	0	0	9	5	0	0	14	16	240	597	0	853	0	0	0	0	0	867
Heavy Enter Leg	0	0	0	0	0	2	6	0	0	8	7	23	28	0	58	0	0	0	0	0	66
Total Entering Leg	0	0	0	0	0	11	11	0	0	22	23	263	625	0	911	0	0	0	0	0	933
Cars Exiting Leg					249					16					0					602	867
Heavy Exiting Leg					25					7					0					34	66
Total Exiting Leg					274					23					0					636	933

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**

Class: **Cars**

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	1	0	0	0	1	3	31	80	0	114	0	0	0	0	0	115
6:15 AM	0	0	0	0	0	3	2	0	0	5	4	31	98	0	133	0	0	0	0	0	138
6:30 AM	0	0	0	0	0	1	2	0	0	3	3	41	116	0	160	0	0	0	0	0	163
6:45 AM	0	0	0	0	0	6	4	0	0	10	11	38	105	0	154	0	0	0	0	0	164
Total	0	0	0	0	0	11	8	0	0	19	21	141	399	0	561	0	0	0	0	0	580
7:00 AM	0	0	0	0	0	3	2	0	0	5	7	41	127	0	175	0	0	0	0	0	180
7:15 AM	0	0	0	0	0	0	1	0	0	1	3	43	152	0	198	0	0	0	0	0	199
7:30 AM	0	0	0	0	0	3	1	0	0	4	7	63	167	0	237	0	0	0	0	0	241
7:45 AM	0	0	0	0	0	5	3	0	0	8	4	69	161	0	234	0	0	0	0	0	242
Total	0	0	0	0	0	11	7	0	0	18	21	216	607	0	844	0	0	0	0	0	862
8:00 AM	0	0	0	0	0	1	0	0	0	1	2	65	117	0	184	0	0	0	0	0	185
8:15 AM	0	0	0	0	0	3	3	0	0	6	8	64	111	0	183	0	0	0	0	0	189
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	64	128	0	194	0	0	0	0	0	194
8:45 AM	0	0	0	0	0	1	1	0	0	2	5	69	134	0	208	0	0	0	0	0	210
Total	0	0	0	0	0	5	4	0	0	9	17	262	490	0	769	0	0	0	0	0	778
Grand Total	0	0	0	0	0	27	19	0	0	46	59	619	1496	0	2174	0	0	0	0	0	2220
Approach %	0.0	0.0	0.0	0.0		58.7	41.3	0.0	0.0		2.7	28.5	68.8	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	1.2	0.9	0.0	0.0	2.1	2.7	27.9	67.4	0.0	97.9	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					646					59					0					1515	2220

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	1	0	0	1	3	43	152	0	198	0	0	0	0	0	199
7:30 AM	0	0	0	0	0	3	1	0	0	4	7	63	167	0	237	0	0	0	0	0	241
7:45 AM	0	0	0	0	0	5	3	0	0	8	4	69	161	0	234	0	0	0	0	0	242
8:00 AM	0	0	0	0	0	1	0	0	0	1	2	65	117	0	184	0	0	0	0	0	185
Total Volume	0	0	0	0	0	9	5	0	0	14	16	240	597	0	853	0	0	0	0	0	867
% Approach Total	0.0	0.0	0.0	0.0		64.3	35.7	0.0	0.0		1.9	28.1	70.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.450	0.417	0.000	0.000	0.438	0.571	0.870	0.894	0.000	0.900	0.000	0.000	0.000	0.000	0.000	0.896
Entering Leg	0	0	0	0	0	9	5	0	0	14	16	240	597	0	853	0	0	0	0	0	867
Exiting Leg					249					16					0					602	867
Total					249					30					853					602	1734

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	8
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	4	0	10	0	0	0	0	0	10
Total	0	0	0	0	0	0	0	0	0	0	0	21	5	0	26	0	0	0	0	0	26
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	5	2	0	7	0	0	0	0	0	8
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	3	7	0	11	0	0	0	0	0	11
7:30 AM	0	0	0	0	0	0	0	0	0	0	3	4	9	0	16	0	0	0	0	0	16
7:45 AM	0	0	0	0	0	1	5	0	0	6	1	11	8	0	20	0	0	0	0	0	26
Total	0	0	0	0	0	1	6	0	0	7	5	23	26	0	54	0	0	0	0	0	61
8:00 AM	0	0	0	0	0	1	1	0	0	2	2	5	4	0	11	0	0	0	0	0	13
8:15 AM	0	0	0	0	0	1	1	0	0	2	1	6	5	0	12	0	0	0	0	0	14
8:30 AM	0	0	0	0	0	1	3	0	0	4	2	5	9	0	16	0	0	0	0	0	20
8:45 AM	0	0	0	0	0	1	2	0	0	3	1	10	7	0	18	0	0	0	0	0	21
Total	0	0	0	0	0	4	7	0	0	11	6	26	25	0	57	0	0	0	0	0	68
Grand Total	0	0	0	0	0	5	13	0	0	18	11	70	56	0	137	0	0	0	0	0	155
Approach %	0.0	0.0	0.0	0.0		27.8	72.2	0.0	0.0		8.0	51.1	40.9	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	3.2	8.4	0.0	0.0	11.6	7.1	45.2	36.1	0.0	88.4	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					75					11					0					69	155
Buses	0	0	0	0	0	0	7	0	0	7	4	30	36	0	70	0	0	0	0	0	77
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	53.8	0.0	0.0	38.9	36.4	42.9	64.3	0.0	51.1	0.0	0.0	0.0	0.0	0.0	49.7
Exiting Leg Total					30					4					0					43	77
Single-Unit Trucks	0	0	0	0	0	4	6	0	0	10	7	38	18	0	63	0	0	0	0	0	73
% Single-Unit	0.0	0.0	0.0	0.0	0.0	80.0	46.2	0.0	0.0	55.6	63.6	54.3	32.1	0.0	46.0	0.0	0.0	0.0	0.0	0.0	47.1
Exiting Leg Total					42					7					0					24	73
Articulated Trucks	0	0	0	0	0	1	0	0	0	1	0	2	2	0	4	0	0	0	0	0	5
% Articulated	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	5.6	0.0	2.9	3.6	0.0	2.9	0.0	0.0	0.0	0.0	0.0	3.2
Exiting Leg Total					3					0					0					2	5

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	1	5	0	0	6	1	11	8	0	20	0	0	0	0	0	26
8:00 AM	0	0	0	0	0	1	1	0	0	2	2	5	4	0	11	0	0	0	0	0	13
8:15 AM	0	0	0	0	0	1	1	0	0	2	1	6	5	0	12	0	0	0	0	0	14
8:30 AM	0	0	0	0	0	1	3	0	0	4	2	5	9	0	16	0	0	0	0	0	20
Total Volume	0	0	0	0	0	4	10	0	0	14	6	27	26	0	59	0	0	0	0	0	73
% Approach Total	0.0	0.0	0.0	0.0		28.6	71.4	0.0	0.0		10.2	45.8	44.1	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	1.000	0.500	0.000	0.000	0.583	0.750	0.614	0.722	0.000	0.738	0.000	0.000	0.000	0.000	0.000	0.702
Buses	0	0	0	0	0	0	5	0	0	5	2	14	18	0	34	0	0	0	0	0	39
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	35.7	33.3	51.9	69.2	0.0	57.6	0.0	0.0	0.0	0.0	0.0	53.4
Single-Unit Trucks	0	0	0	0	0	3	5	0	0	8	4	12	8	0	24	0	0	0	0	0	32
Single-Unit %	0.0	0.0	0.0	0.0	0.0	75.0	50.0	0.0	0.0	57.1	66.7	44.4	30.8	0.0	40.7	0.0	0.0	0.0	0.0	0.0	43.8
Articulated Trucks	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
Articulated %	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	7.1	0.0	3.7	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	2.7
Buses	0	0	0	0	0	0	5	0	0	5	2	14	18	0	34	0	0	0	0	0	39
Single-Unit Trucks	0	0	0	0	0	3	5	0	0	8	4	12	8	0	24	0	0	0	0	0	32
Articulated Trucks	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
Total Entering Leg	0	0	0	0	0	4	10	0	0	14	6	27	26	0	59	0	0	0	0	0	73
Buses					14					2					0					23	39
Single-Unit Trucks					15					4					0					13	32
Articulated Trucks					2					0					0					0	2
Total Exiting Leg					31					6					0					36	73

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Buses**

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	2
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	3	0	6	0	0	0	0	0	6
Total	0	0	0	0	0	0	0	0	0	0	0	7	4	0	11	0	0	0	0	0	11
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	3	2	0	5	0	0	0	0	0	6
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	5	0	7	0	0	0	0	0	7
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	2	3	0	6	0	0	0	0	0	6
7:45 AM	0	0	0	0	0	0	2	0	0	2	1	5	4	0	10	0	0	0	0	0	12
Total	0	0	0	0	0	0	3	0	0	3	2	12	14	0	28	0	0	0	0	0	31
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	4	4	0	8	0	0	0	0	0	9
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	1	4	0	5	0	0	0	0	0	6
8:30 AM	0	0	0	0	0	0	1	0	0	1	1	4	6	0	11	0	0	0	0	0	12
8:45 AM	0	0	0	0	0	0	1	0	0	1	1	2	4	0	7	0	0	0	0	0	8
Total	0	0	0	0	0	0	4	0	0	4	2	11	18	0	31	0	0	0	0	0	35
Grand Total	0	0	0	0	0	0	7	0	0	7	4	30	36	0	70	0	0	0	0	0	77
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		5.7	42.9	51.4	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	9.1	5.2	39.0	46.8	0.0	90.9	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					30					4					0					43	77

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	0	2	0	0	2	1	5	4	0	10	0	0	0	0	0	12
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	4	4	0	8	0	0	0	0	0	9
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	1	4	0	5	0	0	0	0	0	6
8:30 AM	0	0	0	0	0	0	1	0	0	1	1	4	6	0	11	0	0	0	0	0	12
Total Volume	0	0	0	0	0	0	5	0	0	5	2	14	18	0	34	0	0	0	0	0	39
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		5.9	41.2	52.9	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.500	0.700	0.750	0.000	0.773	0.000	0.000	0.000	0.000	0.000	0.813
Entering Leg	0	0	0	0	0	0	5	0	0	5	2	14	18	0	34	0	0	0	0	0	39
Exiting Leg					14					2					0					23	39
Total					14					7					34					23	78

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Single-Unit Trucks**

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	6
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	13	1	0	14	0	0	0	0	0	14
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	6	0	10	0	0	0	0	0	10
7:45 AM	0	0	0	0	0	1	3	0	0	4	0	6	4	0	10	0	0	0	0	0	14
Total	0	0	0	0	0	1	3	0	0	4	3	11	11	0	25	0	0	0	0	0	29
8:00 AM	0	0	0	0	0	1	0	0	0	1	2	1	0	0	3	0	0	0	0	0	4
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	4	1	0	6	0	0	0	0	0	6
8:30 AM	0	0	0	0	0	1	2	0	0	3	1	1	3	0	5	0	0	0	0	0	8
8:45 AM	0	0	0	0	0	1	1	0	0	2	0	8	2	0	10	0	0	0	0	0	12
Total	0	0	0	0	0	3	3	0	0	6	4	14	6	0	24	0	0	0	0	0	30
Grand Total	0	0	0	0	0	4	6	0	0	10	7	38	18	0	63	0	0	0	0	0	73
Approach %	0.0	0.0	0.0	0.0		40.0	60.0	0.0	0.0		11.1	60.3	28.6	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	5.5	8.2	0.0	0.0	13.7	9.6	52.1	24.7	0.0	86.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					42					7					0					24	73

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	6	0	10	0	0	0	0	0	10
7:45 AM	0	0	0	0	0	1	3	0	0	4	0	6	4	0	10	0	0	0	0	0	14
8:00 AM	0	0	0	0	0	1	0	0	0	1	2	1	0	0	3	0	0	0	0	0	4
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	4	1	0	6	0	0	0	0	0	6
Total Volume	0	0	0	0	0	2	3	0	0	5	5	13	11	0	29	0	0	0	0	0	34
% Approach Total	0.0	0.0	0.0	0.0		40.0	60.0	0.0	0.0		17.2	44.8	37.9	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.000	0.313	0.625	0.542	0.458	0.000	0.725	0.000	0.000	0.000	0.000	0.000	0.607
Entering Leg	0	0	0	0	0	2	3	0	0	5	5	13	11	0	29	0	0	0	0	0	34
Exiting Leg					15					5					0					14	34
Total					15					10					29					14	68

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Articulated Trucks**

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	3
Grand Total	0	0	0	0	0	1	0	0	0	1	0	2	2	0	4	0	0	0	0	0	5
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	20.0	0.0	40.0	40.0	0.0	80.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					3					0					0					2	5

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	3
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	0	0	0	0	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	3
Exiting Leg					2					0					0					1	3
Total					2					1					2					1	6

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Bicycles (on Roadway and Crosswalks)**

	Park Drive from North							Landmark Driveway from East							Park Drive from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	2	0	0	0	0	2	0	0	0	0	0	0	0	4
Total	0	0	0	0	0	0	0	1	0	0	0	1	1	3	0	3	0	0	0	0	3	0	0	0	0	0	0	0	6
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	1	3	1	1	0	0	0	1	3	0	0	0	0	0	0	0	6
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	2	7	0	1	0	0	0	0	1	0	0	0	0	0	0	0	8
Total	0	0	0	0	0	0	0	0	0	1	0	10	3	14	1	4	0	0	0	1	6	0	0	0	0	0	0	0	20
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	1	0	1	0	11	4	17	1	7	1	0	0	1	10	0	0	0	0	0	0	0	27
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		5.9	0.0	5.9	0.0	64.7	23.5		10.0	70.0	10.0	0.0	0.0	10.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	3.7	0.0	40.7	14.8	63.0	3.7	25.9	3.7	0.0	0.0	3.7	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							8							16							2							1	27

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:00 AM	Park Drive from North							Landmark Driveway from East							Park Drive from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	1	3	1	1	0	0	0	1	3	0	0	0	0	0	0	0	6
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	2	7	0	1	0	0	0	0	1	0	0	0	0	0	0	0	8
Total Volume	0	0	0	0	0	0	0	0	0	1	0	10	3	14	1	4	0	0	0	1	6	0	0	0	0	0	0	0	20
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	7.1	0.0	71.4	21.4		16.7	66.7	0.0	0.0	0.0	16.7		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.500	0.375	0.500	0.250	1.000	0.000	0.000	0.000	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625
Entering Leg	0	0	0	0	0	0	0	0	0	1	0	10	3	14	1	4	0	0	0	1	6	0	0	0	0	0	0	0	20
Exiting Leg							4							14							2							0	20
Total							4							28							8							0	40

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Pedestrians**

	Park Drive from North							Landmark Driveway from East							Park Drive from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	5	4	9	0	0	0	0	2	0	2	0	0	0	0	0	0	0	11
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	8	5	13	0	0	0	0	0	2	2	0	0	0	0	0	0	0	15
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	8	5	13	0	0	0	0	1	1	2	0	0	0	0	0	0	0	15
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	13	7	20	0	0	0	0	0	2	2	0	0	0	0	0	0	0	22
Total	0	0	0	0	0	0	0	0	0	0	0	34	21	55	0	0	0	0	3	5	8	0	0	0	0	0	0	0	63
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	7	9	16	0	0	0	0	1	0	1	0	0	0	0	0	0	0	17
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	18	9	27	0	0	0	0	5	1	6	0	0	0	0	0	0	0	33
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	20	17	37	0	0	0	0	3	2	5	0	0	0	0	0	0	0	42
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	15	13	28	0	0	0	0	0	2	2	0	0	0	0	0	1	1	31
Total	0	0	0	0	0	0	0	0	0	0	0	60	48	108	0	0	0	0	9	5	14	0	0	0	0	0	1	1	123
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	17	16	33	0	0	0	0	1	3	4	0	0	0	0	0	0	0	37
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	17	16	33	0	0	0	0	2	2	4	0	0	0	0	0	0	0	37
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	31	27	58	0	0	0	0	7	1	8	0	0	0	0	0	0	0	66
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	23	20	43	0	0	0	0	2	3	5	0	0	0	0	0	0	0	48
Total	0	0	0	0	0	0	0	0	0	0	0	88	79	167	0	0	0	0	12	9	21	0	0	0	0	0	0	0	188
Grand Total	0	0	0	0	0	0	0	0	0	0	0	182	148	330	0	0	0	0	24	19	43	0	0	0	0	0	1	1	374
Approach %	0	0	0	0	0	0		0	0	0	0	55.2	44.8		0	0	0	0	55.8	44.2		0	0	0	0	0	100		
Total %	0	0	0	0	0	0	0	0	0	0	0	48.7	39.6	88.2	0	0	0	0	6.42	5.08	11.5	0	0	0	0	0	0.27	0.27	
Exiting Leg Total							0							330							43							1	374

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Park Drive from North							Landmark Driveway from East							Park Drive from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	17	16	33	0	0	0	0	1	3	4	0	0	0	0	0	0	0	37
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	17	16	33	0	0	0	0	2	2	4	0	0	0	0	0	0	0	37
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	31	27	58	0	0	0	0	7	1	8	0	0	0	0	0	0	0	66
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	23	20	43	0	0	0	0	2	3	5	0	0	0	0	0	0	0	48
Total Volume	0	0	0	0	0	0	0	0	0	0	0	88	79	167	0	0	0	0	12	9	21	0	0	0	0	0	0	0	188
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	52.7	47.3		0.0	0.0	0.0	0.0	57.1	42.9		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.710	0.731	0.720	0.000	0.000	0.000	0.000	0.429	0.750	0.656	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.712
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	88	79	167	0	0	0	0	12	9	21	0	0	0	0	0	0	0	188
Exiting Leg							0							167							21							0	188
Total							0							334							42							0	376

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

Cars and Heavy Vehicles (Combined)

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	2	4	0	0	6	4	103	194	0	301	0	0	0	0	0	307
3:15 PM	0	0	0	0	0	2	2	0	0	4	5	108	152	0	265	0	0	0	0	0	269
3:30 PM	0	0	0	0	0	1	4	0	0	5	4	102	175	0	281	0	0	0	0	0	286
3:45 PM	0	0	0	0	0	3	6	0	0	9	12	101	175	0	288	0	0	0	0	0	297
Total	0	0	0	0	0	8	16	0	0	24	25	414	696	0	1135	0	0	0	0	0	1159
4:00 PM	0	0	0	0	0	5	4	0	0	9	7	84	181	0	272	0	0	0	0	0	281
4:15 PM	0	0	0	0	0	6	7	0	0	13	14	118	184	0	316	0	0	1	0	1	330
4:30 PM	0	0	0	0	0	3	2	0	0	5	8	113	199	0	320	0	0	0	0	0	325
4:45 PM	0	0	0	0	0	3	8	0	0	11	9	117	140	0	266	0	0	0	0	0	277
Total	0	0	0	0	0	17	21	0	0	38	38	432	704	0	1174	0	0	1	0	1	1213
5:00 PM	0	0	0	0	0	6	4	0	0	10	9	108	154	0	271	0	0	0	0	0	281
5:15 PM	0	0	0	0	0	7	3	0	0	10	8	136	196	0	340	0	0	0	0	0	350
5:30 PM	0	0	0	0	0	6	6	0	0	12	8	104	188	0	300	0	0	0	0	0	312
5:45 PM	0	0	0	0	0	6	7	0	0	13	14	108	173	0	295	0	0	0	0	0	308
Total	0	0	0	0	0	25	20	0	0	45	39	456	711	0	1206	0	0	0	0	0	1251
Grand Total	0	0	0	0	0	50	57	0	0	107	102	1302	2111	0	3515	0	0	1	0	1	3623
Approach %	0.0	0.0	0.0	0.0		46.7	53.3	0.0	0.0		2.9	37.0	60.1	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	1.4	1.6	0.0	0.0	3.0	2.8	35.9	58.3	0.0	97.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1353					102					0					2168	3623
Cars	0	0	0	0	0	45	41	0	0	86	89	1248	2065	0	3402	0	0	1	0	1	3489
% Cars	0.0	0.0	0.0	0.0	0.0	90.0	71.9	0.0	0.0	80.4	87.3	95.9	97.8	0.0	96.8	0.0	0.0	100.0	0.0	100.0	96.3
Exiting Leg Total					1294					89					0					2106	3489
Heavy Vehicles	0	0	0	0	0	5	16	0	0	21	13	54	46	0	113	0	0	0	0	0	134
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	10.0	28.1	0.0	0.0	19.6	12.7	4.1	2.2	0.0	3.2	0.0	0.0	0.0	0.0	0.0	3.7
Exiting Leg Total					59					13					0					62	134

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	6	4	0	0	10	9	108	154	0	271	0	0	0	0	0	281
5:15 PM	0	0	0	0	0	7	3	0	0	10	8	136	196	0	340	0	0	0	0	0	350
5:30 PM	0	0	0	0	0	6	6	0	0	12	8	104	188	0	300	0	0	0	0	0	312
5:45 PM	0	0	0	0	0	6	7	0	0	13	14	108	173	0	295	0	0	0	0	0	308
Total Volume	0	0	0	0	0	25	20	0	0	45	39	456	711	0	1206	0	0	0	0	0	1251
% Approach Total	0.0	0.0	0.0	0.0		55.6	44.4	0.0	0.0		3.2	37.8	59.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.893	0.714	0.000	0.000	0.865	0.696	0.838	0.907	0.000	0.887	0.000	0.000	0.000	0.000	0.000	0.894
Cars	0	0	0	0	0	23	14	0	0	37	38	436	696	0	1170	0	0	0	0	0	1207
Cars %	0.0	0.0	0.0	0.0	0.0	92.0	70.0	0.0	0.0	82.2	97.4	95.6	97.9	0.0	97.0	0.0	0.0	0.0	0.0	0.0	96.5
Heavy Vehicles	0	0	0	0	0	2	6	0	0	8	1	20	15	0	36	0	0	0	0	0	44
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	8.0	30.0	0.0	0.0	17.8	2.6	4.4	2.1	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.5
Cars Enter Leg	0	0	0	0	0	23	14	0	0	37	38	436	696	0	1170	0	0	0	0	0	1207
Heavy Enter Leg	0	0	0	0	0	2	6	0	0	8	1	20	15	0	36	0	0	0	0	0	44
Total Entering Leg	0	0	0	0	0	25	20	0	0	45	39	456	711	0	1206	0	0	0	0	0	1251
Cars Exiting Leg					459					38					0					710	1207
Heavy Exiting Leg					22					1					0					21	44
Total Exiting Leg					481					39					0					731	1251

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Cars**

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	1	3	0	0	4	4	98	192	0	294	0	0	0	0	0	298
3:15 PM	0	0	0	0	0	2	2	0	0	4	4	106	148	0	258	0	0	0	0	0	262
3:30 PM	0	0	0	0	0	1	3	0	0	4	4	99	172	0	275	0	0	0	0	0	279
3:45 PM	0	0	0	0	0	3	6	0	0	9	10	96	171	0	277	0	0	0	0	0	286
Total	0	0	0	0	0	7	14	0	0	21	22	399	683	0	1104	0	0	0	0	0	1125
4:00 PM	0	0	0	0	0	5	2	0	0	7	6	81	175	0	262	0	0	0	0	0	269
4:15 PM	0	0	0	0	0	6	5	0	0	11	11	110	178	0	299	0	0	1	0	1	311
4:30 PM	0	0	0	0	0	2	1	0	0	3	4	110	195	0	309	0	0	0	0	0	312
4:45 PM	0	0	0	0	0	2	5	0	0	7	8	112	138	0	258	0	0	0	0	0	265
Total	0	0	0	0	0	15	13	0	0	28	29	413	686	0	1128	0	0	1	0	1	1157
5:00 PM	0	0	0	0	0	6	2	0	0	8	8	104	150	0	262	0	0	0	0	0	270
5:15 PM	0	0	0	0	0	6	2	0	0	8	8	130	194	0	332	0	0	0	0	0	340
5:30 PM	0	0	0	0	0	5	4	0	0	9	8	97	182	0	287	0	0	0	0	0	296
5:45 PM	0	0	0	0	0	6	6	0	0	12	14	105	170	0	289	0	0	0	0	0	301
Total	0	0	0	0	0	23	14	0	0	37	38	436	696	0	1170	0	0	0	0	0	1207
Grand Total	0	0	0	0	0	45	41	0	0	86	89	1248	2065	0	3402	0	0	1	0	1	3489
Approach %	0.0	0.0	0.0	0.0		52.3	47.7	0.0	0.0		2.6	36.7	60.7	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	1.3	1.2	0.0	0.0	2.5	2.6	35.8	59.2	0.0	97.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1294					89					0					2106	3489

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	6	2	0	0	8	8	104	150	0	262	0	0	0	0	0	270
5:15 PM	0	0	0	0	0	6	2	0	0	8	8	130	194	0	332	0	0	0	0	0	340
5:30 PM	0	0	0	0	0	5	4	0	0	9	8	97	182	0	287	0	0	0	0	0	296
5:45 PM	0	0	0	0	0	6	6	0	0	12	14	105	170	0	289	0	0	0	0	0	301
Total Volume	0	0	0	0	0	23	14	0	0	37	38	436	696	0	1170	0	0	0	0	0	1207
% Approach Total	0.0	0.0	0.0	0.0		62.2	37.8	0.0	0.0		3.2	37.3	59.5	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.958	0.583	0.000	0.000	0.771	0.679	0.838	0.897	0.000	0.881	0.000	0.000	0.000	0.000	0.000	0.888
Entering Leg	0	0	0	0	0	23	14	0	0	37	38	436	696	0	1170	0	0	0	0	0	1207
Exiting Leg					459					38					0					710	1207
Total					459					75					1170					710	2414

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	1	1	0	0	2	0	5	2	0	7	0	0	0	0	0	9
3:15 PM	0	0	0	0	0	0	0	0	0	0	1	2	4	0	7	0	0	0	0	0	7
3:30 PM	0	0	0	0	0	0	1	0	0	1	0	3	3	0	6	0	0	0	0	0	7
3:45 PM	0	0	0	0	0	0	0	0	0	0	2	5	4	0	11	0	0	0	0	0	11
Total	0	0	0	0	0	1	2	0	0	3	3	15	13	0	31	0	0	0	0	0	34
4:00 PM	0	0	0	0	0	0	2	0	0	2	1	3	6	0	10	0	0	0	0	0	12
4:15 PM	0	0	0	0	0	0	2	0	0	2	3	8	6	0	17	0	0	0	0	0	19
4:30 PM	0	0	0	0	0	1	1	0	0	2	4	3	4	0	11	0	0	0	0	0	13
4:45 PM	0	0	0	0	0	1	3	0	0	4	1	5	2	0	8	0	0	0	0	0	12
Total	0	0	0	0	0	2	8	0	0	10	9	19	18	0	46	0	0	0	0	0	56
5:00 PM	0	0	0	0	0	0	2	0	0	2	1	4	4	0	9	0	0	0	0	0	11
5:15 PM	0	0	0	0	0	1	1	0	0	2	0	6	2	0	8	0	0	0	0	0	10
5:30 PM	0	0	0	0	0	1	2	0	0	3	0	7	6	0	13	0	0	0	0	0	16
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	3	3	0	6	0	0	0	0	0	7
Total	0	0	0	0	0	2	6	0	0	8	1	20	15	0	36	0	0	0	0	0	44
Grand Total	0	0	0	0	0	5	16	0	0	21	13	54	46	0	113	0	0	0	0	0	134
Approach %	0.0	0.0	0.0	0.0		23.8	76.2	0.0	0.0		11.5	47.8	40.7	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	3.7	11.9	0.0	0.0	15.7	9.7	40.3	34.3	0.0	84.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					59					13					0					62	134
Buses	0	0	0	0	0	0	8	0	0	8	4	32	37	0	73	0	0	0	0	0	81
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	38.1	30.8	59.3	80.4	0.0	64.6	0.0	0.0	0.0	0.0	0.0	60.4
Exiting Leg Total					32					4					0					45	81
Single-Unit Trucks	0	0	0	0	0	5	7	0	0	12	8	18	9	0	35	0	0	0	0	0	47
% Single-Unit	0.0	0.0	0.0	0.0	0.0	100.0	43.8	0.0	0.0	57.1	61.5	33.3	19.6	0.0	31.0	0.0	0.0	0.0	0.0	0.0	35.1
Exiting Leg Total					23					8					0					16	47
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	1	4	0	0	5	0	0	0	0	0	6
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	4.8	7.7	7.4	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	4.5
Exiting Leg Total					4					1					0					1	6

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	2	0	0	2	1	3	6	0	10	0	0	0	0	0	12
4:15 PM	0	0	0	0	0	0	2	0	0	2	3	8	6	0	17	0	0	0	0	0	19
4:30 PM	0	0	0	0	0	1	1	0	0	2	4	3	4	0	11	0	0	0	0	0	13
4:45 PM	0	0	0	0	0	1	3	0	0	4	1	5	2	0	8	0	0	0	0	0	12
Total Volume	0	0	0	0	0	2	8	0	0	10	9	19	18	0	46	0	0	0	0	0	56
% Approach Total	0.0	0.0	0.0	0.0		20.0	80.0	0.0	0.0		19.6	41.3	39.1	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.667	0.000	0.000	0.625	0.563	0.594	0.750	0.000	0.676	0.000	0.000	0.000	0.000	0.000	0.737
Buses	0	0	0	0	0	0	4	0	0	4	4	13	12	0	29	0	0	0	0	0	33
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	40.0	44.4	68.4	66.7	0.0	63.0	0.0	0.0	0.0	0.0	0.0	58.9
Single-Unit Trucks	0	0	0	0	0	2	3	0	0	5	4	5	6	0	15	0	0	0	0	0	20
Single-Unit %	0.0	0.0	0.0	0.0	0.0	100.0	37.5	0.0	0.0	50.0	44.4	26.3	33.3	0.0	32.6	0.0	0.0	0.0	0.0	0.0	35.7
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	0	0	0	0	0	3
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	10.0	11.1	5.3	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	5.4
Buses	0	0	0	0	0	0	4	0	0	4	4	13	12	0	29	0	0	0	0	0	33
Single-Unit Trucks	0	0	0	0	0	2	3	0	0	5	4	5	6	0	15	0	0	0	0	0	20
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	0	0	0	0	0	3
Total Entering Leg	0	0	0	0	0	2	8	0	0	10	9	19	18	0	46	0	0	0	0	0	56
Buses					13					4					0					16	33
Single-Unit Trucks					7					4					0					9	20
Articulated Trucks					1					1					0					1	3
Total Exiting Leg					21					9					0					26	56

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Buses**

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	5
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	4	0	6	0	0	0	0	0	6
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	4
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	0	8	11	0	19	0	0	0	0	0	19
4:00 PM	0	0	0	0	0	0	1	0	0	1	1	2	5	0	8	0	0	0	0	0	9
4:15 PM	0	0	0	0	0	0	1	0	0	1	2	5	2	0	9	0	0	0	0	0	10
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	2	3	0	5	0	0	0	0	0	6
4:45 PM	0	0	0	0	0	0	1	0	0	1	1	4	2	0	7	0	0	0	0	0	8
Total	0	0	0	0	0	0	4	0	0	4	4	13	12	0	29	0	0	0	0	0	33
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	1	3	0	4	0	0	0	0	0	5
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	5	2	0	7	0	0	0	0	0	8
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	2	6	0	8	0	0	0	0	0	9
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	3	3	0	6	0	0	0	0	0	7
Total	0	0	0	0	0	0	4	0	0	4	0	11	14	0	25	0	0	0	0	0	29
Grand Total	0	0	0	0	0	0	8	0	0	8	4	32	37	0	73	0	0	0	0	0	81
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		5.5	43.8	50.7	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	9.9	0.0	0.0	9.9	4.9	39.5	45.7	0.0	90.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					32					4					0					45	81

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	1	2	5	0	8	0	0	0	0	0	9
4:15 PM	0	0	0	0	0	0	1	0	0	1	2	5	2	0	9	0	0	0	0	0	10
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	2	3	0	5	0	0	0	0	0	6
4:45 PM	0	0	0	0	0	0	1	0	0	1	1	4	2	0	7	0	0	0	0	0	8
Total Volume	0	0	0	0	0	0	4	0	0	4	4	13	12	0	29	0	0	0	0	0	33
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		13.8	44.8	41.4	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.500	0.650	0.600	0.000	0.806	0.000	0.000	0.000	0.000	0.000	0.825
Entering Leg	0	0	0	0	0	0	4	0	0	4	4	13	12	0	29	0	0	0	0	0	33
Exiting Leg					13					4					0					16	33
Total					13					8					29					16	66

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Single-Unit Trucks**

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	1	1	0	0	2	0	2	0	0	2	0	0	0	0	0	4
3:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	1	0	0	1	0	1	1	0	2	0	0	0	0	0	3
3:45 PM	0	0	0	0	0	0	0	0	0	0	2	2	1	0	5	0	0	0	0	0	5
Total	0	0	0	0	0	1	2	0	0	3	3	5	2	0	10	0	0	0	0	0	13
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	1	1	0	2	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	1	0	0	1	1	2	4	0	7	0	0	0	0	0	8
4:30 PM	0	0	0	0	0	1	0	0	0	1	3	1	1	0	5	0	0	0	0	0	6
4:45 PM	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	3
Total	0	0	0	0	0	2	3	0	0	5	4	5	6	0	15	0	0	0	0	0	20
5:00 PM	0	0	0	0	0	0	1	0	0	1	1	3	1	0	5	0	0	0	0	0	6
5:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	1	0	0	2	0	5	0	0	5	0	0	0	0	0	7
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	2	0	0	4	1	8	1	0	10	0	0	0	0	0	14
Grand Total	0	0	0	0	0	5	7	0	0	12	8	18	9	0	35	0	0	0	0	0	47
Approach %	0.0	0.0	0.0	0.0		41.7	58.3	0.0	0.0		22.9	51.4	25.7	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	10.6	14.9	0.0	0.0	25.5	17.0	38.3	19.1	0.0	74.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					23					8					0					16	47

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:15 PM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	0	0	0	0	0	0	1	0	0	1	1	2	4	0	7	0	0	0	0	0	8
4:30 PM	0	0	0	0	0	1	0	0	0	1	3	1	1	0	5	0	0	0	0	0	6
4:45 PM	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	1	0	0	1	1	3	1	0	5	0	0	0	0	0	6
Total Volume	0	0	0	0	0	2	3	0	0	5	5	7	6	0	18	0	0	0	0	0	23
% Approach Total	0.0	0.0	0.0	0.0		40.0	60.0	0.0	0.0		27.8	38.9	33.3	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.750	0.000	0.000	0.625	0.417	0.583	0.375	0.000	0.643	0.000	0.000	0.000	0.000	0.000	0.719
Entering Leg	0	0	0	0	0	2	3	0	0	5	5	7	6	0	18	0	0	0	0	0	23
Exiting Leg					9					5					0					9	23
Total					9					10					18					9	46

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Articulated Trucks**

	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	1	0	0	1	1	4	0	0	5	0	0	0	0	0	6
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		20.0	80.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	16.7	16.7	66.7	0.0	0.0	83.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					4					1					0					1	6

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:45 PM	Park Drive from North					Landmark Driveway from East					Park Drive from South					Riverway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	4
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		25.0	75.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.375	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	4
Exiting Leg					3					1					0					0	4
Total					3					1					4					0	8

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Bicycles (on Roadway and Crosswalks)**

	Park Drive from North							Landmark Driveway from East							Park Drive from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	3
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	5	2	7	0	3	0	0	0	1	4	0	0	0	0	0	0	0	11
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	3	0	0	0	0	3	0	0	0	0	0	0	0	7
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	4	0	0	0	0	4	0	0	0	0	0	0	0	7
Total	0	0	0	0	0	0	0	0	0	0	0	9	5	14	0	13	0	0	0	1	14	0	0	0	0	0	0	0	28
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	1	3	1	2	0	0	1	0	4	0	0	0	0	0	0	0	7
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	2	1	4	0	7	0	0	0	0	7	0	0	0	0	0	0	0	11
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	7	0	0	0	0	7	0	0	0	0	0	0	0	11
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	4	0	0	0	0	4	0	0	0	0	0	0	0	5
Total	0	0	0	0	0	0	0	1	0	0	0	7	4	12	1	20	0	0	1	0	22	0	0	0	0	0	0	0	34
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	8	0	0	0	0	8	0	0	0	0	0	0	0	10
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	1	3	1	5	1	0	0	1	8	0	0	0	0	0	0	0	11
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	3	5	1	8	2	0	0	0	11	0	0	0	0	0	0	0	16
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	4	6	0	5	0	0	0	0	5	0	0	0	0	0	0	0	11
Total	0	0	0	0	0	0	0	2	1	0	0	4	9	16	2	26	3	0	0	1	32	0	0	0	0	0	0	0	48
Grand Total	0	0	0	0	0	0	0	3	1	0	0	20	18	42	3	59	3	0	1	2	68	0	0	0	0	0	0	0	110
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		7.1	2.4	0.0	0.0	47.6	42.9		4.4	86.8	4.4	0.0	1.5	2.9		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.9	0.0	0.0	18.2	16.4	38.2	2.7	53.6	2.7	0.0	0.9	1.8	61.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							62							41							3							4	110

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Park Drive from North							Landmark Driveway from East							Park Drive from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	8	0	0	0	0	8	0	0	0	0	0	0	0	10
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	1	3	1	5	1	0	0	1	8	0	0	0	0	0	0	0	11
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	3	5	1	8	2	0	0	0	11	0	0	0	0	0	0	0	16
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	4	6	0	5	0	0	0	0	5	0	0	0	0	0	0	0	11
Total Volume	0	0	0	0	0	0	0	2	1	0	0	4	9	16	2	26	3	0	0	1	32	0	0	0	0	0	0	0	48
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		12.5	6.3	0.0	0.0	25.0	56.3		6.3	81.3	9.4	0.0	0.0	3.1		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.000	1.000	0.563	0.667	0.500	0.813	0.375	0.000	0.000	0.250	0.727	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	0	0	0	0	0	0	2	1	0	0	4	9	16	2	26	3	0	0	1	32	0	0	0	0	0	0	0	48
Exiting Leg							28							15							1							4	48
Total							28							31							33							4	96

PDI File #: **249980 E**
Location: **N: Park Drive S: Park Drive**
Location: **E: Landmark Driveway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Pedestrians**

	Park Drive from North							Landmark Driveway from East							Park Drive from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	32	38	70	0	0	0	0	5	5	10	0	0	0	0	0	0	0	80
3:15 PM	0	0	0	0	0	1	1	0	0	0	0	32	29	61	0	0	0	0	8	4	12	0	0	0	0	0	0	0	74
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	24	31	55	0	0	0	0	8	0	8	0	0	0	0	0	0	0	63
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	27	25	52	0	0	0	0	3	5	8	0	0	0	0	1	0	1	61
Total	0	0	0	0	0	1	1	0	0	0	0	115	123	238	0	0	0	0	24	14	38	0	0	0	0	1	0	1	278
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	40	36	76	0	0	0	0	1	2	3	0	0	0	0	0	0	0	79
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	40	45	85	0	0	0	0	4	4	8	0	0	0	0	0	0	0	93
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	59	56	115	0	0	0	0	5	6	11	0	0	0	0	0	0	0	126
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	31	55	86	0	0	0	0	6	9	15	0	0	0	0	0	0	0	101
Total	0	0	0	0	0	0	0	0	0	0	0	170	192	362	0	0	0	0	16	21	37	0	0	0	0	0	0	0	399
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	57	54	111	0	0	0	0	6	9	15	0	0	0	0	0	0	0	126
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	40	60	100	0	0	0	0	1	4	5	0	0	0	0	0	0	0	105
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	61	55	116	0	0	0	0	7	5	12	0	0	0	0	0	0	0	128
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	48	32	80	0	0	0	0	2	4	6	0	0	0	0	0	0	0	86
Total	0	0	0	0	0	0	0	0	0	0	0	206	201	407	0	0	0	0	16	22	38	0	0	0	0	0	0	0	445
Grand Total	0	0	0	0	0	1	1	0	0	0	0	491	516	1007	0	0	0	0	56	57	113	0	0	0	0	1	0	1	1122
Approach %	0	0	0	0	0	100		0	0	0	0	48.8	51.2		0	0	0	0	49.6	50.4		0	0	0	0	100	0		
Total %	0	0	0	0	0	0.09	0.09	0	0	0	0	43.8	46	89.8	0	0	0	0	4.99	5.08	10.1	0	0	0	0	0.09	0	0.09	
Exiting Leg Total							1							1007							113							1	1122

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Park Drive from North							Landmark Driveway from East							Park Drive from South							Riverway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	31	55	86	0	0	0	0	6	9	15	0	0	0	0	0	0	0	101
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	57	54	111	0	0	0	0	6	9	15	0	0	0	0	0	0	0	126
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	40	60	100	0	0	0	0	1	4	5	0	0	0	0	0	0	0	105
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	61	55	116	0	0	0	0	7	5	12	0	0	0	0	0	0	0	128
Total Volume	0	0	0	0	0	0	0	0	0	0	0	189	224	413	0	0	0	0	20	27	47	0	0	0	0	0	0	0	460
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	45.8	54.2		0.0	0.0	0.0	0.0	42.6	57.4		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.775	0.933	0.890	0.000	0.000	0.000	0.000	0.714	0.750	0.783	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.898
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	189	224	413	0	0	0	0	20	27	47	0	0	0	0	0	0	0	460
Exiting Leg							0							413							47							0	460
Total							0							826							94							0	920

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**

Class: **Cars and Heavy Vehicles (Combined)**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	37	0	0	37	0	33	0	33	70
6:15 AM	0	0	0	0	38	0	0	38	0	52	0	52	90
6:30 AM	0	0	0	0	49	0	0	49	0	70	0	70	119
6:45 AM	0	0	0	0	49	0	0	49	0	49	0	49	98
Total	0	0	0	0	173	0	0	173	0	204	0	204	377
7:00 AM	0	0	0	0	47	0	0	47	0	39	0	39	86
7:15 AM	0	0	0	0	46	0	0	46	0	65	0	65	111
7:30 AM	0	0	0	0	70	0	0	70	0	75	0	75	145
7:45 AM	0	0	0	0	84	0	0	84	0	89	0	89	173
Total	0	0	0	0	247	0	0	247	0	268	0	268	515
8:00 AM	0	0	0	0	70	0	0	70	0	110	0	110	180
8:15 AM	0	0	0	0	71	0	0	71	0	84	0	84	155
8:30 AM	0	0	0	0	71	0	0	71	0	67	0	67	138
8:45 AM	0	0	0	0	81	0	0	81	0	75	0	75	156
Total	0	0	0	0	293	0	0	293	0	336	0	336	629
Grand Total	0	0	0	0	713	0	0	713	0	808	0	808	1521
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	46.9	0.0	0.0	46.9	0.0	53.1	0.0	53.1	
Exiting Leg Total				1521				0				0	1521
Cars	0	0	0	0	645	0	0	645	0	796	0	796	1441
% Cars	0.0	0.0	0.0	0.0	90.5	0.0	0.0	90.5	0.0	98.5	0.0	98.5	94.7
Exiting Leg Total				1441				0				0	1441
Heavy Vehicles	0	0	0	0	68	0	0	68	0	12	0	12	80
% Heavy Vehicles	0.0	0.0	0.0	0.0	9.5	0.0	0.0	9.5	0.0	1.5	0.0	1.5	5.3
Exiting Leg Total				80				0				0	80

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	70	0	0	70	0	75	0	75	145
7:45 AM	0	0	0	0	84	0	0	84	0	89	0	89	173
8:00 AM	0	0	0	0	70	0	0	70	0	110	0	110	180
8:15 AM	0	0	0	0	71	0	0	71	0	84	0	84	155
Total Volume	0	0	0	0	295	0	0	295	0	358	0	358	653
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.878	0.000	0.000	0.878	0.000	0.814	0.000	0.814	0.907
Cars	0	0	0	0	269	0	0	269	0	353	0	353	622
Cars %	0.0	0.0	0.0	0.0	91.2	0.0	0.0	91.2	0.0	98.6	0.0	98.6	95.3
Heavy Vehicles	0	0	0	0	26	0	0	26	0	5	0	5	31
Heavy Vehicles %	0.0	0.0	0.0	0.0	8.8	0.0	0.0	8.8	0.0	1.4	0.0	1.4	4.7
Cars Enter Leg	0	0	0	0	269	0	0	269	0	353	0	353	622
Heavy Enter Leg	0	0	0	0	26	0	0	26	0	5	0	5	31
Total Entering Leg	0	0	0	0	295	0	0	295	0	358	0	358	653
Cars Exiting Leg				622				0				0	622
Heavy Exiting Leg				31				0				0	31
Total Exiting Leg				653				0				0	653

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Cars**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	33	0	0	33	0	32	0	32	65
6:15 AM	0	0	0	0	34	0	0	34	0	52	0	52	86
6:30 AM	0	0	0	0	44	0	0	44	0	69	0	69	113
6:45 AM	0	0	0	0	44	0	0	44	0	49	0	49	93
Total	0	0	0	0	155	0	0	155	0	202	0	202	357
7:00 AM	0	0	0	0	42	0	0	42	0	39	0	39	81
7:15 AM	0	0	0	0	43	0	0	43	0	64	0	64	107
7:30 AM	0	0	0	0	67	0	0	67	0	74	0	74	141
7:45 AM	0	0	0	0	74	0	0	74	0	88	0	88	162
Total	0	0	0	0	226	0	0	226	0	265	0	265	491
8:00 AM	0	0	0	0	64	0	0	64	0	109	0	109	173
8:15 AM	0	0	0	0	64	0	0	64	0	82	0	82	146
8:30 AM	0	0	0	0	64	0	0	64	0	64	0	64	128
8:45 AM	0	0	0	0	72	0	0	72	0	74	0	74	146
Total	0	0	0	0	264	0	0	264	0	329	0	329	593
Grand Total	0	0	0	0	645	0	0	645	0	796	0	796	1441
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	44.8	0.0	0.0	44.8	0.0	55.2	0.0	55.2	
Exiting Leg Total				1441				0				0	1441

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	67	0	0	67	0	74	0	74	141
7:45 AM	0	0	0	0	74	0	0	74	0	88	0	88	162
8:00 AM	0	0	0	0	64	0	0	64	0	109	0	109	173
8:15 AM	0	0	0	0	64	0	0	64	0	82	0	82	146
Total Volume	0	0	0	0	269	0	0	269	0	353	0	353	622
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.909	0.000	0.000	0.909	0.000	0.810	0.000	0.810	0.899
Entering Leg	0	0	0	0	269	0	0	269	0	353	0	353	622
Exiting Leg				622				0				0	622
Total				622				269				353	1244

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	4	0	0	4	0	1	0	1	5
6:15 AM	0	0	0	0	4	0	0	4	0	0	0	0	4
6:30 AM	0	0	0	0	5	0	0	5	0	1	0	1	6
6:45 AM	0	0	0	0	5	0	0	5	0	0	0	0	5
Total	0	0	0	0	18	0	0	18	0	2	0	2	20
7:00 AM	0	0	0	0	5	0	0	5	0	0	0	0	5
7:15 AM	0	0	0	0	3	0	0	3	0	1	0	1	4
7:30 AM	0	0	0	0	3	0	0	3	0	1	0	1	4
7:45 AM	0	0	0	0	10	0	0	10	0	1	0	1	11
Total	0	0	0	0	21	0	0	21	0	3	0	3	24
8:00 AM	0	0	0	0	6	0	0	6	0	1	0	1	7
8:15 AM	0	0	0	0	7	0	0	7	0	2	0	2	9
8:30 AM	0	0	0	0	7	0	0	7	0	3	0	3	10
8:45 AM	0	0	0	0	9	0	0	9	0	1	0	1	10
Total	0	0	0	0	29	0	0	29	0	7	0	7	36
Grand Total	0	0	0	0	68	0	0	68	0	12	0	12	80
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	85.0	0.0	0.0	85.0	0.0	15.0	0.0	15.0	
Exiting Leg Total				80				0				0	80
Buses	0	0	0	0	30	0	0	30	0	1	0	1	31
% Buses	0.0	0.0	0.0	0.0	44.1	0.0	0.0	44.1	0.0	8.3	0.0	8.3	38.8
Exiting Leg Total				31				0				0	31
Single-Unit Trucks	0	0	0	0	35	0	0	35	0	11	0	11	46
% Single-Unit	0.0	0.0	0.0	0.0	51.5	0.0	0.0	51.5	0.0	91.7	0.0	91.7	57.5
Exiting Leg Total				46				0				0	46
Articulated Trucks	0	0	0	0	3	0	0	3	0	0	0	0	3
% Articulated	0.0	0.0	0.0	0.0	4.4	0.0	0.0	4.4	0.0	0.0	0.0	0.0	3.8
Exiting Leg Total				3				0				0	3

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	10	0	0	10	0	1	0	1	11
8:00 AM	0	0	0	0	6	0	0	6	0	1	0	1	7
8:15 AM	0	0	0	0	7	0	0	7	0	2	0	2	9
8:30 AM	0	0	0	0	7	0	0	7	0	3	0	3	10
Total Volume	0	0	0	0	30	0	0	30	0	7	0	7	37
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.583	0.000	0.583	0.841
Buses	0	0	0	0	14	0	0	14	0	1	0	1	15
Buses %	0.0	0.0	0.0	0.0	46.7	0.0	0.0	46.7	0.0	14.3	0.0	14.3	40.5
Single-Unit Trucks	0	0	0	0	14	0	0	14	0	6	0	6	20
Single-Unit %	0.0	0.0	0.0	0.0	46.7	0.0	0.0	46.7	0.0	85.7	0.0	85.7	54.1
Articulated Trucks	0	0	0	0	2	0	0	2	0	0	0	0	2
Articulated %	0.0	0.0	0.0	0.0	6.7	0.0	0.0	6.7	0.0	0.0	0.0	0.0	5.4
Buses	0	0	0	0	14	0	0	14	0	1	0	1	15
Single-Unit Trucks	0	0	0	0	14	0	0	14	0	6	0	6	20
Articulated Trucks	0	0	0	0	2	0	0	2	0	0	0	0	2
Total Entering Leg	0	0	0	0	30	0	0	30	0	7	0	7	37
Buses				15				0				0	15
Single-Unit Trucks				20				0				0	20
Articulated Trucks				2				0				0	2
Total Exiting Leg				37				0				0	37

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Buses**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
6:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
6:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
6:45 AM	0	0	0	0	3	0	0	3	0	0	0	0	3
Total	0	0	0	0	7	0	0	7	0	0	0	0	7
7:00 AM	0	0	0	0	3	0	0	3	0	0	0	0	3
7:15 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
7:30 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
7:45 AM	0	0	0	0	5	0	0	5	0	0	0	0	5
Total	0	0	0	0	12	0	0	12	0	0	0	0	12
8:00 AM	0	0	0	0	4	0	0	4	0	1	0	1	5
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	4	0	0	4	0	0	0	0	4
8:45 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
Total	0	0	0	0	11	0	0	11	0	1	0	1	12
Grand Total	0	0	0	0	30	0	0	30	0	1	0	1	31
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	96.8	0.0	0.0	96.8	0.0	3.2	0.0	3.2	
Exiting Leg Total				31				0				0	31

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	5	0	0	5	0	0	0	0	5
8:00 AM	0	0	0	0	4	0	0	4	0	1	0	1	5
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	4	0	0	4	0	0	0	0	4
Total Volume	0	0	0	0	14	0	0	14	0	1	0	1	15
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.700	0.000	0.000	0.700	0.000	0.250	0.000	0.250	0.750
Entering Leg	0	0	0	0	14	0	0	14	0	1	0	1	15
Exiting Leg				15				0				0	15
Total				15				14				1	30

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**

Class: **Single-Unit Trucks**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	2	0	0	2	0	1	0	1	3
6:15 AM	0	0	0	0	3	0	0	3	0	0	0	0	3
6:30 AM	0	0	0	0	4	0	0	4	0	1	0	1	5
6:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	10	0	0	10	0	2	0	2	12
7:00 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
7:15 AM	0	0	0	0	1	0	0	1	0	1	0	1	2
7:30 AM	0	0	0	0	1	0	0	1	0	1	0	1	2
7:45 AM	0	0	0	0	4	0	0	4	0	1	0	1	5
Total	0	0	0	0	8	0	0	8	0	3	0	3	11
8:00 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
8:15 AM	0	0	0	0	5	0	0	5	0	2	0	2	7
8:30 AM	0	0	0	0	3	0	0	3	0	3	0	3	6
8:45 AM	0	0	0	0	7	0	0	7	0	1	0	1	8
Total	0	0	0	0	17	0	0	17	0	6	0	6	23
Grand Total	0	0	0	0	35	0	0	35	0	11	0	11	46
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	76.1	0.0	0.0	76.1	0.0	23.9	0.0	23.9	
Exiting Leg Total				46				0				0	46

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
8:15 AM	0	0	0	0	5	0	0	5	0	2	0	2	7
8:30 AM	0	0	0	0	3	0	0	3	0	3	0	3	6
8:45 AM	0	0	0	0	7	0	0	7	0	1	0	1	8
Total Volume	0	0	0	0	17	0	0	17	0	6	0	6	23
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.607	0.000	0.000	0.607	0.000	0.500	0.000	0.500	0.719
Entering Leg	0	0	0	0	17	0	0	17	0	6	0	6	23
Exiting Leg				23				0				0	23
Total				23				17				6	46

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Articulated Trucks**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	1	0	0	1	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	1	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	0	0	0	0	1
Grand Total	0	0	0	0	3	0	0	3	0	0	0	0	3
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				3				0				0	3

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	2	0	0	2	0	0	0	0	2
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	2	0	0	2	0	0	0	0	2
Exiting Leg				2				0				0	2
Total				2				2				0	4

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

Bicycles (on Roadway and Crosswalks)

	Park Drive from North						Park Drive from South						Riverway from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	3
7:00 AM	0	0	0	0	0	0	2	0	0	0	2	4	0	0	0	0	1	1	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	2	2	5
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	0	5	7	0	0	0	0	3	3	10
8:00 AM	0	1	0	0	0	1	2	0	0	0	3	5	0	0	0	0	2	2	8
8:15 AM	0	1	0	0	0	1	0	0	0	0	1	1	0	0	0	0	2	2	4
8:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	2	3
8:45 AM	0	0	0	0	0	0	2	0	0	0	2	4	0	2	0	0	2	4	8
Total	0	3	0	0	0	3	4	0	0	0	6	10	0	2	0	0	8	10	23
Grand Total	0	3	0	0	0	3	9	0	0	0	11	20	0	2	0	0	11	13	36
Approach %	0.0	100.0	0.0	0.0	0.0		45.0	0.0	0.0	0.0	55.0		0.0	15.4	0.0	0.0	84.6		
Total %	0.0	8.3	0.0	0.0	0.0	8.3	25.0	0.0	0.0	0.0	30.6	55.6	0.0	5.6	0.0	0.0	30.6	36.1	
Exiting Leg Total						11						14						11	36

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Park Drive from North						Park Drive from South						Riverway from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	1	0	0	0	1	2	0	0	0	3	5	0	0	0	0	2	2	8
8:15 AM	0	1	0	0	0	1	0	0	0	0	1	1	0	0	0	0	2	2	4
8:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	2	3
8:45 AM	0	0	0	0	0	0	2	0	0	0	2	4	0	2	0	0	2	4	8
Total Volume	0	3	0	0	0	3	4	0	0	0	6	10	0	2	0	0	8	10	23
% Approach Total	0.0	100.0	0.0	0.0	0.0		40.0	0.0	0.0	0.0	60.0		0.0	20.0	0.0	0.0	80.0		
PHF	0.000	0.750	0.000	0.000	0.000	0.750	0.500	0.000	0.000	0.000	0.500	0.500	0.000	0.250	0.000	0.000	1.000	0.625	0.719
Entering Leg	0	3	0	0	0	3	4	0	0	0	6	10	0	2	0	0	8	10	23
Exiting Leg						6						9						8	23
Total						9						19						18	46

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class: **Pedestrians**

	Park Drive from North						Park Drive from South						Riverway from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	3	3	7
6:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2
6:30 AM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	2	3	5	8
6:45 AM	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	3	2	5	9
Total	0	0	0	0	0	0	0	0	0	6	6	12	0	0	0	5	9	14	26
7:00 AM	0	0	0	0	0	0	0	0	0	1	6	7	0	0	0	1	1	2	9
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3
7:30 AM	0	0	0	0	0	0	0	0	0	3	3	6	0	0	0	2	4	6	12
7:45 AM	0	0	0	0	0	0	0	0	0	3	3	6	0	0	0	0	0	0	6
Total	0	0	0	0	0	0	0	0	0	7	12	19	0	0	0	4	7	11	30
8:00 AM	0	0	0	1	0	1	0	0	0	0	9	9	0	0	0	1	5	6	16
8:15 AM	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	2	6	8	14
8:30 AM	0	0	0	0	0	0	0	0	0	1	5	6	0	0	0	3	7	10	16
8:45 AM	0	0	0	0	0	0	0	0	0	2	14	16	0	0	0	2	10	12	28
Total	0	0	0	1	0	1	0	0	0	3	34	37	0	0	0	8	28	36	74
Grand Total	0	0	0	1	0	1	0	0	0	16	52	68	0	0	0	17	44	61	130
Approach %	0	0	0	100	0		0	0	0	23.529	76.471		0	0	0	27.869	72.131		
Total %	0	0	0	0.7692	0	0.7692	0	0	0	12.308	40	52.308	0	0	0	13.077	33.846	46.923	
Exiting Leg Total						1						68						61	130

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Park Drive from North						Park Drive from South						Riverway from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	1	0	1	0	0	0	0	9	9	0	0	0	1	5	6	16
8:15 AM	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	2	6	8	14
8:30 AM	0	0	0	0	0	0	0	0	0	1	5	6	0	0	0	3	7	10	16
8:45 AM	0	0	0	0	0	0	0	0	0	2	14	16	0	0	0	2	10	12	28
Total Volume	0	0	0	1	0	1	0	0	0	3	34	37	0	0	0	8	28	36	74
% Approach Total	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	8.1	91.9		0.0	0.0	0.0	22.2	77.8		
PHF	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.375	0.607	0.578	0.000	0.000	0.000	0.667	0.700	0.750	0.661
Entering Leg	0	0	0	1	0	1	0	0	0	3	34	37	0	0	0	8	28	36	74
Exiting Leg						1						37						36	74
Total						2						74						72	148

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**

Class: **Cars and Heavy Vehicles (Combined)**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	103	0	0	103	0	118	0	118	221
3:15 PM	0	0	0	0	110	0	0	110	0	115	0	115	225
3:30 PM	0	0	0	0	100	0	0	100	0	127	0	127	227
3:45 PM	0	0	0	0	102	0	0	102	0	110	0	110	212
Total	0	0	0	0	415	0	0	415	0	470	0	470	885
4:00 PM	0	0	0	0	85	0	0	85	0	100	0	100	185
4:15 PM	0	0	0	0	121	0	0	121	0	112	0	112	233
4:30 PM	0	0	0	0	115	0	0	115	0	94	0	94	209
4:45 PM	0	0	0	0	119	0	0	119	0	106	0	106	225
Total	0	0	0	0	440	0	0	440	0	412	0	412	852
5:00 PM	0	0	0	0	112	0	0	112	0	113	0	113	225
5:15 PM	0	0	0	0	139	0	0	139	0	117	0	117	256
5:30 PM	0	0	0	0	119	0	0	119	0	148	0	148	267
5:45 PM	0	0	0	0	112	0	0	112	0	117	0	117	229
Total	0	0	0	0	482	0	0	482	0	495	0	495	977
Grand Total	0	0	0	0	1337	0	0	1337	0	1377	0	1377	2714
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	49.3	0.0	0.0	49.3	0.0	50.7	0.0	50.7	
Exiting Leg Total				2714				0				0	2714
Cars	0	0	0	0	1280	0	0	1280	0	1360	0	1360	2640
% Cars	0.0	0.0	0.0	0.0	95.7	0.0	0.0	95.7	0.0	98.8	0.0	98.8	97.3
Exiting Leg Total				2640				0				0	2640
Heavy Vehicles	0	0	0	0	57	0	0	57	0	17	0	17	74
% Heavy Vehicles	0.0	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0	1.2	0.0	1.2	2.7
Exiting Leg Total				74				0				0	74

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	112	0	0	112	0	113	0	113	225
5:15 PM	0	0	0	0	139	0	0	139	0	117	0	117	256
5:30 PM	0	0	0	0	119	0	0	119	0	148	0	148	267
5:45 PM	0	0	0	0	112	0	0	112	0	117	0	117	229
Total Volume	0	0	0	0	482	0	0	482	0	495	0	495	977
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.867	0.000	0.000	0.867	0.000	0.836	0.000	0.836	0.915
Cars	0	0	0	0	460	0	0	460	0	494	0	494	954
Cars %	0.0	0.0	0.0	0.0	95.4	0.0	0.0	95.4	0.0	99.8	0.0	99.8	97.6
Heavy Vehicles	0	0	0	0	22	0	0	22	0	1	0	1	23
Heavy Vehicles %	0.0	0.0	0.0	0.0	4.6	0.0	0.0	4.6	0.0	0.2	0.0	0.2	2.4
Cars Enter Leg	0	0	0	0	460	0	0	460	0	494	0	494	954
Heavy Enter Leg	0	0	0	0	22	0	0	22	0	1	0	1	23
Total Entering Leg	0	0	0	0	482	0	0	482	0	495	0	495	977
Cars Exiting Leg				954				0				0	954
Heavy Exiting Leg				23				0				0	23
Total Exiting Leg				977				0				0	977

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**

Class: **Cars**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	97	0	0	97	0	115	0	115	212
3:15 PM	0	0	0	0	108	0	0	108	0	115	0	115	223
3:30 PM	0	0	0	0	97	0	0	97	0	124	0	124	221
3:45 PM	0	0	0	0	99	0	0	99	0	109	0	109	208
Total	0	0	0	0	401	0	0	401	0	463	0	463	864
4:00 PM	0	0	0	0	82	0	0	82	0	98	0	98	180
4:15 PM	0	0	0	0	114	0	0	114	0	108	0	108	222
4:30 PM	0	0	0	0	110	0	0	110	0	93	0	93	203
4:45 PM	0	0	0	0	113	0	0	113	0	104	0	104	217
Total	0	0	0	0	419	0	0	419	0	403	0	403	822
5:00 PM	0	0	0	0	108	0	0	108	0	113	0	113	221
5:15 PM	0	0	0	0	132	0	0	132	0	117	0	117	249
5:30 PM	0	0	0	0	111	0	0	111	0	148	0	148	259
5:45 PM	0	0	0	0	109	0	0	109	0	116	0	116	225
Total	0	0	0	0	460	0	0	460	0	494	0	494	954
Grand Total	0	0	0	0	1280	0	0	1280	0	1360	0	1360	2640
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	48.5	0.0	0.0	48.5	0.0	51.5	0.0	51.5	
Exiting Leg Total				2640				0				0	2640

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	108	0	0	108	0	113	0	113	221
5:15 PM	0	0	0	0	132	0	0	132	0	117	0	117	249
5:30 PM	0	0	0	0	111	0	0	111	0	148	0	148	259
5:45 PM	0	0	0	0	109	0	0	109	0	116	0	116	225
Total Volume	0	0	0	0	460	0	0	460	0	494	0	494	954
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.871	0.000	0.000	0.871	0.000	0.834	0.000	0.834	0.921
Entering Leg	0	0	0	0	460	0	0	460	0	494	0	494	954
Exiting Leg				954				0				0	954
Total				954				460				494	1908

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	6	0	0	6	0	3	0	3	9
3:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
3:30 PM	0	0	0	0	3	0	0	3	0	3	0	3	6
3:45 PM	0	0	0	0	3	0	0	3	0	1	0	1	4
Total	0	0	0	0	14	0	0	14	0	7	0	7	21
4:00 PM	0	0	0	0	3	0	0	3	0	2	0	2	5
4:15 PM	0	0	0	0	7	0	0	7	0	4	0	4	11
4:30 PM	0	0	0	0	5	0	0	5	0	1	0	1	6
4:45 PM	0	0	0	0	6	0	0	6	0	2	0	2	8
Total	0	0	0	0	21	0	0	21	0	9	0	9	30
5:00 PM	0	0	0	0	4	0	0	4	0	0	0	0	4
5:15 PM	0	0	0	0	7	0	0	7	0	0	0	0	7
5:30 PM	0	0	0	0	8	0	0	8	0	0	0	0	8
5:45 PM	0	0	0	0	3	0	0	3	0	1	0	1	4
Total	0	0	0	0	22	0	0	22	0	1	0	1	23
Grand Total	0	0	0	0	57	0	0	57	0	17	0	17	74
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	77.0	0.0	0.0	77.0	0.0	23.0	0.0	23.0	
Exiting Leg Total				74				0				0	74
Buses	0	0	0	0	32	0	0	32	0	8	0	8	40
% Buses	0.0	0.0	0.0	0.0	56.1	0.0	0.0	56.1	0.0	47.1	0.0	47.1	54.1
Exiting Leg Total				40				0				0	40
Single-Unit Trucks	0	0	0	0	23	0	0	23	0	8	0	8	31
% Single-Unit	0.0	0.0	0.0	0.0	40.4	0.0	0.0	40.4	0.0	47.1	0.0	47.1	41.9
Exiting Leg Total				31				0				0	31
Articulated Trucks	0	0	0	0	2	0	0	2	0	1	0	1	3
% Articulated	0.0	0.0	0.0	0.0	3.5	0.0	0.0	3.5	0.0	5.9	0.0	5.9	4.1
Exiting Leg Total				3				0				0	3

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	3	0	0	3	0	2	0	2	5
4:15 PM	0	0	0	0	7	0	0	7	0	4	0	4	11
4:30 PM	0	0	0	0	5	0	0	5	0	1	0	1	6
4:45 PM	0	0	0	0	6	0	0	6	0	2	0	2	8
Total Volume	0	0	0	0	21	0	0	21	0	9	0	9	30
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.563	0.000	0.563	0.682
Buses	0	0	0	0	13	0	0	13	0	2	0	2	15
Buses %	0.0	0.0	0.0	0.0	61.9	0.0	0.0	61.9	0.0	22.2	0.0	22.2	50.0
Single-Unit Trucks	0	0	0	0	7	0	0	7	0	6	0	6	13
Single-Unit %	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	0.0	66.7	0.0	66.7	43.3
Articulated Trucks	0	0	0	0	1	0	0	1	0	1	0	1	2
Articulated %	0.0	0.0	0.0	0.0	4.8	0.0	0.0	4.8	0.0	11.1	0.0	11.1	6.7
Buses	0	0	0	0	13	0	0	13	0	2	0	2	15
Single-Unit Trucks	0	0	0	0	7	0	0	7	0	6	0	6	13
Articulated Trucks	0	0	0	0	1	0	0	1	0	1	0	1	2
Total Entering Leg	0	0	0	0	21	0	0	21	0	9	0	9	30
Buses				15				0				0	15
Single-Unit Trucks				13				0				0	13
Articulated Trucks				2				0				0	2
Total Exiting Leg				30				0				0	30

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Buses**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	3	0	0	3	0	2	0	2	5
3:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
3:30 PM	0	0	0	0	2	0	0	2	0	3	0	3	5
3:45 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
Total	0	0	0	0	8	0	0	8	0	6	0	6	14
4:00 PM	0	0	0	0	2	0	0	2	0	1	0	1	3
4:15 PM	0	0	0	0	5	0	0	5	0	1	0	1	6
4:30 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
4:45 PM	0	0	0	0	4	0	0	4	0	0	0	0	4
Total	0	0	0	0	13	0	0	13	0	2	0	2	15
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	5	0	0	5	0	0	0	0	5
5:30 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
5:45 PM	0	0	0	0	3	0	0	3	0	0	0	0	3
Total	0	0	0	0	11	0	0	11	0	0	0	0	11
Grand Total	0	0	0	0	32	0	0	32	0	8	0	8	40
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	80.0	0.0	0.0	80.0	0.0	20.0	0.0	20.0	
Exiting Leg Total				40				0				0	40

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:30 PM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
3:30 PM	0	0	0	0	2	0	0	2	0	3	0	3	5
3:45 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
4:00 PM	0	0	0	0	2	0	0	2	0	1	0	1	3
4:15 PM	0	0	0	0	5	0	0	5	0	1	0	1	6
Total Volume	0	0	0	0	10	0	0	10	0	6	0	6	16
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.500	0.000	0.500	0.667
Entering Leg	0	0	0	0	10	0	0	10	0	6	0	6	16
Exiting Leg				16				0				0	16
Total				16				10				6	32

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**

Class: **Single-Unit Trucks**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	3	0	0	3	0	1	0	1	4
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
3:45 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
Total	0	0	0	0	6	0	0	6	0	1	0	1	7
4:00 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
4:15 PM	0	0	0	0	1	0	0	1	0	2	0	2	3
4:30 PM	0	0	0	0	3	0	0	3	0	1	0	1	4
4:45 PM	0	0	0	0	2	0	0	2	0	2	0	2	4
Total	0	0	0	0	7	0	0	7	0	6	0	6	13
5:00 PM	0	0	0	0	3	0	0	3	0	0	0	0	3
5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	6	0	0	6	0	0	0	0	6
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	10	0	0	10	0	1	0	1	11
Grand Total	0	0	0	0	23	0	0	23	0	8	0	8	31
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	74.2	0.0	0.0	74.2	0.0	25.8	0.0	25.8	
Exiting Leg Total				31				0				0	31

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:15 PM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:15 PM	0	0	0	0	1	0	0	1	0	2	0	2	3
4:30 PM	0	0	0	0	3	0	0	3	0	1	0	1	4
4:45 PM	0	0	0	0	2	0	0	2	0	2	0	2	4
5:00 PM	0	0	0	0	3	0	0	3	0	0	0	0	3
Total Volume	0	0	0	0	9	0	0	9	0	5	0	5	14
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.625	0.000	0.625	0.875
Entering Leg	0	0	0	0	9	0	0	9	0	5	0	5	14
Exiting Leg				14				0				0	14
Total				14				9				5	28

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Articulated Trucks**

	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	0	1	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	0	0	0	0	1
Grand Total	0	0	0	0	2	0	0	2	0	1	0	1	3
Approach %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	0.0	33.3	0.0	33.3	
Exiting Leg Total				3				0				0	3

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:30 PM	Park Drive from North				Park Drive from South				Riverway from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
Total Volume	0	0	0	0	1	0	0	1	0	1	0	1	2
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.250
Entering Leg	0	0	0	0	1	0	0	1	0	1	0	1	2
Exiting Leg				2				0				0	2
Total				2				1				1	4

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

Bicycles (on Roadway and Crosswalks)

	Park Drive from North						Park Drive from South						Riverway from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	3
3:15 PM	0	0	0	0	0	0	3	0	0	0	5	8	0	0	0	1	5	6	14
3:30 PM	0	1	0	0	0	1	2	0	0	2	2	6	0	1	0	2	2	5	12
3:45 PM	0	0	0	0	0	0	3	0	0	1	3	7	0	0	0	2	3	5	12
Total	0	1	0	0	0	1	11	0	0	3	10	24	0	1	0	5	10	16	41
4:00 PM	0	0	0	0	0	0	4	0	0	1	3	8	0	0	0	4	2	6	14
4:15 PM	0	0	0	0	0	0	7	0	0	0	0	7	0	0	0	2	1	3	10
4:30 PM	0	0	0	0	0	0	6	0	0	2	0	8	0	0	0	3	0	3	11
4:45 PM	0	0	0	0	0	0	5	0	0	2	1	8	0	0	0	2	2	4	12
Total	0	0	0	0	0	0	22	0	0	5	4	31	0	0	0	11	5	16	47
5:00 PM	0	0	0	0	0	0	7	0	0	3	1	11	0	0	0	0	0	0	11
5:15 PM	0	0	0	0	0	0	8	0	0	0	1	9	0	0	0	0	0	0	9
5:30 PM	0	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	11
5:45 PM	0	0	0	0	0	0	4	0	0	1	0	5	0	3	0	0	0	3	8
Total	0	0	0	0	0	0	30	0	0	4	2	36	0	3	0	0	0	3	39
Grand Total	0	1	0	0	0	1	63	0	0	12	16	91	0	4	0	16	15	35	127
Approach %	0.0	100.0	0.0	0.0	0.0		69.2	0.0	0.0	13.2	17.6		0.0	11.4	0.0	45.7	42.9		
Total %	0.0	0.8	0.0	0.0	0.0	0.8	49.6	0.0	0.0	9.4	12.6	71.7	0.0	3.1	0.0	12.6	11.8	27.6	
Exiting Leg Total						67						29						31	127

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Park Drive from North						Park Drive from South						Riverway from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:15 PM	0	0	0	0	0	0	3	0	0	0	5	8	0	0	0	1	5	6	14
3:30 PM	0	1	0	0	0	1	2	0	0	2	2	6	0	1	0	2	2	5	12
3:45 PM	0	0	0	0	0	0	3	0	0	1	3	7	0	0	0	2	3	5	12
4:00 PM	0	0	0	0	0	0	4	0	0	1	3	8	0	0	0	4	2	6	14
Total Volume	0	1	0	0	0	1	12	0	0	4	13	29	0	1	0	9	12	22	52
% Approach Total	0.0	100.0	0.0	0.0	0.0		41.4	0.0	0.0	13.8	44.8		0.0	4.5	0.0	40.9	54.5		
PHF	0.000	0.250	0.000	0.000	0.000	0.250	0.750	0.000	0.000	0.500	0.650	0.906	0.000	0.250	0.000	0.563	0.600	0.917	0.929
Entering Leg	0	1	0	0	0	1	12	0	0	4	13	29	0	1	0	9	12	22	52
Exiting Leg						13						18						21	52
Total						14						47						43	104

PDI File #: **249980 F**
Location: **N: Park Drive S: Park Drive**
Location: **W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class: **Pedestrians**

	Park Drive from North						Park Drive from South						Riverway from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	11	9	20	0	0	0	8	8	16	36
3:15 PM	0	0	0	0	0	0	0	0	0	2	15	17	0	0	0	5	15	20	37
3:30 PM	0	0	0	0	0	0	0	0	0	3	8	11	0	0	0	0	5	5	16
3:45 PM	0	0	0	0	0	0	0	0	0	5	1	6	0	0	0	2	1	3	9
Total	0	0	0	0	0	0	0	0	0	21	33	54	0	0	0	15	29	44	98
4:00 PM	0	0	0	0	0	0	0	0	0	3	11	14	0	0	0	5	9	14	28
4:15 PM	0	0	0	0	0	0	0	0	0	9	15	24	0	0	0	6	8	14	38
4:30 PM	0	0	0	0	0	0	0	0	0	15	10	25	0	0	0	9	6	15	40
4:45 PM	0	0	0	0	0	0	0	0	0	9	12	21	0	0	0	7	9	16	37
Total	0	0	0	0	0	0	0	0	0	36	48	84	0	0	0	27	32	59	143
5:00 PM	0	0	0	0	0	0	0	0	0	15	7	22	0	0	0	0	0	0	22
5:15 PM	0	0	0	0	0	0	0	0	0	15	7	22	0	0	0	0	0	0	22
5:30 PM	0	0	0	0	0	0	0	0	0	5	18	23	0	0	0	0	0	0	23
5:45 PM	0	0	0	0	2	2	0	0	0	4	11	15	0	0	0	0	0	0	17
Total	0	0	0	0	2	2	0	0	0	39	43	82	0	0	0	0	0	0	84
Grand Total	0	0	0	0	2	2	0	0	0	96	124	220	0	0	0	42	61	103	325
Approach %	0	0	0	0	100		0	0	0	43.636	56.364		0	0	0	40.777	59.223		
Total %	0	0	0	0	0.6154	0.6154	0	0	0	29.538	38.154	67.692	0	0	0	12.923	18.769	31.692	
Exiting Leg Total						2						220						103	325

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Park Drive from North						Park Drive from South						Riverway from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	3	11	14	0	0	0	5	9	14	28
4:15 PM	0	0	0	0	0	0	0	0	0	9	15	24	0	0	0	6	8	14	38
4:30 PM	0	0	0	0	0	0	0	0	0	15	10	25	0	0	0	9	6	15	40
4:45 PM	0	0	0	0	0	0	0	0	0	9	12	21	0	0	0	7	9	16	37
Total Volume	0	0	0	0	0	0	0	0	0	36	48	84	0	0	0	27	32	59	143
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	42.9	57.1		0.0	0.0	0.0	45.8	54.2		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.600	0.800	0.840	0.000	0.000	0.000	0.750	0.889	0.922	0.894
Entering Leg	0	0	0	0	0	0	0	0	0	36	48	84	0	0	0	27	32	59	143
Exiting Leg						0						84						59	143
Total						0						168						118	286

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Riverway from East					Short Street from South					Riverway from Southwest					Riverway from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
6:00 AM	82	0	0	0	82	4	0	0	0	4	0	0	0	0	0	0	0	109	0	109	195
6:15 AM	116	0	0	0	116	5	0	0	0	5	0	0	0	0	0	0	0	151	0	151	272
6:30 AM	150	0	0	0	150	6	1	0	0	7	0	0	0	0	0	0	0	186	0	186	343
6:45 AM	161	0	0	0	161	11	3	0	0	14	0	0	0	0	0	0	0	160	0	160	335
Total	509	0	0	0	509	26	4	0	0	30	0	0	0	0	0	0	0	606	0	606	1145
7:00 AM	164	0	0	0	164	10	5	0	0	15	0	0	0	0	0	0	0	171	0	171	350
7:15 AM	178	0	0	0	178	5	4	0	0	9	0	0	0	0	0	0	0	229	0	229	416
7:30 AM	230	0	0	0	230	13	3	0	0	16	0	0	3	0	3	0	0	282	0	282	531
7:45 AM	208	0	0	0	208	32	16	0	0	48	0	2	8	0	10	0	0	222	0	222	488
Total	780	0	0	0	780	60	28	0	0	88	0	2	11	0	13	0	0	904	0	904	1785
8:00 AM	203	0	0	0	203	44	9	0	0	53	0	11	33	0	44	0	0	249	0	249	549
8:15 AM	159	0	0	1	160	20	1	0	0	21	0	0	1	0	1	0	0	242	0	242	424
8:30 AM	193	0	0	0	193	9	3	0	0	12	0	0	0	0	0	0	0	247	0	247	452
8:45 AM	167	0	0	0	167	7	2	0	0	9	0	0	0	0	0	0	0	261	0	261	437
Total	722	0	0	1	723	80	15	0	0	95	0	11	34	0	45	0	0	999	0	999	1862
Grand Total	2011	0	0	1	2012	166	47	0	0	213	0	13	45	0	58	0	0	2509	0	2509	4792
Approach %	100.0	0.0	0.0	0.0		77.9	22.1	0.0	0.0		0.0	22.4	77.6	0.0		0.0	0.0	100.0	0.0		
Total %	42.0	0.0	0.0	0.0	42.0	3.5	1.0	0.0	0.0	4.4	0.0	0.3	0.9	0.0	1.2	0.0	0.0	52.4	0.0	52.4	
Exiting Leg Total					2689					0					0					2103	4792
Cars	1978	0	0	1	1979	165	45	0	0	210	0	13	39	0	52	0	0	2471	0	2471	4712
% Cars	98.4	0.0	0.0	100.0	98.4	99.4	95.7	0.0	0.0	98.6	0.0	100.0	86.7	0.0	89.7	0.0	0.0	98.5	0.0	98.5	98.3
Exiting Leg Total					2650					0					0					2062	4712
Heavy Vehicles	33	0	0	0	33	1	2	0	0	3	0	0	6	0	6	0	0	38	0	38	80
% Heavy Vehicles	1.6	0.0	0.0	0.0	1.6	0.6	4.3	0.0	0.0	1.4	0.0	0.0	13.3	0.0	10.3	0.0	0.0	1.5	0.0	1.5	1.7
Exiting Leg Total					39					0					0					41	80

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway from East					Short Street from South					Riverway from Southwest					Riverway from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
7:30 AM	230	0	0	0	230	13	3	0	0	16	0	0	3	0	3	0	0	282	0	282	531
7:45 AM	208	0	0	0	208	32	16	0	0	48	0	2	8	0	10	0	0	222	0	222	488
8:00 AM	203	0	0	0	203	44	9	0	0	53	0	11	33	0	44	0	0	249	0	249	549
8:15 AM	159	0	0	1	160	20	1	0	0	21	0	0	1	0	1	0	0	242	0	242	424
Total Volume	800	0	0	1	801	109	29	0	0	138	0	13	45	0	58	0	0	995	0	995	1992
% Approach Total	99.9	0.0	0.0	0.1		79.0	21.0	0.0	0.0		0.0	22.4	77.6	0.0		0.0	0.0	100.0	0.0		
PHF	0.870	0.000	0.000	0.250	0.871	0.619	0.453	0.000	0.000	0.651	0.000	0.295	0.341	0.000	0.330	0.000	0.000	0.882	0.000	0.882	0.907
Cars	780	0	0	1	781	109	28	0	0	137	0	13	39	0	52	0	0	976	0	976	1946
Cars %	97.5	0.0	0.0	100.0	97.5	100.0	96.6	0.0	0.0	99.3	0.0	100.0	86.7	0.0	89.7	0.0	0.0	98.1	0.0	98.1	97.7
Heavy Vehicles	20	0	0	0	20	0	1	0	0	1	0	0	6	0	6	0	0	19	0	19	46
Heavy Vehicles %	2.5	0.0	0.0	0.0	2.5	0.0	3.4	0.0	0.0	0.7	0.0	0.0	13.3	0.0	10.3	0.0	0.0	1.9	0.0	1.9	2.3
Cars Enter Leg	780	0	0	1	781	109	28	0	0	137	0	13	39	0	52	0	0	976	0	976	1946
Heavy Enter Leg	20	0	0	0	20	0	1	0	0	1	0	0	6	0	6	0	0	19	0	19	46
Total Entering Leg	800	0	0	1	801	109	29	0	0	138	0	13	45	0	58	0	0	995	0	995	1992
Cars Exiting Leg					1099					0					0					847	1946
Heavy Exiting Leg					19					0					0					27	46
Total Exiting Leg					1118					0					0					874	1992

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
6:00 AM	81	0	0	0	81	4	0	0	0	4	0	0	0	0	0	0	0	107	0	107	192
6:15 AM	116	0	0	0	116	5	0	0	0	5	0	0	0	0	0	0	0	151	0	151	272
6:30 AM	150	0	0	0	150	6	1	0	0	7	0	0	0	0	0	0	0	184	0	184	341
6:45 AM	159	0	0	0	159	10	3	0	0	13	0	0	0	0	0	0	0	158	0	158	330
Total	506	0	0	0	506	25	4	0	0	29	0	0	0	0	0	0	0	600	0	600	1135
7:00 AM	163	0	0	0	163	10	5	0	0	15	0	0	0	0	0	0	0	169	0	169	347
7:15 AM	175	0	0	0	175	5	4	0	0	9	0	0	0	0	0	0	0	227	0	227	411
7:30 AM	222	0	0	0	222	13	3	0	0	16	0	0	3	0	3	0	0	277	0	277	518
7:45 AM	201	0	0	0	201	32	15	0	0	47	0	2	3	0	5	0	0	217	0	217	470
Total	761	0	0	0	761	60	27	0	0	87	0	2	6	0	8	0	0	890	0	890	1746
8:00 AM	200	0	0	0	200	44	9	0	0	53	0	11	32	0	43	0	0	244	0	244	540
8:15 AM	157	0	0	1	158	20	1	0	0	21	0	0	1	0	1	0	0	238	0	238	418
8:30 AM	189	0	0	0	189	9	2	0	0	11	0	0	0	0	0	0	0	242	0	242	442
8:45 AM	165	0	0	0	165	7	2	0	0	9	0	0	0	0	0	0	0	257	0	257	431
Total	711	0	0	1	712	80	14	0	0	94	0	11	33	0	44	0	0	981	0	981	1831
Grand Total	1978	0	0	1	1979	165	45	0	0	210	0	13	39	0	52	0	0	2471	0	2471	4712
Approach %	99.9	0.0	0.0	0.1		78.6	21.4	0.0	0.0		0.0	25.0	75.0	0.0		0.0	0.0	100.0	0.0		
Total %	42.0	0.0	0.0	0.0	42.0	3.5	1.0	0.0	0.0	4.5	0.0	0.3	0.8	0.0	1.1	0.0	0.0	52.4	0.0	52.4	
Exiting Leg Total					2650					0					0					2062	4712

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
7:30 AM	222	0	0	0	222	13	3	0	0	16	0	0	3	0	3	0	0	277	0	277	518
7:45 AM	201	0	0	0	201	32	15	0	0	47	0	2	3	0	5	0	0	217	0	217	470
8:00 AM	200	0	0	0	200	44	9	0	0	53	0	11	32	0	43	0	0	244	0	244	540
8:15 AM	157	0	0	1	158	20	1	0	0	21	0	0	1	0	1	0	0	238	0	238	418
Total Volume	780	0	0	1	781	109	28	0	0	137	0	13	39	0	52	0	0	976	0	976	1946
% Approach Total	99.9	0.0	0.0	0.1		79.6	20.4	0.0	0.0		0.0	25.0	75.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.878	0.000	0.000	0.250	0.880	0.619	0.467	0.000	0.000	0.646	0.000	0.295	0.305	0.000	0.302	0.000	0.000	0.881	0.000	0.881	0.901
Entering Leg	780	0	0	1	781	109	28	0	0	137	0	13	39	0	52	0	0	976	0	976	1946
Exiting Leg					1099					0					0					847	1946
Total					1880					137					52					1823	3892

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
6:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
6:45 AM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2	5
Total	3	0	0	0	3	1	0	0	0	1	0	0	0	0	0	0	0	6	0	6	10
7:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
7:15 AM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5
7:30 AM	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	13
7:45 AM	7	0	0	0	7	0	1	0	0	1	0	0	5	0	5	0	0	5	0	5	18
Total	19	0	0	0	19	0	1	0	0	1	0	0	5	0	5	0	0	14	0	14	39
8:00 AM	3	0	0	0	3	0	0	0	0	0	0	0	1	0	1	0	0	5	0	5	9
8:15 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	6
8:30 AM	4	0	0	0	4	0	1	0	0	1	0	0	0	0	0	0	0	5	0	5	10
8:45 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	6
Total	11	0	0	0	11	0	1	0	0	1	0	0	1	0	1	0	0	18	0	18	31
Grand Total	33	0	0	0	33	1	2	0	0	3	0	0	6	0	6	0	0	38	0	38	80
Approach %	100.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0		
Total %	41.3	0.0	0.0	0.0	41.3	1.3	2.5	0.0	0.0	3.8	0.0	0.0	7.5	0.0	7.5	0.0	0.0	47.5	0.0	47.5	
Exiting Leg Total					39					0					0					41	80
Buses	19	0	0	0	19	0	0	0	0	0	0	0	6	0	6	0	0	19	0	19	44
% Buses	57.6	0.0	0.0	0.0	57.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	50.0	0.0	50.0	55.0
Exiting Leg Total					19					0					0					25	44
Single-Unit Trucks	14	0	0	0	14	1	2	0	0	3	0	0	0	0	0	0	0	17	0	17	34
% Single-Unit	42.4	0.0	0.0	0.0	42.4	100.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.7	0.0	44.7	42.5
Exiting Leg Total					18					0					0					16	34
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	5.3	2.5
Exiting Leg Total					2					0					0					0	2

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
7:30 AM	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	13
7:45 AM	7	0	0	0	7	0	1	0	0	1	0	0	5	0	5	0	0	5	0	5	18
8:00 AM	3	0	0	0	3	0	0	0	0	0	0	0	1	0	1	0	0	5	0	5	9
8:15 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	6
Total Volume	20	0	0	0	20	0	1	0	0	1	0	0	6	0	6	0	0	19	0	19	46
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.625	0.000	0.000	0.000	0.625	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.300	0.000	0.300	0.000	0.000	0.950	0.000	0.950	0.639
Buses	12	0	0	0	12	0	0	0	0	0	0	0	6	0	6	0	0	9	0	9	27
Buses %	60.0	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	47.4	0.0	47.4	58.7
Single-Unit Trucks	8	0	0	0	8	0	1	0	0	1	0	0	0	0	0	0	0	10	0	10	19
Single-Unit %	40.0	0.0	0.0	0.0	40.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.6	0.0	52.6	41.3
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	12	0	0	0	12	0	0	0	0	0	0	0	6	0	6	0	0	9	0	9	27
Single-Unit Trucks	8	0	0	0	8	0	1	0	0	1	0	0	0	0	0	0	0	10	0	10	19
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	20	0	0	0	20	0	1	0	0	1	0	0	6	0	6	0	0	19	0	19	46
Buses					9					0					0					18	27
Single-Unit Trucks					10					0					0					9	19
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					19					0					0					27	46

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Riverway from East					Short Street from South					Riverway from Southwest					Riverway from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
6:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
Total	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	4
7:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
7:15 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
7:30 AM	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	7
7:45 AM	3	0	0	0	3	0	0	0	0	0	0	0	5	0	5	0	0	3	0	3	11
Total	11	0	0	0	11	0	0	0	0	0	0	0	5	0	5	0	0	8	0	8	24
8:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2	5
8:15 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4
8:30 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4
8:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
Total	7	0	0	0	7	0	0	0	0	0	0	0	1	0	1	0	0	8	0	8	16
Grand Total	19	0	0	0	19	0	0	0	0	0	0	0	6	0	6	0	0	19	0	19	44
Approach %	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0		
Total %	43.2	0.0	0.0	0.0	43.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	0.0	13.6	0.0	0.0	43.2	0.0	43.2	
Exiting Leg Total					19					0					0					25	44

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Riverway from East					Short Street from South					Riverway from Southwest					Riverway from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
7:30 AM	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	7
7:45 AM	3	0	0	0	3	0	0	0	0	0	0	0	5	0	5	0	0	3	0	3	11
8:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2	5
8:15 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4
Total Volume	12	0	0	0	12	0	0	0	0	0	0	0	6	0	6	0	0	9	0	9	27
% Approach Total	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.600	0.000	0.000	0.000	0.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.000	0.300	0.000	0.000	0.750	0.000	0.750	0.614
Entering Leg	12	0	0	0	12	0	0	0	0	0	0	0	6	0	6	0	0	9	0	9	27
Exiting Leg					9					0					0					18	27
Total					21					0					6					27	54

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
6:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	4
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
7:30 AM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	6
7:45 AM	4	0	0	0	4	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	7
Total	8	0	0	0	8	0	1	0	0	1	0	0	0	0	0	0	0	6	0	6	15
8:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	4
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
8:30 AM	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	3	0	3	6
8:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
Total	4	0	0	0	4	0	1	0	0	1	0	0	0	0	0	0	0	10	0	10	15
Grand Total	14	0	0	0	14	1	2	0	0	3	0	0	0	0	0	0	0	17	0	17	34
Approach %	100.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		
Total %	41.2	0.0	0.0	0.0	41.2	2.9	5.9	0.0	0.0	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	
Exiting Leg Total					18					0					0					16	34

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
7:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
7:30 AM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	6
7:45 AM	4	0	0	0	4	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	7
8:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	4
Total Volume	9	0	0	0	9	0	1	0	0	1	0	0	0	0	0	0	0	9	0	9	19
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.563	0.000	0.000	0.000	0.563	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.679
Entering Leg	9	0	0	0	9	0	1	0	0	1	0	0	0	0	0	0	0	9	0	9	19
Exiting Leg					9					0					0					10	19
Total					18					1					0					19	38

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Articulated Trucks**

	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	
Exiting Leg Total					2					0					0					0	2

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:00 AM	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Exiting Leg					2					0					0					0	2
Total					2					0					0					2	4

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Riverway from East							Short Street from South							Riverway from Southwest							Riverway from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
6:45 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	1	0	0	0	1	2	4
Grand Total	1	0	0	0	0	0	1	0	0	2	0	0	1	3	0	0	0	0	0	1	1	0	1	0	0	0	2	3	8
Approach %	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	66.7	0.0	0.0	33.3		0.0	0.0	0.0	0.0	0.0	100.0		0.0	33.3	0.0	0.0	0.0	66.7		
Total %	12.5	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	25.0	0.0	0.0	12.5	37.5	0.0	0.0	0.0	0.0	0.0	12.5	12.5	0.0	12.5	0.0	0.0	0.0	25.0	37.5	
Exiting Leg Total							0							2							3							3	8

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:30 AM	Riverway from East							Short Street from South							Riverway from Southwest							Riverway from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
6:45 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
Total Volume	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	1	1	4
% Approach Total	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	1.000
Entering Leg	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	1	1	4
Exiting Leg							0							0							2							2	4
Total							1							1							3							3	8

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Riverway from East							Short Street from South							Riverway from Southwest							Riverway from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3	3	0	0	0	0	0	2	2	6
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	14	15	0	0	0	0	1	13	14	30
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	17	18	0	0	0	0	1	16	17	36
Total	0	0	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	2	34	36	0	0	0	0	3	31	34	75
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	7	7	0	0	0	0	0	8	8	19
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	12	13	0	0	0	0	2	13	15	30
7:30 AM	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	0	0	2	16	18	0	0	0	0	1	14	15	36
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	2	8	0	0	0	0	0	26	26	0	0	0	0	3	32	35	69
Total	0	0	0	0	0	1	1	0	0	0	0	13	3	16	0	0	0	0	3	61	64	0	0	0	0	6	67	73	154
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	7	10	0	0	0	0	3	37	40	0	0	0	0	5	36	41	91
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	4	5	0	0	0	0	1	16	17	0	0	0	0	0	14	14	36
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	7	2	9	0	0	0	0	1	17	18	0	0	0	0	3	20	23	50
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	1	21	22	0	0	0	0	1	24	25	51
Total	0	0	0	0	0	0	0	0	0	0	0	11	17	28	0	0	0	0	6	91	97	0	0	0	0	9	94	103	228
Grand Total	0	0	0	0	0	1	1	0	0	0	0	27	22	49	0	0	0	0	11	186	197	0	0	0	0	18	192	210	457
Approach %	0	0	0	0	0	100		0	0	0	0	55.1	44.9		0	0	0	0	5.58	94.4		0	0	0	0	8.57	91.4		
Total %	0	0	0	0	0	0.22	0.22	0	0	0	0	5.91	4.81	10.7	0	0	0	0	2.41	40.7	43.1	0	0	0	0	3.94	42	46	
Exiting Leg Total							1							49							197							210	457

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Riverway from East							Short Street from South							Riverway from Southwest							Riverway from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	2	8	0	0	0	0	0	26	26	0	0	0	0	3	32	35	69
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	7	10	0	0	0	0	3	37	40	0	0	0	0	5	36	41	91
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	4	5	0	0	0	0	1	16	17	0	0	0	0	0	14	14	36
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	7	2	9	0	0	0	0	1	17	18	0	0	0	0	3	20	23	50
Total Volume	0	0	0	0	0	0	0	0	0	0	0	17	15	32	0	0	0	0	5	96	101	0	0	0	0	11	102	113	246
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	53.1	46.9		0.0	0.0	0.0	0.0	5.0	95.0		0.0	0.0	0.0	0.0	9.7	90.3		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.607	0.536	0.800	0.000	0.000	0.000	0.000	0.417	0.649	0.631	0.000	0.000	0.000	0.000	0.550	0.708	0.689	0.676
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	17	15	32	0	0	0	0	5	96	101	0	0	0	0	11	102	113	246
Exiting Leg							0							32							101							113	246
Total							0							64							202							226	492

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Riverway from East					Short Street from South					Riverway from Southwest					Riverway from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
3:00 PM	268	0	0	0	268	27	9	0	0	36	0	7	4	0	11	0	0	216	1	217	532
3:15 PM	222	0	0	0	222	13	7	0	0	20	0	0	0	0	0	0	0	249	0	249	491
3:30 PM	238	0	0	0	238	10	5	0	0	15	0	1	0	0	1	0	0	217	0	217	471
3:45 PM	220	0	0	0	220	11	9	0	0	20	0	0	0	0	0	0	0	195	0	195	435
Total	948	0	0	0	948	61	30	0	0	91	0	8	4	0	12	0	0	877	1	878	1929
4:00 PM	270	0	0	1	271	21	5	0	0	26	0	1	0	0	1	0	0	218	0	218	516
4:15 PM	259	0	0	0	259	20	17	0	0	37	0	0	0	0	0	0	0	179	0	179	475
4:30 PM	300	0	0	0	300	14	12	0	0	26	0	0	0	0	0	0	0	228	0	228	554
4:45 PM	210	0	0	0	210	29	23	0	0	52	0	4	1	0	5	0	0	208	0	208	475
Total	1039	0	0	1	1040	84	57	0	0	141	0	5	1	0	6	0	0	833	0	833	2020
5:00 PM	237	0	0	0	237	15	16	0	0	31	0	0	0	0	0	0	0	204	0	204	472
5:15 PM	228	0	0	0	228	20	16	0	0	36	0	1	3	0	4	0	0	220	0	220	488
5:30 PM	268	0	0	0	268	20	9	0	0	29	0	0	2	0	2	0	0	263	0	263	562
5:45 PM	259	0	0	0	259	18	14	0	0	32	0	0	4	0	4	0	0	202	0	202	497
Total	992	0	0	0	992	73	55	0	0	128	0	1	9	0	10	0	0	889	0	889	2019
Grand Total	2979	0	0	1	2980	218	142	0	0	360	0	14	14	0	28	0	0	2599	1	2600	5968
Approach %	100.0	0.0	0.0	0.0		60.6	39.4	0.0	0.0		0.0	50.0	50.0	0.0		0.0	0.0	100.0	0.0		
Total %	49.9	0.0	0.0	0.0	49.9	3.7	2.4	0.0	0.0	6.0	0.0	0.2	0.2	0.0	0.5	0.0	0.0	43.5	0.0	43.6	
Exiting Leg Total					2832					0					0					3136	5968
Cars	2957	0	0	1	2958	209	141	0	0	350	0	8	8	0	16	0	0	2563	1	2564	5888
% Cars	99.3	0.0	0.0	100.0	99.3	95.9	99.3	0.0	0.0	97.2	0.0	57.1	57.1	0.0	57.1	0.0	0.0	98.6	100.0	98.6	98.7
Exiting Leg Total					2781					0					0					3107	5888
Heavy Vehicles	22	0	0	0	22	9	1	0	0	10	0	6	6	0	12	0	0	36	0	36	80
% Heavy Vehicles	0.7	0.0	0.0	0.0	0.7	4.1	0.7	0.0	0.0	2.8	0.0	42.9	42.9	0.0	42.9	0.0	0.0	1.4	0.0	1.4	1.3
Exiting Leg Total					51					0					0					29	80

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Riverway from East					Short Street from South					Riverway from Southwest					Riverway from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
4:00 PM	270	0	0	1	271	21	5	0	0	26	0	1	0	0	1	0	0	218	0	218	516
4:15 PM	259	0	0	0	259	20	17	0	0	37	0	0	0	0	0	0	0	179	0	179	475
4:30 PM	300	0	0	0	300	14	12	0	0	26	0	0	0	0	0	0	0	228	0	228	554
4:45 PM	210	0	0	0	210	29	23	0	0	52	0	4	1	0	5	0	0	208	0	208	475
Total Volume	1039	0	0	1	1040	84	57	0	0	141	0	5	1	0	6	0	0	833	0	833	2020
% Approach Total	99.9	0.0	0.0	0.1		59.6	40.4	0.0	0.0		0.0	83.3	16.7	0.0		0.0	0.0	100.0	0.0		
PHF	0.866	0.000	0.000	0.250	0.867	0.724	0.620	0.000	0.000	0.678	0.000	0.313	0.250	0.000	0.300	0.000	0.000	0.913	0.000	0.913	0.912
Cars	1027	0	0	1	1028	82	56	0	0	138	0	3	1	0	4	0	0	820	0	820	1990
Cars %	98.8	0.0	0.0	100.0	98.8	97.6	98.2	0.0	0.0	97.9	0.0	60.0	100.0	0.0	66.7	0.0	0.0	98.4	0.0	98.4	98.5
Heavy Vehicles	12	0	0	0	12	2	1	0	0	3	0	2	0	0	2	0	0	13	0	13	30
Heavy Vehicles %	1.2	0.0	0.0	0.0	1.2	2.4	1.8	0.0	0.0	2.1	0.0	40.0	0.0	0.0	33.3	0.0	0.0	1.6	0.0	1.6	1.5
Cars Enter Leg	1027	0	0	1	1028	82	56	0	0	138	0	3	1	0	4	0	0	820	0	820	1990
Heavy Enter Leg	12	0	0	0	12	2	1	0	0	3	0	2	0	0	2	0	0	13	0	13	30
Total Entering Leg	1039	0	0	1	1040	84	57	0	0	141	0	5	1	0	6	0	0	833	0	833	2020
Cars Exiting Leg					906					0					0					1084	1990
Heavy Exiting Leg					17					0					0					13	30
Total Exiting Leg					923					0					0					1097	2020

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
3:00 PM	266	0	0	0	266	21	9	0	0	30	0	3	0	0	3	0	0	214	1	215	514
3:15 PM	222	0	0	0	222	13	7	0	0	20	0	0	0	0	0	0	0	244	0	244	486
3:30 PM	237	0	0	0	237	10	5	0	0	15	0	1	0	0	1	0	0	210	0	210	463
3:45 PM	218	0	0	0	218	10	9	0	0	19	0	0	0	0	0	0	0	190	0	190	427
Total	943	0	0	0	943	54	30	0	0	84	0	4	0	0	4	0	0	858	1	859	1890
4:00 PM	266	0	0	1	267	19	5	0	0	24	0	1	0	0	1	0	0	214	0	214	506
4:15 PM	257	0	0	0	257	20	17	0	0	37	0	0	0	0	0	0	0	174	0	174	468
4:30 PM	296	0	0	0	296	14	12	0	0	26	0	0	0	0	0	0	0	225	0	225	547
4:45 PM	208	0	0	0	208	29	22	0	0	51	0	2	1	0	3	0	0	207	0	207	469
Total	1027	0	0	1	1028	82	56	0	0	138	0	3	1	0	4	0	0	820	0	820	1990
5:00 PM	234	0	0	0	234	15	16	0	0	31	0	0	0	0	0	0	0	204	0	204	469
5:15 PM	228	0	0	0	228	20	16	0	0	36	0	1	3	0	4	0	0	220	0	220	488
5:30 PM	267	0	0	0	267	20	9	0	0	29	0	0	2	0	2	0	0	260	0	260	558
5:45 PM	258	0	0	0	258	18	14	0	0	32	0	0	2	0	2	0	0	201	0	201	493
Total	987	0	0	0	987	73	55	0	0	128	0	1	7	0	8	0	0	885	0	885	2008
Grand Total	2957	0	0	1	2958	209	141	0	0	350	0	8	8	0	16	0	0	2563	1	2564	5888
Approach %	100.0	0.0	0.0	0.0		59.7	40.3	0.0	0.0		0.0	50.0	50.0	0.0		0.0	0.0	100.0	0.0		
Total %	50.2	0.0	0.0	0.0	50.2	3.5	2.4	0.0	0.0	5.9	0.0	0.1	0.1	0.0	0.3	0.0	0.0	43.5	0.0	43.5	
Exiting Leg Total					2781					0					0					3107	5888

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
5:00 PM	234	0	0	0	234	15	16	0	0	31	0	0	0	0	0	0	0	204	0	204	469
5:15 PM	228	0	0	0	228	20	16	0	0	36	0	1	3	0	4	0	0	220	0	220	488
5:30 PM	267	0	0	0	267	20	9	0	0	29	0	0	2	0	2	0	0	260	0	260	558
5:45 PM	258	0	0	0	258	18	14	0	0	32	0	0	2	0	2	0	0	201	0	201	493
Total Volume	987	0	0	0	987	73	55	0	0	128	0	1	7	0	8	0	0	885	0	885	2008
% Approach Total	100.0	0.0	0.0	0.0		57.0	43.0	0.0	0.0		0.0	12.5	87.5	0.0		0.0	0.0	100.0	0.0		
PHF	0.924	0.000	0.000	0.000	0.924	0.913	0.859	0.000	0.000	0.889	0.000	0.250	0.583	0.000	0.500	0.000	0.000	0.851	0.000	0.851	0.900
Entering Leg	987	0	0	0	987	73	55	0	0	128	0	1	7	0	8	0	0	885	0	885	2008
Exiting Leg					959					0					0					1049	2008
Total					1946					128					8					1934	4016

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
3:00 PM	2	0	0	0	2	6	0	0	0	6	0	4	4	0	8	0	0	2	0	2	18
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	5
3:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7	0	7	8
3:45 PM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	5	0	5	8
Total	5	0	0	0	5	7	0	0	0	7	0	4	4	0	8	0	0	19	0	19	39
4:00 PM	4	0	0	0	4	2	0	0	0	2	0	0	0	0	0	0	0	4	0	4	10
4:15 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	7
4:30 PM	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	7
4:45 PM	2	0	0	0	2	0	1	0	0	1	0	2	0	0	2	0	0	1	0	1	6
Total	12	0	0	0	12	2	1	0	0	3	0	2	0	0	2	0	0	13	0	13	30
5:00 PM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	4
5:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2	0	0	1	0	1	4
Total	5	0	0	0	5	0	0	0	0	0	0	0	2	0	2	0	0	4	0	4	11
Grand Total	22	0	0	0	22	9	1	0	0	10	0	6	6	0	12	0	0	36	0	36	80
Approach %	100.0	0.0	0.0	0.0		90.0	10.0	0.0	0.0		0.0	50.0	50.0	0.0		0.0	0.0	100.0	0.0		
Total %	27.5	0.0	0.0	0.0	27.5	11.3	1.3	0.0	0.0	12.5	0.0	7.5	7.5	0.0	15.0	0.0	0.0	45.0	0.0	45.0	
Exiting Leg Total					51					0					0					29	80
Buses	13	0	0	0	13	5	1	0	0	6	0	5	6	0	11	0	0	13	0	13	43
% Buses	59.1	0.0	0.0	0.0	59.1	55.6	100.0	0.0	0.0	60.0	0.0	83.3	100.0	0.0	91.7	0.0	0.0	36.1	0.0	36.1	53.8
Exiting Leg Total					23					0					0					20	43
Single-Unit Trucks	9	0	0	0	9	2	0	0	0	2	0	0	0	0	0	0	0	23	0	23	34
% Single-Unit	40.9	0.0	0.0	0.0	40.9	22.2	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.9	0.0	63.9	42.5
Exiting Leg Total					25					0					0					9	34
Articulated Trucks	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	3
% Articulated	0.0	0.0	0.0	0.0	0.0	22.2	0.0	0.0	0.0	20.0	0.0	16.7	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	3.8
Exiting Leg Total					3					0					0					0	3

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
3:00 PM	2	0	0	0	2	6	0	0	0	6	0	4	4	0	8	0	0	2	0	2	18
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	5
3:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7	0	7	8
3:45 PM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	5	0	5	8
Total Volume	5	0	0	0	5	7	0	0	0	7	0	4	4	0	8	0	0	19	0	19	39
% Approach Total	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.625	0.000	0.000	0.000	0.625	0.292	0.000	0.000	0.000	0.292	0.000	0.250	0.250	0.000	0.250	0.000	0.000	0.679	0.000	0.679	0.542
Buses	3	0	0	0	3	5	0	0	0	5	0	3	4	0	7	0	0	7	0	7	22
Buses %	60.0	0.0	0.0	0.0	60.0	71.4	0.0	0.0	0.0	71.4	0.0	75.0	100.0	0.0	87.5	0.0	0.0	36.8	0.0	36.8	56.4
Single-Unit Trucks	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	12	0	12	14
Single-Unit %	40.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.2	0.0	63.2	35.9
Articulated Trucks	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	3
Articulated %	0.0	0.0	0.0	0.0	0.0	28.6	0.0	0.0	0.0	28.6	0.0	25.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	7.7
Buses	3	0	0	0	3	5	0	0	0	5	0	3	4	0	7	0	0	7	0	7	22
Single-Unit Trucks	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	12	0	12	14
Articulated Trucks	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	3
Total Entering Leg	5	0	0	0	5	7	0	0	0	7	0	4	4	0	8	0	0	19	0	19	39
Buses					15					0					0					7	22
Single-Unit Trucks					12					0					0					2	14
Articulated Trucks					3					0					0					0	3
Total Exiting Leg					30					0					0					9	39

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Riverway from East					Short Street from South					Riverway from Southwest					Riverway from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
3:00 PM	1	0	0	0	1	5	0	0	0	5	0	3	4	0	7	0	0	1	0	1	14
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
3:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
3:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	5
Total	3	0	0	0	3	5	0	0	0	5	0	3	4	0	7	0	0	7	0	7	22
4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
4:30 PM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
4:45 PM	2	0	0	0	2	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	5
Total	6	0	0	0	6	0	1	0	0	1	0	2	0	0	2	0	0	4	0	4	13
5:00 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
5:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	3
Total	4	0	0	0	4	0	0	0	0	0	0	0	2	0	2	0	0	2	0	2	8
Grand Total	13	0	0	0	13	5	1	0	0	6	0	5	6	0	11	0	0	13	0	13	43
Approach %	100.0	0.0	0.0	0.0		83.3	16.7	0.0	0.0		0.0	45.5	54.5	0.0		0.0	0.0	100.0	0.0		
Total %	30.2	0.0	0.0	0.0	30.2	11.6	2.3	0.0	0.0	14.0	0.0	11.6	14.0	0.0	25.6	0.0	0.0	30.2	0.0	30.2	
Exiting Leg Total					23					0					0					20	43

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from East					Short Street from South					Riverway from Southwest					Riverway from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
3:00 PM	1	0	0	0	1	5	0	0	0	5	0	3	4	0	7	0	0	1	0	1	14
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
3:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
3:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	5
Total Volume	3	0	0	0	3	5	0	0	0	5	0	3	4	0	7	0	0	7	0	7	22
% Approach Total	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	42.9	57.1	0.0		0.0	0.0	100.0	0.0		
PHF	0.750	0.000	0.000	0.000	0.750	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.250	0.000	0.250	0.000	0.000	0.438	0.000	0.438	0.393
Entering Leg	3	0	0	0	3	5	0	0	0	5	0	3	4	0	7	0	0	7	0	7	22
Exiting Leg					15					0					0					7	22
Total					18					5					7					14	44

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
3:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	6
3:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
Total	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	12	0	12	14
4:00 PM	3	0	0	0	3	2	0	0	0	2	0	0	0	0	0	0	0	4	0	4	9
4:15 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4
4:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	6	0	0	0	6	2	0	0	0	2	0	0	0	0	0	0	0	9	0	9	17
5:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
Grand Total	9	0	0	0	9	2	0	0	0	2	0	0	0	0	0	0	0	23	0	23	34
Approach %	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		
Total %	26.5	0.0	0.0	0.0	26.5	5.9	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.6	0.0	67.6	
Exiting Leg Total					25					0					0					9	34

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	6
3:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
4:00 PM	3	0	0	0	3	2	0	0	0	2	0	0	0	0	0	0	0	4	0	4	9
Total Volume	4	0	0	0	4	2	0	0	0	2	0	0	0	0	0	0	0	15	0	15	21
% Approach Total	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.333	0.000	0.000	0.000	0.333	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.625	0.583
Entering Leg	4	0	0	0	4	2	0	0	0	2	0	0	0	0	0	0	0	15	0	15	21
Exiting Leg					17					0					0					4	21
Total					21					2					0					19	42

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	3
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	3
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	0.0	66.7	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					3					0					0					0	3

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway					Short Street					Riverway					Riverway					
	from East					from South					from Southwest					from West					
	Thru	Bear Left	Left	U-Turn	Total	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	3
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	3
Exiting Leg					3					0					0					0	3
Total					3					2					1					0	6

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Riverway from East							Short Street from South							Riverway from Southwest							Riverway from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	0	1	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	1	0	0	1	3	5	0	0	0	0	2	1	3	0	0	0	0	1	0	1	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3
5:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
5:45 PM	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	1	0	1	0	2	6
Total	2	0	0	0	0	0	2	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	1	0	4	1	6	11
Grand Total	2	0	0	0	0	0	2	0	1	0	0	1	4	6	0	0	0	0	4	1	5	0	0	1	0	5	1	7	20
Approach %	100.0	0.0	0.0	0.0	0.0	0.0		0.0	16.7	0.0	0.0	16.7	66.7		0.0	0.0	0.0	0.0	80.0	20.0		0.0	0.0	14.3	0.0	71.4	14.3		
Total %	10.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	5.0	0.0	0.0	5.0	20.0	30.0	0.0	0.0	0.0	0.0	20.0	5.0	25.0	0.0	0.0	5.0	0.0	25.0	5.0	35.0	
Exiting Leg Total							1							5							5							9	20

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Riverway from East							Short Street from South							Riverway from Southwest							Riverway from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3
5:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
5:45 PM	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	1	0	1	0	2	6
Total Volume	2	0	0	0	0	0	2	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	1	0	4	1	6	11
% Approach Total	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	16.7	0.0	66.7	16.7		
PHF	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.000	0.500	0.250	0.500	0.458
Entering Leg	2	0	0	0	0	0	2	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	1	0	4	1	6	11
Exiting Leg							1							1							2							7	11
Total							3							2							4							13	22

PDI File #: **249980 G**
Location: **S: Short Street**
Location: **E: Riverway W: Riverway SW: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.02**
Count Date: **Thursday, May 9, 2024**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

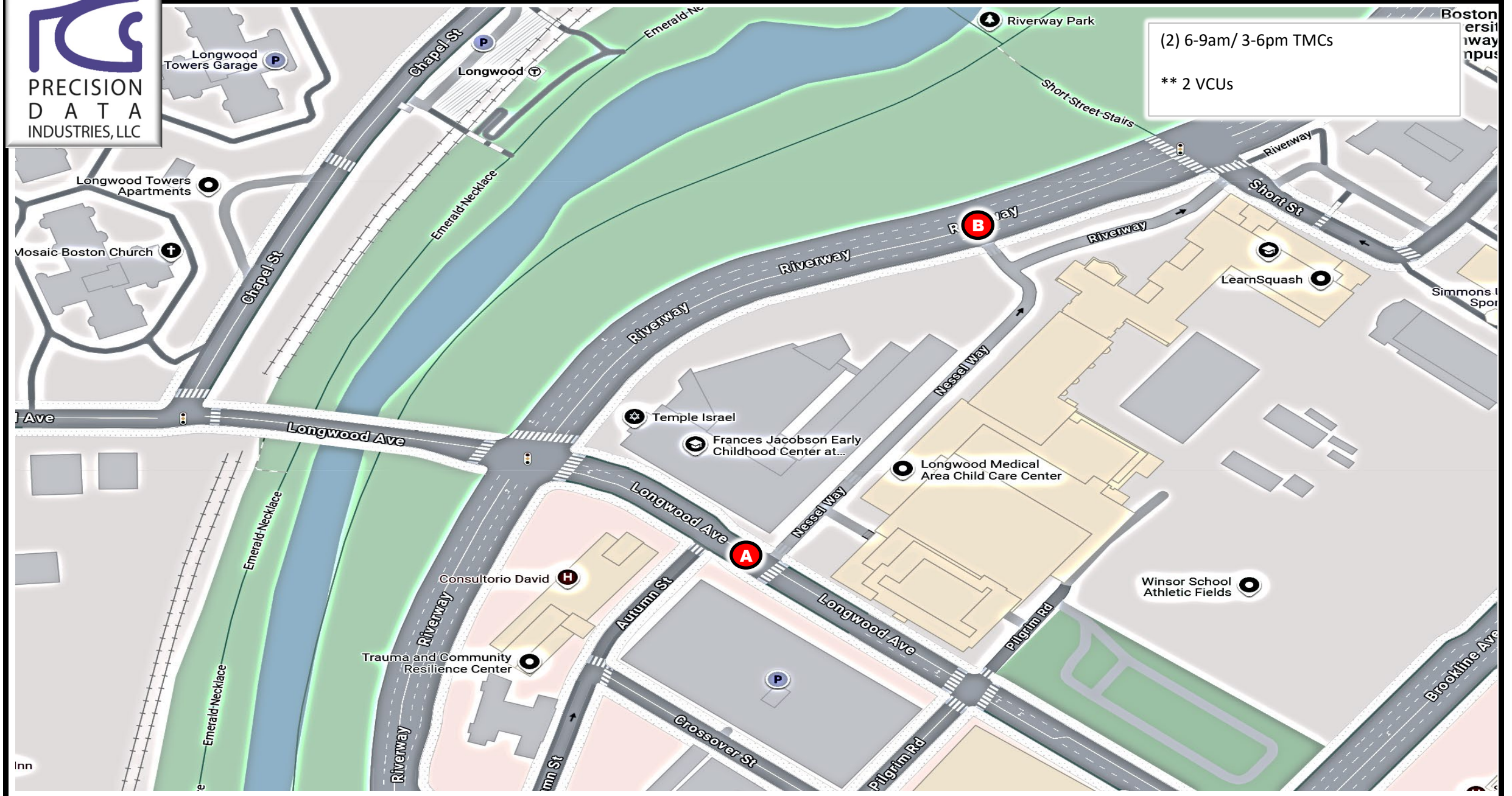
	Riverway from East							Short Street from South							Riverway from Southwest							Riverway from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	7	2	9	0	0	0	0	9	4	13	0	0	0	0	14	6	20	42
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	5	1	6	0	0	0	0	11	2	13	0	0	0	0	9	1	10	29
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	13	3	16	0	0	0	0	13	5	18	35
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	7	0	7	0	0	0	0	7	6	13	0	0	0	0	9	4	13	33
Total	0	0	0	0	0	0	0	0	0	0	0	20	3	23	0	0	0	0	40	15	55	0	0	0	0	45	16	61	139
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	13	5	18	0	0	0	0	13	5	18	39
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	7	9	0	0	0	0	16	0	16	0	0	0	0	16	3	19	44
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	4	5	0	0	0	0	16	9	25	0	0	0	0	13	8	21	51
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	18	4	22	0	0	0	0	31	4	35	58
Total	0	0	0	0	0	0	0	0	0	0	0	6	12	18	0	0	0	0	63	18	81	0	0	0	0	73	20	93	192
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	7	5	12	0	0	0	0	25	4	29	0	0	0	0	30	6	36	77
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	4	6	10	0	0	0	0	17	2	19	0	0	0	0	21	7	28	57
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	0	21	3	24	0	0	0	0	21	5	26	57
5:45 PM	0	0	0	0	0	1	1	0	0	0	0	3	1	4	0	0	0	0	17	5	22	0	0	0	0	17	4	21	48
Total	0	0	0	0	0	1	1	0	0	0	0	18	15	33	0	0	0	0	80	14	94	0	0	0	0	89	22	111	239
Grand Total	0	0	0	0	0	1	1	0	0	0	0	44	30	74	0	0	0	0	183	47	230	0	0	0	0	207	58	265	570
Approach %	0	0	0	0	0	100		0	0	0	0	59.5	40.5		0	0	0	0	79.6	20.4		0	0	0	0	78.1	21.9		
Total %	0	0	0	0	0	0.18	0.18	0	0	0	0	7.72	5.26	13	0	0	0	0	32.1	8.25	40.4	0	0	0	0	36.3	10.2	46.5	
Exiting Leg Total							1							74							230							265	570

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Riverway from East							Short Street from South							Riverway from Southwest							Riverway from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	18	4	22	0	0	0	0	31	4	35	58
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	7	5	12	0	0	0	0	25	4	29	0	0	0	0	30	6	36	77
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	4	6	10	0	0	0	0	17	2	19	0	0	0	0	21	7	28	57
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	0	21	3	24	0	0	0	0	21	5	26	57
Total Volume	0	0	0	0	0	0	0	0	0	0	0	16	14	30	0	0	0	0	81	13	94	0	0	0	0	103	22	125	249
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	53.3	46.7		0.0	0.0	0.0	0.0	86.2	13.8		0.0	0.0	0.0	0.0	82.4	17.6		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.571	0.583	0.625	0.000	0.000	0.000	0.000	0.810	0.813	0.810	0.000	0.000	0.000	0.000	0.831	0.786	0.868	0.808
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	16	14	30	0	0	0	0	81	13	94	0	0	0	0	103	22	125	249
Exiting Leg							0							30							94							125	249
Total							0							60							188							250	498

Location Map: 250665 Boston, MA

Precision Data Industries, LLC 157 Washington Street, Suite 2, Hudson, MA 01749 ph: 508-875-0100 email: datarequests@pdillc.com



Client:	Engineer:	Site Code:	Date:	PDI Job #	City, State:
VHB	M. Burmeister	14481.03	Wed 6/11/2025	250665	Boston, MA

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	19	0	0	19	6	0	2	0	8	0	36	0	0	36	63
6:15 AM	1	0	1	0	2	1	19	0	1	21	5	0	1	0	6	0	67	4	0	71	100
6:30 AM	0	0	1	0	1	0	39	0	0	39	8	0	4	0	12	0	95	0	0	95	147
6:45 AM	0	0	1	0	1	0	47	0	0	47	15	0	9	0	24	0	98	0	0	98	170
Total	1	0	3	0	4	1	124	0	1	126	34	0	16	0	50	0	296	4	0	300	480
7:00 AM	0	0	1	0	1	3	57	0	0	60	19	1	17	0	37	0	74	0	0	74	172
7:15 AM	2	0	1	0	3	0	78	0	0	78	10	2	21	0	33	0	118	0	0	118	232
7:30 AM	2	0	1	0	3	1	69	0	0	70	8	0	15	0	23	0	90	1	0	91	187
7:45 AM	2	0	2	0	4	1	53	0	0	54	3	0	16	0	19	0	92	3	1	96	173
Total	6	0	5	0	11	5	257	0	0	262	40	3	69	0	112	0	374	4	1	379	764
8:00 AM	6	0	0	0	6	3	44	0	0	47	15	1	4	0	20	0	58	3	0	61	134
8:15 AM	2	0	0	0	2	1	45	0	0	46	7	0	4	0	11	0	91	0	0	91	150
8:30 AM	2	0	1	0	3	3	48	0	0	51	8	2	7	0	17	0	87	3	0	90	161
8:45 AM	5	0	0	0	5	2	48	0	0	50	12	2	5	0	19	0	100	4	0	104	178
Total	15	0	1	0	16	9	185	0	0	194	42	5	20	0	67	0	336	10	0	346	623
Grand Total	22	0	9	0	31	15	566	0	1	582	116	8	105	0	229	0	1006	18	1	1025	1867
Approach %	71.0	0.0	29.0	0.0		2.6	97.3	0.0	0.2		50.7	3.5	45.9	0.0		0.0	98.1	1.8	0.1		
Total %	1.2	0.0	0.5	0.0	1.7	0.8	30.3	0.0	0.1	31.2	6.2	0.4	5.6	0.0	12.3	0.0	53.9	1.0	0.1	54.9	
Exiting Leg Total					41					1132					0					694	1867
Cars	21	0	9	0	30	12	552	0	1	565	105	8	101	0	214	0	982	18	1	1001	1810
% Cars	95.5	0.0	100.0	0.0	96.8	80.0	97.5	0.0	100.0	97.1	90.5	100.0	96.2	0.0	93.4	0.0	97.6	100.0	100.0	97.7	96.9
Exiting Leg Total					38					1097					0					675	1810
Heavy Vehicles	1	0	0	0	1	3	14	0	0	17	11	0	4	0	15	0	24	0	0	24	57
% Heavy Vehicles	4.5	0.0	0.0	0.0	3.2	20.0	2.5	0.0	0.0	2.9	9.5	0.0	3.8	0.0	6.6	0.0	2.4	0.0	0.0	2.3	3.1
Exiting Leg Total					3					35					0					19	57

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:00 AM	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	1	0	1	3	57	0	0	60	19	1	17	0	37	0	74	0	0	74	172
7:15 AM	2	0	1	0	3	0	78	0	0	78	10	2	21	0	33	0	118	0	0	118	232
7:30 AM	2	0	1	0	3	1	69	0	0	70	8	0	15	0	23	0	90	1	0	91	187
7:45 AM	2	0	2	0	4	1	53	0	0	54	3	0	16	0	19	0	92	3	1	96	173
Total Volume	6	0	5	0	11	5	257	0	0	262	40	3	69	0	112	0	374	4	1	379	764
% Approach Total	54.5	0.0	45.5	0.0		1.9	98.1	0.0	0.0		35.7	2.7	61.6	0.0		0.0	98.7	1.1	0.3		
PHF	0.750	0.000	0.625	0.000	0.688	0.417	0.824	0.000	0.000	0.840	0.526	0.375	0.821	0.000	0.757	0.000	0.792	0.333	0.250	0.803	0.823
Cars	6	0	5	0	11	3	250	0	0	253	36	3	69	0	108	0	362	4	1	367	739
Cars %	100.0	0.0	100.0	0.0	100.0	60.0	97.3	0.0	0.0	96.6	90.0	100.0	100.0	0.0	96.4	0.0	96.8	100.0	100.0	96.8	96.7
Heavy Vehicles	0	0	0	0	0	2	7	0	0	9	4	0	0	0	4	0	12	0	0	12	25
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	40.0	2.7	0.0	0.0	3.4	10.0	0.0	0.0	0.0	3.6	0.0	3.2	0.0	0.0	3.2	3.3
Cars Enter Leg	6	0	5	0	11	3	250	0	0	253	36	3	69	0	108	0	362	4	1	367	739
Heavy Enter Leg	0	0	0	0	0	2	7	0	0	9	4	0	0	0	4	0	12	0	0	12	25
Total Entering Leg	6	0	5	0	11	5	257	0	0	262	40	3	69	0	112	0	374	4	1	379	764
Cars Exiting Leg					10					403					0					326	739
Heavy Exiting Leg					2					16					0					7	25
Total Exiting Leg					12					419					0					333	764

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Cars

	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	19	0	0	19	5	0	2	0	7	0	34	0	0	34	60
6:15 AM	0	0	1	0	1	1	19	0	1	21	4	0	1	0	5	0	64	4	0	68	95
6:30 AM	0	0	1	0	1	0	39	0	0	39	8	0	4	0	12	0	95	0	0	95	147
6:45 AM	0	0	1	0	1	0	45	0	0	45	14	0	9	0	23	0	96	0	0	96	165
Total	0	0	3	0	3	1	122	0	1	124	31	0	16	0	47	0	289	4	0	293	467
7:00 AM	0	0	1	0	1	2	56	0	0	58	18	1	17	0	36	0	72	0	0	72	167
7:15 AM	2	0	1	0	3	0	75	0	0	75	9	2	21	0	32	0	113	0	0	113	223
7:30 AM	2	0	1	0	3	1	68	0	0	69	7	0	15	0	22	0	88	1	0	89	183
7:45 AM	2	0	2	0	4	0	51	0	0	51	2	0	16	0	18	0	89	3	1	93	166
Total	6	0	5	0	11	3	250	0	0	253	36	3	69	0	108	0	362	4	1	367	739
8:00 AM	6	0	0	0	6	3	44	0	0	47	14	1	2	0	17	0	58	3	0	61	131
8:15 AM	2	0	0	0	2	0	43	0	0	43	5	0	3	0	8	0	90	0	0	90	143
8:30 AM	2	0	1	0	3	3	47	0	0	50	8	2	7	0	17	0	86	3	0	89	159
8:45 AM	5	0	0	0	5	2	46	0	0	48	11	2	4	0	17	0	97	4	0	101	171
Total	15	0	1	0	16	8	180	0	0	188	38	5	16	0	59	0	331	10	0	341	604
Grand Total	21	0	9	0	30	12	552	0	1	565	105	8	101	0	214	0	982	18	1	1001	1810
Approach %	70.0	0.0	30.0	0.0		2.1	97.7	0.0	0.2		49.1	3.7	47.2	0.0		0.0	98.1	1.8	0.1		
Total %	1.2	0.0	0.5	0.0	1.7	0.7	30.5	0.0	0.1	31.2	5.8	0.4	5.6	0.0	11.8	0.0	54.3	1.0	0.1	55.3	
Exiting Leg Total					38					1097					0					675	1810

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:00 AM	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	1	0	1	2	56	0	0	58	18	1	17	0	36	0	72	0	0	72	167
7:15 AM	2	0	1	0	3	0	75	0	0	75	9	2	21	0	32	0	113	0	0	113	223
7:30 AM	2	0	1	0	3	1	68	0	0	69	7	0	15	0	22	0	88	1	0	89	183
7:45 AM	2	0	2	0	4	0	51	0	0	51	2	0	16	0	18	0	89	3	1	93	166
Total Volume	6	0	5	0	11	3	250	0	0	253	36	3	69	0	108	0	362	4	1	367	739
% Approach Total	54.5	0.0	45.5	0.0		1.2	98.8	0.0	0.0		33.3	2.8	63.9	0.0		0.0	98.6	1.1	0.3		
PHF	0.750	0.000	0.625	0.000	0.688	0.375	0.833	0.000	0.000	0.843	0.500	0.375	0.821	0.000	0.750	0.000	0.801	0.333	0.250	0.812	0.828
Entering Leg	6	0	5	0	11	3	250	0	0	253	36	3	69	0	108	0	362	4	1	367	739
Exiting Leg					10					403					0					326	739
Total					21					656					108					693	1478

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	3
6:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	3	0	0	3	5
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	2	0	0	2	5
Total	1	0	0	0	1	0	2	0	0	2	3	0	0	0	3	0	7	0	0	7	13
7:00 AM	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	0	2	0	0	2	5
7:15 AM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	5	0	0	5	9
7:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	4
7:45 AM	0	0	0	0	0	1	2	0	0	3	1	0	0	0	1	0	3	0	0	3	7
Total	0	0	0	0	0	2	7	0	0	9	4	0	0	0	4	0	12	0	0	12	25
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	1	2	0	0	3	2	0	1	0	3	0	1	0	0	1	7
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:45 AM	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	0	3	0	0	3	7
Total	0	0	0	0	0	1	5	0	0	6	4	0	4	0	8	0	5	0	0	5	19
Grand Total	1	0	0	0	1	3	14	0	0	17	11	0	4	0	15	0	24	0	0	24	57
Approach %	100.0	0.0	0.0	0.0		17.6	82.4	0.0	0.0		73.3	0.0	26.7	0.0		0.0	100.0	0.0	0.0		
Total %	1.8	0.0	0.0	0.0	1.8	5.3	24.6	0.0	0.0	29.8	19.3	0.0	7.0	0.0	26.3	0.0	42.1	0.0	0.0	42.1	
Exiting Leg Total					3					35					0					19	57
Buses	1	0	0	0	1	0	3	0	0	3	4	0	3	0	7	0	9	0	0	9	20
% Buses	100.0	0.0	0.0	0.0	100.0	0.0	21.4	0.0	0.0	17.6	36.4	0.0	75.0	0.0	46.7	0.0	37.5	0.0	0.0	37.5	35.1
Exiting Leg Total					0					13					0					7	20
Single-Unit Trucks	0	0	0	0	0	3	9	0	0	12	7	0	1	0	8	0	14	0	0	14	34
% Single-Unit	0.0	0.0	0.0	0.0	0.0	100.0	64.3	0.0	0.0	70.6	63.6	0.0	25.0	0.0	53.3	0.0	58.3	0.0	0.0	58.3	59.6
Exiting Leg Total					3					21					0					10	34
Articulated Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	11.8	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	4.2	5.3
Exiting Leg Total					0					1					0					2	3

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:00 AM	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	0	2	0	0	2	5
7:15 AM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	5	0	0	5	9
7:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	4
7:45 AM	0	0	0	0	0	1	2	0	0	3	1	0	0	0	1	0	3	0	0	3	7
Total Volume	0	0	0	0	0	2	7	0	0	9	4	0	0	0	4	0	12	0	0	12	25
% Approach Total	0.0	0.0	0.0	0.0		22.2	77.8	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.583	0.000	0.000	0.750	1.000	0.000	0.000	0.000	1.000	0.000	0.600	0.000	0.000	0.600	0.694
Buses	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	4	0	0	4	6
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	11.1	25.0	0.0	0.0	0.0	25.0	0.0	33.3	0.0	0.0	33.3	24.0
Single-Unit Trucks	0	0	0	0	0	2	5	0	0	7	3	0	0	0	3	0	7	0	0	7	17
Single-Unit %	0.0	0.0	0.0	0.0	0.0	100.0	71.4	0.0	0.0	77.8	75.0	0.0	0.0	0.0	75.0	0.0	58.3	0.0	0.0	58.3	68.0
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	8.3	8.0
Buses	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	4	0	0	4	6
Single-Unit Trucks	0	0	0	0	0	2	5	0	0	7	3	0	0	0	3	0	7	0	0	7	17
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total Entering Leg	0	0	0	0	0	2	7	0	0	9	4	0	0	0	4	0	12	0	0	12	25
Buses					0					5					0					1	6
Single-Unit Trucks					2					10					0					5	17
Articulated Trucks					0					1					0					1	2
Total Exiting Leg					2					16					0					7	25

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Buses**

	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	4
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	5
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	3
Total	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	4	0	0	4	6
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	1	0	0	1	4
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	1	0	0	1	3
Total	0	0	0	0	0	0	1	0	0	1	3	0	3	0	6	0	2	0	0	2	9
Grand Total	1	0	0	0	1	0	3	0	0	3	4	0	3	0	7	0	9	0	0	9	20
Approach %	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		57.1	0.0	42.9	0.0		0.0	100.0	0.0	0.0		
Total %	5.0	0.0	0.0	0.0	5.0	0.0	15.0	0.0	0.0	15.0	20.0	0.0	15.0	0.0	35.0	0.0	45.0	0.0	0.0	45.0	
Exiting Leg Total					0					13					0					7	20

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:30 AM	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	1	0	0	1	4
Total Volume	0	0	0	0	0	0	1	0	0	1	3	0	2	0	5	0	3	0	0	3	9
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		60.0	0.0	40.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.750	0.000	0.500	0.000	0.625	0.000	0.375	0.000	0.000	0.375	0.563
Entering Leg	0	0	0	0	0	0	1	0	0	1	3	0	2	0	5	0	3	0	0	3	9
Exiting Leg					0					6					0					3	9
Total					0					7					5					6	18

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Nessle Street from North					Longwood Avenue from East					Autumn Street from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	3
6:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	3
Total	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	4	0	0	4	7
7:00 AM	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	0	1	0	0	1	4
7:15 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	4	0	0	4	6
7:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	4
7:45 AM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	2	5	0	0	7	3	0	0	0	3	0	7	0	0	7	17
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Total	0	0	0	0	0	1	4	0	0	5	1	0	1	0	2	0	3	0	0	3	10
Grand Total	0	0	0	0	0	3	9	0	0	12	7	0	1	0	8	0	14	0	0	14	34
Approach %	0.0	0.0	0.0	0.0		25.0	75.0	0.0	0.0		87.5	0.0	12.5	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	8.8	26.5	0.0	0.0	35.3	20.6	0.0	2.9	0.0	23.5	0.0	41.2	0.0	0.0	41.2	
Exiting Leg Total					3					21					0					10	34

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:45 AM	Nessle Street from North					Longwood Avenue from East					Autumn Street from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	3
7:00 AM	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	0	1	0	0	1	4
7:15 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	4	0	0	4	6
7:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	4
Total Volume	0	0	0	0	0	1	3	0	0	4	4	0	0	0	4	0	9	0	0	9	17
% Approach Total	0.0	0.0	0.0	0.0		25.0	75.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.750	0.000	0.000	0.500	1.000	0.000	0.000	0.000	1.000	0.000	0.563	0.000	0.000	0.563	0.708
Entering Leg	0	0	0	0	0	1	3	0	0	4	4	0	0	0	4	0	9	0	0	9	17
Exiting Leg					1					13					0					3	17
Total					1					17					4					12	34

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Articulated Trucks**

	Nessle Street from North					Longwood Avenue from East					Autumn Street from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	
Exiting Leg Total					0					1					0					2	3

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:30 AM	Nessle Street from North					Longwood Avenue from East					Autumn Street from South					Longwood Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Exiting Leg					0					0					0					2	2
Total					0					2					0					2	4

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Nessle Street							Longwood Avenue							Autumn Street							Longwood Avenue							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	7	0	0	0	0	7	9
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	5	0	0	0	0	5	6
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
6:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	26	0	0	0	0	26	27
Total	0	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0	1	1	0	44	0	0	0	0	44	48
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	16
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	14	0	0	0	0	14	15
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	1	0	19	0	0	0	0	19	21
7:45 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	1	40	0	0	0	0	41	44
Total	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	2	0	0	1	3	1	89	0	0	0	0	90	96
8:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	0	0	0	0	1	1	0	41	1	0	0	0	42	46
8:15 AM	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	60	2	0	0	0	62	64
8:30 AM	1	0	0	0	0	0	1	0	5	1	0	0	0	6	0	0	0	0	0	0	0	1	29	2	0	0	0	32	39
8:45 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	45	0	0	0	0	45	48
Total	2	0	0	0	0	0	2	0	11	1	0	0	1	13	0	0	0	0	0	1	1	1	175	5	0	0	0	181	197
Grand Total	2	0	0	0	0	0	2	0	16	1	0	1	1	19	0	0	2	0	0	3	5	2	308	5	0	0	0	315	341
Approach %	100.0	0.0	0.0	0.0	0.0	0.0		0.0	84.2	5.3	0.0	5.3	5.3		0.0	0.0	40.0	0.0	0.0	60.0		0.6	97.8	1.6	0.0	0.0	0.0		
Total %	0.6	0.0	0.0	0.0	0.0	0.0	0.6	0.0	4.7	0.3	0.0	0.3	0.3	5.6	0.0	0.0	0.6	0.0	0.0	0.9	1.5	0.6	90.3	1.5	0.0	0.0	0.0	92.4	
Exiting Leg Total							5							310							6							20	341

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Nessle Street							Longwood Avenue							Autumn Street							Longwood Avenue							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	0	0	0	0	1	1	0	41	1	0	0	0	42	46
8:15 AM	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	60	2	0	0	0	62	64
8:30 AM	1	0	0	0	0	0	1	0	5	1	0	0	0	6	0	0	0	0	0	0	0	1	29	2	0	0	0	32	39
8:45 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	45	0	0	0	0	45	48
Total Volume	2	0	0	0	0	0	2	0	11	1	0	0	1	13	0	0	0	0	0	1	1	1	175	5	0	0	0	181	197
% Approach Total	100.0	0.0	0.0	0.0	0.0	0.0		0.0	84.6	7.7	0.0	0.0	7.7		0.0	0.0	0.0	0.0	0.0	100.0		0.6	96.7	2.8	0.0	0.0	0.0		
PHF	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.550	0.250	0.000	0.000	0.250	0.542	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.729	0.625	0.000	0.000	0.000	0.730	0.770
Entering Leg	2	0	0	0	0	0	2	0	11	1	0	0	1	13	0	0	0	0	0	1	1	1	175	5	0	0	0	181	197
Exiting Leg							5							176							3							13	197
Total							7							189							4							194	394

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Nessle Street from North							Longwood Avenue from East							Autumn Street from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	5	0	5	0	0	0	0	4	0	4	0	0	0	0	2	9	11	0	0	0	0	0	0	0	20
6:15 AM	0	0	0	0	9	1	10	0	0	0	0	1	1	2	0	0	0	0	2	24	26	0	0	0	0	0	0	0	38
6:30 AM	0	0	0	0	13	2	15	0	0	0	0	2	0	2	0	0	0	0	2	52	54	0	0	0	0	0	0	0	71
6:45 AM	0	0	0	0	9	3	12	0	0	0	0	2	0	2	0	0	0	0	3	60	63	0	0	0	0	0	0	0	77
Total	0	0	0	0	36	6	42	0	0	0	0	9	1	10	0	0	0	0	9	145	154	0	0	0	0	0	0	0	206
7:00 AM	0	0	0	0	22	5	27	0	0	0	0	3	0	3	0	0	0	0	6	39	45	0	0	0	0	0	2	2	77
7:15 AM	0	0	0	0	38	9	47	0	0	0	0	1	0	1	0	0	0	0	11	47	58	0	0	0	0	0	0	0	106
7:30 AM	0	0	0	0	33	6	39	0	0	0	0	3	2	5	0	0	0	0	10	38	48	0	0	0	0	0	2	2	94
7:45 AM	0	0	0	0	64	4	68	0	0	0	0	0	0	0	0	0	0	0	3	74	77	0	0	0	0	0	0	0	145
Total	0	0	0	0	157	24	181	0	0	0	0	7	2	9	0	0	0	0	30	198	228	0	0	0	0	0	4	4	422
8:00 AM	0	0	0	0	56	3	59	0	0	0	0	2	2	4	0	0	0	0	3	99	102	0	0	0	0	0	0	0	165
8:15 AM	0	0	0	0	48	7	55	0	0	0	0	1	2	3	0	0	0	0	6	77	83	0	0	0	0	2	0	2	143
8:30 AM	0	0	0	0	71	11	82	0	0	0	0	2	1	3	0	0	0	0	8	104	112	0	0	0	0	0	0	0	197
8:45 AM	0	0	0	0	54	5	59	0	0	0	0	3	1	4	0	0	0	0	20	90	110	0	0	0	0	0	0	0	173
Total	0	0	0	0	229	26	255	0	0	0	0	8	6	14	0	0	0	0	37	370	407	0	0	0	0	2	0	2	678
Grand Total	0	0	0	0	422	56	478	0	0	0	0	24	9	33	0	0	0	0	76	713	789	0	0	0	0	2	4	6	1306
Approach %	0	0	0	0	88.3	11.7		0	0	0	0	72.7	27.3		0	0	0	0	9.63	90.4		0	0	0	0	33.3	66.7		
Total %	0	0	0	0	32.3	4.29	36.6	0	0	0	0	1.84	0.69	2.53	0	0	0	0	5.82	54.6	60.4	0	0	0	0	0.15	0.31	0.46	
Exiting Leg Total							478							33							789							6	1306

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Nessle Street from North							Longwood Avenue from East							Autumn Street from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	56	3	59	0	0	0	0	2	2	4	0	0	0	0	3	99	102	0	0	0	0	0	0	0	165
8:15 AM	0	0	0	0	48	7	55	0	0	0	0	1	2	3	0	0	0	0	6	77	83	0	0	0	0	2	0	2	143
8:30 AM	0	0	0	0	71	11	82	0	0	0	0	2	1	3	0	0	0	0	8	104	112	0	0	0	0	0	0	0	197
8:45 AM	0	0	0	0	54	5	59	0	0	0	0	3	1	4	0	0	0	0	20	90	110	0	0	0	0	0	0	0	173
Total Volume	0	0	0	0	229	26	255	0	0	0	0	8	6	14	0	0	0	0	37	370	407	0	0	0	0	2	0	2	678
% Approach Total	0.0	0.0	0.0	0.0	89.8	10.2		0.0	0.0	0.0	0.0	57.1	42.9		0.0	0.0	0.0	0.0	9.1	90.9		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.806	0.591	0.777	0.000	0.000	0.000	0.000	0.667	0.750	0.875	0.000	0.000	0.000	0.000	0.463	0.889	0.908	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.860
Entering Leg	0	0	0	0	229	26	255	0	0	0	0	8	6	14	0	0	0	0	37	370	407	0	0	0	0	2	0	2	678
Exiting Leg							255							14							407							2	678
Total							510							28							814							4	1356

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	2	0	4	0	6	2	82	0	0	84	8	0	9	0	17	0	55	0	0	55	162
3:15 PM	2	0	0	0	2	2	67	0	0	69	4	0	8	0	12	0	41	4	0	45	128
3:30 PM	2	0	2	0	4	2	77	0	0	79	3	1	4	0	8	0	43	0	0	43	134
3:45 PM	1	0	2	0	3	5	90	0	0	95	9	0	2	0	11	0	64	1	0	65	174
Total	7	0	8	0	15	11	316	0	0	327	24	1	23	0	48	0	203	5	0	208	598
4:00 PM	2	0	0	0	2	4	71	0	0	75	8	0	7	0	15	0	35	1	0	36	128
4:15 PM	0	0	1	0	1	0	69	0	0	69	6	0	7	0	13	0	63	0	0	63	146
4:30 PM	7	0	1	0	8	1	69	0	0	70	6	0	7	0	13	0	57	1	0	58	149
4:45 PM	1	0	2	0	3	3	79	0	0	82	4	0	5	0	9	0	46	1	0	47	141
Total	10	0	4	0	14	8	288	0	0	296	24	0	26	0	50	0	201	3	0	204	564
5:00 PM	1	0	0	0	1	0	70	0	0	70	8	1	12	0	21	0	41	2	0	43	135
5:15 PM	3	0	0	0	3	1	74	0	0	75	4	1	1	0	6	0	57	1	0	58	142
5:30 PM	3	0	0	0	3	1	80	0	0	81	6	1	9	0	16	0	46	2	0	48	148
5:45 PM	4	0	0	0	4	1	64	0	0	65	2	1	5	0	8	0	47	0	0	47	124
Total	11	0	0	0	11	3	288	0	0	291	20	4	27	0	51	0	191	5	0	196	549
Grand Total	28	0	12	0	40	22	892	0	0	914	68	5	76	0	149	0	595	13	0	608	1711
Approach %	70.0	0.0	30.0	0.0		2.4	97.6	0.0	0.0		45.6	3.4	51.0	0.0		0.0	97.9	2.1	0.0		
Total %	1.6	0.0	0.7	0.0	2.3	1.3	52.1	0.0	0.0	53.4	4.0	0.3	4.4	0.0	8.7	0.0	34.8	0.8	0.0	35.5	
Exiting Leg Total					40					675					0					996	1711
Cars	28	0	10	0	38	20	881	0	0	901	56	5	65	0	126	0	584	13	0	597	1662
% Cars	100.0	0.0	83.3	0.0	95.0	90.9	98.8	0.0	0.0	98.6	82.4	100.0	85.5	0.0	84.6	0.0	98.2	100.0	0.0	98.2	97.1
Exiting Leg Total					38					650					0					974	1662
Heavy Vehicles	0	0	2	0	2	2	11	0	0	13	12	0	11	0	23	0	11	0	0	11	49
% Heavy Vehicles	0.0	0.0	16.7	0.0	5.0	9.1	1.2	0.0	0.0	1.4	17.6	0.0	14.5	0.0	15.4	0.0	1.8	0.0	0.0	1.8	2.9
Exiting Leg Total					2					25					0					22	49

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	2	0	4	0	6	2	82	0	0	84	8	0	9	0	17	0	55	0	0	55	162
3:15 PM	2	0	0	0	2	2	67	0	0	69	4	0	8	0	12	0	41	4	0	45	128
3:30 PM	2	0	2	0	4	2	77	0	0	79	3	1	4	0	8	0	43	0	0	43	134
3:45 PM	1	0	2	0	3	5	90	0	0	95	9	0	2	0	11	0	64	1	0	65	174
Total Volume	7	0	8	0	15	11	316	0	0	327	24	1	23	0	48	0	203	5	0	208	598
% Approach Total	46.7	0.0	53.3	0.0		3.4	96.6	0.0	0.0		50.0	2.1	47.9	0.0		0.0	97.6	2.4	0.0		
PHF	0.875	0.000	0.500	0.000	0.625	0.550	0.878	0.000	0.000	0.861	0.667	0.250	0.639	0.000	0.706	0.000	0.793	0.313	0.000	0.800	0.859
Cars	7	0	6	0	13	9	309	0	0	318	18	1	19	0	38	0	200	5	0	205	574
Cars %	100.0	0.0	75.0	0.0	86.7	81.8	97.8	0.0	0.0	97.2	75.0	100.0	82.6	0.0	79.2	0.0	98.5	100.0	0.0	98.6	96.0
Heavy Vehicles	0	0	2	0	2	2	7	0	0	9	6	0	4	0	10	0	3	0	0	3	24
Heavy Vehicles %	0.0	0.0	25.0	0.0	13.3	18.2	2.2	0.0	0.0	2.8	25.0	0.0	17.4	0.0	20.8	0.0	1.5	0.0	0.0	1.4	4.0
Cars Enter Leg	7	0	6	0	13	9	309	0	0	318	18	1	19	0	38	0	200	5	0	205	574
Heavy Enter Leg	0	0	2	0	2	2	7	0	0	9	6	0	4	0	10	0	3	0	0	3	24
Total Entering Leg	7	0	8	0	15	11	316	0	0	327	24	1	23	0	48	0	203	5	0	208	598
Cars Exiting Leg					15					224					0					335	574
Heavy Exiting Leg					2					11					0					11	24
Total Exiting Leg					17					235					0					346	598

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	2	0	2	0	4	2	82	0	0	84	7	0	8	0	15	0	53	0	0	53	156
3:15 PM	2	0	0	0	2	1	65	0	0	66	3	0	7	0	10	0	41	4	0	45	123
3:30 PM	2	0	2	0	4	2	75	0	0	77	2	1	3	0	6	0	42	0	0	42	129
3:45 PM	1	0	2	0	3	4	87	0	0	91	6	0	1	0	7	0	64	1	0	65	166
Total	7	0	6	0	13	9	309	0	0	318	18	1	19	0	38	0	200	5	0	205	574
4:00 PM	2	0	0	0	2	4	69	0	0	73	6	0	6	0	12	0	34	1	0	35	122
4:15 PM	0	0	1	0	1	0	68	0	0	68	5	0	6	0	11	0	60	0	0	60	140
4:30 PM	7	0	1	0	8	1	69	0	0	70	5	0	6	0	11	0	56	1	0	57	146
4:45 PM	1	0	2	0	3	3	79	0	0	82	3	0	4	0	7	0	44	1	0	45	137
Total	10	0	4	0	14	8	285	0	0	293	19	0	22	0	41	0	194	3	0	197	545
5:00 PM	1	0	0	0	1	0	70	0	0	70	7	1	11	0	19	0	41	2	0	43	133
5:15 PM	3	0	0	0	3	1	73	0	0	74	4	1	1	0	6	0	57	1	0	58	141
5:30 PM	3	0	0	0	3	1	80	0	0	81	6	1	8	0	15	0	45	2	0	47	146
5:45 PM	4	0	0	0	4	1	64	0	0	65	2	1	4	0	7	0	47	0	0	47	123
Total	11	0	0	0	11	3	287	0	0	290	19	4	24	0	47	0	190	5	0	195	543
Grand Total	28	0	10	0	38	20	881	0	0	901	56	5	65	0	126	0	584	13	0	597	1662
Approach %	73.7	0.0	26.3	0.0		2.2	97.8	0.0	0.0		44.4	4.0	51.6	0.0		0.0	97.8	2.2	0.0		
Total %	1.7	0.0	0.6	0.0	2.3	1.2	53.0	0.0	0.0	54.2	3.4	0.3	3.9	0.0	7.6	0.0	35.1	0.8	0.0	35.9	
Exiting Leg Total					38					650					0					974	1662

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	2	0	2	0	4	2	82	0	0	84	7	0	8	0	15	0	53	0	0	53	156
3:15 PM	2	0	0	0	2	1	65	0	0	66	3	0	7	0	10	0	41	4	0	45	123
3:30 PM	2	0	2	0	4	2	75	0	0	77	2	1	3	0	6	0	42	0	0	42	129
3:45 PM	1	0	2	0	3	4	87	0	0	91	6	0	1	0	7	0	64	1	0	65	166
Total Volume	7	0	6	0	13	9	309	0	0	318	18	1	19	0	38	0	200	5	0	205	574
% Approach Total	53.8	0.0	46.2	0.0		2.8	97.2	0.0	0.0		47.4	2.6	50.0	0.0		0.0	97.6	2.4	0.0		
PHF	0.875	0.000	0.750	0.000	0.813	0.563	0.888	0.000	0.000	0.874	0.643	0.250	0.594	0.000	0.633	0.000	0.781	0.313	0.000	0.788	0.864
Entering Leg	7	0	6	0	13	9	309	0	0	318	18	1	19	0	38	0	200	5	0	205	574
Exiting Leg					15					224					0					335	574
Total					28					542					38					540	1148

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	2	0	2	0	0	0	0	0	1	0	1	0	2	0	2	0	0	2	6
3:15 PM	0	0	0	0	0	1	2	0	0	3	1	0	1	0	2	0	0	0	0	0	5
3:30 PM	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	0	1	0	0	1	5
3:45 PM	0	0	0	0	0	1	3	0	0	4	3	0	1	0	4	0	0	0	0	0	8
Total	0	0	2	0	2	2	7	0	0	9	6	0	4	0	10	0	3	0	0	3	24
4:00 PM	0	0	0	0	0	0	2	0	0	2	2	0	1	0	3	0	1	0	0	1	6
4:15 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	3	0	0	3	6
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	1	0	0	1	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	0	0	2	4
Total	0	0	0	0	0	0	3	0	0	3	5	0	4	0	9	0	7	0	0	7	19
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	1	0	3	0	4	0	1	0	0	1	6
Grand Total	0	0	2	0	2	2	11	0	0	13	12	0	11	0	23	0	11	0	0	11	49
Approach %	0.0	0.0	100.0	0.0		15.4	84.6	0.0	0.0		52.2	0.0	47.8	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	4.1	0.0	4.1	4.1	22.4	0.0	0.0	26.5	24.5	0.0	22.4	0.0	46.9	0.0	22.4	0.0	0.0	22.4	
Exiting Leg Total					2					25					0					22	49
Buses	0	0	0	0	0	0	4	0	0	4	9	0	11	0	20	0	6	0	0	6	30
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	36.4	0.0	0.0	30.8	75.0	0.0	100.0	0.0	87.0	0.0	54.5	0.0	0.0	54.5	61.2
Exiting Leg Total					0					15					0					15	30
Single-Unit Trucks	0	0	2	0	2	2	6	0	0	8	3	0	0	0	3	0	5	0	0	5	18
% Single-Unit	0.0	0.0	100.0	0.0	100.0	100.0	54.5	0.0	0.0	61.5	25.0	0.0	0.0	0.0	13.0	0.0	45.5	0.0	0.0	45.5	36.7
Exiting Leg Total					2					10					0					6	18
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Exiting Leg Total					0					0					0					1	1

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:30 PM	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:30 PM	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	0	1	0	0	1	5
3:45 PM	0	0	0	0	0	1	3	0	0	4	3	0	1	0	4	0	0	0	0	0	8
4:00 PM	0	0	0	0	0	0	2	0	0	2	2	0	1	0	3	0	1	0	0	1	6
4:15 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	3	0	0	3	6
Total Volume	0	0	0	0	0	1	8	0	0	9	7	0	4	0	11	0	5	0	0	5	25
% Approach Total	0.0	0.0	0.0	0.0		11.1	88.9	0.0	0.0		63.6	0.0	36.4	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.667	0.000	0.000	0.563	0.583	0.000	1.000	0.000	0.688	0.000	0.417	0.000	0.000	0.417	0.781
Buses	0	0	0	0	0	0	2	0	0	2	4	0	4	0	8	0	3	0	0	3	13
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	22.2	57.1	0.0	100.0	0.0	72.7	0.0	60.0	0.0	0.0	60.0	52.0
Single-Unit Trucks	0	0	0	0	0	1	5	0	0	6	3	0	0	0	3	0	2	0	0	2	11
Single-Unit %	0.0	0.0	0.0	0.0	0.0	100.0	62.5	0.0	0.0	66.7	42.9	0.0	0.0	0.0	27.3	0.0	40.0	0.0	0.0	40.0	44.0
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
Buses	0	0	0	0	0	0	2	0	0	2	4	0	4	0	8	0	3	0	0	3	13
Single-Unit Trucks	0	0	0	0	0	1	5	0	0	6	3	0	0	0	3	0	2	0	0	2	11
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Entering Leg	0	0	0	0	0	1	8	0	0	9	7	0	4	0	11	0	5	0	0	5	25
Buses					0					7					0					6	13
Single-Unit Trucks					1					5					0					5	11
Articulated Trucks					0					0					0					1	1
Total Exiting Leg					1					12					0					12	25

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	0	0	2	4
3:15 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	0	0	0	0	3
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
3:45 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	0	0	0	0	3
Total	0	0	0	0	0	0	2	0	0	2	4	0	4	0	8	0	2	0	0	2	12
4:00 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	1	0	0	1	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	0	0	2	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	1	0	0	1	3
Total	0	0	0	0	0	0	1	0	0	1	4	0	4	0	8	0	4	0	0	4	13
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	1	0	3	0	4	0	0	0	0	0	5
Grand Total	0	0	0	0	0	0	4	0	0	4	9	0	11	0	20	0	6	0	0	6	30
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		45.0	0.0	55.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	13.3	0.0	0.0	13.3	30.0	0.0	36.7	0.0	66.7	0.0	20.0	0.0	0.0	20.0	
Exiting Leg Total					0					15					0					15	30

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:30 PM	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
3:45 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	0	0	0	0	3
4:00 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	1	0	0	1	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	0	0	2	4
Total Volume	0	0	0	0	0	0	2	0	0	2	4	0	4	0	8	0	3	0	0	3	13
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	0.0	50.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	1.000	0.000	1.000	0.000	1.000	0.000	0.375	0.000	0.000	0.375	0.813
Entering Leg	0	0	0	0	0	0	2	0	0	2	4	0	4	0	8	0	3	0	0	3	13
Exiting Leg					0					7					0					6	13
Total					0					9					8					9	26

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:15 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2
3:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
3:45 PM	0	0	0	0	0	1	2	0	0	3	2	0	0	0	2	0	0	0	0	0	5
Total	0	0	2	0	2	2	5	0	0	7	2	0	0	0	2	0	1	0	0	1	12
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	3	0	0	3	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Grand Total	0	0	2	0	2	2	6	0	0	8	3	0	0	0	3	0	5	0	0	5	18
Approach %	0.0	0.0	100.0	0.0		25.0	75.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	11.1	0.0	11.1	11.1	33.3	0.0	0.0	44.4	16.7	0.0	0.0	0.0	16.7	0.0	27.8	0.0	0.0	27.8	
Exiting Leg Total					2					10					0					6	18

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:15 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2
3:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
3:45 PM	0	0	0	0	0	1	2	0	0	3	2	0	0	0	2	0	0	0	0	0	5
Total Volume	0	0	2	0	2	2	5	0	0	7	2	0	0	0	2	0	1	0	0	1	12
% Approach Total	0.0	0.0	100.0	0.0		28.6	71.4	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.250	0.000	0.250	0.500	0.625	0.000	0.000	0.583	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.600
Entering Leg	0	0	2	0	2	2	5	0	0	7	2	0	0	0	2	0	1	0	0	1	12
Exiting Leg					2					5					0					5	12
Total					4					12					2					6	24

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Articulated Trucks

	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					1	1

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Nessle Street					Longwood Avenue					Autumn Street					Longwood Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg					0					0					0					1	1
Total					0					1					0					1	2

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Nessle Street from North							Longwood Avenue from East							Autumn Street from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	2	2	0	7	0	0	0	1	8	0	0	3	0	0	0	3	0	2	0	0	0	0	2	15
3:15 PM	0	0	0	0	0	0	0	0	12	0	0	0	0	12	1	0	0	0	0	0	1	0	4	0	0	0	0	4	17
3:30 PM	0	0	0	0	0	0	0	0	16	0	0	0	0	16	0	0	0	0	0	0	0	0	3	0	0	0	0	3	19
3:45 PM	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	2	0	0	0	0	2	10
Total	0	0	0	0	0	2	2	0	43	0	0	0	1	44	1	0	3	0	0	0	4	0	11	0	0	0	0	11	61
4:00 PM	0	0	0	0	0	0	0	0	10	1	0	0	0	11	0	0	1	0	0	0	1	0	1	0	0	0	0	1	13
4:15 PM	0	0	0	0	0	0	0	0	13	0	0	0	0	13	0	0	1	0	0	0	1	0	1	0	0	0	0	1	15
4:30 PM	0	0	0	0	0	0	0	0	19	0	0	0	0	19	0	0	0	0	0	0	0	0	2	0	0	0	0	2	21
4:45 PM	0	0	0	0	0	0	0	0	19	0	0	0	0	19	3	0	0	0	0	1	4	0	0	0	0	0	0	0	23
Total	0	0	0	0	0	0	0	0	61	1	0	0	0	62	3	0	2	0	0	1	6	0	4	0	0	0	0	4	72
5:00 PM	0	1	0	0	0	1	2	0	37	0	0	0	0	37	0	0	3	0	0	0	3	0	3	0	0	0	0	3	45
5:15 PM	0	0	0	0	0	1	1	0	48	0	0	0	0	48	0	0	1	0	0	1	2	0	4	0	0	0	0	4	55
5:30 PM	1	0	0	0	2	4	7	0	33	0	0	0	0	33	0	0	2	0	0	0	2	0	5	0	0	0	0	5	47
5:45 PM	0	0	0	0	0	1	1	0	29	0	0	0	0	29	1	0	1	0	0	0	2	0	5	0	0	0	0	5	37
Total	1	1	0	0	2	7	11	0	147	0	0	0	0	147	1	0	7	0	0	1	9	0	17	0	0	0	0	17	184
Grand Total	1	1	0	0	2	9	13	0	251	1	0	0	1	253	5	0	12	0	0	2	19	0	32	0	0	0	0	32	317
Approach %	7.7	7.7	0.0	0.0	15.4	69.2		0.0	99.2	0.4	0.0	0.0	0.4		26.3	0.0	63.2	0.0	0.0	10.5		0.0	100.0	0.0	0.0	0.0	0.0		
Total %	0.3	0.3	0.0	0.0	0.6	2.8	4.1	0.0	79.2	0.3	0.0	0.0	0.3	79.8	1.6	0.0	3.8	0.0	0.0	0.6	6.0	0.0	10.1	0.0	0.0	0.0	0.0	10.1	
Exiting Leg Total							11							38							4							264	317

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Nessle Street from North							Longwood Avenue from East							Autumn Street from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	1	0	0	0	1	2	0	37	0	0	0	0	37	0	0	3	0	0	0	3	0	3	0	0	0	0	3	45
5:15 PM	0	0	0	0	0	1	1	0	48	0	0	0	0	48	0	0	1	0	0	1	2	0	4	0	0	0	0	4	55
5:30 PM	1	0	0	0	2	4	7	0	33	0	0	0	0	33	0	0	2	0	0	0	2	0	5	0	0	0	0	5	47
5:45 PM	0	0	0	0	0	1	1	0	29	0	0	0	0	29	1	0	1	0	0	0	2	0	5	0	0	0	0	5	37
Total Volume	1	1	0	0	2	7	11	0	147	0	0	0	0	147	1	0	7	0	0	1	9	0	17	0	0	0	0	17	184
% Approach Total	9.1	9.1	0.0	0.0	18.2	63.6		0.0	100.0	0.0	0.0	0.0	0.0		11.1	0.0	77.8	0.0	0.0	11.1		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.250	0.250	0.000	0.000	0.250	0.438	0.393	0.000	0.766	0.000	0.000	0.000	0.000	0.766	0.250	0.000	0.583	0.000	0.000	0.250	0.750	0.000	0.850	0.000	0.000	0.000	0.000	0.850	0.836
Entering Leg	1	1	0	0	2	7	11	0	147	0	0	0	0	147	1	0	7	0	0	1	9	0	17	0	0	0	0	17	184
Exiting Leg							9							18							2							155	184
Total							20							165							11							172	368

PDI File #: **250665 A**
Location: **N: Nessle Street S: Autumn Street**
Location: **E: Longwood Avenue W: Longwood Avenue**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Nessle Street from North							Longwood Avenue from East							Autumn Street from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	8	32	40	0	0	0	0	2	5	7	0	0	0	0	30	17	47	0	0	0	0	0	0	0	94
3:15 PM	0	0	0	0	8	44	52	0	0	0	0	1	7	8	0	0	0	0	23	7	30	0	0	0	0	0	2	2	92
3:30 PM	0	0	0	0	12	47	59	0	0	0	0	2	2	4	0	0	0	0	51	17	68	0	0	0	0	0	2	2	133
3:45 PM	0	0	0	0	10	28	38	0	0	0	0	2	1	3	0	0	0	0	36	11	47	0	0	0	0	0	0	0	88
Total	0	0	0	0	38	151	189	0	0	0	0	7	15	22	0	0	0	0	140	52	192	0	0	0	0	0	4	4	407
4:00 PM	0	0	0	0	12	72	84	0	0	0	0	10	4	14	0	0	0	0	58	13	71	0	0	0	0	0	0	0	169
4:15 PM	0	0	0	0	6	55	61	0	0	0	0	3	0	3	0	0	0	0	55	11	66	0	0	0	0	0	0	0	130
4:30 PM	0	0	0	0	6	63	69	0	0	0	0	4	12	16	0	0	0	0	51	6	57	0	0	0	0	0	0	0	142
4:45 PM	0	0	0	0	13	93	106	0	0	0	0	13	4	17	0	0	0	0	50	6	56	0	0	0	0	0	0	0	179
Total	0	0	0	0	37	283	320	0	0	0	0	30	20	50	0	0	0	0	214	36	250	0	0	0	0	0	0	0	620
5:00 PM	0	0	0	0	13	90	103	0	0	0	0	0	5	5	0	0	0	0	72	19	91	0	0	0	0	0	0	0	199
5:15 PM	0	0	0	0	2	118	120	0	0	0	0	0	2	2	0	0	0	0	76	14	90	0	0	0	0	0	0	0	212
5:30 PM	0	0	0	0	14	84	98	0	0	0	0	1	11	12	0	0	0	0	56	16	72	0	0	0	0	1	0	1	183
5:45 PM	0	0	0	0	5	92	97	0	0	0	0	1	4	5	0	0	0	0	56	8	64	0	0	0	0	0	0	0	166
Total	0	0	0	0	34	384	418	0	0	0	0	2	22	24	0	0	0	0	260	57	317	0	0	0	0	1	0	1	760
Grand Total	0	0	0	0	109	818	927	0	0	0	0	39	57	96	0	0	0	0	614	145	759	0	0	0	0	1	4	5	1787
Approach %	0	0	0	0	11.8	88.2		0	0	0	0	40.6	59.4		0	0	0	0	80.9	19.1		0	0	0	0	20	80		
Total %	0	0	0	0	6.1	45.8	51.9	0	0	0	0	2.18	3.19	5.37	0	0	0	0	34.4	8.11	42.5	0	0	0	0	0.06	0.22	0.28	
Exiting Leg Total							927							96							759							5	1787

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Nessle Street from North							Longwood Avenue from East							Autumn Street from South							Longwood Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:45 PM	0	0	0	0	13	93	106	0	0	0	0	13	4	17	0	0	0	0	50	6	56	0	0	0	0	0	0	0	179
5:00 PM	0	0	0	0	13	90	103	0	0	0	0	0	5	5	0	0	0	0	72	19	91	0	0	0	0	0	0	0	199
5:15 PM	0	0	0	0	2	118	120	0	0	0	0	0	2	2	0	0	0	0	76	14	90	0	0	0	0	0	0	0	212
5:30 PM	0	0	0	0	14	84	98	0	0	0	0	1	11	12	0	0	0	0	56	16	72	0	0	0	0	1	0	1	183
Total Volume	0	0	0	0	42	385	427	0	0	0	0	14	22	36	0	0	0	0	254	55	309	0	0	0	0	1	0	1	773
% Approach Total	0.0	0.0	0.0	0.0	9.8	90.2		0.0	0.0	0.0	0.0	38.9	61.1		0.0	0.0	0.0	0.0	82.2	17.8		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.750	0.816	0.890	0.000	0.000	0.000	0.000	0.269	0.500	0.529	0.000	0.000	0.000	0.000	0.836	0.724	0.849	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.912
Entering Leg	0	0	0	0	42	385	427	0	0	0	0	14	22	36	0	0	0	0	254	55	309	0	0	0	0	1	0	1	773
Exiting Leg							427							36							309							1	773
Total							854							72							618							2	1546

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars and Heavy Vehicles (Combined)**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	71	0	1	72	0	0	0	0	0	119	0	119	191
6:15 AM	107	0	0	107	2	1	0	3	0	135	0	135	245
6:30 AM	110	1	0	111	1	0	0	1	0	181	0	181	293
6:45 AM	173	1	1	175	2	0	0	2	0	167	0	167	344
Total	461	2	2	465	5	1	0	6	0	602	0	602	1073
7:00 AM	165	0	0	165	2	0	0	2	0	215	0	215	382
7:15 AM	178	0	0	178	2	1	0	3	0	228	0	228	409
7:30 AM	191	1	0	192	3	0	0	3	0	222	0	222	417
7:45 AM	194	0	0	194	3	0	0	3	0	191	0	191	388
Total	728	1	0	729	10	1	0	11	0	856	0	856	1596
8:00 AM	192	0	1	193	5	6	0	11	0	203	0	203	407
8:15 AM	177	1	0	178	3	3	0	6	0	215	0	215	399
8:30 AM	166	0	0	166	3	1	0	4	0	233	0	233	403
8:45 AM	135	0	0	135	4	4	0	8	0	192	0	192	335
Total	670	1	1	672	15	14	0	29	0	843	0	843	1544
Grand Total	1859	4	3	1866	30	16	0	46	0	2301	0	2301	4213
Approach %	99.6	0.2	0.2		65.2	34.8	0.0		0.0	100.0	0.0		
Total %	44.1	0.1	0.1	44.3	0.7	0.4	0.0	1.1	0.0	54.6	0.0	54.6	
Exiting Leg Total				2334				4				1875	4213
Cars	1837	4	3	1844	29	14	0	43	0	2279	0	2279	4166
% Cars	98.8	100.0	100.0	98.8	96.7	87.5	0.0	93.5	0.0	99.0	0.0	99.0	98.9
Exiting Leg Total				2311				4				1851	4166
Heavy Vehicles	22	0	0	22	1	2	0	3	0	22	0	22	47
% Heavy Vehicles	1.2	0.0	0.0	1.2	3.3	12.5	0.0	6.5	0.0	1.0	0.0	1.0	1.1
Exiting Leg Total				23				0				24	47

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	178	0	0	178	2	1	0	3	0	228	0	228	409
7:30 AM	191	1	0	192	3	0	0	3	0	222	0	222	417
7:45 AM	194	0	0	194	3	0	0	3	0	191	0	191	388
8:00 AM	192	0	1	193	5	6	0	11	0	203	0	203	407
Total Volume	755	1	1	757	13	7	0	20	0	844	0	844	1621
% Approach Total	99.7	0.1	0.1		65.0	35.0	0.0		0.0	100.0	0.0		
PHF	0.973	0.250	0.250	0.976	0.650	0.292	0.000	0.455	0.000	0.925	0.000	0.925	0.972
Cars	751	1	1	753	13	6	0	19	0	840	0	840	1612
Cars %	99.5	100.0	100.0	99.5	100.0	85.7	0.0	95.0	0.0	99.5	0.0	99.5	99.4
Heavy Vehicles	4	0	0	4	0	1	0	1	0	4	0	4	9
Heavy Vehicles %	0.5	0.0	0.0	0.5	0.0	14.3	0.0	5.0	0.0	0.5	0.0	0.5	0.6
Cars Enter Leg	751	1	1	753	13	6	0	19	0	840	0	840	1612
Heavy Enter Leg	4	0	0	4	0	1	0	1	0	4	0	4	9
Total Entering Leg	755	1	1	757	13	7	0	20	0	844	0	844	1621
Cars Exiting Leg				854				1				757	1612
Heavy Exiting Leg				4				0				5	9
Total Exiting Leg				858				1				762	1621

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	70	0	1	71	0	0	0	0	0	117	0	117	188
6:15 AM	107	0	0	107	2	1	0	3	0	133	0	133	243
6:30 AM	109	1	0	110	1	0	0	1	0	178	0	178	289
6:45 AM	167	1	1	169	2	0	0	2	0	166	0	166	337
Total	453	2	2	457	5	1	0	6	0	594	0	594	1057
7:00 AM	164	0	0	164	2	0	0	2	0	215	0	215	381
7:15 AM	178	0	0	178	2	0	0	2	0	227	0	227	407
7:30 AM	188	1	0	189	3	0	0	3	0	222	0	222	414
7:45 AM	193	0	0	193	3	0	0	3	0	191	0	191	387
Total	723	1	0	724	10	0	0	10	0	855	0	855	1589
8:00 AM	192	0	1	193	5	6	0	11	0	200	0	200	404
8:15 AM	174	1	0	175	2	3	0	5	0	213	0	213	393
8:30 AM	163	0	0	163	3	0	0	3	0	229	0	229	395
8:45 AM	132	0	0	132	4	4	0	8	0	188	0	188	328
Total	661	1	1	663	14	13	0	27	0	830	0	830	1520
Grand Total	1837	4	3	1844	29	14	0	43	0	2279	0	2279	4166
Approach %	99.6	0.2	0.2		67.4	32.6	0.0		0.0	100.0	0.0		
Total %	44.1	0.1	0.1	44.3	0.7	0.3	0.0	1.0	0.0	54.7	0.0	54.7	
Exiting Leg Total				2311				4				1851	4166

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:15 AM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	178	0	0	178	2	0	0	2	0	227	0	227	407
7:30 AM	188	1	0	189	3	0	0	3	0	222	0	222	414
7:45 AM	193	0	0	193	3	0	0	3	0	191	0	191	387
8:00 AM	192	0	1	193	5	6	0	11	0	200	0	200	404
Total Volume	751	1	1	753	13	6	0	19	0	840	0	840	1612
% Approach Total	99.7	0.1	0.1		68.4	31.6	0.0		0.0	100.0	0.0		
PHF	0.973	0.250	0.250	0.975	0.650	0.250	0.000	0.432	0.000	0.925	0.000	0.925	0.973
Entering Leg	751	1	1	753	13	6	0	19	0	840	0	840	1612
Exiting Leg				854				1				757	1612
Total				1607				20				1597	3224

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	1	0	0	1	0	0	0	0	0	2	0	2	3
6:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	2
6:30 AM	1	0	0	1	0	0	0	0	0	3	0	3	4
6:45 AM	6	0	0	6	0	0	0	0	0	1	0	1	7
Total	8	0	0	8	0	0	0	0	0	8	0	8	16
7:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	1	0	1	0	1	0	1	2
7:30 AM	3	0	0	3	0	0	0	0	0	0	0	0	3
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	5	0	0	5	0	1	0	1	0	1	0	1	7
8:00 AM	0	0	0	0	0	0	0	0	0	3	0	3	3
8:15 AM	3	0	0	3	1	0	0	1	0	2	0	2	6
8:30 AM	3	0	0	3	0	1	0	1	0	4	0	4	8
8:45 AM	3	0	0	3	0	0	0	0	0	4	0	4	7
Total	9	0	0	9	1	1	0	2	0	13	0	13	24
Grand Total	22	0	0	22	1	2	0	3	0	22	0	22	47
Approach %	100.0	0.0	0.0		33.3	66.7	0.0		0.0	100.0	0.0		
Total %	46.8	0.0	0.0	46.8	2.1	4.3	0.0	6.4	0.0	46.8	0.0	46.8	
Exiting Leg Total				23				0				24	47
Buses	11	0	0	11	0	0	0	0	0	9	0	9	20
% Buses	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	40.9	0.0	40.9	42.6
Exiting Leg Total				9				0				11	20
Single-Unit Trucks	11	0	0	11	1	2	0	3	0	12	0	12	26
% Single-Unit	50.0	0.0	0.0	50.0	100.0	100.0	0.0	100.0	0.0	54.5	0.0	54.5	55.3
Exiting Leg Total				13				0				13	26
Articulated Trucks	0	0	0	0	0	0	0	0	0	1	0	1	1
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	4.5	2.1
Exiting Leg Total				1				0				0	1

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	3	0	3	3
8:15 AM	3	0	0	3	1	0	0	1	0	2	0	2	6
8:30 AM	3	0	0	3	0	1	0	1	0	4	0	4	8
8:45 AM	3	0	0	3	0	0	0	0	0	4	0	4	7
Total Volume	9	0	0	9	1	1	0	2	0	13	0	13	24
% Approach Total	100.0	0.0	0.0		50.0	50.0	0.0		0.0	100.0	0.0		
PHF	0.750	0.000	0.000	0.750	0.250	0.250	0.000	0.500	0.000	0.813	0.000	0.813	0.750
Buses	5	0	0	5	0	0	0	0	0	6	0	6	11
Buses %	55.6	0.0	0.0	55.6	0.0	0.0	0.0	0.0	0.0	46.2	0.0	46.2	45.8
Single-Unit Trucks	4	0	0	4	1	1	0	2	0	7	0	7	13
Single-Unit %	44.4	0.0	0.0	44.4	100.0	100.0	0.0	100.0	0.0	53.8	0.0	53.8	54.2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	5	0	0	5	0	0	0	0	0	6	0	6	11
Single-Unit Trucks	4	0	0	4	1	1	0	2	0	7	0	7	13
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	9	0	0	9	1	1	0	2	0	13	0	13	24
Buses				6				0				5	11
Single-Unit Trucks				8				0				5	13
Articulated Trucks				0				0				0	0
Total Exiting Leg				14				0				10	24

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Buses**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	0	0	1	0	0	0	0	0	3	0	3	4
7:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	3	0	0	3	0	0	0	0	0	0	0	0	3
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	5	0	0	5	0	0	0	0	0	0	0	0	5
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:15 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
8:30 AM	2	0	0	2	0	0	0	0	0	1	0	1	3
8:45 AM	2	0	0	2	0	0	0	0	0	3	0	3	5
Total	5	0	0	5	0	0	0	0	0	6	0	6	11
Grand Total	11	0	0	11	0	0	0	0	0	9	0	9	20
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	55.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0	0.0	45.0	0.0	45.0	
Exiting Leg Total				9				0				11	20

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:15 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
8:30 AM	2	0	0	2	0	0	0	0	0	1	0	1	3
8:45 AM	2	0	0	2	0	0	0	0	0	3	0	3	5
Total Volume	5	0	0	5	0	0	0	0	0	6	0	6	11
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.550
Entering Leg	5	0	0	5	0	0	0	0	0	6	0	6	11
Exiting Leg				6				0				5	11
Total				11				0				11	22

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	2
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	1	0	0	0	0	0	3	0	3	4
6:45 AM	6	0	0	6	0	0	0	0	0	0	0	0	6
Total	7	0	0	7	0	0	0	0	0	5	0	5	12
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	2
8:15 AM	2	0	0	2	1	0	0	1	0	1	0	1	4
8:30 AM	1	0	0	1	0	1	0	1	0	3	0	3	5
8:45 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total	4	0	0	4	1	1	0	2	0	7	0	7	13
Grand Total	11	0	0	11	1	2	0	3	0	12	0	12	26
Approach %	100.0	0.0	0.0		33.3	66.7	0.0		0.0	100.0	0.0		
Total %	42.3	0.0	0.0	42.3	3.8	7.7	0.0	11.5	0.0	46.2	0.0	46.2	
Exiting Leg Total				13				0				13	26

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

8:00 AM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	2
8:15 AM	2	0	0	2	1	0	0	1	0	1	0	1	4
8:30 AM	1	0	0	1	0	1	0	1	0	3	0	3	5
8:45 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total Volume	4	0	0	4	1	1	0	2	0	7	0	7	13
% Approach Total	100.0	0.0	0.0		50.0	50.0	0.0		0.0	100.0	0.0		
PHF	0.500	0.000	0.000	0.500	0.250	0.250	0.000	0.500	0.000	0.583	0.000	0.583	0.650
Entering Leg	4	0	0	4	1	1	0	2	0	7	0	7	13
Exiting Leg				8				0				5	13
Total				12				2				12	26

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Articulated Trucks**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	1	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	1	0	1	1
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	
Exiting Leg Total				1				0				0	1

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

6:30 AM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	1
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	1	0	1	1
Exiting Leg				1				0				0	1
Total				1				0				1	2

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Riverway from East						Nessle Way from South						Riverway from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	3
Grand Total	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	3
Approach %	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		
Total %	66.7	0.0	0.0	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	
Exiting Leg Total						1						0						2	3

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Riverway from East						Nessle Way from South						Riverway from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	2
Total Volume	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	3
% Approach Total	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		
PHF	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.375
Entering Leg	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	3
Exiting Leg						1						0						2	3
Total						3						0						3	6

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **6:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Riverway from East						Nessle Way from South						Riverway from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
6:30 AM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	3
6:45 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	4	4	8	0	0	0	0	0	0	8
7:00 AM	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	3
Total	0	0	0	0	1	1	0	0	0	3	5	8	0	0	0	0	0	0	9
8:00 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	0	0	5
8:45 AM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	7	4	11	0	0	0	0	0	0	11
Grand Total	0	0	0	0	1	1	0	0	0	14	13	27	0	0	0	0	0	0	28
Approach %	0	0	0	0	100		0	0	0	51.852	48.148		0	0	0	0	0		
Total %	0	0	0	0	3.5714	3.5714	0	0	0	50	46.429	96.429	0	0	0	0	0	0	
Exiting Leg Total						1						27						0	28

Peak Hour Analysis from 06:00 AM to 09:00 AM begins at:

7:45 AM	Riverway from East						Nessle Way from South						Riverway from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	0	0	5
Total Volume	0	0	0	0	0	0	0	0	0	6	5	11	0	0	0	0	0	0	11
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	54.5	45.5		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.625	0.550	0.000	0.000	0.000	0.000	0.000	0.000	0.550
Entering Leg	0	0	0	0	0	0	0	0	0	6	5	11	0	0	0	0	0	0	11
Exiting Leg						0						11						0	11
Total						0						22						0	22

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars and Heavy Vehicles (Combined)**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	262	2	0	264	4	9	0	13	0	176	0	176	453
3:15 PM	244	0	0	244	4	6	0	10	0	177	0	177	431
3:30 PM	212	0	0	212	15	6	0	21	1	200	1	202	435
3:45 PM	243	0	1	244	7	2	0	9	0	172	0	172	425
Total	961	2	1	964	30	23	0	53	1	725	1	727	1744
4:00 PM	179	0	0	179	9	6	0	15	1	173	0	174	368
4:15 PM	167	0	0	167	10	1	0	11	0	182	0	182	360
4:30 PM	178	0	0	178	7	5	0	12	0	166	0	166	356
4:45 PM	189	0	0	189	13	2	0	15	0	168	0	168	372
Total	713	0	0	713	39	14	0	53	1	689	0	690	1456
5:00 PM	179	0	1	180	10	8	0	18	0	176	0	176	374
5:15 PM	178	0	0	178	10	7	0	17	0	157	0	157	352
5:30 PM	162	0	0	162	16	4	0	20	0	146	0	146	328
5:45 PM	170	0	0	170	8	4	0	12	0	150	0	150	332
Total	689	0	1	690	44	23	0	67	0	629	0	629	1386
Grand Total	2363	2	2	2367	113	60	0	173	2	2043	1	2046	4586
Approach %	99.8	0.1	0.1		65.3	34.7	0.0		0.1	99.9	0.0		
Total %	51.5	0.0	0.0	51.6	2.5	1.3	0.0	3.8	0.0	44.5	0.0	44.6	
Exiting Leg Total				2158				4				2424	4586
Cars	2334	0	2	2336	110	59	0	169	2	2014	1	2017	4522
% Cars	98.8	0.0	100.0	98.7	97.3	98.3	0.0	97.7	100.0	98.6	100.0	98.6	98.6
Exiting Leg Total				2126				2				2394	4522
Heavy Vehicles	29	2	0	31	3	1	0	4	0	29	0	29	64
% Heavy Vehicles	1.2	100.0	0.0	1.3	2.7	1.7	0.0	2.3	0.0	1.4	0.0	1.4	1.4
Exiting Leg Total				32				2				30	64

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	262	2	0	264	4	9	0	13	0	176	0	176	453
3:15 PM	244	0	0	244	4	6	0	10	0	177	0	177	431
3:30 PM	212	0	0	212	15	6	0	21	1	200	1	202	435
3:45 PM	243	0	1	244	7	2	0	9	0	172	0	172	425
Total Volume	961	2	1	964	30	23	0	53	1	725	1	727	1744
% Approach Total	99.7	0.2	0.1		56.6	43.4	0.0		0.1	99.7	0.1		
PHF	0.917	0.250	0.250	0.913	0.500	0.639	0.000	0.631	0.250	0.906	0.250	0.900	0.962
Cars	947	0	1	948	30	23	0	53	1	712	1	714	1715
Cars %	98.5	0.0	100.0	98.3	100.0	100.0	0.0	100.0	100.0	98.2	100.0	98.2	98.3
Heavy Vehicles	14	2	0	16	0	0	0	0	0	13	0	13	29
Heavy Vehicles %	1.5	100.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	1.8	0.0	1.8	1.7
Cars Enter Leg	947	0	1	948	30	23	0	53	1	712	1	714	1715
Heavy Enter Leg	14	2	0	16	0	0	0	0	0	13	0	13	29
Total Entering Leg	961	2	1	964	30	23	0	53	1	725	1	727	1744
Cars Exiting Leg				743				1				971	1715
Heavy Exiting Leg				13				2				14	29
Total Exiting Leg				756				3				985	1744

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	258	0	0	258	4	9	0	13	0	175	0	175	446
3:15 PM	241	0	0	241	4	6	0	10	0	173	0	173	424
3:30 PM	208	0	0	208	15	6	0	21	1	195	1	197	426
3:45 PM	240	0	1	241	7	2	0	9	0	169	0	169	419
Total	947	0	1	948	30	23	0	53	1	712	1	714	1715
4:00 PM	175	0	0	175	9	6	0	15	1	171	0	172	362
4:15 PM	166	0	0	166	10	1	0	11	0	179	0	179	356
4:30 PM	174	0	0	174	7	4	0	11	0	164	0	164	349
4:45 PM	185	0	0	185	10	2	0	12	0	166	0	166	363
Total	700	0	0	700	36	13	0	49	1	680	0	681	1430
5:00 PM	178	0	1	179	10	8	0	18	0	173	0	173	370
5:15 PM	177	0	0	177	10	7	0	17	0	157	0	157	351
5:30 PM	162	0	0	162	16	4	0	20	0	142	0	142	324
5:45 PM	170	0	0	170	8	4	0	12	0	150	0	150	332
Total	687	0	1	688	44	23	0	67	0	622	0	622	1377
Grand Total	2334	0	2	2336	110	59	0	169	2	2014	1	2017	4522
Approach %	99.9	0.0	0.1		65.1	34.9	0.0		0.1	99.9	0.0		
Total %	51.6	0.0	0.0	51.7	2.4	1.3	0.0	3.7	0.0	44.5	0.0	44.6	
Exiting Leg Total				2126				2				2394	4522

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	258	0	0	258	4	9	0	13	0	175	0	175	446
3:15 PM	241	0	0	241	4	6	0	10	0	173	0	173	424
3:30 PM	208	0	0	208	15	6	0	21	1	195	1	197	426
3:45 PM	240	0	1	241	7	2	0	9	0	169	0	169	419
Total Volume	947	0	1	948	30	23	0	53	1	712	1	714	1715
% Approach Total	99.9	0.0	0.1		56.6	43.4	0.0		0.1	99.7	0.1		
PHF	0.918	0.000	0.250	0.919	0.500	0.639	0.000	0.631	0.250	0.913	0.250	0.906	0.961
Entering Leg	947	0	1	948	30	23	0	53	1	712	1	714	1715
Exiting Leg				743				1				971	1715
Total				1691				54				1685	3430

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	4	2	0	6	0	0	0	0	0	1	0	1	7
3:15 PM	3	0	0	3	0	0	0	0	0	4	0	4	7
3:30 PM	4	0	0	4	0	0	0	0	0	5	0	5	9
3:45 PM	3	0	0	3	0	0	0	0	0	3	0	3	6
Total	14	2	0	16	0	0	0	0	0	13	0	13	29
4:00 PM	4	0	0	4	0	0	0	0	0	2	0	2	6
4:15 PM	1	0	0	1	0	0	0	0	0	3	0	3	4
4:30 PM	4	0	0	4	0	1	0	1	0	2	0	2	7
4:45 PM	4	0	0	4	3	0	0	3	0	2	0	2	9
Total	13	0	0	13	3	1	0	4	0	9	0	9	26
5:00 PM	1	0	0	1	0	0	0	0	0	3	0	3	4
5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	4	0	4	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	0	0	0	0	0	7	0	7	9
Grand Total	29	2	0	31	3	1	0	4	0	29	0	29	64
Approach %	93.5	6.5	0.0		75.0	25.0	0.0		0.0	100.0	0.0		
Total %	45.3	3.1	0.0	48.4	4.7	1.6	0.0	6.3	0.0	45.3	0.0	45.3	
Exiting Leg Total				32				2				30	64
Buses	15	0	0	15	0	0	0	0	0	14	0	14	29
% Buses	51.7	0.0	0.0	48.4	0.0	0.0	0.0	0.0	0.0	48.3	0.0	48.3	45.3
Exiting Leg Total				14				0				15	29
Single-Unit Trucks	13	2	0	15	3	1	0	4	0	15	0	15	34
% Single-Unit	44.8	100.0	0.0	48.4	100.0	100.0	0.0	100.0	0.0	51.7	0.0	51.7	53.1
Exiting Leg Total				18				2				14	34
Articulated Trucks	1	0	0	1	0	0	0	0	0	0	0	0	1
% Articulated	3.4	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	4	2	0	6	0	0	0	0	0	1	0	1	7
3:15 PM	3	0	0	3	0	0	0	0	0	4	0	4	7
3:30 PM	4	0	0	4	0	0	0	0	0	5	0	5	9
3:45 PM	3	0	0	3	0	0	0	0	0	3	0	3	6
Total Volume	14	2	0	16	0	0	0	0	0	13	0	13	29
% Approach Total	87.5	12.5	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.875	0.250	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.650	0.000	0.650	0.806
Buses	7	0	0	7	0	0	0	0	0	8	0	8	15
Buses %	50.0	0.0	0.0	43.8	0.0	0.0	0.0	0.0	0.0	61.5	0.0	61.5	51.7
Single-Unit Trucks	6	2	0	8	0	0	0	0	0	5	0	5	13
Single-Unit %	42.9	100.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	38.5	0.0	38.5	44.8
Articulated Trucks	1	0	0	1	0	0	0	0	0	0	0	0	1
Articulated %	7.1	0.0	0.0	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
Buses	7	0	0	7	0	0	0	0	0	8	0	8	15
Single-Unit Trucks	6	2	0	8	0	0	0	0	0	5	0	5	13
Articulated Trucks	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Entering Leg	14	2	0	16	0	0	0	0	0	13	0	13	29
Buses				8				0				7	15
Single-Unit Trucks				5				2				6	13
Articulated Trucks				0				0				1	1
Total Exiting Leg				13				2				14	29

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Buses**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	3	0	0	3	0	0	0	0	0	1	0	1	4
3:15 PM	1	0	0	1	0	0	0	0	0	3	0	3	4
3:30 PM	2	0	0	2	0	0	0	0	0	3	0	3	5
3:45 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total	7	0	0	7	0	0	0	0	0	8	0	8	15
4:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
4:15 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
4:30 PM	4	0	0	4	0	0	0	0	0	1	0	1	5
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	6	0	0	6	0	0	0	0	0	4	0	4	10
5:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	0	0	0	0	0	2	0	2	4
Grand Total	15	0	0	15	0	0	0	0	0	14	0	14	29
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	51.7	0.0	0.0	51.7	0.0	0.0	0.0	0.0	0.0	48.3	0.0	48.3	
Exiting Leg Total				14				0				15	29

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	3	0	0	3	0	0	0	0	0	1	0	1	4
3:15 PM	1	0	0	1	0	0	0	0	0	3	0	3	4
3:30 PM	2	0	0	2	0	0	0	0	0	3	0	3	5
3:45 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total Volume	7	0	0	7	0	0	0	0	0	8	0	8	15
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.583	0.000	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.667	0.750
Entering Leg	7	0	0	7	0	0	0	0	0	8	0	8	15
Exiting Leg				8				0				7	15
Total				15				0				15	30

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	1	2	0	3	0	0	0	0	0	0	0	0	3
3:15 PM	2	0	0	2	0	0	0	0	0	1	0	1	3
3:30 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
3:45 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
Total	6	2	0	8	0	0	0	0	0	5	0	5	13
4:00 PM	3	0	0	3	0	0	0	0	0	1	0	1	4
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
4:30 PM	0	0	0	0	0	1	0	1	0	1	0	1	2
4:45 PM	4	0	0	4	3	0	0	3	0	1	0	1	8
Total	7	0	0	7	3	1	0	4	0	5	0	5	16
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	3	0	3	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	5	0	5	5
Grand Total	13	2	0	15	3	1	0	4	0	15	0	15	34
Approach %	86.7	13.3	0.0		75.0	25.0	0.0		0.0	100.0	0.0		
Total %	38.2	5.9	0.0	44.1	8.8	2.9	0.0	11.8	0.0	44.1	0.0	44.1	
Exiting Leg Total				18				2				14	34

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	3	0	0	3	0	0	0	0	0	1	0	1	4
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
4:30 PM	0	0	0	0	0	1	0	1	0	1	0	1	2
4:45 PM	4	0	0	4	3	0	0	3	0	1	0	1	8
Total Volume	7	0	0	7	3	1	0	4	0	5	0	5	16
% Approach Total	100.0	0.0	0.0		75.0	25.0	0.0		0.0	100.0	0.0		
PHF	0.438	0.000	0.000	0.438	0.250	0.250	0.000	0.333	0.000	0.625	0.000	0.625	0.500
Entering Leg	7	0	0	7	3	1	0	4	0	5	0	5	16
Exiting Leg				8				0				8	16
Total				15				4				13	32

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Articulated Trucks**

	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	1	0	0	0	0	0	0	0	0	1
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0				1	1

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from East				Nessle Way from South				Riverway from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	1	0	0	1	0	0	0	0	0	0	0	0	1
Exiting Leg				0				0				1	1
Total				1				0				1	2

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Bicycles (on Roadway and Crosswalks)

	Riverway from East						Nessle Way from South						Riverway from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	1	0	0	0	0	1	0	0	0	0	2	2	0	1	0	0	0	1	4
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2
Total	1	0	0	0	0	1	0	0	0	2	2	4	0	1	0	0	0	1	6
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	2	3
Grand Total	1	0	0	0	0	1	0	0	0	2	3	5	0	5	0	0	0	5	11
Approach %	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	40.0	60.0		0.0	100.0	0.0	0.0	0.0		
Total %	9.1	0.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	18.2	27.3	45.5	0.0	45.5	0.0	0.0	0.0	45.5	
Exiting Leg Total						5						5						1	11

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Riverway from East						Nessle Way from South						Riverway from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	1	0	0	0	0	1	0	0	0	0	2	2	0	1	0	0	0	1	4
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2
Total Volume	1	0	0	0	0	1	0	0	0	2	2	4	0	1	0	0	0	1	6
% Approach Total	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	50.0	50.0		0.0	100.0	0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.250	0.000	0.000	0.000	0.250	0.375
Entering Leg	1	0	0	0	0	1	0	0	0	2	2	4	0	1	0	0	0	1	6
Exiting Leg						1						4						1	6
Total						2						8						2	12

PDI File #: **250665 B**
Location: **S: Nessle Way**
Location: **E: Riverway W: Riverway**
City, State: **Boston, MA**
Client: **VHB/ M. Burmeister**
Site Code: **14481.03**
Count Date: **Wednesday, June 11, 2025**
Start Time: **3:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

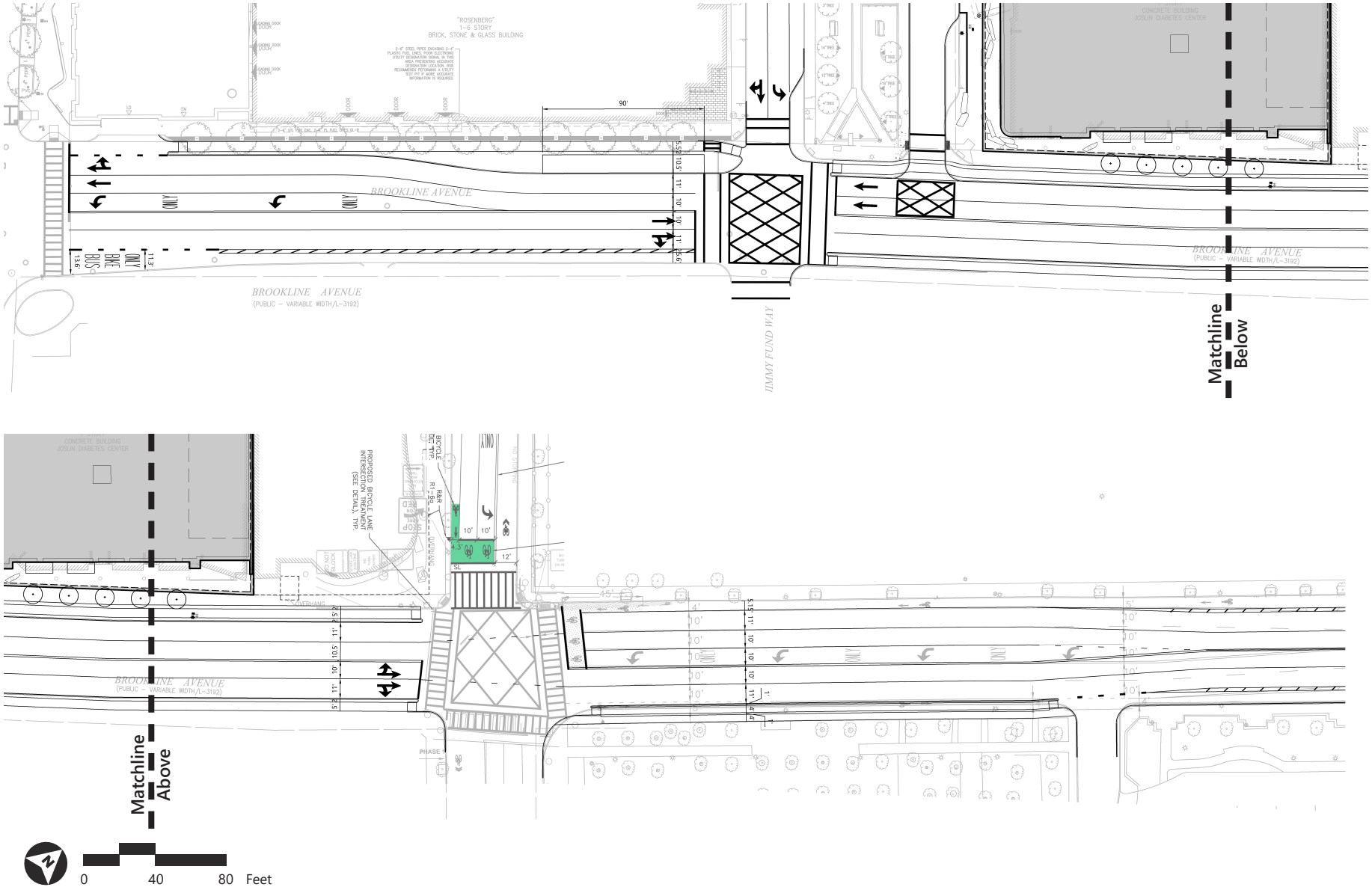
Pedestrians

	Riverway from East						Nessle Way from South						Riverway from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
3:00 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	3
3:15 PM	0	0	0	0	0	0	0	0	0	1	7	8	0	0	0	0	0	0	8
3:30 PM	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	6
3:45 PM	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	0	0	5
Total	0	0	0	0	0	0	0	0	0	6	16	22	0	0	0	0	0	0	22
4:00 PM	0	0	0	0	0	0	0	0	0	4	10	14	0	0	0	0	0	0	14
4:15 PM	0	0	0	0	0	0	0	0	0	6	1	7	0	0	0	0	0	0	7
4:30 PM	0	0	0	0	0	0	0	0	0	3	4	7	0	0	0	0	0	0	7
4:45 PM	0	0	0	0	0	0	0	0	0	3	12	15	0	0	0	0	0	0	15
Total	0	0	0	0	0	0	0	0	0	16	27	43	0	0	0	0	0	0	43
5:00 PM	0	0	0	0	0	0	0	0	0	4	9	13	0	0	0	0	0	0	13
5:15 PM	0	0	0	0	0	0	0	0	0	2	7	9	0	0	0	0	0	0	9
5:30 PM	0	0	0	0	0	0	0	0	0	4	5	9	0	0	0	0	0	0	9
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	10	24	34	0	0	0	0	0	0	34
Grand Total	0	0	0	0	0	0	0	0	0	32	67	99	0	0	0	0	0	0	99
Approach %	0	0	0	0	0		0	0	0	32.323	67.677		0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	32.323	67.677	100	0	0	0	0	0	0	
Exiting Leg Total						0						99						0	99

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:45 PM	Riverway from East						Nessle Way from South						Riverway from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	3	12	15	0	0	0	0	0	0	15
5:00 PM	0	0	0	0	0	0	0	0	0	4	9	13	0	0	0	0	0	0	13
5:15 PM	0	0	0	0	0	0	0	0	0	2	7	9	0	0	0	0	0	0	9
5:30 PM	0	0	0	0	0	0	0	0	0	4	5	9	0	0	0	0	0	0	9
Total Volume	0	0	0	0	0	0	0	0	0	13	33	46	0	0	0	0	0	0	46
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	28.3	71.7		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.813	0.688	0.767	0.000	0.000	0.000	0.000	0.000	0.000	0.767
Entering Leg	0	0	0	0	0	0	0	0	0	13	33	46	0	0	0	0	0	0	46
Exiting Leg						0						46						0	46
Total						0						92						0	92

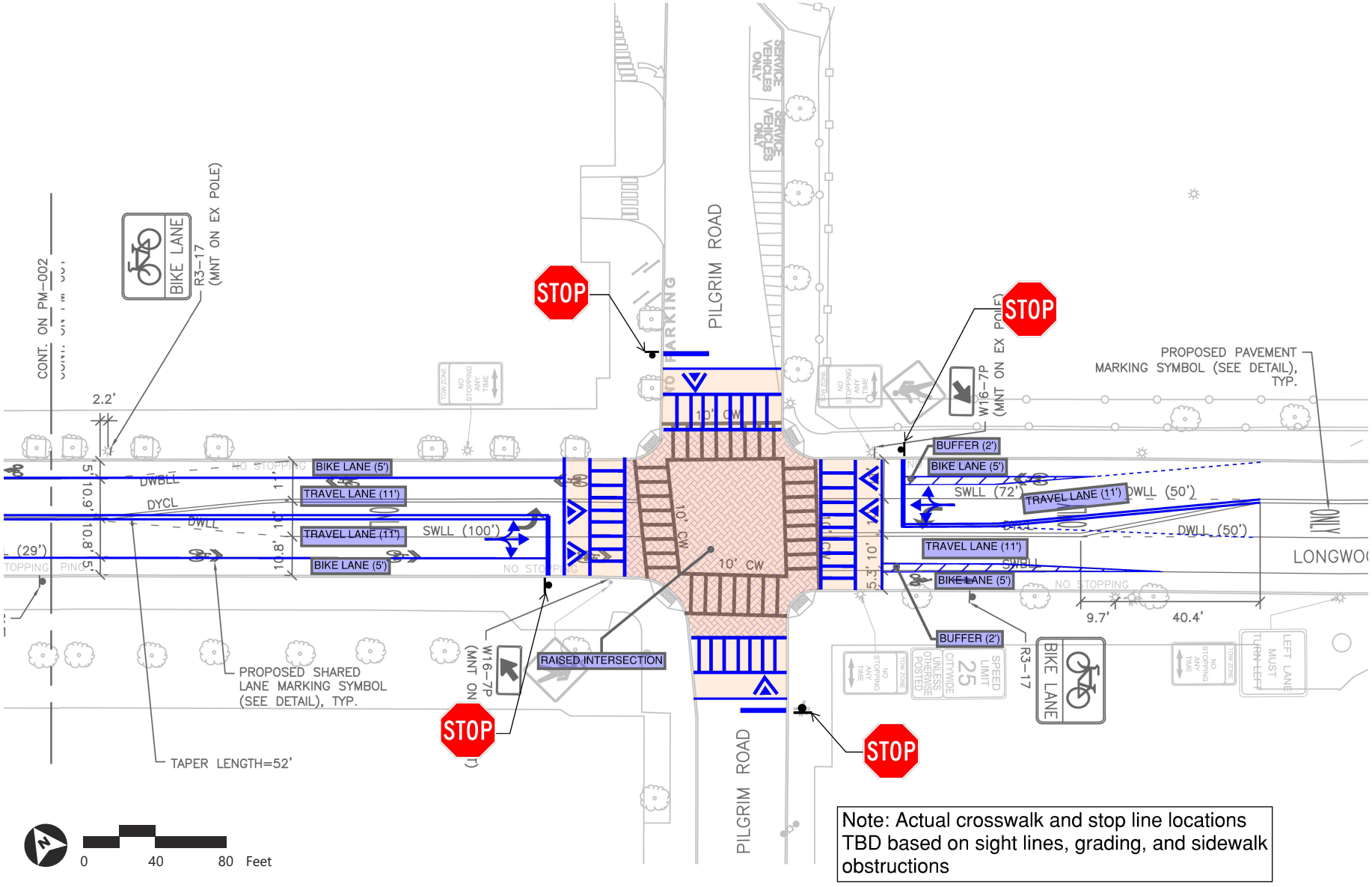
Future Cancer Hospital (1 Joslin Place): Proposed Transportation Improvements



\\vhb.com\gbl\proj\Boston\16164.00\Graphics\FIGURES\Transportation\DPIR\DPIR_FINAL\2025-1-3_DPIR.indd p32 01/08/25

Figure 2-32

Brookline Avenue Corridor Improvements

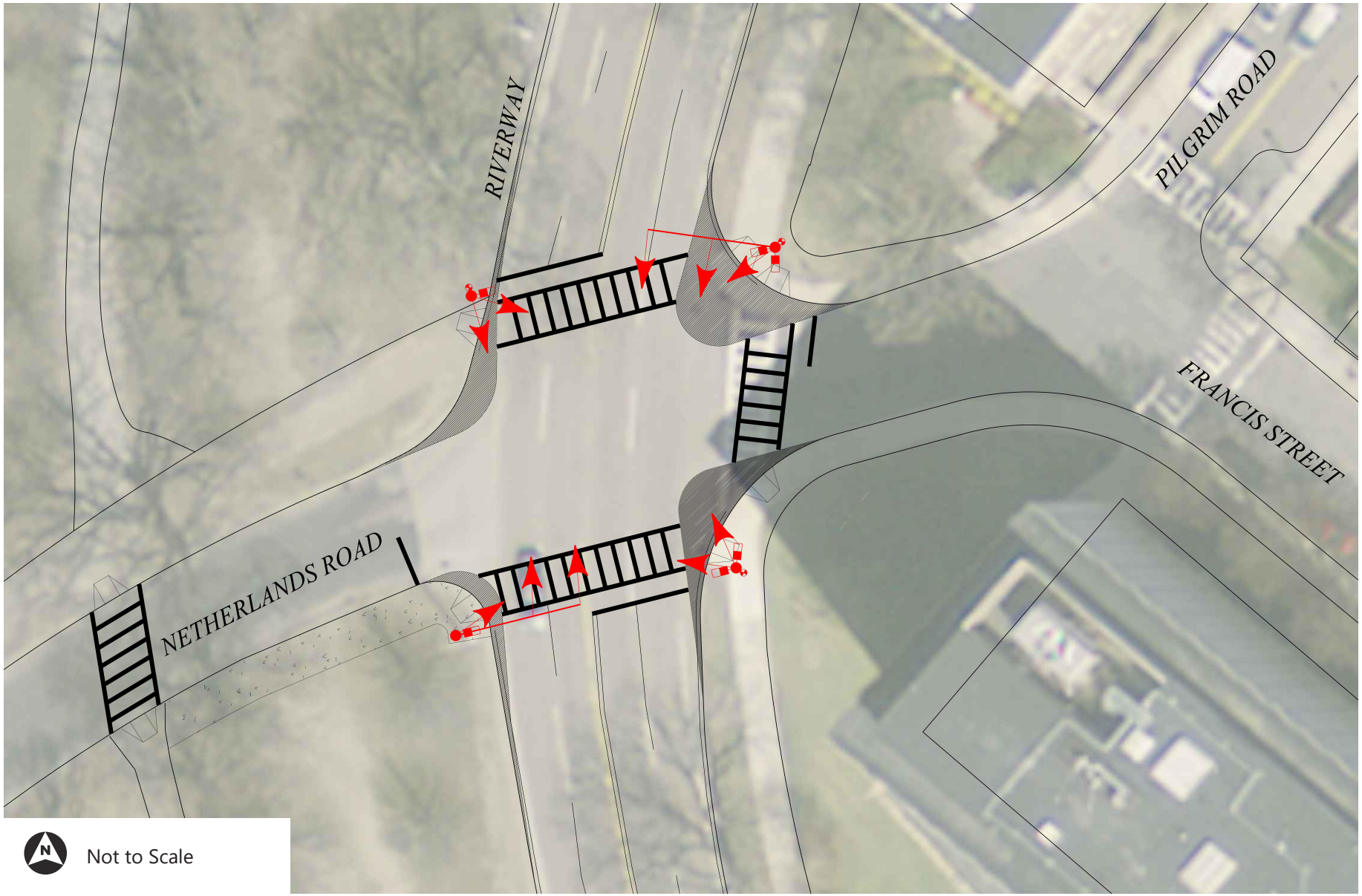


Note: Actual crosswalk and stop line locations TBD based on sight lines, grading, and sidewalk obstructions

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Figure 2-34

Longwood Avenue at Pilgrim Road Intersection Improvements



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Figure 2-35

Riverway at Pilgrim Road/Netherlands Road Intersection Improvements

Trip Generation Calculations

Longwood Place
Trip Generation Estimate - MEPA Project
Program: January 14, 2025

	Size	Trip Rate	Unadjusted Vehicle Trips	VOR	Person Trips	Internal Capture	Adjusted Person Trips	Vehicle Share	Transit Share	Walk Share	Bike Share	WFH/Other Share	Local VOR	Vehicle Trips	Transit Trips	Walk Trips	Bike Trips	WFH/Other Trips	Vehicle Trips	Transit Trips	Walk, Bike and Other Trips
Daily Mid-Rise Res		**5.45**	**2,113**		**2,493**		**2,223**							**282**	**1,178**	**444**	**156**	**111**	**282**	**1,178**	**711**
In	388	2.72	1056	1.18	1,247	13%	1,082	15.0%	53.0%	20.0%	7.0%	5.0%	1.18	137	573	216	76	54	137	573	346
Out	units	2.72	1056	1.18	1,247	8%	1,142	15.0%	53.0%	20.0%	7.0%	5.0%	1.18	145	605	228	80	57	145	605	365
Daily R&D		**11.26**	**12,759**		**15,055**		**14,936**							**1898**	**11,202**	**598**	**598**	**299**	**1,898**	**11,202**	**1,495**
In	1133	5.63	6379	1.18	7,528	0%	7,493	15.0%	75.0%	4.0%	4.0%	2.0%	1.18	952	5,619	300	300	150	952	5,619	750
Out	KSF	5.63	6379	1.18	7,528	1%	7,444	15.0%	75.0%	4.0%	4.0%	2.0%	1.18	946	5,583	298	298	149	946	5,583	745
Daily Medical Office		**36.01**	**4,534**		**7,572**		**7,572**							**862**	**4,164**	**1,060**	**908**	**0**	**862**	**4,164**	**1,968**
In	125.9	18.01	2267	1.67	3,786	0%	3,786	19.0%	55.0%	14.0%	12.0%	0.0%	1.67	431	2,082	530	454	0	431	2,082	984
Out	KSF	18.01	2267	1.67	3,786	0%	3,786	19.0%	55.0%	14.0%	12.0%	0.0%	1.67	431	2,082	530	454	0	431	2,082	984
Daily Shopping Center		**37.75**	**1,284**		**2,336**		**2,021**							**189**	**424**	**1,253**	**0**	**0**	**189**	**424**	**1,253**
In	34	18.88	642	1.82	1,168	13%	1,016	17.0%	21.0%	62.0%	0.0%	0.0%	1.82	95	213	630	0	0	95	213	630
Out	KSF	18.88	642	1.82	1,168	14%	1,005	17.0%	21.0%	62.0%	0.0%	0.0%	1.82	94	211	623	0	0	94	211	623
Total Daily			**20,689**		**27,456**		**26,752**												**3,231**	**16,968**	**5,427**
In			**10,345**		**13,728**		**13,376**												**1,615**	**8,487**	**2,710**
Out			**10,345**		**13,728**		**13,376**												**1,616**	**8,481**	**2,717**
AM Mid-Rise Res		**0.56**	**129**		**153**		**149**							**19**	**78**	**30**	**11**	**7**	**19**	**78**	**48**
In	229	0.15	34	1.18	40	3%	39	15.0%	53.0%	20.0%	7.0%	5.0%	1.18	5	20	8	3	2	5	20	13
Out	units	0.42	96	1.18	113	3%	110	15.0%	53.0%	20.0%	7.0%	5.0%	1.18	14	58	22	8	5	14	58	35
AM R&D		**0.62**	**699**		**825**		**783**							**117**	**587**	**31**	**31**	**15**	**117**	**587**	**77**
In	1133	0.59	674	1.18	795	4%	761	15.0%	75.0%	4.0%	4.0%	2.0%	1.18	114	571	30	30	15	114	571	75
Out	KSF	0.02	25	1.18	30	27%	22	15.0%	75.0%	4.0%	4.0%	2.0%	1.18	3	16	1	1	0	3	16	2
AM Medical Office		**2.35**	**296**		**495**		**495**							**56**	**272**	**70**	**59**	**0**	**56**	**272**	**129**
In	126	1.86	234	1.67	391	0%	391	19.0%	55.0%	14.0%	12.0%	0.0%	1.67	44	215	55	47	0	44	215	102
Out	KSF	0.49	62	1.67	104	0%	104	19.0%	55.0%	14.0%	12.0%	0.0%	1.67	12	57	15	12	0	12	57	27
AM Shopping Center		**4.96**	**169**		**307**		**265**							**25**	**56**	**164**	**0**	**0**	**25**	**56**	**164**
In	34	3.08	105	1.82	190	5%	181	17.0%	21.0%	62.0%	0.0%	0.0%	1.82	17	38	112	0	0	17	38	112
Out	KSF	1.89	64	1.82	117	28%	84	17.0%	21.0%	62.0%	0.0%	0.0%	1.82	8	18	52	0	0	8	18	52
Total AM Peak Hour			**1,294**		**1,780**		**1,692**												**217**	**993**	**418**
In			**1,046**		**1,417**		**1,373**												**180**	**844**	**302**
Out			**247**		**363**		**319**												**37**	**149**	**116**
PM Mid-Rise Res		**0.71**	**163**		**192**		**109**							**13**	**58**	**22**	**8**	**6**	**13**	**58**	**36**
In	229	0.43	99	1.18	117	50%	58	15.0%	53.0%	20.0%	7.0%	5.0%	1.18	7	31	12	4	3	7	31	19
Out	units	0.28	63	1.18	75	32%	51	15.0%	53.0%	20.0%	7.0%	5.0%	1.18	6	27	10	4	3	6	27	17
PM R&D		**0.62**	**700**		**826**		**796**							**119**	**598**	**31**	**31**	**16**	**119**	**598**	**78**
In	1133	0.05	59	1.18	70	11%	62	15.0%	75.0%	4.0%	4.0%	2.0%	1.18	9	47	2	2	1	9	47	5
Out	KSF	0.57	641	1.18	756	3%	734	15.0%	75.0%	4.0%	4.0%	2.0%	1.18	110	551	29	29	15	110	551	73
PM Medical Office		**4.04**	**509**		**850**		**850**							**97**	**467**	**119**	**102**	**0**	**97**	**467**	**221**
In	126	1.21	153	1.67	255	0%	255	19.0%	55.0%	14.0%	12.0%	0.0%	1.67	29	140	36	31	0	29	140	67
Out	KSF	2.83	356	1.67	595	0%	595	19.0%	55.0%	14.0%	12.0%	0.0%	1.67	68	327	83	71	0	68	327	154
PM Shopping Center		**7.19**	**245**		**445**		**348**							**32**	**73**	**216**	**0**	**0**	**32**	**73**	**216**
In	34	3.45	117	1.82	214	18%	176	17.0%	21.0%	62.0%	0.0%	0.0%	1.82	16	37	109	0	0	16	37	109
Out	KSF	3.74	127	1.82	231	25%	172	17.0%	21.0%	62.0%	0.0%	0.0%	1.82	16	36	107	0	0	16	36	107
Total PM Peak Hour			**1,617**		**2,314**		**2,104**												**261**	**1,196**	**551**
In			**429**		**656**		**551**												**61**	**255**	**200**
Out			**1,188**		**1,658**		**1,553**												**200**	**941**	**351**

Notes:
Trip Generation based on *ITE Trip Generation Manual*, 10th Edition
LUC 221 - Mid-Rise Residential
LUC 820 - Shopping Center
LUC 720 - Medical-Dental Office (11th Edition Manual)
R&D based on empirical data in transportation monitoring reports from 14 projects in Cambridge (F2, F4, F8, F9, F11, F14, F15, F27, F43, F47, F51, PB65, PB125, PB150)
All mode shares are based on *Go Boston 2030* Aspirational Mode Share goals, applied to existing area mode shares.
VOR stands for Vehicle Occupancy Rate (from 2017 NHTS) for both local and national VOR

SHARED TRIPS [1]

RETAIL - OFFICE

WEEKDAY DAILY

RETAIL	%	#	BALANCED	#	%	OFFICE/R&D
EXIT ->	3%	1,168	**35**	7,528	15%	-> ENTER
ENTER <-	4%	1,168	**47**	7,528	22%	<- EXIT

WEEKDAY MORNING

RETAIL	%	#	BALANCED	#	%	OFFICE/R&D
EXIT ->	29%	117	**32**	795	4%	-> ENTER
ENTER <-	32%	190	**8**	30	28%	<- EXIT

WEEKDAY EVENING

RETAIL	%	#	BALANCED	#	%	OFFICE/R&D
EXIT ->	2%	231	**5**	70	31%	-> ENTER
ENTER <-	8%	214	**17**	756	20%	<- EXIT

RETAIL - RESIDENTIAL

WEEKDAY DAILY

RETAIL	%	#	BALANCED	#	%	RESIDENTIAL
EXIT ->	11%	1,168	**128**	1,247	33%	-> ENTER
ENTER <-	9%	1,168	**105**	1,247	38%	<- EXIT

WEEKDAY MORNING

RETAIL	%	#	BALANCED	#	%	RESIDENTIAL
EXIT ->	14%	117	**1**	40	2%	-> ENTER
ENTER <-	17%	190	**1**	113	1%	<- EXIT

WEEKDAY EVENING

RETAIL	%	#	BALANCED	#	%	RESIDENTIAL
EXIT ->	26%	231	**54**	117	46%	-> ENTER
ENTER <-	10%	214	**21**	75	42%	<- EXIT

OFFICE - RESIDENTIAL

WEEKDAY DAILY

OFFICE/R&D	%	#	BALANCED	#	%	RESIDENTIAL
EXIT ->	2%	7,528	**37**	1,247	3%	-> ENTER
ENTER <-	0%	7,528	**0**	1,247	0%	<- EXIT

WEEKDAY MORNING

OFFICE/R&D	%	#	BALANCED	#	%	RESIDENTIAL
EXIT ->	1%	30	**0**	40	0%	-> ENTER
ENTER <-	3%	795	**2**	113	2%	<- EXIT

WEEKDAY EVENING

OFFICE/R&D	%	#	BALANCED	#	%	RESIDENTIAL
EXIT ->	2%	756	**5**	117	4%	-> ENTER
ENTER <-	57%	70	**3**	75	4%	<- EXIT

TOTAL SHARED TRIPS - WEEKDAY DAILY				TOTAL TRIPS			SHARED TRIP % OF TOTAL TRIPS		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
RETAIL	152	163	315	1,168	1,168	2,336	13%	14%	13%
OFFICE/R&D	35	84	119	7,528	7,528	15,055	0%	1%	1%
RES	165	105	270	1,247	1,247	2,493	13%	8%	11%
TOTAL	352	352	704	9,942	9,942	19884	4%	4%	4%

TOTAL SHARED TRIPS - WEEKDAY MORNING				TOTAL TRIPS			SHARED TRIP % OF TOTAL TRIPS		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
RETAIL	9	33	42	190	117	307	5%	28%	14%
OFFICE/R&D	34	8	42	795	30	825	4%	27%	5%
RES	1	3	4	40	113	153	3%	3%	3%
TOTAL	44	44	88	1,025	259	1285	4%	17%	7%

TOTAL SHARED TRIPS - WEEKDAY EVENING				TOTAL TRIPS			SHARED TRIP % OF TOTAL TRIPS		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
RETAIL	38	59	97	214	231	445	18%	25%	22%
OFFICE/R&D	8	22	30	70	756	826	11%	3%	4%
RES	59	24	83	117	75	192	50%	32%	43%
TOTAL	105	105	210	401	1,062	1463	26%	10%	14%

1 Weekday morning and evening internal capture rates based on ITE Trip Generation Handbook, 3rd Edition (which cites NCHRP Report 684).
Weekday daily internal capture rates based on ITE Trip Generation Handbook, 2nd Edition.

Intersection Capacity Analysis: Synchro Reports

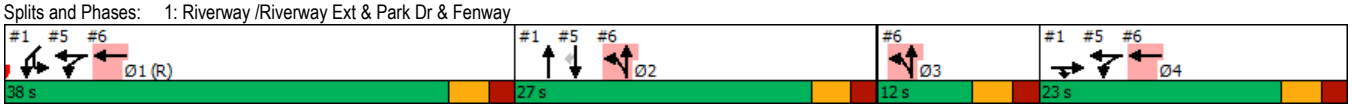
2025 Existing Conditions

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Lane Configurations						
Traffic Volume (vph)	365	400	340	215	420	
Future Volume (vph)	365	400	340	215	420	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	
Storage Length (ft)		120			0	
Storage Lanes		2			3	
Taper Length (ft)					25	
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97	
Ped Bike Factor	0.97			0.96	0.86	
Frt	0.960	0.850				
Flt Protected				0.950	0.950	
Satd. Flow (prot)	2776	1284	3217	1477	3060	
Flt Permitted				0.950	0.950	
Satd. Flow (perm)	2776	1284	3217	1421	2625	
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		25		25	
Link Distance (ft)	260		238		234	
Travel Time (s)	7.1		6.5		6.4	
Confl. Peds. (#/hr)		54		24	54	
Confl. Bikes (#/hr)		5				
Peak Hour Factor	0.88	0.88	0.73	0.83	0.83	
Heavy Vehicles (%)	5%	3%	1%	10%	3%	
Adj. Flow (vph)	415	455	466	259	506	
Shared Lane Traffic (%)		33%				
Lane Group Flow (vph)	565	305	466	259	506	
Enter Blocked Intersection	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	
Median Width(ft)	0		0		36	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.14	
Turning Speed (mph)		9		15	15	
Number of Detectors	1	1	1	1	1	
Detector Template						
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	50	50	50	50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Turn Type	NA	Prot	NA	Prot	Prot	
Protected Phases	4	4	2	1	1	3
Permitted Phases						
Detector Phase	4	4	2	1	1	
Switch Phase						
Minimum Initial (s)	8.0	8.0	8.0	15.0	15.0	5.0
Minimum Split (s)	22.0	22.0	27.0	24.0	24.0	10.0
Total Split (s)	23.0	23.0	27.0	38.0	38.0	12.0
Total Split (%)	23.0%	23.0%	27.0%	38.0%	38.0%	12%
Maximum Green (s)	18.0	18.0	22.0	33.0	33.0	7.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Ped	Ped	Ped	C-Max	C-Max	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	10.0	10.0	15.0	12.0	12.0	
Pedestrian Calls (#/hr)	23	23	37	6	6	
Act Effct Green (s)	19.5	19.5	23.0	34.0	34.0	
Actuated g/C Ratio	0.20	0.20	0.23	0.34	0.34	
v/c Ratio	1.04	1.22	0.63	0.52	0.49	
Control Delay	91.0	166.1	39.1	26.7	24.2	
Queue Delay	24.1	0.0	2.0	8.1	0.9	

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Total Delay	115.0	166.1	41.1	34.8	25.1	
LOS	F	F	D	C	C	
Approach Delay	133.0		41.1		28.4	
Approach LOS	F		D		C	
Queue Length 50th (ft)	~220	~268	141	161	162	
Queue Length 95th (ft)	#322	#437	152	219	191	
Internal Link Dist (ft)	180		158		154	
Turn Bay Length (ft)		120				
Base Capacity (vph)	541	250	739	502	1040	
Starvation Cap Reductn	0	0	0	116	278	
Spillback Cap Reductn	183	0	147	199	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	1.58	1.22	0.79	0.85	0.66	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.22			
Intersection Signal Delay: 74.5		Intersection LOS: E	
Intersection Capacity Utilization 50.8%		ICU Level of Service A	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Riverway /Riverway Ext & Park Dr & Fenway



Movement	EBT	EBR	NBT	SWL2	SWL
Lane Configurations					
Traffic Volume (vph)	365	400	340	215	420
Future Volume (vph)	365	400	340	215	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97
Frpb, ped/bikes	0.97	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00
Frt	0.96	0.85	1.00	1.00	1.00
Flt Protected	1.00	1.00	1.00	0.95	0.95
Satd. Flow (prot)	2777	1284	3217	1477	3060
Flt Permitted	1.00	1.00	1.00	0.95	0.95
Satd. Flow (perm)	2777	1284	3217	1477	3060
Peak-hour factor, PHF	0.88	0.88	0.73	0.83	0.83
Adj. Flow (vph)	415	455	466	259	506
RTOR Reduction (vph)	0	0	0	0	0
Lane Group Flow (vph)	565	305	466	259	506
Confl. Peds. (#/hr)		54		24	54
Confl. Bikes (#/hr)		5			
Heavy Vehicles (%)	5%	3%	1%	10%	3%
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	4	4	2	1	1
Permitted Phases					
Actuated Green, G (s)	18.5	18.5	22.0	33.0	33.0
Effective Green, g (s)	19.5	19.5	23.0	34.0	34.0
Actuated g/C Ratio	0.20	0.20	0.23	0.34	0.34
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	541	250	739	502	1040
v/s Ratio Prot	0.20	c0.24	c0.14	c0.18	0.17
v/s Ratio Perm					
v/c Ratio	1.04	1.22	0.63	0.52	0.49
Uniform Delay, d1	40.2	40.2	34.7	26.4	26.1
Progression Factor	1.00	1.00	1.00	0.86	0.86
Incremental Delay, d2	50.8	129.5	1.3	3.5	1.5
Delay (s)	91.0	169.8	36.0	26.1	23.9
Level of Service	F	F	D	C	C
Approach Delay (s)	118.6		36.0		24.7
Approach LOS	F		D		C

Intersection Summary			
HCM 2000 Control Delay	66.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	580	0	0	0	0	770
Future Volume (vph)	580	0	0	0	0	770
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	12	12	12	12
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3269	0	0	0	0	2508
Flt Permitted						
Satd. Flow (perm)	3269	0	0	0	0	2508
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	196			385	251	
Travel Time (s)	5.3			10.5	6.8	
Peak Hour Factor	0.88	0.92	0.92	0.92	0.92	0.87
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%
Adj. Flow (vph)	659	0	0	0	0	885
Shared Lane Traffic (%)						
Lane Group Flow (vph)	659	0	0	0	0	885
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	1.14	1.14	1.14	1.14
Turning Speed (mph)		9	15		15	9
Number of Detectors	1					1
Detector Template						
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Detector 1 Position(ft)	0					0
Detector 1 Size(ft)	50					50
Detector 1 Type	Cl+Ex					Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0					0.0
Detector 1 Queue (s)	0.0					0.0
Detector 1 Delay (s)	0.0					0.0
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Detector Phase	1					2
Switch Phase						
Minimum Initial (s)	10.0					6.0
Minimum Split (s)	25.0					29.0
Total Split (s)	65.0					35.0
Total Split (%)	65.0%					35.0%
Maximum Green (s)	60.0					30.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
Lost Time Adjust (s)	-1.0					-1.0
Total Lost Time (s)	4.0					4.0
Lead/Lag	Lead					Lag
Lead-Lag Optimize?	Yes					Yes
Vehicle Extension (s)	2.0					2.0
Recall Mode	C-Max					Max
Walk Time (s)	10.0					10.0
Flash Dont Walk (s)	10.0					14.0
Pedestrian Calls (#/hr)	0					0
Act Effct Green (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
v/c Ratio	0.33					1.14
Control Delay	20.5					111.1
Queue Delay	53.6					0.1
Total Delay	74.0					111.2
LOS	E					F
Approach Delay	74.0				111.2	
Approach LOS	E				F	
Queue Length 50th (ft)	233					~376

Lane Group	SET	SER	NWL	NWT	NEL	NER
Queue Length 95th (ft)	m222					#482
Internal Link Dist (ft)	116			305	171	
Turn Bay Length (ft)						
Base Capacity (vph)	1994					777
Starvation Cap Reductn	1422					0
Spillback Cap Reductn	0					15
Storage Cap Reductn	0					0
Reduced v/c Ratio	1.15					1.16

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 25 (25%), Referenced to phase 1:SET, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay: 95.4		Intersection LOS: F	
Intersection Capacity Utilization 54.4%		ICU Level of Service A	
Analysis Period (min) 15			

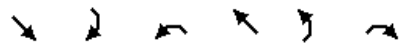
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverway & Fenway





Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	580	0	0	0	0	770
Future Volume (vph)	580	0	0	0	0	770
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	14	14	12	12	12	12
Total Lost time (s)	4.0					4.0
Lane Util. Factor	0.95					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	3269					2508
Flt Permitted	1.00					1.00
Satd. Flow (perm)	3269					2508
Peak-hour factor, PHF	0.88	0.92	0.92	0.92	0.92	0.87
Adj. Flow (vph)	659	0	0	0	0	885
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	659	0	0	0	0	885
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Actuated Green, G (s)	60.0					30.0
Effective Green, g (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
Clearance Time (s)	5.0					5.0
Vehicle Extension (s)	2.0					2.0
Lane Grp Cap (vph)	1994					777
v/s Ratio Prot	c0.20					c0.35
v/s Ratio Perm						
v/c Ratio	0.33					1.14
Uniform Delay, d1	9.5					34.5
Progression Factor	2.10					1.00
Incremental Delay, d2	0.2					77.8
Delay (s)	20.2					112.3
Level of Service	C					F
Approach Delay (s)	20.2			0.0	112.3	
Approach LOS	C			A	F	

Intersection Summary			
HCM 2000 Control Delay	73.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	570	630	150	0	0	0	0	690	55	0	925	0
Future Volume (vph)	570	630	150	0	0	0	0	690	55	0	925	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor								0.98				
Frt			0.850					0.989				
Flt Protected	0.950	0.988										
Satd. Flow (prot)	1387	2865	1301	0	0	0	0	2809	0	0	2963	0
Flt Permitted	0.950	0.988										
Satd. Flow (perm)	1387	2865	1301	0	0	0	0	2809	0	0	2963	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)			55									
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			672			160			269	
Travel Time (s)		10.5			18.3			4.4			7.3	
Confl. Peds. (#/hr)									274			
Confl. Bikes (#/hr)			9						5			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	3%	4%	8%	2%	2%	2%	2%	9%	7%	2%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	0
Adj. Flow (vph)	626	692	165	0	0	0	0	742	59	0	1005	0
Shared Lane Traffic (%)	36%											
Lane Group Flow (vph)	401	917	165	0	0	0	0	801	0	0	1005	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.19	1.19	1.19	1.14	1.14	1.14	1.19	1.19	1.19	1.19	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1			1	
Detector Template												
Leading Detector (ft)	50	50	50					50			50	
Trailing Detector (ft)	0	0	0					0			0	
Detector 1 Position(ft)	0	0	0					0			0	
Detector 1 Size(ft)	50	50	50					50			50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0			0.0	
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Detector Phase	1	1	1					3			3	
Switch Phase												
Minimum Initial (s)	35.0	35.0	35.0					44.0			44.0	
Minimum Split (s)	40.0	40.0	40.0					49.0			49.0	
Total Split (s)	50.0	50.0	50.0					50.0			50.0	
Total Split (%)	50.0%	50.0%	50.0%					50.0%			50.0%	
Maximum Green (s)	45.0	45.0	45.0					45.0			45.0	
Yellow Time (s)	3.0	3.0	3.0					3.0			3.0	
All-Red Time (s)	2.0	2.0	2.0					2.0			2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	5.0	5.0	5.0					5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Recall Mode	C-Max	C-Max	C-Max					Max			Max	
Walk Time (s)	13.0	13.0	13.0					20.0			20.0	
Flash Dont Walk (s)	16.0	16.0	16.0					21.0			21.0	
Pedestrian Calls (#/hr)	0	0	0					98			98	
Act Effct Green (s)	45.0	45.0	45.0					45.0			45.0	
Actuated g/C Ratio	0.45	0.45	0.45					0.45			0.45	
v/c Ratio	0.64	0.71	0.27					0.63			0.75	
Control Delay	16.5	15.5	7.6					24.0			22.3	
Queue Delay	3.2	3.9	0.0					0.7			27.2	
Total Delay	19.7	19.4	7.6					24.7			49.5	

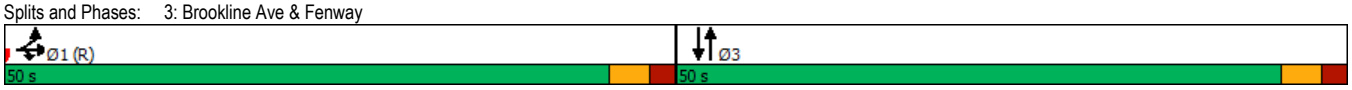


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	B	A					C			D	
Approach Delay		18.2						24.7			49.5	
Approach LOS		B						C			D	
Queue Length 50th (ft)	70	91	11					200			240	
Queue Length 95th (ft)	m118	m135	m24					266			293	
Internal Link Dist (ft)		305			592			80			189	
Turn Bay Length (ft)												
Base Capacity (vph)	624	1289	615					1264			1333	
Starvation Cap Reductn	135	284	0					0			369	
Spillback Cap Reductn	5	12	0					192			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.82	0.91	0.27					0.75			1.04	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 1:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 29.3		Intersection LOS: C	
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Brookline Ave & Fenway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	570	630	150	0	0	0	0	690	55	0	925	0
Future Volume (vph)	570	630	150	0	0	0	0	690	55	0	925	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0					5.0			5.0	
Lane Util. Factor	0.91	0.91	1.00					0.95			0.95	
Frpb, ped/bikes	1.00	1.00	1.00					0.98			1.00	
Flpb, ped/bikes	1.00	1.00	1.00					1.00			1.00	
Frt	1.00	1.00	0.85					0.99			1.00	
Flt Protected	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (prot)	1387	2864	1301					2809			2963	
Flt Permitted	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (perm)	1387	2864	1301					2809			2963	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	626	692	165	0	0	0	0	742	59	0	1005	0
RTOR Reduction (vph)	0	0	30	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	401	917	135	0	0	0	0	801	0	0	1005	0
Confl. Peds. (#/hr)									274			
Confl. Bikes (#/hr)			9						5			
Heavy Vehicles (%)	3%	4%	8%	2%	2%	2%	2%	9%	7%	2%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	0
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Actuated Green, G (s)	45.0	45.0	45.0					45.0			45.0	
Effective Green, g (s)	45.0	45.0	45.0					45.0			45.0	
Actuated g/C Ratio	0.45	0.45	0.45					0.45			0.45	
Clearance Time (s)	5.0	5.0	5.0					5.0			5.0	
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Lane Grp Cap (vph)	624	1288	585					1264			1333	
v/s Ratio Prot	0.29	c0.32	0.10					0.29			c0.34	
v/s Ratio Perm												
v/c Ratio	0.64	0.71	0.23					0.63			0.75	
Uniform Delay, d1	21.3	22.3	16.9					21.2			22.9	
Progression Factor	0.61	0.60	0.61					1.00			0.84	
Incremental Delay, d2	3.0	2.0	0.5					2.4			2.8	
Delay (s)	16.0	15.2	10.8					23.6			21.9	
Level of Service	B	B	B					C			C	
Approach Delay (s)		14.9			0.0			23.6			21.9	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	260	595	75	100	60	265	935	265	140	400	120	5
Future Volume (vph)	260	595	75	100	60	265	935	265	140	400	120	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		150		0		0		165	0	280	
Storage Lanes	1		1		1		2		1	2	0	
Taper Length (ft)	25				25					25		
Lane Util. Factor	0.91	0.91	1.00	0.91	1.00	1.00	0.88	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor		1.00			0.91			0.93		0.86		
Frt			0.850				0.850	0.948		0.964		
Flt Protected		0.985			0.950					0.963		
Satd. Flow (prot)	0	4464	1366	0	1269	1449	2508	2504	0	2593	0	0
Flt Permitted		0.985			0.950					0.963		
Satd. Flow (perm)	0	4452	1366	0	1150	1449	2508	2504	0	2583	0	0
Right Turn on Red				Yes					Yes			Yes
Satd. Flow (RTOR)			158					91		169		
Link Speed (mph)		25				25		25		25		
Link Distance (ft)		563				269		1590		1367		
Travel Time (s)		15.4				7.3		43.4		37.3		
Confl. Peds. (#/hr)	7		149	160	109		271		109	7	109	149
Confl. Bikes (#/hr)							9		21			1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	9%	28%	18%	2%	14%	16%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	13	0	0	0
Adj. Flow (vph)	289	661	83	111	67	294	1039	285	151	421	126	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	950	194	0	67	294	1039	436	0	552	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Right	Left	Right	Left	Right	Right
Median Width(ft)		0				12		12		24		
Link Offset(ft)		0				0		0		0		
Crosswalk Width(ft)		16				16		16		16		
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	9	15		9		9	15	9	9
Number of Detectors	1	1	1		1	1	1	1		1		
Detector Template												
Leading Detector (ft)	50	50	50		50	50	50	50		50		
Trailing Detector (ft)	0	0	0		0	0	0	0		0		
Detector 1 Position(ft)	0	0	0		0	0	0	0		0		
Detector 1 Size(ft)	50	50	50		50	50	50	50		50		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Detector Phase	4	4	4		3	2 3	1 2 3	2		1		
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		6.0			8.0		10.0		
Minimum Split (s)	30.5	30.5	30.5		12.0			24.5		24.0		
Total Split (s)	32.0	32.0	32.0		12.0			28.0		28.0		
Total Split (%)	32.0%	32.0%	32.0%		12.0%			28.0%		28.0%		
Maximum Green (s)	25.0	25.0	25.0		6.0			22.5		22.0		
Yellow Time (s)	3.5	3.5	3.5		3.5			3.5		3.5		
All-Red Time (s)	3.5	3.5	3.5		2.5			2.0		2.5		
Lost Time Adjust (s)		-2.0	-2.0		-2.0			-1.0		-2.0		
Total Lost Time (s)		5.0	5.0		4.0			4.5		4.0		
Lead/Lag	Lag	Lag	Lag		Lead			Lag		Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		Yes			Yes		Yes		
Vehicle Extension (s)	2.0	2.0	2.0		2.0			2.0		2.0		
Recall Mode	Ped	Ped	Ped		None			Ped		C-Max		
Walk Time (s)	7.0	7.0	7.0					7.0		7.0		
Flash Dont Walk (s)	16.5	16.5	16.5					12.0		9.0		
Pedestrian Calls (#/hr)	0	0	0					95		37		
Act Effct Green (s)		26.5	26.5		8.5	35.1	64.5	22.6		24.9		
Actuated g/C Ratio		0.26	0.26		0.08	0.35	0.64	0.23		0.25		
v/c Ratio		0.80	0.41		0.63	0.58	0.64	0.69		0.71		
Control Delay		40.4	10.4		65.2	30.4	12.5	33.9		29.6		

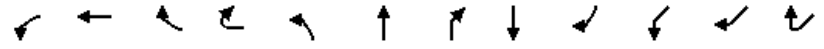
Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Queue Delay		9.7	0.0		0.0	13.8	3.1	0.1		0.3		
Total Delay		50.1	10.4		65.2	44.2	15.6	34.0		29.9		
LOS		D	B		E	D	B	C		C		
Approach Delay		43.3				24.0		34.0		29.9		
Approach LOS		D				C		C		C		
Queue Length 50th (ft)		205	17		43	144	251	105		117		
Queue Length 95th (ft)		257	75		m#69	m227	330	160		179		
Internal Link Dist (ft)		483				189		1510		1287		
Turn Bay Length (ft)			150									
Base Capacity (vph)		1205	484		107	495	1601	658		773		
Starvation Cap Reductn		0	0		0	179	441	0		0		
Spillback Cap Reductn		233	0		0	0	0	14		25		
Storage Cap Reductn		0	0		0	0	0	0		0		
Reduced v/c Ratio		0.98	0.40		0.63	0.93	0.90	0.68		0.74		

Intersection Summary

Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 67 (67%), Referenced to phase 1:SWL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 32.4 Intersection LOS: C
Intersection Capacity Utilization 73.7% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Brookline Ave & Park Dr & Boylston St





Movement	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	260	595	75	100	60	265	935	265	140	400	120	5
Future Volume (vph)	260	595	75	100	60	265	935	265	140	400	120	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		4.0	4.5	4.0	4.5		4.0		
Lane Util. Factor		0.91	1.00		1.00	1.00	0.88	0.95		0.97		
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	0.93		0.86		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00		
Frt		1.00	0.85		1.00	1.00	0.85	0.95		0.96		
Flt Protected		0.99	1.00		0.95	1.00	1.00	1.00		0.96		
Satd. Flow (prot)		4464	1366		1269	1449	2508	2504		2595		
Flt Permitted		0.99	1.00		0.95	1.00	1.00	1.00		0.96		
Satd. Flow (perm)		4464	1366		1269	1449	2508	2504		2595		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	289	661	83	111	67	294	1039	285	151	421	126	5
RTOR Reduction (vph)	0	0	116	0	0	0	0	70	0	127	0	0
Lane Group Flow (vph)	0	950	78	0	67	294	1039	366	0	425	0	0
Confl. Peds. (#/hr)	7		149	160	109		271		109	7	109	149
Confl. Bikes (#/hr)							9		21			1
Heavy Vehicles (%)	3%	3%	3%	9%	28%	18%	2%	14%	16%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	13	0	0	0
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Actuated Green, G (s)		24.5	24.5		6.5	33.6	62.5	21.6		22.9		
Effective Green, g (s)		26.5	26.5		8.5	34.6	61.0	22.6		24.9		
Actuated g/C Ratio		0.26	0.26		0.08	0.35	0.61	0.23		0.25		
Clearance Time (s)		7.0	7.0		6.0			5.5		6.0		
Vehicle Extension (s)		2.0	2.0		2.0			2.0		2.0		
Lane Grp Cap (vph)		1182	361		107	501	1529	565		646		
v/s Ratio Prot		c0.21	0.06		0.05	c0.20	c0.41	0.15		0.16		
v/s Ratio Perm												
v/c Ratio		0.80	0.22		0.63	0.59	0.68	0.65		0.66		
Uniform Delay, d1		34.3	28.6		44.2	26.8	13.0	35.1		33.7		
Progression Factor		1.00	1.00		0.99	0.99	0.98	1.00		1.00		
Incremental Delay, d2		3.8	0.1		6.2	0.9	0.7	1.9		5.2		
Delay (s)		38.1	28.8		50.0	27.4	13.5	37.0		38.9		
Level of Service		D	C		D	C	B	D		D		
Approach Delay (s)		36.6				18.2		37.0		38.9		
Approach LOS		D				B		D		D		

Intersection Summary			
HCM 2000 Control Delay	29.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

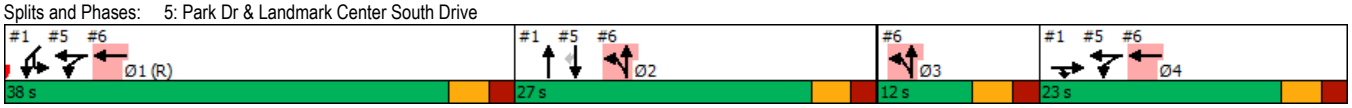
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Lane Configurations															
Traffic Volume (vph)	0	0	0	625	265	25	0	0	0	0	10	10			
Future Volume (vph)	0	0	0	625	265	25	0	0	0	0	10	10			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.95	1.00	1.00	1.00	1.00	1.00	1.00			
Ped Bike Factor					0.97										
Frt					0.988							0.850			
Flt Protected				0.950	0.996										
Satd. Flow (prot)	0	0	0	2687	2553	0	0	0	0	0	1103	1232			
Flt Permitted				0.950	0.996										
Satd. Flow (perm)	0	0	0	2687	2553	0	0	0	0	0	1103	1232			
Right Turn on Red			No	No		Yes			No			Yes			
Satd. Flow (RTOR)					13							131			
Link Speed (mph)		25			25			25			25				
Link Distance (ft)		187			355			234			168				
Travel Time (s)		5.1			9.7			6.4			4.6				
Confl. Peds. (#/hr)						125									
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92	0.84	0.39	0.39			
Heavy Vehicles (%)	2%	2%	2%	4%	9%	30%	2%	2%	2%	2%	55%	18%			
Adj. Flow (vph)	0	0	0	694	294	28	0	0	0	0	26	26			
Shared Lane Traffic (%)				4%											
Lane Group Flow (vph)	0	0	0	666	350	0	0	0	0	0	26	26			
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No			
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right			
Median Width(ft)		24			24			0			0				
Link Offset(ft)		0			0			0			0				
Crosswalk Width(ft)		16			16			16			16				
Two way Left Turn Lane															
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14			
Turning Speed (mph)	15		9	15		9	15		9	15		9			
Number of Detectors				1	1						1	1			
Detector Template															
Leading Detector (ft)				50	50						50	50			
Trailing Detector (ft)				0	0						0	0			
Detector 1 Position(ft)				0	0						0	0			
Detector 1 Size(ft)				50	50						50	50			
Detector 1 Type				Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex			
Detector 1 Channel															
Detector 1 Extend (s)				0.0	0.0						0.0	0.0			
Detector 1 Queue (s)				0.0	0.0						0.0	0.0			
Detector 1 Delay (s)				0.0	0.0						0.0	0.0			
Turn Type				Split	NA						NA	Perm			
Protected Phases				1 4	1 4						2		1	3	4
Permitted Phases												2			
Detector Phase				1 4	1 4						2	2			
Switch Phase															
Minimum Initial (s)											8.0	8.0	15.0	5.0	8.0
Minimum Split (s)											27.0	27.0	24.0	10.0	22.0
Total Split (s)											27.0	27.0	38.0	12.0	23.0
Total Split (%)											27.0%	27.0%	38%	12%	23%
Maximum Green (s)											22.0	22.0	33.0	7.0	18.0
Yellow Time (s)											3.0	3.0	3.0	3.0	3.0
All-Red Time (s)											2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)											-1.0	-1.0			
Total Lost Time (s)											4.0	4.0			
Lead/Lag											Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?											Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)											2.0	2.0	2.0	2.0	2.0
Recall Mode											Ped	Ped	C-Max	None	Ped
Walk Time (s)											7.0	7.0	7.0		7.0
Flash Dont Walk (s)											15.0	15.0	12.0		10.0
Pedestrian Calls (#/hr)											37	37	6		23
Act Effct Green (s)				57.5	57.5						23.0	23.0			
Actuated g/C Ratio				0.58	0.58						0.23	0.23			
v/c Ratio				0.43	0.24						0.10	0.07			
Control Delay				24.2	21.2						31.8	0.3			
Queue Delay				0.8	0.0						0.0	0.0			
Total Delay				25.0	21.2						31.8	0.3			
LOS				C	C						C	A			
Approach Delay					23.7						16.1				
Approach LOS					C						B				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Queue Length 50th (ft)				174	87						13	0			
Queue Length 95th (ft)				232	m119						15	0			
Internal Link Dist (ft)		107			275			154			88				
Turn Bay Length (ft)															
Base Capacity (vph)				1545	1473						253	384			
Starvation Cap Reductn				539	0						0	0			
Spillback Cap Reductn				209	149						0	0			
Storage Cap Reductn				0	0						0	0			
Reduced v/c Ratio				0.66	0.26						0.10	0.07			

Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 23.3	Intersection LOS: C
Intersection Capacity Utilization 29.2%	ICU Level of Service A
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 5: Park Dr & Landmark Center South Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	625	265	25	0	0	0	0	10	10
Future Volume (vph)	0	0	0	625	265	25	0	0	0	0	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						1.00	1.00
Frpb, ped/bikes				1.00	0.97						1.00	1.00
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	0.99						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				2687	2553						1103	1232
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				2687	2553						1103	1232
Peak-hour factor, PHF	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92	0.84	0.39	0.39
Adj. Flow (vph)	0	0	0	694	294	28	0	0	0	0	26	26
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	0	20
Lane Group Flow (vph)	0	0	0	666	344	0	0	0	0	0	26	6
Confl. Peds. (#/hr)						125						
Heavy Vehicles (%)	2%	2%	2%	4%	9%	30%	2%	2%	2%	2%	55%	18%
Turn Type				Split	NA						NA	Perm
Protected Phases				1 4	1 4						2	
Permitted Phases												2
Actuated Green, G (s)				56.5	56.5						22.0	22.0
Effective Green, g (s)				57.5	57.5						23.0	23.0
Actuated g/C Ratio				0.58	0.58						0.23	0.23
Clearance Time (s)											5.0	5.0
Vehicle Extension (s)											2.0	2.0
Lane Grp Cap (vph)				1545	1467						253	283
v/s Ratio Prot				c0.25	0.13						c0.02	
v/s Ratio Perm												0.00
v/c Ratio				0.43	0.23						0.10	0.02
Uniform Delay, d1				12.0	10.4						30.4	29.8
Progression Factor				1.93	2.04						1.00	1.00
Incremental Delay, d2				0.0	0.0						0.1	0.0
Delay (s)				23.2	21.3						30.4	29.8
Level of Service				C	C						C	C
Approach Delay (s)		0.0			22.5			0.0			30.1	
Approach LOS		A			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	22.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	29.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



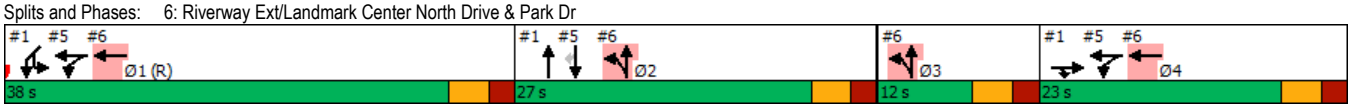
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Lane Configurations																
Traffic Volume (vph)	0	0	0	0	275	0	340	0	0	0	0	0				
Future Volume (vph)	0	0	0	0	275	0	340	0	0	0	0	0				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00				
Ped Bike Factor																
Frt																
Flt Protected							0.950	0.950								
Satd. Flow (prot)	0	0	0	0	3008	0	1528	1528	0	0	0	0				
Flt Permitted							0.950	0.950								
Satd. Flow (perm)	0	0	0	0	3008	0	1528	1528	0	0	0	0				
Right Turn on Red			No			Yes	No		Yes			Yes				
Satd. Flow (RTOR)																
Link Speed (mph)		25			25			25			25					
Link Distance (ft)		135			187			191			124					
Travel Time (s)		3.7			5.1			5.2			3.4					
Confl. Bikes (#/hr)						2										
Peak Hour Factor	0.92	0.92	0.92	0.92	0.80	0.80	0.77	0.77	0.92	0.92	0.92	0.92				
Heavy Vehicles (%)	2%	2%	2%	2%	8%	0%	1%	0%	2%	2%	2%	2%				
Adj. Flow (vph)	0	0	0	0	344	0	442	0	0	0	0	0				
Shared Lane Traffic (%)							10%									
Lane Group Flow (vph)	0	0	0	0	344	0	398	44	0	0	0	0				
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No				
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right				
Median Width(ft)		0			0			12			12					
Link Offset(ft)		0			0			0			0					
Crosswalk Width(ft)		16			16			16			16					
Two way Left Turn Lane																
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Turning Speed (mph)	15		9	15		9	15		9	15		9				
Number of Detectors					1		1	2								
Detector Template								Thru								
Leading Detector (ft)					50		50	100								
Trailing Detector (ft)					0		0	0								
Detector 1 Position(ft)					0		0	0								
Detector 1 Size(ft)					50		50	6								
Detector 1 Type					Cl+Ex		Cl+Ex	Cl+Ex								
Detector 1 Channel																
Detector 1 Extend (s)					0.0		0.0	0.0								
Detector 1 Queue (s)					0.0		0.0	0.0								
Detector 1 Delay (s)					0.0		0.0	0.0								
Detector 2 Position(ft)								94								
Detector 2 Size(ft)								6								
Detector 2 Type								Cl+Ex								
Detector 2 Channel																
Detector 2 Extend (s)								0.0								
Turn Type					NA		Split	NA								
Protected Phases					1 4		2 3	2 3					1	2	3	4
Permitted Phases																
Detector Phase					1 4		2 3	2 3								
Switch Phase																
Minimum Initial (s)													15.0	8.0	5.0	8.0
Minimum Split (s)													24.0	27.0	10.0	22.0
Total Split (s)													38.0	27.0	12.0	23.0
Total Split (%)													38%	27%	12%	23%
Maximum Green (s)													33.0	22.0	7.0	18.0
Yellow Time (s)													3.0	3.0	3.0	3.0
All-Red Time (s)													2.0	2.0	2.0	2.0
Lost Time Adjust (s)																
Total Lost Time (s)																
Lead/Lag													Lead	Lag	Lead	Lag
Lead-Lag Optimize?													Yes	Yes	Yes	Yes
Vehicle Extension (s)													2.0	2.0	2.0	2.0
Recall Mode													C-Max	Ped	None	Ped
Walk Time (s)													7.0	7.0		7.0
Flash Dont Walk (s)													12.0	15.0		10.0
Pedestrian Calls (#/hr)													6	37		23
Act Effct Green (s)					57.5		34.5	33.5								
Actuated g/C Ratio					0.58		0.34	0.34								
v/c Ratio					0.20		0.76	0.09								
Control Delay					6.7		16.6	0.3								

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Queue Delay					0.4		8.7	0.0								
Total Delay					7.1		25.4	0.3								
LOS					A		C	A								
Approach Delay					7.1			22.9								
Approach LOS					A			C								
Queue Length 50th (ft)					23		134	0								
Queue Length 95th (ft)					24		125	m0								
Internal Link Dist (ft)		55			107			111			44					
Turn Bay Length (ft)																
Base Capacity (vph)					1730		534	519								
Starvation Cap Reductn					917		104	0								
Spillback Cap Reductn					0		0	0								
Storage Cap Reductn					0		0	0								
Reduced v/c Ratio					0.42		0.93	0.08								

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.22			
Intersection Signal Delay: 15.9		Intersection LOS: B	
Intersection Capacity Utilization 30.5%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Riverway Ext/Landmark Center North Drive & Park Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	275	0	340	0	0	0	0	0
Future Volume (vph)	0	0	0	0	275	0	340	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	5.0				
Lane Util. Factor					0.95		0.95	0.95				
Frpb, ped/bikes					1.00		1.00	1.00				
Flpb, ped/bikes					1.00		1.00	1.00				
Frt					1.00		1.00	1.00				
Flt Protected					1.00		0.95	0.95				
Satd. Flow (prot)					3008		1528	1528				
Flt Permitted					1.00		0.95	0.95				
Satd. Flow (perm)					3008		1528	1528				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.80	0.80	0.77	0.77	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	344	0	442	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	344	0	398	44	0	0	0	0
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	2%	2%	2%	2%	8%	0%	1%	0%	2%	2%	2%	2%
Turn Type					NA		Split	NA				
Protected Phases					1 4		2 3	2 3				
Permitted Phases												
Actuated Green, G (s)					56.5		33.5	33.5				
Effective Green, g (s)					57.5		34.5	33.5				
Actuated g/C Ratio					0.58		0.34	0.34				
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)					1729		527	511				
v/s Ratio Prot					c0.11		c0.26	0.03				
v/s Ratio Perm												
v/c Ratio					0.20		0.76	0.09				
Uniform Delay, d1					10.2		29.0	22.8				
Progression Factor					0.62		0.29	0.00				
Incremental Delay, d2					0.0		4.2	0.0				
Delay (s)					6.3		12.6	0.0				
Level of Service					A		B	A				
Approach Delay (s)		0.0			6.3			11.3			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	745	945	130
Future Volume (vph)	0	0	0	745	945	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	11	11	11	16
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						
Frt					0.982	
Flt Protected						
Satd. Flow (prot)	0	0	0	2881	2902	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	2881	2902	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	540			1044	160	
Travel Time (s)	14.7			28.5	4.4	
Confl. Peds. (#/hr)			115			115
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.92	0.92	0.93	0.93	0.88	0.88
Heavy Vehicles (%)	2%	2%	0%	9%	7%	1%
Adj. Flow (vph)	0	0	0	801	1074	148
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	801	1222	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.19	1.19	1.19	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	745	945	130
Future Volume (Veh/h)	0	0	0	745	945	130
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.93	0.93	0.88	0.88
Hourly flow rate (vph)	0	0	0	801	1074	148
Pedestrians	115					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1044	160	
pX, platoon unblocked	0.75	0.72	0.72			
vC, conflicting volume	1664	726	1337			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	894	0	706			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	211	786	654			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	267	534	716	506
Volume Left	0	0	0	0
Volume Right	0	0	0	148
cSH	654	1700	1700	1700
Volume to Capacity	0.00	0.31	0.42	0.30
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		

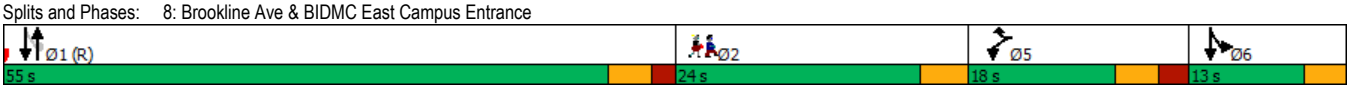


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	85	70	690	95	70	885	
Future Volume (vph)	85	70	690	95	70	885	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	10	10	10	10	10	
Storage Length (ft)	0	0		0	25		
Storage Lanes	1	1		0	1		
Taper Length (ft)	0				0		
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95	
Ped Bike Factor			1.00				
Frt		0.850	0.982				
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1516	1357	2723	0	1516	2721	
Flt Permitted	0.950				0.228		
Satd. Flow (perm)	1516	1357	2723	0	364	2721	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		101	18				
Link Speed (mph)	25		25			25	
Link Distance (ft)	171		594			1044	
Travel Time (s)	4.7		16.2			28.5	
Confl. Bikes (#/hr)				16			
Peak Hour Factor	0.69	0.69	0.86	0.86	0.91	0.91	
Heavy Vehicles (%)	0%	0%	10%	1%	0%	7%	
Bus Blockages (#/hr)	0	0	0	0	0	20	
Adj. Flow (vph)	123	101	802	110	77	973	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	123	101	912	0	77	973	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	10		10			10	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.25	1.25	1.25	1.25	1.25	1.31	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	1		1	1	
Detector Template							
Leading Detector (ft)	50	50	50		50	50	
Trailing Detector (ft)	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0		0	0	
Detector 1 Size(ft)	50	50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	
Turn Type	Prot	Prot	NA		D.P+P	NA	
Protected Phases	5	5	1		6	1 6	2
Permitted Phases					1		
Detector Phase	5	5	1		6	1 6	
Switch Phase							
Minimum Initial (s)	8.0	8.0	10.0		6.0		1.0
Minimum Split (s)	14.0	14.0	15.5		9.5		24.0
Total Split (s)	18.0	18.0	55.0		13.0		24.0
Total Split (%)	16.4%	16.4%	50.0%		11.8%		22%
Maximum Green (s)	12.0	12.0	49.5		9.5		20.0
Yellow Time (s)	3.5	3.5	3.5		3.5		4.0
All-Red Time (s)	2.5	2.5	2.0		0.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	6.0	6.0	5.5		3.5		
Lead/Lag	Lead	Lead	Lead		Lag		Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	2.0		2.0		2.0
Recall Mode	None	None	C-Max		Max		None
Walk Time (s)							7.0
Flash Dont Walk (s)							13.0
Pedestrian Calls (#/hr)							80
Act Effct Green (s)	11.2	11.2	55.1		66.6	68.1	
Actuated g/C Ratio	0.10	0.10	0.50		0.61	0.62	
v/c Ratio	0.80	0.44	0.66		0.24	0.58	
Control Delay	83.2	15.6	8.8		11.6	15.9	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	83.2	15.6	8.8		11.6	15.9	
LOS	F	B	A		B	B	
Approach Delay	52.7		8.8			15.6	
Approach LOS	D		A			B	
Queue Length 50th (ft)	86	0	141		22	230	
Queue Length 95th (ft)	112	22	160		44	297	
Internal Link Dist (ft)	91		514			964	
Turn Bay Length (ft)					25		
Base Capacity (vph)	165	238	1374		320	1685	
Starvation Cap Reductn	0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.75	0.42	0.66		0.24	0.58	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 107 (97%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 16.6		Intersection LOS: B	
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: Brookline Ave & BIDMC East Campus Entrance





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	85	70	690	95	70	885
Future Volume (vph)	85	70	690	95	70	885
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0	5.5		3.5	5.5
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1516	1357	2723		1516	2721
Flt Permitted	0.95	1.00	1.00		0.23	1.00
Satd. Flow (perm)	1516	1357	2723		364	2721
Peak-hour factor, PHF	0.69	0.69	0.86	0.86	0.91	0.91
Adj. Flow (vph)	123	101	802	110	77	973
RTOR Reduction (vph)	0	91	9	0	0	0
Lane Group Flow (vph)	123	10	903	0	77	973
Confl. Bikes (#/hr)				16		
Heavy Vehicles (%)	0%	0%	10%	1%	0%	7%
Bus Blockages (#/hr)	0	0	0	0	0	20
Turn Type	Prot	Prot	NA		D.P+P	NA
Protected Phases	5	5	1		6	1 6
Permitted Phases					1	
Actuated Green, G (s)	11.2	11.2	54.3		63.8	67.3
Effective Green, g (s)	11.2	11.2	54.3		63.8	63.8
Actuated g/C Ratio	0.10	0.10	0.49		0.58	0.58
Clearance Time (s)	6.0	6.0	5.5		3.5	
Vehicle Extension (s)	2.0	2.0	2.0		2.0	
Lane Grp Cap (vph)	154	138	1344		310	1578
v/s Ratio Prot	c0.08	0.01	c0.33		0.02	c0.36
v/s Ratio Perm					0.12	
v/c Ratio	0.80	0.07	0.67		0.25	0.62
Uniform Delay, d1	48.3	44.7	21.1		11.4	15.1
Progression Factor	1.00	1.00	0.33		1.00	1.00
Incremental Delay, d2	22.9	0.1	1.6		1.9	1.8
Delay (s)	71.2	44.8	8.5		13.3	16.9
Level of Service	E	D	A		B	B
Approach Delay (s)	59.3		8.5			16.7
Approach LOS	E		A			B

Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	80	230	35	115	215	280	45	560	85	200	495	215	
Future Volume (vph)	80	230	35	115	215	280	45	560	85	200	495	215	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	10	10	10	10	10	10	10	10	
Storage Length (ft)	170		0	155		0	110		0	0		0	
Storage Lanes	1		0	1		1	1		0	1		0	
Taper Length (ft)	25			70			100			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor		1.00				0.99		1.00			0.99		
Frt		0.980				0.850		0.980			0.955		
Flt Protected	0.950			0.950			0.950			0.950			
Satd. Flow (prot)	1555	1573	0	1318	1550	1233	1444	2676	0	1404	2699	0	
Flt Permitted	0.396			0.279			0.180			0.236			
Satd. Flow (perm)	648	1573	0	387	1550	1217	274	2676	0	349	2699	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		617			195			447			594		
Travel Time (s)		16.8			5.3			12.2			16.2		
Confl. Bikes (#/hr)			15			2			1			5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.95	0.95	0.95	0.84	0.84	0.84	
Heavy Vehicles (%)	1%	3%	0%	15%	3%	10%	5%	11%	9%	8%	8%	3%	
Adj. Flow (vph)	90	258	39	129	242	315	47	589	89	238	589	256	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	90	297	0	129	242	315	47	678	0	238	845	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1	1	1	1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50	50	50	50		50	50		
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Size(ft)	50	50		50	50	50	50	50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA		
Protected Phases		5			5	6		1		6	1 6		2
Permitted Phases	5			5		5	1			1			
Detector Phase	5	5		5	5	6	1	1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0	6.0	10.0	10.0		6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	11.5	15.5	15.5		11.5			27.0
Total Split (s)	28.0	28.0		28.0	28.0	16.0	39.0	39.0		16.0			27.0
Total Split (%)	25.5%	25.5%		25.5%	25.5%	14.5%	35.5%	35.5%		14.5%			25%
Maximum Green (s)	22.0	22.0		22.0	22.0	12.5	33.5	33.5		12.5			23.0
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5	0.0	2.0	2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.0	6.0		6.0	6.0	3.5	5.5	5.5		3.5			
Lead/Lag	Lead	Lead		Lead	Lead	Lag	Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0			2.0
Recall Mode	None	None		None	None	None	C-Max	C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													16.0
Pedestrian Calls (#/hr)													249
Act Effct Green (s)	22.0	22.0		22.0	22.0	37.0	33.5	33.5		48.0	49.5		
Actuated g/C Ratio	0.20	0.20		0.20	0.20	0.34	0.30	0.30		0.44	0.45		
v/c Ratio	0.70	0.95		1.68	0.78	0.77	0.57	0.83		0.88	0.70		
Control Delay	70.0	83.2		384.1	60.3	44.2	34.7	23.8		56.2	17.9		
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay	70.0	83.2		384.1	60.3	44.2	34.7	23.8		56.2	17.9		
LOS	E	F		F	E	D	C	C		E	B		
Approach Delay		80.1			113.8			24.5			26.3		
Approach LOS		F			F			C			C		
Queue Length 50th (ft)	60	208		~133	163	187	16	216		87	107		
Queue Length 95th (ft)	#139	#371		#252	#280	#309	m24	#228		m#192	146		
Internal Link Dist (ft)		537			115			367			514		
Turn Bay Length (ft)	170			155			110						
Base Capacity (vph)	129	314		77	310	411	83	814		272	1214		
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0		
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0		
Storage Cap Reductn	0	0		0	0	0	0	0		0	0		
Reduced v/c Ratio	0.70	0.95		1.68	0.78	0.77	0.57	0.83		0.88	0.70		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 109 (99%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.68			
Intersection Signal Delay: 53.9		Intersection LOS: D	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Brookline Ave & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	230	35	115	215	280	45	560	85	200	495	215
Future Volume (vph)	80	230	35	115	215	280	45	560	85	200	495	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0		6.0	6.0	3.5	5.5	5.5		3.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1555	1573		1318	1550	1223	1444	2677		1404	2698	
Flt Permitted	0.40	1.00		0.28	1.00	1.00	0.18	1.00		0.24	1.00	
Satd. Flow (perm)	649	1573		387	1550	1223	273	2677		349	2698	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.95	0.95	0.95	0.84	0.84	0.84
Adj. Flow (vph)	90	258	39	129	242	315	47	589	89	238	589	256
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	90	297	0	129	242	315	47	678	0	238	845	0
Confl. Bikes (#/hr)			15			2			1			5
Heavy Vehicles (%)	1%	3%	0%	15%	3%	10%	5%	11%	9%	8%	8%	3%
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA	
Protected Phases		5			5	6		1		6	1 6	
Permitted Phases	5			5		5	1			1		
Actuated Green, G (s)	22.0	22.0		22.0	22.0	34.5	33.5	33.5		46.0	49.5	
Effective Green, g (s)	22.0	22.0		22.0	22.0	34.5	33.5	33.5		46.0	46.0	
Actuated g/C Ratio	0.20	0.20		0.20	0.20	0.31	0.30	0.30		0.42	0.42	
Clearance Time (s)	6.0	6.0		6.0	6.0	3.5	5.5	5.5		3.5		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0		
Lane Grp Cap (vph)	129	314		77	310	383	83	815		265	1128	
v/s Ratio Prot		0.19			0.16	0.09		0.25		c0.10	0.31	
v/s Ratio Perm	0.14			c0.33		0.16	0.17			c0.27		
v/c Ratio	0.70	0.95		1.68	0.78	0.82	0.57	0.83		0.90	0.75	
Uniform Delay, d1	40.9	43.4		44.0	41.7	34.9	32.1	35.6		24.4	27.1	
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.37	0.43		1.43	0.62	
Incremental Delay, d2	12.4	36.0		353.7	11.1	12.7	19.1	7.4		25.0	2.0	
Delay (s)	53.4	79.4		397.7	52.9	47.6	30.9	22.9		60.0	18.6	
Level of Service	D	E		F	D	D	C	C		E	B	
Approach Delay (s)		73.4			115.3			23.4			27.7	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	53.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	50	15	85	85	0	100	0	640	75	85	670	0	
Future Volume (vph)	50	15	85	85	0	100	0	640	75	85	670	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	10	10	10	10	10	10	11	11	11	
Storage Length (ft)	130		0	90		0	0		0	0		0	
Storage Lanes	1		0	1		1	0		0	0		0	
Taper Length (ft)	25			60			0			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	
Ped Bike Factor								1.00					
Frt		0.873				0.850		0.984					
Flt Protected	0.950			0.950							0.994		
Satd. Flow (prot)	1433	1283	0	1458	0	1130	0	2819	0	0	2912	0	
Flt Permitted	0.950			0.550							0.671		
Satd. Flow (perm)	1433	1283	0	844	0	1130	0	2819	0	0	1966	0	
Right Turn on Red			Yes			No			Yes			Yes	
Satd. Flow (RTOR)		118						13					
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		331			357			455			447		
Travel Time (s)		9.0			9.7			12.4			12.2		
Confl. Bikes (#/hr)									12			8	
Peak Hour Factor	0.72	0.72	0.72	0.95	0.95	0.95	0.91	0.91	0.91	0.97	0.97	0.97	
Heavy Vehicles (%)	2%	8%	0%	4%	0%	20%	0%	6%	1%	1%	8%	0%	
Parking (#/hr)	0	6	6										
Adj. Flow (vph)	69	21	118	89	0	105	0	703	82	88	691	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	69	139	0	89	0	105	0	785	0	0	779	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		12			15			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.30	1.36	1.14	1.25	1.25	1.25	1.25	1.25	1.25	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1		1		1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50		50		50		50	50		
Trailing Detector (ft)	0	0		0		0		0		0	0		
Detector 1 Position(ft)	0	0		0		0		0		0	0		
Detector 1 Size(ft)	50	50		50		50		50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA		
Protected Phases		5						1		6	1 6		2
Permitted Phases	5			5		5				1			
Detector Phase	5	5		5		5		1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0		8.0		10.0		6.0			1.0
Minimum Split (s)	13.5	13.5		13.5		13.5		29.5		11.5			28.0
Total Split (s)	23.0	23.0		23.0		23.0		45.0		14.0			28.0
Total Split (%)	20.9%	20.9%		20.9%		20.9%		40.9%		12.7%			25%
Maximum Green (s)	17.5	17.5		17.5		17.5		39.5		10.5			24.0
Yellow Time (s)	3.5	3.5		3.5		3.5		3.5		3.5			4.0
All-Red Time (s)	2.0	2.0		2.0		2.0		2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0					
Total Lost Time (s)	5.5	5.5		5.5		5.5		5.5					
Lead/Lag	Lead	Lead		Lead		Lead		Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0		2.0			2.0
Recall Mode	None	None		None		None		C-Max		Max			None
Walk Time (s)								7.0					7.0
Flash Dont Walk (s)								6.0					17.0
Pedestrian Calls (#/hr)								45					102
Act Effct Green (s)	14.2	14.2		14.2		14.2		42.8			51.3		
Actuated g/C Ratio	0.13	0.13		0.13		0.13		0.39			0.47		
v/c Ratio	0.38	0.52		0.82		0.72		0.71			0.79		
Control Delay	48.5	18.1		94.1		72.1		33.0			21.2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Queue Delay	0.0	0.0		0.0		0.0		0.2			0.0		
Total Delay	48.5	18.1		94.1		72.1		33.2			21.2		
LOS	D	B		F		E		C			C		
Approach Delay		28.2			82.2			33.2			21.2		
Approach LOS		C			F			C			C		
Queue Length 50th (ft)	44	13		61		71		244			120		
Queue Length 95th (ft)	69	39		#137		#131		330			m142		
Internal Link Dist (ft)		251			277			375			367		
Turn Bay Length (ft)	130			90									
Base Capacity (vph)	227	303		134		179		1104			989		
Starvation Cap Reductn	0	0		0		0		44			0		
Spillback Cap Reductn	0	0		0		0		0			0		
Storage Cap Reductn	0	0		0		0		0			0		
Reduced v/c Ratio	0.30	0.46		0.66		0.59		0.74			0.79		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 93 (85%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 32.7		Intersection LOS: C	
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Brookline Ave & Deaconess Rd/Jimmy Fund Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	15	85	85	0	100	0	640	75	85	670	0
Future Volume (vph)	50	15	85	85	0	100	0	640	75	85	670	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	10	10	10	10	10	11	11	11
Total Lost time (s)	5.5	5.5		5.5		5.5		5.5			5.5	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Frt	1.00	0.87		1.00		0.85		0.98			1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00			0.99	
Satd. Flow (prot)	1433	1283		1458		1130		2821			2913	
Flt Permitted	0.95	1.00		0.55		1.00		1.00			0.67	
Satd. Flow (perm)	1433	1283		844		1130		2821			1965	
Peak-hour factor, PHF	0.72	0.72	0.72	0.95	0.95	0.95	0.91	0.91	0.91	0.97	0.97	0.97
Adj. Flow (vph)	69	21	118	89	0	105	0	703	82	88	691	0
RTOR Reduction (vph)	0	103	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	69	36	0	89	0	105	0	777	0	0	779	0
Confl. Bikes (#/hr)									12			8
Heavy Vehicles (%)	2%	8%	0%	4%	0%	20%	0%	6%	1%	1%	8%	0%
Parking (#/hr)	0	6	6									
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5			5		5				1		
Actuated Green, G (s)	14.2	14.2		14.2		14.2		42.8			53.3	
Effective Green, g (s)	14.2	14.2		14.2		14.2		42.8			53.3	
Actuated g/C Ratio	0.13	0.13		0.13		0.13		0.39			0.48	
Clearance Time (s)	5.5	5.5		5.5		5.5		5.5				
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0				
Lane Grp Cap (vph)	184	165		108		145		1097			1042	
v/s Ratio Prot		0.03						0.28			c0.07	
v/s Ratio Perm	0.05			c0.11		0.09					c0.29	
v/c Ratio	0.38	0.22		0.82		0.72		0.71			0.75	
Uniform Delay, d1	43.8	42.9		46.7		46.0		28.3			22.9	
Progression Factor	1.00	1.00		1.00		1.00		1.00			0.76	
Incremental Delay, d2	0.5	0.2		36.2		14.1		3.9			2.5	
Delay (s)	44.3	43.2		82.9		60.1		32.2			20.0	
Level of Service	D	D		F		E		C			B	
Approach Delay (s)		43.6			70.5			32.2			20.0	
Approach LOS		D			E			C			B	

Intersection Summary			
HCM 2000 Control Delay	32.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	70.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

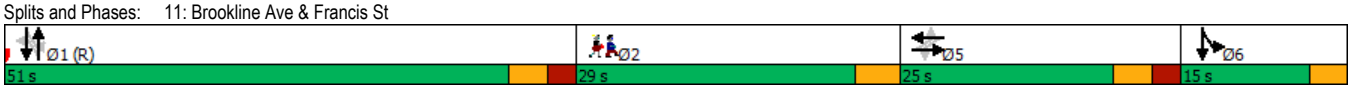


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	10	110	15	145	75	80	45	625	135	200	610	30	
Future Volume (vph)	10	110	15	145	75	80	45	625	135	200	610	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	15	15	15	11	11	11	11	11	11	10	10	10	
Storage Length (ft)	0		0	0		0	0		0	240		0	
Storage Lanes	0		0	1		0	0		1	1		0	
Taper Length (ft)	0			0			0			45			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95	
Ped Bike Factor		1.00							0.97		1.00		
Frt		0.985			0.922				0.850		0.993		
Flt Protected		0.996		0.950				0.997		0.950			
Satd. Flow (prot)	0	1798	0	1481	1402	0	0	3015	1338	1330	2919	0	
Flt Permitted		0.969		0.455				0.838		0.248			
Satd. Flow (perm)	0	1750	0	710	1402	0	0	2534	1296	347	2919	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)					38								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		176			309			203			455		
Travel Time (s)		4.8			8.4			5.5			12.4		
Confl. Bikes (#/hr)			3						12			7	
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.85	0.85	0.85	0.96	0.96	0.96	
Heavy Vehicles (%)	0%	2%	7%	6%	3%	14%	2%	4%	5%	14%	3%	4%	
Adj. Flow (vph)	12	136	19	159	82	88	53	735	159	208	635	31	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	167	0	159	170	0	0	788	159	208	666	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.01	1.01	1.01	1.19	1.19	1.19	1.19	1.19	1.19	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1		1	1	1	1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50		50	50	50	50	50		
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Size(ft)	50	50		50	50		50	50	50	50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases	5			5			1		1	1			
Detector Phase	5	5		5	5		1	1	1	6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		10.0	10.0	10.0	6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		16.0	16.0	16.0	12.0			29.0
Total Split (s)	25.0	25.0		25.0	25.0		51.0	51.0	51.0	15.0			29.0
Total Split (%)	20.8%	20.8%		20.8%	20.8%		42.5%	42.5%	42.5%	12.5%			24%
Maximum Green (s)	19.0	19.0		19.0	19.0		45.0	45.0	45.0	11.5			25.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5	2.5	0.0			0.0
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0	0.0			
Total Lost Time (s)		6.0		6.0	6.0			6.0	6.0	3.5			
Lead/Lag	Lead	Lead		Lead	Lead		Lead	Lead	Lead	Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0			3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													57
Act Effct Green (s)		19.0		19.0	19.0			50.8	50.8	64.8	65.8		
Actuated g/C Ratio		0.16		0.16	0.16			0.42	0.42	0.54	0.55		
v/c Ratio		0.60		1.42	0.67			0.74	0.29	0.74	0.42		
Control Delay		57.1		270.6	50.9			17.5	13.7	34.5	18.6		
Queue Delay		0.0		0.0	0.0			10.1	0.7	0.0	0.4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		57.1		270.6	50.9			27.6	14.4	34.5	18.9		
LOS		E		F	D			C	B	C	B		
Approach Delay		57.1			157.1			25.4			22.6		
Approach LOS		E			F			C			C		
Queue Length 50th (ft)		122		~166	97			152	58	88	170		
Queue Length 95th (ft)		174		#306	#180			m118	m45	#179	221		
Internal Link Dist (ft)		96			229			123			375		
Turn Bay Length (ft)										240			
Base Capacity (vph)		277		112	253			1072	549	281	1600		
Starvation Cap Reductn		0		0	0			259	181	0	420		
Spillback Cap Reductn		0		0	0			0	0	0	14		
Storage Cap Reductn		0		0	0			0	0	0	0		
Reduced v/c Ratio		0.60		1.42	0.67			0.97	0.43	0.74	0.56		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 111 (93%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.42			
Intersection Signal Delay: 45.3		Intersection LOS: D	
Intersection Capacity Utilization 78.3%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

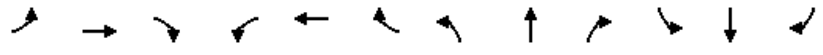
Splits and Phases: 11: Brookline Ave & Francis St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	110	15	145	75	80	45	625	135	200	610	30
Future Volume (vph)	10	110	15	145	75	80	45	625	135	200	610	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	11	11	11	11	11	11	10	10	10
Total Lost time (s)		6.0		6.0	6.0			6.0	6.0	3.5	6.0	
Lane Util. Factor		1.00		1.00	1.00			0.95	1.00	1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00			1.00	0.97	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frt		0.98		1.00	0.92			1.00	0.85	1.00	0.99	
Flt Protected		1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1798		1481	1403			3014	1297	1330	2919	
Flt Permitted		0.97		0.45	1.00			0.84	1.00	0.25	1.00	
Satd. Flow (perm)		1749		709	1403			2533	1297	347	2919	
Peak-hour factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91	0.85	0.85	0.85	0.96	0.96	0.96
Adj. Flow (vph)	12	136	19	159	82	88	53	735	159	208	635	31
RTOR Reduction (vph)	0	0	0	0	32	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	167	0	159	138	0	0	788	159	208	666	0
Confl. Bikes (#/hr)			3						12			7
Heavy Vehicles (%)	0%	2%	7%	6%	3%	14%	2%	4%	5%	14%	3%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases	5			5			1		1	1		
Actuated Green, G (s)		19.0		19.0	19.0			50.0	50.0	61.5	65.0	
Effective Green, g (s)		19.0		19.0	19.0			50.0	50.0	61.5	61.5	
Actuated g/C Ratio		0.16		0.16	0.16			0.42	0.42	0.51	0.51	
Clearance Time (s)		6.0		6.0	6.0			6.0	6.0	3.5		
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0	3.0		
Lane Grp Cap (vph)		276		112	222			1055	540	272	1495	
v/s Ratio Prot					0.10					c0.07	0.23	
v/s Ratio Perm		0.10		c0.22				0.31	0.12	c0.32		
v/c Ratio		0.61		1.42	0.62			0.75	0.29	0.76	0.45	
Uniform Delay, d1		47.0		50.5	47.1			29.6	23.3	18.5	18.5	
Progression Factor		1.00		1.00	1.00			0.53	0.52	1.00	1.00	
Incremental Delay, d2		3.7		232.9	5.3			0.5	0.1	18.3	1.0	
Delay (s)		50.7		283.4	52.5			16.2	12.3	36.8	19.4	
Level of Service		D		F	D			B	B	D	B	
Approach Delay (s)		50.7			164.1			15.5			23.6	
Approach LOS		D			F			B			C	

Intersection Summary			
HCM 2000 Control Delay	42.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	0	690	90	0	910	395	200	410	35	330	430	10	
Future Volume (vph)	0	690	90	0	910	395	200	410	35	330	430	10	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11	
Storage Length (ft)	0		0	0		0	280		0	0		0	
Storage Lanes	0		0	0		0	1		0	1		0	
Taper Length (ft)	0			0			25			0			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor		1.00						1.00			1.00		
Frt		0.983			0.955			0.988			0.997		
Flt Protected							0.950			0.950			
Satd. Flow (prot)	0	3022	0	0	2970	0	1555	2937	0	1540	2930	0	
Flt Permitted							0.267			0.267			
Satd. Flow (perm)	0	3022	0	0	2970	0	437	2937	0	433	2930	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		15			70			6			2		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		497			489			442			108		
Travel Time (s)		13.6			13.3			12.1			2.9		
Confl. Bikes (#/hr)			1						1			3	
Peak Hour Factor	0.86	0.86	0.86	0.96	0.96	0.96	0.78	0.78	0.78	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	2%	2%	0%	1%	1%	1%	6%	0%	2%	7%	0%	
Adj. Flow (vph)	0	802	105	0	948	411	256	526	45	359	467	11	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	907	0	0	1359	0	256	571	0	359	478	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		0			0			11			11		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors		1			1		1	1		1	1		
Detector Template													
Leading Detector (ft)		50			50		50	50		50	50		
Trailing Detector (ft)		0			0		0	0		0	0		
Detector 1 Position(ft)		0			0		0	0		0	0		
Detector 1 Size(ft)		50			50		50	50		50	50		
Detector 1 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)		0.0			0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)		0.0			0.0		0.0	0.0		0.0	0.0		
Turn Type		NA			NA		Perm	NA		D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases							1			1			
Detector Phase		5			5		1	1		6	1 6		
Switch Phase													
Minimum Initial (s)		8.0			8.0		10.0	10.0		6.0			7.0
Minimum Split (s)		14.0			14.0		16.0	16.0		12.0			27.0
Total Split (s)		56.0			56.0		21.0	21.0		16.0			27.0
Total Split (%)		46.7%			46.7%		17.5%	17.5%		13.3%			23%
Maximum Green (s)		50.0			50.0		15.0	15.0		13.0			25.0
Yellow Time (s)		3.0			3.0		3.0	3.0		3.0			2.0
All-Red Time (s)		3.0			3.0		3.0	3.0		0.0			0.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0			
Total Lost Time (s)		6.0			6.0		6.0	6.0		3.0			
Lead/Lag		Lead			Lead		Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0			2.0
Recall Mode		Max			Max		C-Max	C-Max		Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													91
Act Effct Green (s)		50.0			50.0		15.0	15.0		31.0	31.0		
Actuated g/C Ratio		0.42			0.42		0.12	0.12		0.26	0.26		
v/c Ratio		0.72			1.06		4.74	1.53		1.55	0.63		
Control Delay		11.8			76.6		1736.9	289.4		289.9	27.5		
Queue Delay		0.0			0.0		0.0	0.7		0.0	1.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		11.8			76.6		1736.9	290.1		289.9	28.5		
LOS		B			E		F	F		F	C		
Approach Delay		11.8			76.6			737.9			140.6		
Approach LOS		B			E			F			F		
Queue Length 50th (ft)		231			~593		~369	~326		~319	121		
Queue Length 95th (ft)		46			#734		#459	#363		m#447	m144		
Internal Link Dist (ft)		417			409			362			28		
Turn Bay Length (ft)							280						
Base Capacity (vph)		1267			1278		54	372		231	758		
Starvation Cap Reductn		0			0		0	0		0	106		
Spillback Cap Reductn		0			0		0	23		0	0		
Storage Cap Reductn		0			0		0	0		0	0		
Reduced v/c Ratio		0.72			1.06		4.74	1.64		1.55	0.73		

Intersection Summary	
Area Type:	CBD
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 1 (1%), Referenced to phase 1:NBSB, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.74	
Intersection Signal Delay: 214.5	Intersection LOS: F
Intersection Capacity Utilization 89.5%	ICU Level of Service E
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

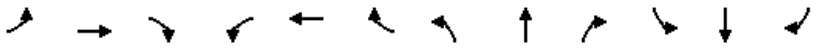
Splits and Phases: 12: Brookline Ave & Riverway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	690	90	0	910	395	200	410	35	330	430	10
Future Volume (vph)	0	690	90	0	910	395	200	410	35	330	430	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		6.0			6.0		6.0	6.0		3.0	6.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.98			0.95		1.00	0.99		1.00	1.00	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3021			2969		1555	2938		1540	2929	
Flt Permitted		1.00			1.00		0.27	1.00		0.27	1.00	
Satd. Flow (perm)		3021			2969		436	2938		432	2929	
Peak-hour factor, PHF	0.86	0.86	0.86	0.96	0.96	0.96	0.78	0.78	0.78	0.92	0.92	0.92
Adj. Flow (vph)	0	802	105	0	948	411	256	526	45	359	467	11
RTOR Reduction (vph)	0	9	0	0	41	0	0	5	0	0	2	0
Lane Group Flow (vph)	0	898	0	0	1318	0	256	566	0	359	476	0
Confl. Bikes (#/hr)			1						1			3
Heavy Vehicles (%)	0%	2%	2%	0%	1%	1%	1%	6%	0%	2%	7%	0%
Turn Type		NA			NA		Perm	NA		D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases							1			1		
Actuated Green, G (s)		50.0			50.0		15.0	15.0		28.0	31.0	
Effective Green, g (s)		50.0			50.0		15.0	15.0		28.0	28.0	
Actuated g/C Ratio		0.42			0.42		0.12	0.12		0.23	0.23	
Clearance Time (s)		6.0			6.0		6.0	6.0		3.0		
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0		
Lane Grp Cap (vph)		1258			1237		54	367		220	683	
v/s Ratio Prot		0.30			c0.44			0.19		c0.18	0.16	
v/s Ratio Perm							c0.59			0.20		
v/c Ratio		0.71			1.07		4.74	1.54		1.63	0.70	
Uniform Delay, d1		29.1			35.0		52.5	52.5		43.2	42.1	
Progression Factor		0.33			1.00		1.00	1.00		0.66	0.61	
Incremental Delay, d2		2.3			45.0		1724.6	256.9		300.4	4.7	
Delay (s)		11.9			80.0		1777.1	309.4		328.8	30.5	
Level of Service		B			F		F	F		F	C	
Approach Delay (s)		11.9			80.0			763.7			158.4	
Approach LOS		B			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	224.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.41		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	89.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	20	0	0	5	105	0	1095	25	110	780	50
Future Volume (vph)	95	20	0	0	5	105	0	1095	25	110	780	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	11	11	11	11	11	11
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt					0.871			0.997			0.992	
Flt Protected		0.960									0.994	
Satd. Flow (prot)	0	1723	0	0	1530	0	0	3098	0	0	3046	0
Flt Permitted		0.960									0.994	
Satd. Flow (perm)	0	1723	0	0	1530	0	0	3098	0	0	3046	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		418			141			497			1033	
Travel Time (s)		11.4			3.8			13.6			28.2	
Confl. Peds. (#/hr)									16	16		16
Confl. Bikes (#/hr)			3									2
Peak Hour Factor	0.60	0.60	0.60	0.85	0.85	0.85	0.98	0.98	0.98	0.91	0.91	0.91
Heavy Vehicles (%)	2%	0%	0%	0%	0%	4%	0%	1%	4%	0%	2%	0%
Adj. Flow (vph)	158	33	0	0	6	124	0	1117	26	121	857	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	191	0	0	130	0	0	1143	0	0	1033	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	1.05	1.05	1.05	1.19	1.19	1.19	1.19	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 87.6%		ICU Level of Service E	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	281.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	95	20	0	0	5	105	0	1095	25	110	780	50
Future Vol, veh/h	95	20	0	0	5	105	0	1095	25	110	780	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	16	16	0	16
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	85	85	85	98	98	98	91	91	91
Heavy Vehicles, %	2	0	0	0	0	4	0	1	4	0	2	0
Mvmt Flow	158	33	0	0	6	124	0	1117	26	121	857	55

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1705	2302	472	-	2316	588	928	0	0	1159	0	0
Stage 1	1143	1143	-	-	1146	-	-	-	-	-	-	-
Stage 2	562	1159	-	-	1170	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.9	-	6.5	6.98	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	-	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	-	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.3	-	4	3.34	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 59	39	544	0	38	447	745	-	-	610	-	-
Stage 1	213	277	-	0	276	-	-	-	-	-	-	-
Stage 2	479	272	-	0	269	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 23	~ 22	536	-	22	440	733	-	-	601	-	-
Mov Cap-2 Maneuver	~ 23	~ 22	-	-	22	-	-	-	-	-	-	-
Stage 1	210	160	-	-	272	-	-	-	-	-	-	-
Stage 2	337	268	-	-	155	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 3630.7	37.3	0	3.1
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	733	-	-	23	236	601	-	-
HCM Lane V/C Ratio	-	-	-	8.333	0.548	0.201	-	-
HCM Control Delay (s)	0	-	-	$ 3630.7	37.3	12.5	2	-
HCM Lane LOS	A	-	-	F	E	B	A	-
HCM 95th %tile Q(veh)	0	-	-	24.1	3	0.7	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

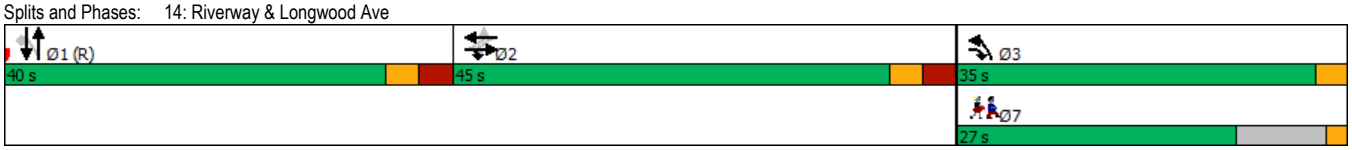


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Lane Configurations													
Traffic Volume (vph)	90	315	80	60	305	45	260	855	105	0	830	75	
Future Volume (vph)	90	315	80	60	305	45	260	855	105	0	830	75	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	11	11	10	11	11	11	11	11	
Storage Length (ft)	25		120	40		0	300		0	0		0	
Storage Lanes	1		1	1		0	1		0	0		1	
Taper Length (ft)	0			25			25			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	
Ped Bike Factor					1.00								
Frt			0.850		0.981			0.984				0.850	
Flt Protected	0.950			0.950			0.950						
Satd. Flow (prot)	1496	1589	1378	1516	1565	0	1472	3090	0	0	3079	1391	
Flt Permitted	0.252			0.336			0.128						
Satd. Flow (perm)	397	1589	1378	536	1565	0	198	3090	0	0	3079	1391	
Right Turn on Red			Yes			Yes			No			No	
Satd. Flow (RTOR)			27		7								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		327			278			1033			510		
Travel Time (s)		8.9			7.6			28.2			13.9		
Confl. Bikes (#/hr)			85			3							
Peak Hour Factor	0.95	0.95	0.95	0.89	0.89	0.89	0.92	0.92	0.92	0.83	0.83	0.83	
Heavy Vehicles (%)	5%	4%	2%	0%	2%	13%	3%	0%	0%	0%	2%	1%	
Adj. Flow (vph)	95	332	84	67	343	51	283	929	114	0	1000	90	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	95	332	84	67	394	0	283	1043	0	0	1000	90	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.19	1.19	1.25	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1	1	1	1		1	1			1	1	
Detector Template													
Leading Detector (ft)	50	50	50	50	50		50	50			50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Size(ft)	50	50	50	50	50		50	50			50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm	
Protected Phases		2	2 3		2		3	1			1		7
Permitted Phases	2			2			1					1	
Detector Phase	2	2	2 3	2	2		3	1			1	1	
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	18.0			18.0	18.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	26.0			26.0	26.0	27.0
Total Split (s)	45.0	45.0		45.0	45.0		35.0	40.0			40.0	40.0	27.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		29.2%	33.3%			33.3%	33.3%	23%
Maximum Green (s)	39.0	39.0		39.0	39.0		32.0	34.0			34.0	34.0	25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)	3.0	3.0		3.0	3.0		0.0	3.0			3.0	3.0	0.0
Lost Time Adjust (s)	-1.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0	
Total Lost Time (s)	5.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0	
Lead/Lag	Lag	Lag		Lag	Lag			Lead			Lead	Lead	
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0	2.0
Recall Mode	None	None		None	None		None	C-Max			C-Max	C-Max	None
Walk Time (s)								7.0			7.0	7.0	7.0
Flash Dont Walk (s)								13.0			13.0	13.0	18.0
Pedestrian Calls (#/hr)								2			2	2	137
Act Effct Green (s)	34.7	33.7	62.9	33.7	33.7		74.3	45.1			45.1	45.1	
Actuated g/C Ratio	0.29	0.28	0.52	0.28	0.28		0.62	0.38			0.38	0.38	
v/c Ratio	0.83	0.74	0.11	0.45	0.89		0.71	0.90			0.87	0.17	
Control Delay	87.6	49.4	8.6	44.0	62.1		22.2	38.1			45.1	29.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Total Delay	87.6	49.4	8.6	44.0	62.1		22.2	38.1			45.1	29.4	
LOS	F	D	A	D	E		C	D			D	C	
Approach Delay		49.8			59.5			34.7			43.8		
Approach LOS		D			E			C			D		
Queue Length 50th (ft)	67	229	21	42	282		105	435			369	46	
Queue Length 95th (ft)	#159	323	38	85	388		m73	m#394			#535	90	
Internal Link Dist (ft)		247			198			953			430		
Turn Bay Length (ft)	25		120	40			300						
Base Capacity (vph)	132	516	795	174	513		466	1160			1156	522	
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0	
Storage Cap Reductn	0	0	0	0	0		0	0			0	0	
Reduced v/c Ratio	0.72	0.64	0.11	0.39	0.77		0.61	0.90			0.87	0.17	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 11 (9%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 43.3		Intersection LOS: D	
Intersection Capacity Utilization 86.5%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 14: Riverway & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	315	80	60	305	45	260	855	105	0	830	75
Future Volume (vph)	90	315	80	60	305	45	260	855	105	0	830	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	11	11	10	11	11	11	11	11
Total Lost time (s)	5.0	6.0	6.0	6.0	6.0		3.0	6.0			6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1496	1589	1378	1516	1564		1472	3089			3079	1391
Flt Permitted	0.25	1.00	1.00	0.34	1.00		0.13	1.00			1.00	1.00
Satd. Flow (perm)	397	1589	1378	536	1564		198	3089			3079	1391
Peak-hour factor, PHF	0.95	0.95	0.95	0.89	0.89	0.89	0.92	0.92	0.92	0.83	0.83	0.83
Adj. Flow (vph)	95	332	84	67	343	51	283	929	114	0	1000	90
RTOR Reduction (vph)	0	0	12	0	5	0	0	0	0	0	0	0
Lane Group Flow (vph)	95	332	72	67	389	0	283	1043	0	0	1000	90
Confl. Bikes (#/hr)			85			3						
Heavy Vehicles (%)	5%	4%	2%	0%	2%	13%	3%	0%	0%	0%	2%	1%
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm
Protected Phases		2	2 3		2		3	1			1	
Permitted Phases	2			2			1					1
Actuated Green, G (s)	33.7	33.7	65.9	33.7	33.7		71.3	45.1			45.1	45.1
Effective Green, g (s)	34.7	33.7	65.9	33.7	33.7		71.3	45.1			45.1	45.1
Actuated g/C Ratio	0.29	0.28	0.55	0.28	0.28		0.59	0.38			0.38	0.38
Clearance Time (s)	6.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	114	446	756	150	439		395	1160			1157	522
v/s Ratio Prot		0.21	0.05		c0.25		c0.16	c0.34			0.32	
v/s Ratio Perm	0.24			0.13			0.27					0.06
v/c Ratio	0.83	0.74	0.10	0.45	0.89		0.72	0.90			0.86	0.17
Uniform Delay, d1	39.9	39.2	12.9	35.5	41.3		25.0	35.3			34.6	25.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.94	1.00			1.00	1.00
Incremental Delay, d2	36.8	5.8	0.0	0.8	18.4		0.5	1.2			8.7	0.7
Delay (s)	76.7	45.1	12.9	36.3	59.7		24.0	36.5			43.3	25.7
Level of Service	E	D	B	D	E		C	D			D	C
Approach Delay (s)		45.6			56.3			33.8			41.8	
Approach LOS		D			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	75	105	1005	0	0	820	
Future Volume (vph)	75	105	1005	0	0	820	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	10	10	10	10	
Storage Length (ft)	30	0		0	0		
Storage Lanes	1	1		0	0		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1490	1454	4272	0	0	4230	
Flt Permitted	0.950						
Satd. Flow (perm)	1490	1454	4272	0	0	4230	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		223					
Link Speed (mph)	25		25			25	
Link Distance (ft)	246		343			858	
Travel Time (s)	6.7		9.4			23.4	
Peak Hour Factor	0.47	0.47	0.87	0.89	0.92	0.89	
Heavy Vehicles (%)	9%	0%	2%	2%	2%	3%	
Adj. Flow (vph)	160	223	1155	0	0	921	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	160	223	1155	0	0	921	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.14	1.14	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	2			2	
Detector Template	Left	Right	Thru			Thru	
Leading Detector (ft)	20	20	100			100	
Trailing Detector (ft)	0	0	0			0	
Detector 1 Position(ft)	0	0	0			0	
Detector 1 Size(ft)	20	20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)			94			94	
Detector 2 Size(ft)			6			6	
Detector 2 Type			Cl+Ex			Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)			0.0			0.0	
Turn Type	Prot	Perm	NA			NA	
Protected Phases	5		1			1	2
Permitted Phases		5					
Detector Phase	5	5	1			1	
Switch Phase							
Minimum Initial (s)	8.0	8.0	15.0			15.0	7.0
Minimum Split (s)	14.0	14.0	20.0			20.0	25.0
Total Split (s)	17.0	17.0	48.0			48.0	25.0
Total Split (%)	18.9%	18.9%	53.3%			53.3%	28%
Maximum Green (s)	11.0	11.0	43.0			43.0	21.0
Yellow Time (s)	3.0	3.0	3.0			3.0	2.0
All-Red Time (s)	3.0	3.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	
Total Lost Time (s)	6.0	6.0	5.0			5.0	
Lead/Lag			Lead			Lead	Lag
Lead-Lag Optimize?			Yes			Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0			3.0	3.0
Recall Mode	None	None	C-Max			C-Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							14.0
Pedestrian Calls (#/hr)							0
Act Effct Green (s)	15.4	15.4	63.6			63.6	
Actuated g/C Ratio	0.17	0.17	0.71			0.71	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
v/c Ratio	0.63	0.52	0.38			0.31	
Control Delay	45.4	9.0	6.1			5.6	
Queue Delay	0.0	0.0	0.0			0.0	
Total Delay	45.4	9.0	6.1			5.6	
LOS	D	A	A			A	
Approach Delay	24.2		6.1			5.6	
Approach LOS	C		A			A	
Queue Length 50th (ft)	85	0	84			62	
Queue Length 95th (ft)	68	0	118			93	
Internal Link Dist (ft)	166		263			778	
Turn Bay Length (ft)	30						
Base Capacity (vph)	257	435	3018			2989	
Starvation Cap Reductn	0	0	0			0	
Spillback Cap Reductn	0	0	0			0	
Storage Cap Reductn	0	0	0			0	
Reduced v/c Ratio	0.62	0.51	0.38			0.31	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 82 (91%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 38.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 15: Riverway & Short St Ext





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	75	105	1005	0	0	820
Future Volume (vph)	75	105	1005	0	0	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	10	10	10
Total Lost time (s)	6.0	6.0	5.0			5.0
Lane Util. Factor	1.00	1.00	0.91			0.91
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1490	1454	4272			4230
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1490	1454	4272			4230
Peak-hour factor, PHF	0.47	0.47	0.87	0.89	0.92	0.89
Adj. Flow (vph)	160	223	1155	0	0	921
RTOR Reduction (vph)	0	185	0	0	0	0
Lane Group Flow (vph)	160	38	1155	0	0	921
Heavy Vehicles (%)	9%	0%	2%	2%	2%	3%
Turn Type	Prot	Perm	NA			NA
Protected Phases	5		1			1
Permitted Phases		5				
Actuated Green, G (s)	15.4	15.4	63.6			63.6
Effective Green, g (s)	15.4	15.4	63.6			63.6
Actuated g/C Ratio	0.17	0.17	0.71			0.71
Clearance Time (s)	6.0	6.0	5.0			5.0
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Lane Grp Cap (vph)	254	248	3018			2989
v/s Ratio Prot	c0.11		c0.27			0.22
v/s Ratio Perm		0.03				
v/c Ratio	0.63	0.15	0.38			0.31
Uniform Delay, d1	34.7	31.8	5.3			4.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	3.5	0.1	0.4			0.3
Delay (s)	38.1	31.9	5.7			5.2
Level of Service	D	C	A			A
Approach Delay (s)	34.5		5.7			5.2
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	180
Future Volume (vph)	0	0	0	0	0	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	0	0	0	1676	1266	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1676	1266	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	246			134	562	
Travel Time (s)	6.7			3.7	15.3	
Confl. Peds. (#/hr)			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.47
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%
Parking (#/hr)					2	2
Adj. Flow (vph)	0	0	0	0	0	383
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	383	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.32	1.14
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	10.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	180
Future Vol, veh/h	0	0	0	0	0	180
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	47
Heavy Vehicles, %	2	2	2	2	2	4
Mvmt Flow	0	0	0	0	0	383

Major/Minor	Major1		Minor2	
Conflicting Flow All	5	0	5	10
Stage 1	-	-	5	-
Stage 2	-	-	0	-
Critical Hdwy	4.12	-	6.52	6.24
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.52	-
Follow-up Hdwy	2.218	-	4.018	3.336
Pot Cap-1 Maneuver	1616	-	890	1066
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %		-		
Mov Cap-1 Maneuver	1609	-	0	1057
Mov Cap-2 Maneuver	-	-	0	-
Stage 1	-	-	0	-
Stage 2	-	-	0	-

Approach	NB	SB
HCM Control Delay, s	0	10.3
HCM LOS		B

Minor Lane/Major Mvmt	NBL	NBT	SBLn1
Capacity (veh/h)	1609	-	1057
HCM Lane V/C Ratio	-	-	0.362
HCM Control Delay (s)	0	-	10.3
HCM Lane LOS	A	-	B
HCM 95th %tile Q(veh)	0	-	1.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	410	0	0	355	10	55	5	35	0	0	0
Future Volume (vph)	10	410	0	0	355	10	55	5	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	16	12	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.996			0.950				
Flt Protected		0.999						0.972				
Satd. Flow (prot)	0	1844	0	0	1846	0	0	1686	0	0	0	0
Flt Permitted		0.999						0.972				
Satd. Flow (perm)	0	1844	0	0	1846	0	0	1686	0	0	0	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			617			174			541	
Travel Time (s)		7.6			16.8			4.7			14.8	
Confl. Peds. (#/hr)	213		285	285		213	2		10	10		2
Confl. Bikes (#/hr)			114			5						
Peak Hour Factor	0.78	0.78	0.92	0.92	0.80	0.80	0.72	0.72	0.72	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	2%	2%	2%	20%	0%	0%	11%	2%	2%	2%
Adj. Flow (vph)	13	526	0	0	444	13	76	7	49	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	539	0	0	457	0	0	132	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.00	0.85
Turning Speed (mph)	60		9	15		60	15		9	60		9
Sign Control		Free			Free			Stop			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	410	0	0	355	10	55	5	35	0	0	0
Future Vol, veh/h	10	410	0	0	355	10	55	5	35	0	0	0
Conflicting Peds, #/hr	213	0	285	285	0	213	2	0	10	10	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	92	92	80	80	72	72	72	92	92	92
Heavy Vehicles, %	0	3	2	2	2	20	0	0	11	2	2	2
Mvmt Flow	13	526	0	0	444	13	76	7	49	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	670	0	-	-	-	0	1005	1222	536
Stage 1	-	-	-	-	-	-	552	552	-
Stage 2	-	-	-	-	-	-	453	670	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.399
Pot Cap-1 Maneuver	930	-	0	0	-	-	270	181	527
Stage 1	-	-	0	0	-	-	581	518	-
Stage 2	-	-	0	0	-	-	645	459	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	930	-	-	-	-	-	264	0	523
Mov Cap-2 Maneuver	-	-	-	-	-	-	264	0	-
Stage 1	-	-	-	-	-	-	569	0	-
Stage 2	-	-	-	-	-	-	644	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.2	0	23.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	327	930	-	-	-
HCM Lane V/C Ratio	0.403	0.014	-	-	-
HCM Control Delay (s)	23.3	8.9	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	1.9	0	-	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	15	990	0	0	895
Future Volume (vph)	10	15	990	0	0	895
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91
Ped Bike Factor						
Frt	0.919					
Flt Protected	0.980					
Satd. Flow (prot)	1836	0	5187	0	0	5136
Flt Permitted	0.980					
Satd. Flow (perm)	1836	0	5187	0	0	5136
Link Speed (mph)	25		25			25
Link Distance (ft)	541		510			343
Travel Time (s)	14.8		13.9			9.4
Confl. Peds. (#/hr)				9	9	
Peak Hour Factor	0.45	0.45	0.93	0.92	0.92	0.98
Heavy Vehicles (%)	14%	0%	0%	2%	2%	1%
Adj. Flow (vph)	22	33	1065	0	0	913
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	0	1065	0	0	913
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	15	990	0	0	895
Future Vol, veh/h	10	15	990	0	0	895
Conflicting Peds, #/hr	0	0	0	9	9	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	45	45	93	92	92	98
Heavy Vehicles, %	14	0	0	2	2	1
Mvmt Flow	22	33	1065	0	0	913

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1430	533	0	-	-	-
Stage 1	1065	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Critical Hdwy	5.98	7.1	-	-	-	-
Critical Hdwy Stg 1	6.88	-	-	-	-	-
Critical Hdwy Stg 2	6.28	-	-	-	-	-
Follow-up Hdwy	3.94	3.9	-	-	-	-
Pot Cap-1 Maneuver	168	425	-	0	0	-
Stage 1	202	-	-	0	0	-
Stage 2	586	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	168	425	-	-	-	-
Mov Cap-2 Maneuver	168	-	-	-	-	-
Stage 1	202	-	-	-	-	-
Stage 2	586	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.2	0	0
HCM LOS	C		

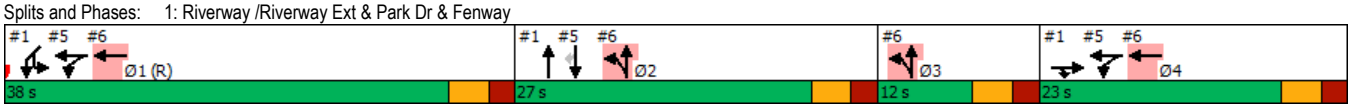
Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	264	-
HCM Lane V/C Ratio	-	0.21	-
HCM Control Delay (s)	-	22.2	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.8	-

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Lane Configurations						
Traffic Volume (vph)	340	465	485	140	570	
Future Volume (vph)	340	465	485	140	570	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	
Storage Length (ft)		120			0	
Storage Lanes		2			3	
Taper Length (ft)					25	
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97	
Ped Bike Factor	0.94			0.95	0.75	
Frt	0.953	0.850				
Flt Protected				0.950	0.950	
Satd. Flow (prot)	2707	1323	3249	1518	3120	
Flt Permitted				0.950	0.950	
Satd. Flow (perm)	2707	1323	3249	1449	2340	
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		25		25	
Link Distance (ft)	260		238		234	
Travel Time (s)	7.1		6.5		6.4	
Confl. Peds. (#/hr)		95		29	95	
Confl. Bikes (#/hr)		4				
Peak Hour Factor	0.91	0.91	0.94	0.92	0.92	
Heavy Vehicles (%)	5%	0%	0%	7%	1%	
Adj. Flow (vph)	374	511	516	152	620	
Shared Lane Traffic (%)		33%				
Lane Group Flow (vph)	543	342	516	152	620	
Enter Blocked Intersection	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	
Median Width(ft)	0		0		36	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.14	
Turning Speed (mph)		9		15	15	
Number of Detectors	1	1	1	1	1	
Detector Template						
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	50	50	50	50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Turn Type	NA	Prot	NA	Prot	Prot	
Protected Phases	4	4	2	1	1	3
Permitted Phases						
Detector Phase	4	4	2	1	1	
Switch Phase						
Minimum Initial (s)	8.0	8.0	8.0	15.0	15.0	5.0
Minimum Split (s)	22.0	22.0	27.0	24.0	24.0	10.0
Total Split (s)	23.0	23.0	27.0	38.0	38.0	12.0
Total Split (%)	23.0%	23.0%	27.0%	38.0%	38.0%	12%
Maximum Green (s)	18.0	18.0	22.0	33.0	33.0	7.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Ped	Ped	Ped	C-Max	C-Max	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	10.0	10.0	15.0	12.0	12.0	
Pedestrian Calls (#/hr)	53	53	78	13	13	
Act Effct Green (s)	19.0	19.0	23.0	34.0	34.0	
Actuated g/C Ratio	0.19	0.19	0.23	0.34	0.34	
v/c Ratio	1.06	1.36	0.69	0.29	0.58	
Control Delay	95.6	220.5	40.8	14.8	18.5	
Queue Delay	19.4	0.0	4.8	1.2	0.9	

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Total Delay	115.0	220.5	45.7	15.9	19.4	
LOS	F	F	D	B	B	
Approach Delay	155.8		45.7		18.7	
Approach LOS	F		D		B	
Queue Length 50th (ft)	~209	~317	159	72	168	
Queue Length 95th (ft)	#321	#508	217	126	224	
Internal Link Dist (ft)	180		158		154	
Turn Bay Length (ft)		120				
Base Capacity (vph)	514	251	747	516	1060	
Starvation Cap Reductn	0	0	0	190	205	
Spillback Cap Reductn	154	0	165	204	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	1.51	1.36	0.89	0.49	0.73	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.36			
Intersection Signal Delay: 80.9		Intersection LOS: F	
Intersection Capacity Utilization 60.7%		ICU Level of Service B	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Riverway /Riverway Ext & Park Dr & Fenway



Movement	EBT	EBR	NBT	SWL2	SWL
Lane Configurations					
Traffic Volume (vph)	340	465	485	140	570
Future Volume (vph)	340	465	485	140	570
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97
Frpb, ped/bikes	0.94	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00
Frt	0.95	0.85	1.00	1.00	1.00
Flt Protected	1.00	1.00	1.00	0.95	0.95
Satd. Flow (prot)	2708	1323	3249	1518	3120
Flt Permitted	1.00	1.00	1.00	0.95	0.95
Satd. Flow (perm)	2708	1323	3249	1518	3120
Peak-hour factor, PHF	0.91	0.91	0.94	0.92	0.92
Adj. Flow (vph)	374	511	516	152	620
RTOR Reduction (vph)	0	0	0	0	0
Lane Group Flow (vph)	543	342	516	152	620
Confl. Peds. (#/hr)		95		29	95
Confl. Bikes (#/hr)		4			
Heavy Vehicles (%)	5%	0%	0%	7%	1%
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	4	4	2	1	1
Permitted Phases					
Actuated Green, G (s)	18.0	18.0	22.0	33.0	33.0
Effective Green, g (s)	19.0	19.0	23.0	34.0	34.0
Actuated g/C Ratio	0.19	0.19	0.23	0.34	0.34
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	514	251	747	516	1060
v/s Ratio Prot	0.20	c0.26	c0.16	0.10	c0.20
v/s Ratio Perm					
v/c Ratio	1.06	1.36	0.69	0.29	0.58
Uniform Delay, d1	40.5	40.5	35.2	24.2	27.2
Progression Factor	1.00	1.00	1.00	0.54	0.59
Incremental Delay, d2	55.4	186.7	2.2	1.3	2.2
Delay (s)	95.9	227.2	37.5	14.5	18.3
Level of Service	F	F	D	B	B
Approach Delay (s)	146.7		37.5		17.5
Approach LOS	F		D		B

Intersection Summary			
HCM 2000 Control Delay	74.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	480	0	0	0	0	500
Future Volume (vph)	480	0	0	0	0	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	12	12	12	12
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3269	0	0	0	0	2484
Flt Permitted						
Satd. Flow (perm)	3269	0	0	0	0	2484
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	196			385	251	
Travel Time (s)	5.3			10.5	6.8	
Peak Hour Factor	0.90	0.92	0.92	0.92	0.92	0.91
Heavy Vehicles (%)	6%	2%	2%	2%	2%	3%
Adj. Flow (vph)	533	0	0	0	0	549
Shared Lane Traffic (%)						
Lane Group Flow (vph)	533	0	0	0	0	549
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	1.14	1.14	1.14	1.14
Turning Speed (mph)		9	15		15	9
Number of Detectors	1					1
Detector Template						
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Detector 1 Position(ft)	0					0
Detector 1 Size(ft)	50					50
Detector 1 Type	Cl+Ex					Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0					0.0
Detector 1 Queue (s)	0.0					0.0
Detector 1 Delay (s)	0.0					0.0
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Detector Phase	1					2
Switch Phase						
Minimum Initial (s)	10.0					6.0
Minimum Split (s)	25.0					29.0
Total Split (s)	65.0					35.0
Total Split (%)	65.0%					35.0%
Maximum Green (s)	60.0					30.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
Lost Time Adjust (s)	-1.0					-1.0
Total Lost Time (s)	4.0					4.0
Lead/Lag	Lead					Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0					2.0
Recall Mode	C-Max					Max
Walk Time (s)	10.0					10.0
Flash Dont Walk (s)	10.0					14.0
Pedestrian Calls (#/hr)	0					0
Act Effct Green (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
v/c Ratio	0.27					0.71
Control Delay	21.0					36.7
Queue Delay	55.3					0.0
Total Delay	76.3					36.7
LOS	E					D
Approach Delay	76.3				36.7	
Approach LOS	E				D	
Queue Length 50th (ft)	183					175

Lane Group	SET	SER	NWL	NWT	NEL	NER
Queue Length 95th (ft)	m191					243
Internal Link Dist (ft)	116			305	171	
Turn Bay Length (ft)						
Base Capacity (vph)	1994					770
Starvation Cap Reductn	1530					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	1.15					0.71

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 25 (25%), Referenced to phase 1:SET, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 56.2		Intersection LOS: E	
Intersection Capacity Utilization 40.8%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverway & Fenway



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	480	0	0	0	0	500
Future Volume (vph)	480	0	0	0	0	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	14	14	12	12	12	12
Total Lost time (s)	4.0					4.0
Lane Util. Factor	0.95					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	3269					2484
Flt Permitted	1.00					1.00
Satd. Flow (perm)	3269					2484
Peak-hour factor, PHF	0.90	0.92	0.92	0.92	0.92	0.91
Adj. Flow (vph)	533	0	0	0	0	549
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	533	0	0	0	0	549
Heavy Vehicles (%)	6%	2%	2%	2%	2%	3%
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Actuated Green, G (s)	60.0					30.0
Effective Green, g (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
Clearance Time (s)	5.0					5.0
Vehicle Extension (s)	2.0					2.0
Lane Grp Cap (vph)	1994					770
v/s Ratio Prot	c0.16					c0.22
v/s Ratio Perm						
v/c Ratio	0.27					0.71
Uniform Delay, d1	9.1					30.6
Progression Factor	2.27					1.00
Incremental Delay, d2	0.2					5.6
Delay (s)	20.8					36.1
Level of Service	C					D
Approach Delay (s)	20.8			0.0	36.1	
Approach LOS	C			A	D	

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	400	450	130	0	0	0	0	675	50	0	885	0
Future Volume (vph)	400	450	130	0	0	0	0	675	50	0	885	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00	1.00						0.98				
Frt			0.850					0.990				
Flt Protected	0.950	0.988										
Satd. Flow (prot)	1387	2823	1338	0	0	0	0	2874	0	0	2935	0
Flt Permitted	0.950	0.988										
Satd. Flow (perm)	1386	2823	1338	0	0	0	0	2874	0	0	2935	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)			70									
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			672			160			269	
Travel Time (s)		10.5			18.3			4.4			7.3	
Confl. Peds. (#/hr)	1		3						343			
Confl. Bikes (#/hr)			4						14			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.88	0.88	0.92	0.77	0.92
Heavy Vehicles (%)	3%	6%	5%	2%	2%	2%	2%	6%	4%	2%	7%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	12	0	0	0
Adj. Flow (vph)	440	495	143	0	0	0	0	767	57	0	1149	0
Shared Lane Traffic (%)	36%											
Lane Group Flow (vph)	282	653	143	0	0	0	0	824	0	0	1149	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.19	1.19	1.19	1.14	1.14	1.14	1.19	1.19	1.19	1.19	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1			1	
Detector Template												
Leading Detector (ft)	50	50	50					50			50	
Trailing Detector (ft)	0	0	0					0			0	
Detector 1 Position(ft)	0	0	0					0			0	
Detector 1 Size(ft)	50	50	50					50			50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0			0.0	
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Detector Phase	1	1	1					3			3	
Switch Phase												
Minimum Initial (s)	35.0	35.0	35.0					44.0			44.0	
Minimum Split (s)	40.0	40.0	40.0					49.0			49.0	
Total Split (s)	48.0	48.0	48.0					72.0			72.0	
Total Split (%)	40.0%	40.0%	40.0%					60.0%			60.0%	
Maximum Green (s)	43.0	43.0	43.0					67.0			67.0	
Yellow Time (s)	3.0	3.0	3.0					3.0			3.0	
All-Red Time (s)	2.0	2.0	2.0					2.0			2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	5.0	5.0	5.0					5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Recall Mode	C-Max	C-Max	C-Max					Max			Max	
Walk Time (s)	13.0	13.0	13.0					20.0			20.0	
Flash Dont Walk (s)	16.0	16.0	16.0					21.0			21.0	
Pedestrian Calls (#/hr)	1	1	1					133			133	
Act Effct Green (s)	43.0	43.0	43.0					67.0			67.0	
Actuated g/C Ratio	0.36	0.36	0.36					0.56			0.56	
v/c Ratio	0.57	0.65	0.27					0.51			0.70	
Control Delay	36.5	35.7	15.6					6.8			20.6	
Queue Delay	2.1	2.1	0.0					0.0			49.8	
Total Delay	38.5	37.8	15.6					6.9			70.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	D	B					A			E	
Approach Delay		35.1						6.9			70.4	
Approach LOS		D						A			E	
Queue Length 50th (ft)	192	230	38					103			380	
Queue Length 95th (ft)	294	300	89					90			343	
Internal Link Dist (ft)		305			592			80			189	
Turn Bay Length (ft)												
Base Capacity (vph)	497	1011	524					1604			1638	
Starvation Cap Reductn	106	218	0					0			685	
Spillback Cap Reductn	0	0	0					55			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.72	0.82	0.27					0.53			1.21	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 80 (67%), Referenced to phase 1:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 40.8		Intersection LOS: D	
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Brookline Ave & Fenway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	400	450	130	0	0	0	0	675	50	0	885	0
Future Volume (vph)	400	450	130	0	0	0	0	675	50	0	885	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0					5.0			5.0	
Lane Util. Factor	0.91	0.91	1.00					0.95			0.95	
Frpb, ped/bikes	1.00	1.00	1.00					0.98			1.00	
Flpb, ped/bikes	1.00	1.00	1.00					1.00			1.00	
Frt	1.00	1.00	0.85					0.99			1.00	
Flt Protected	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (prot)	1387	2824	1338					2873			2935	
Flt Permitted	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (perm)	1387	2824	1338					2873			2935	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.88	0.88	0.92	0.77	0.92
Adj. Flow (vph)	440	495	143	0	0	0	0	767	57	0	1149	0
RTOR Reduction (vph)	0	0	45	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	282	653	98	0	0	0	0	824	0	0	1149	0
Confl. Peds. (#/hr)	1		3						343			
Confl. Bikes (#/hr)			4						14			
Heavy Vehicles (%)	3%	6%	5%	2%	2%	2%	2%	6%	4%	2%	7%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	12	0	0	0
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Actuated Green, G (s)	43.0	43.0	43.0					67.0			67.0	
Effective Green, g (s)	43.0	43.0	43.0					67.0			67.0	
Actuated g/C Ratio	0.36	0.36	0.36					0.56			0.56	
Clearance Time (s)	5.0	5.0	5.0					5.0			5.0	
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Lane Grp Cap (vph)	497	1011	479					1604			1638	
v/s Ratio Prot	0.20	c0.23	0.07					0.29			c0.39	
v/s Ratio Perm												
v/c Ratio	0.57	0.65	0.20					0.51			0.70	
Uniform Delay, d1	31.0	32.1	26.7					16.4			19.2	
Progression Factor	1.00	1.00	1.00					0.35			0.97	
Incremental Delay, d2	4.6	3.2	1.0					1.0			1.6	
Delay (s)	35.6	35.3	27.6					6.7			20.2	
Level of Service	D	D	C					A			C	
Approach Delay (s)		34.4			0.0			6.7			20.2	
Approach LOS		C			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	21.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	220	590	70	90	95	220	760	220	200	445	250	10
Future Volume (vph)	220	590	70	90	95	220	760	220	200	445	250	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		150		0		0		165	0	280	
Storage Lanes	1		1		1		2		1	2	0	
Taper Length (ft)	25				25					25		
Lane Util. Factor	0.91	0.91	1.00	0.91	1.00	1.00	0.88	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor		0.99			0.83			0.85		0.70		
Frt			0.850				0.850	0.929		0.945		
Flt Protected		0.987			0.950					0.969		
Satd. Flow (prot)	0	4458	1385	0	1547	1513	2508	2396	0	2129	0	0
Flt Permitted		0.987			0.950					0.969		
Satd. Flow (perm)	0	4397	1385	0	1287	1513	2508	2396	0	2080	0	0
Right Turn on Red				Yes					Yes			Yes
Satd. Flow (RTOR)			132					174		141		
Link Speed (mph)		25				25		25		25		
Link Distance (ft)		563				269		1590		1367		
Travel Time (s)		15.4				7.3		43.4		37.3		
Confl. Peds. (#/hr)	33		270	346	202		415		202	33	202	270
Confl. Bikes (#/hr)			2	2			15		3		3	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	7%	2%	10%	1%	5%	13%	2%	8%	5%	3%	2%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	10	0	0	0
Adj. Flow (vph)	239	641	76	98	109	253	874	239	217	506	284	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	880	174	0	109	253	874	456	0	801	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Right	Left	Right	Left	Right	Right
Median Width(ft)		0				12		12		24		
Link Offset(ft)		0				0		0		0		
Crosswalk Width(ft)		16				16		16		16		
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	9	15		9		9	15	9	9
Number of Detectors	1	1	1		1	1	1	1		1		
Detector Template												
Leading Detector (ft)	50	50	50		50	50	50	50		50		
Trailing Detector (ft)	0	0	0		0	0	0	0		0		
Detector 1 Position(ft)	0	0	0		0	0	0	0		0		
Detector 1 Size(ft)	50	50	50		50	50	50	50		50		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Detector Phase	4	4	4		3	2 3	1 2 3	2		1		
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		6.0			8.0		10.0		
Minimum Split (s)	30.5	30.5	30.5		12.0			24.5		22.0		
Total Split (s)	32.0	32.0	32.0		15.0			29.0		44.0		
Total Split (%)	26.7%	26.7%	26.7%		12.5%			24.2%		36.7%		
Maximum Green (s)	25.0	25.0	25.0		9.0			23.5		38.0		
Yellow Time (s)	3.5	3.5	3.5		3.5			3.5		3.5		
All-Red Time (s)	3.5	3.5	3.5		2.5			2.0		2.5		
Lost Time Adjust (s)		-2.0	-2.0		-2.0			-1.0		-2.0		
Total Lost Time (s)		5.0	5.0		4.0			4.5		4.0		
Lead/Lag					Lag			Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0		2.0			2.0		2.0		
Recall Mode	Ped	Ped	Ped		Max			Ped		C-Max		
Walk Time (s)	7.0	7.0	7.0					7.0		7.0		
Flash Dont Walk (s)	16.5	16.5	16.5					12.0		9.0		
Pedestrian Calls (#/hr)	223	223	223					154		68		
Act Effct Green (s)		26.7	26.7		12.6	39.5	84.3	22.9		40.3		
Actuated g/C Ratio		0.22	0.22		0.10	0.33	0.70	0.19		0.34		
v/c Ratio		0.89	0.42		0.68	0.51	0.50	0.76		0.99		
Control Delay		56.9	15.0		71.4	35.0	7.8	36.9		63.0		

Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Queue Delay		0.0	0.0		0.0	5.0	0.3	0.7		40.9		
Total Delay		56.9	15.0		71.4	39.9	8.1	37.6		103.9		
LOS		E	B		E	D	A	D		F		
Approach Delay		50.0				20.2		37.6		103.9		
Approach LOS		D				C		D		F		
Queue Length 50th (ft)		242	26		90	174	141	108		275		
Queue Length 95th (ft)		#313	92		m#175	263	163	172		#399		
Internal Link Dist (ft)		483				189		1510		1287		
Turn Bay Length (ft)			150									
Base Capacity (vph)		1003	413		161	495	1757	627		807		
Starvation Cap Reductn		0	0		0	176	353	0		0		
Spillback Cap Reductn		0	0		0	0	0	34		398		
Storage Cap Reductn		0	0		0	0	0	0		0		
Reduced v/c Ratio		0.88	0.42		0.68	0.79	0.62	0.77		1.96		

Intersection Summary

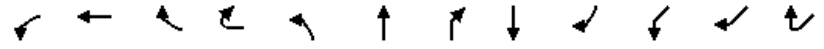
Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 113 (94%), Referenced to phase 1:SWL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 50.2 Intersection LOS: D
Intersection Capacity Utilization 83.9% ICU Level of Service E
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Brookline Ave & Park Dr & Boylston St





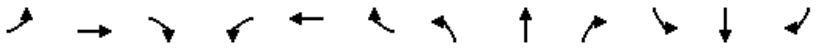
Movement	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	220	590	70	90	95	220	760	220	200	445	250	10
Future Volume (vph)	220	590	70	90	95	220	760	220	200	445	250	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		4.0	4.5	4.0	4.5		4.0		
Lane Util. Factor		0.91	1.00		1.00	1.00	0.88	0.95		0.97		
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	0.85		0.72		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00		
Frt		1.00	0.85		1.00	1.00	0.85	0.93		0.94		
Flt Protected		0.99	1.00		0.95	1.00	1.00	1.00		0.97		
Satd. Flow (prot)		4456	1385		1547	1513	2508	2395		2129		
Flt Permitted		0.99	1.00		0.95	1.00	1.00	1.00		0.97		
Satd. Flow (perm)		4456	1385		1547	1513	2508	2395		2129		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	239	641	76	98	109	253	874	239	217	506	284	11
RTOR Reduction (vph)	0	0	103	0	0	0	0	141	0	94	0	0
Lane Group Flow (vph)	0	880	71	0	109	253	874	315	0	707	0	0
Confl. Peds. (#/hr)	33		270	346	202		415		202	33	202	270
Confl. Bikes (#/hr)			2	2			15		3		3	3
Heavy Vehicles (%)	7%	2%	10%	1%	5%	13%	2%	8%	5%	3%	2%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	10	0	0	0
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Actuated Green, G (s)		24.7	24.7		10.6	38.0	82.3	21.9		38.3		
Effective Green, g (s)		26.7	26.7		12.6	39.0	80.8	22.9		40.3		
Actuated g/C Ratio		0.22	0.22		0.10	0.32	0.67	0.19		0.34		
Clearance Time (s)		7.0	7.0		6.0			5.5		6.0		
Vehicle Extension (s)		2.0	2.0		2.0			2.0		2.0		
Lane Grp Cap (vph)		991	308		162	491	1688	457		714		
v/s Ratio Prot		c0.20	0.05		c0.07	0.17	0.35	c0.13		c0.33		
v/s Ratio Perm												
v/c Ratio		0.89	0.23		0.67	0.52	0.52	0.69		0.99		
Uniform Delay, d1		45.2	38.2		51.7	32.8	9.8	45.2		39.7		
Progression Factor		1.00	1.00		1.01	0.96	0.83	1.00		1.00		
Incremental Delay, d2		9.5	0.1		17.5	0.3	0.1	3.5		31.5		
Delay (s)		54.7	38.4		69.5	31.9	8.2	48.7		71.2		
Level of Service		D	D		E	C	A	D		E		
Approach Delay (s)		52.0				18.5		48.7		71.2		
Approach LOS		D				B		D		E		

Intersection Summary			
HCM 2000 Control Delay	44.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



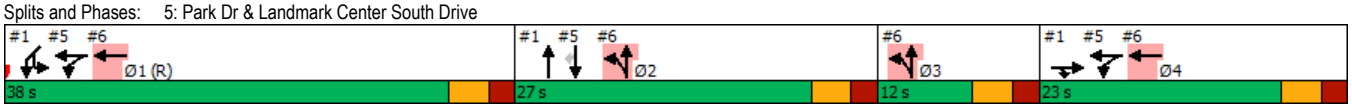
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Lane Configurations															
Traffic Volume (vph)	0	0	0	695	415	25	0	0	0	0	15	10			
Future Volume (vph)	0	0	0	695	415	25	0	0	0	0	15	10			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.95	1.00	1.00	1.00	1.00	1.00	1.00			
Ped Bike Factor					0.97										
Frt					0.992							0.850			
Flt Protected				0.950	0.997										
Satd. Flow (prot)	0	0	0	2739	2708	0	0	0	0	0	1513	1286			
Flt Permitted				0.950	0.997										
Satd. Flow (perm)	0	0	0	2739	2708	0	0	0	0	0	1513	1286			
Right Turn on Red			No	No		Yes			No			Yes			
Satd. Flow (RTOR)					9							131			
Link Speed (mph)		25			25			25			25				
Link Distance (ft)		187			355			234			168				
Travel Time (s)		5.1			9.7			6.4			4.6				
Confl. Peds. (#/hr)						238									
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.67	0.67			
Heavy Vehicles (%)	2%	2%	2%	2%	4%	12%	2%	2%	2%	2%	13%	13%			
Adj. Flow (vph)	0	0	0	739	441	27	0	0	0	0	22	15			
Shared Lane Traffic (%)				4%											
Lane Group Flow (vph)	0	0	0	709	498	0	0	0	0	0	22	15			
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No			
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right			
Median Width(ft)		24			24			0			0				
Link Offset(ft)		0			0			0			0				
Crosswalk Width(ft)		16			16			16			16				
Two way Left Turn Lane															
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14			
Turning Speed (mph)	15		9	15		9	15		9	15		9			
Number of Detectors				1	1						1	1			
Detector Template															
Leading Detector (ft)				50	50						50	50			
Trailing Detector (ft)				0	0						0	0			
Detector 1 Position(ft)				0	0						0	0			
Detector 1 Size(ft)				50	50						50	50			
Detector 1 Type				Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex			
Detector 1 Channel															
Detector 1 Extend (s)				0.0	0.0						0.0	0.0			
Detector 1 Queue (s)				0.0	0.0						0.0	0.0			
Detector 1 Delay (s)				0.0	0.0						0.0	0.0			
Turn Type				Split	NA						NA	Perm			
Protected Phases				1 4	1 4						2		1	3	4
Permitted Phases												2			
Detector Phase				1 4	1 4						2	2			
Switch Phase															
Minimum Initial (s)											8.0	8.0	15.0	5.0	8.0
Minimum Split (s)											27.0	27.0	24.0	10.0	22.0
Total Split (s)											27.0	27.0	38.0	12.0	23.0
Total Split (%)											27.0%	27.0%	38%	12%	23%
Maximum Green (s)											22.0	22.0	33.0	7.0	18.0
Yellow Time (s)											3.0	3.0	3.0	3.0	3.0
All-Red Time (s)											2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)											-1.0	-1.0			
Total Lost Time (s)											4.0	4.0			
Lead/Lag											Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?															
Vehicle Extension (s)											2.0	2.0	2.0	2.0	2.0
Recall Mode											Ped	Ped	C-Max	None	Ped
Walk Time (s)											7.0	7.0	7.0		7.0
Flash Dont Walk (s)											15.0	15.0	12.0		10.0
Pedestrian Calls (#/hr)											78	78	13		53
Act Effct Green (s)				57.0	57.0						23.0	23.0			
Actuated g/C Ratio				0.57	0.57						0.23	0.23			
v/c Ratio				0.45	0.32						0.06	0.04			
Control Delay				13.7	11.8						30.9	0.2			
Queue Delay				1.0	0.1						0.0	0.0			
Total Delay				14.6	11.9						30.9	0.2			
LOS				B	B						C	A			
Approach Delay					13.5						18.4				
Approach LOS					B						B				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Queue Length 50th (ft)				143	89						11	0			
Queue Length 95th (ft)				191	124						23	0			
Internal Link Dist (ft)		107			275			154			88				
Turn Bay Length (ft)															
Base Capacity (vph)				1561	1547						347	396			
Starvation Cap Reductn				551	0						0	0			
Spillback Cap Reductn				229	169						0	0			
Storage Cap Reductn				0	0						0	0			
Reduced v/c Ratio				0.70	0.36						0.06	0.04			

Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.36	
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 31.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Park Dr & Landmark Center South Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	695	415	25	0	0	0	0	15	10
Future Volume (vph)	0	0	0	695	415	25	0	0	0	0	15	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						1.00	1.00
Frpb, ped/bikes				1.00	0.97						1.00	1.00
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	0.99						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				2739	2707						1513	1286
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				2739	2707						1513	1286
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.67	0.67
Adj. Flow (vph)	0	0	0	739	441	27	0	0	0	0	22	15
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	0	12
Lane Group Flow (vph)	0	0	0	709	494	0	0	0	0	0	22	3
Confl. Peds. (#/hr)						238						
Heavy Vehicles (%)	2%	2%	2%	2%	4%	12%	2%	2%	2%	2%	13%	13%
Turn Type				Split	NA						NA	Perm
Protected Phases				1 4	1 4						2	
Permitted Phases												2
Actuated Green, G (s)				56.0	56.0						22.0	22.0
Effective Green, g (s)				57.0	57.0						23.0	23.0
Actuated g/C Ratio				0.57	0.57						0.23	0.23
Clearance Time (s)											5.0	5.0
Vehicle Extension (s)											2.0	2.0
Lane Grp Cap (vph)				1561	1542						347	295
v/s Ratio Prot				c0.26	0.18						c0.01	
v/s Ratio Perm												0.00
v/c Ratio				0.45	0.32						0.06	0.01
Uniform Delay, d1				12.5	11.3						30.1	29.7
Progression Factor				1.00	1.00						1.00	1.00
Incremental Delay, d2				0.1	0.0						0.0	0.0
Delay (s)				12.6	11.4						30.1	29.7
Level of Service				B	B						C	C
Approach Delay (s)		0.0			12.1			0.0			30.0	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	31.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



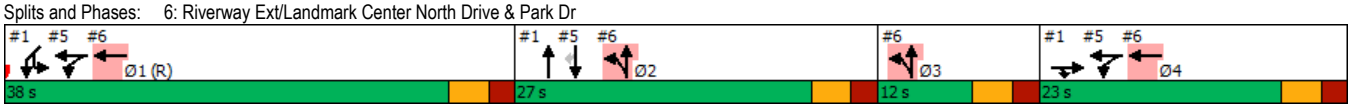
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Lane Configurations																
Traffic Volume (vph)	0	0	0	0	425	0	485	0	0	0	0	0				
Future Volume (vph)	0	0	0	0	425	0	485	0	0	0	0	0				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00				
Ped Bike Factor																
Frt																
Flt Protected							0.950	0.950								
Satd. Flow (prot)	0	0	0	0	3154	0	1528	1528	0	0	0	0				
Flt Permitted							0.950	0.950								
Satd. Flow (perm)	0	0	0	0	3154	0	1528	1528	0	0	0	0				
Right Turn on Red			No			Yes	No		Yes			Yes				
Satd. Flow (RTOR)																
Link Speed (mph)		25			25			25			25					
Link Distance (ft)		135			187			191			124					
Travel Time (s)		3.7			5.1			5.2			3.4					
Confl. Bikes (#/hr)						11										
Peak Hour Factor	0.92	0.92	0.92	0.92	0.94	0.94	0.93	0.93	0.92	0.92	0.92	0.92				
Heavy Vehicles (%)	2%	2%	2%	2%	3%	0%	1%	0%	2%	2%	2%	2%				
Adj. Flow (vph)	0	0	0	0	452	0	522	0	0	0	0	0				
Shared Lane Traffic (%)							10%									
Lane Group Flow (vph)	0	0	0	0	452	0	470	52	0	0	0	0				
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No				
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right				
Median Width(ft)		0			0			12			12					
Link Offset(ft)		0			0			0			0					
Crosswalk Width(ft)		16			16			16			16					
Two way Left Turn Lane																
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Turning Speed (mph)	15		9	15		9	15		9	15		9				
Number of Detectors					1		1	2								
Detector Template								Thru								
Leading Detector (ft)					50		50	100								
Trailing Detector (ft)					0		0	0								
Detector 1 Position(ft)					0		0	0								
Detector 1 Size(ft)					50		50	6								
Detector 1 Type					Cl+Ex		Cl+Ex	Cl+Ex								
Detector 1 Channel																
Detector 1 Extend (s)					0.0		0.0	0.0								
Detector 1 Queue (s)					0.0		0.0	0.0								
Detector 1 Delay (s)					0.0		0.0	0.0								
Detector 2 Position(ft)								94								
Detector 2 Size(ft)								6								
Detector 2 Type								Cl+Ex								
Detector 2 Channel																
Detector 2 Extend (s)								0.0								
Turn Type					NA		Split	NA								
Protected Phases					1 4		2 3	2 3					1	2	3	4
Permitted Phases																
Detector Phase					1 4		2 3	2 3								
Switch Phase																
Minimum Initial (s)													15.0	8.0	5.0	8.0
Minimum Split (s)													24.0	27.0	10.0	22.0
Total Split (s)													38.0	27.0	12.0	23.0
Total Split (%)													38%	27%	12%	23%
Maximum Green (s)													33.0	22.0	7.0	18.0
Yellow Time (s)													3.0	3.0	3.0	3.0
All-Red Time (s)													2.0	2.0	2.0	2.0
Lost Time Adjust (s)																
Total Lost Time (s)																
Lead/Lag													Lead	Lag	Lead	Lag
Lead-Lag Optimize?																
Vehicle Extension (s)													2.0	2.0	2.0	2.0
Recall Mode													C-Max	Ped	None	Ped
Walk Time (s)													7.0	7.0		7.0
Flash Dont Walk (s)													12.0	15.0		10.0
Pedestrian Calls (#/hr)													13	78		53
Act Effct Green (s)					57.0		35.0	34.0								
Actuated g/C Ratio					0.57		0.35	0.34								
v/c Ratio					0.25		0.88	0.10								
Control Delay					2.8		27.8	0.5								

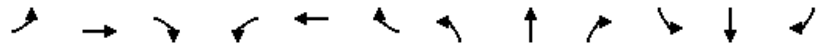
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Queue Delay					0.3		46.8	0.0								
Total Delay					3.1		74.6	0.5								
LOS					A		E	A								
Approach Delay					3.1			67.2								
Approach LOS					A			E								
Queue Length 50th (ft)					11		178	0								
Queue Length 95th (ft)					14		#510	m0								
Internal Link Dist (ft)		55			107			111			44					
Turn Bay Length (ft)																
Base Capacity (vph)					1797		534	519								
Starvation Cap Reductn					770		104	0								
Spillback Cap Reductn					0		0	0								
Storage Cap Reductn					0		0	0								
Reduced v/c Ratio					0.44		1.09	0.10								

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.36			
Intersection Signal Delay: 37.5		Intersection LOS: D	
Intersection Capacity Utilization 35.5%		ICU Level of Service A	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Riverway Ext/Landmark Center North Drive & Park Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	425	0	485	0	0	0	0	0
Future Volume (vph)	0	0	0	0	425	0	485	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	5.0				
Lane Util. Factor					0.95		0.95	0.95				
Frpb, ped/bikes					1.00		1.00	1.00				
Flpb, ped/bikes					1.00		1.00	1.00				
Frt					1.00		1.00	1.00				
Flt Protected					1.00		0.95	0.95				
Satd. Flow (prot)					3154		1528	1528				
Flt Permitted					1.00		0.95	0.95				
Satd. Flow (perm)					3154		1528	1528				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.94	0.94	0.93	0.93	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	452	0	522	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	452	0	470	52	0	0	0	0
Confl. Bikes (#/hr)						11						
Heavy Vehicles (%)	2%	2%	2%	2%	3%	0%	1%	0%	2%	2%	2%	2%
Turn Type					NA		Split	NA				
Protected Phases					1 4		2 3	2 3				
Permitted Phases												
Actuated Green, G (s)					56.0		34.0	34.0				
Effective Green, g (s)					57.0		35.0	34.0				
Actuated g/C Ratio					0.57		0.35	0.34				
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)					1797		534	519				
v/s Ratio Prot					c0.14		c0.31	0.03				
v/s Ratio Perm												
v/c Ratio					0.25		0.88	0.10				
Uniform Delay, d1					10.8		30.5	22.5				
Progression Factor					0.23		0.37	0.01				
Incremental Delay, d2					0.0		11.5	0.0				
Delay (s)					2.5		23.0	0.3				
Level of Service					A		C	A				
Approach Delay (s)		0.0			2.5			20.7			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	725	955	60
Future Volume (vph)	0	0	0	725	955	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	11	11	11	16
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						
Frt					0.991	
Flt Protected						
Satd. Flow (prot)	0	0	0	2963	2969	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	2963	2969	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	540			1044	160	
Travel Time (s)	14.7			28.5	4.4	
Confl. Peds. (#/hr)			190			190
Confl. Bikes (#/hr)						2
Peak Hour Factor	0.92	0.92	0.88	0.88	0.94	0.94
Heavy Vehicles (%)	2%	2%	0%	6%	5%	2%
Adj. Flow (vph)	0	0	0	824	1016	64
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	824	1080	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.19	1.19	1.19	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	725	955	60
Future Volume (Veh/h)	0	0	0	725	955	60
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.88	0.88	0.94	0.94
Hourly flow rate (vph)	0	0	0	824	1016	64
Pedestrians	190					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1044	160	
pX, platoon unblocked	0.79	0.73	0.73			
vC, conflicting volume	1650	730	1270			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	662	0	641			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	311	795	699			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	275	549	677	403
Volume Left	0	0	0	0
Volume Right	0	0	0	64
cSH	699	1700	1700	1700
Volume to Capacity	0.00	0.32	0.40	0.24
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

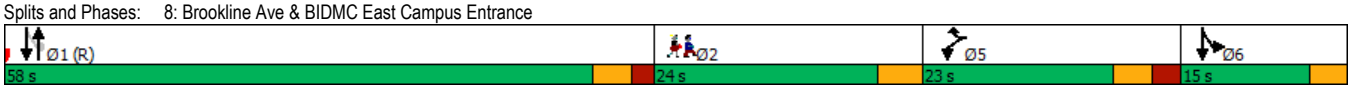
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	100	85	625	75	60	810	
Future Volume (vph)	100	85	625	75	60	810	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	10	10	10	10	10	
Storage Length (ft)	0	0		0	25		
Storage Lanes	1	1		0	1		
Taper Length (ft)	0				0		
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95	
Ped Bike Factor			1.00				
Frt		0.850	0.984				
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1486	1268	2762	0	1516	2775	
Flt Permitted	0.950				0.244		
Satd. Flow (perm)	1486	1268	2762	0	389	2775	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		109	14				
Link Speed (mph)	25		25			25	
Link Distance (ft)	171		594			1044	
Travel Time (s)	4.7		16.2			28.5	
Confl. Bikes (#/hr)				15			
Peak Hour Factor	0.78	0.78	0.81	0.81	0.94	0.94	
Heavy Vehicles (%)	2%	7%	7%	13%	0%	6%	
Bus Blockages (#/hr)	0	0	0	0	0	15	
Adj. Flow (vph)	128	109	772	93	64	862	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	128	109	865	0	64	862	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	10		10			10	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.25	1.25	1.25	1.25	1.25	1.30	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	1		1	1	
Detector Template							
Leading Detector (ft)	50	50	50		50	50	
Trailing Detector (ft)	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0		0	0	
Detector 1 Size(ft)	50	50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	
Turn Type	Prot	Prot	NA		D.P+P	NA	
Protected Phases	5	5	1		6	1 6	2
Permitted Phases					1		
Detector Phase	5	5	1		6	1 6	
Switch Phase							
Minimum Initial (s)	8.0	8.0	10.0		6.0		8.0
Minimum Split (s)	14.0	14.0	15.5		9.5		24.0
Total Split (s)	23.0	23.0	58.0		15.0		24.0
Total Split (%)	19.2%	19.2%	48.3%		12.5%		20%
Maximum Green (s)	17.0	17.0	52.5		11.5		20.0
Yellow Time (s)	3.5	3.5	3.5		3.5		4.0
All-Red Time (s)	2.5	2.5	2.0		0.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	6.0	6.0	5.5		3.5		
Lead/Lag	Lead	Lead	Lead		Lag		Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0
Recall Mode	None	None	C-Max		None		None
Walk Time (s)							7.0
Flash Dont Walk (s)							13.0
Pedestrian Calls (#/hr)							71
Act Effct Green (s)	14.3	14.3	60.0		73.5	75.0	
Actuated g/C Ratio	0.12	0.12	0.50		0.61	0.62	
v/c Ratio	0.72	0.44	0.62		0.19	0.50	
Control Delay	73.1	14.4	19.9		13.2	22.2	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	73.1	14.4	19.9		13.2	22.2	
LOS	E	B	B		B	C	
Approach Delay	46.1		19.9			21.6	
Approach LOS	D		B			C	
Queue Length 50th (ft)	96	0	201		32	347	
Queue Length 95th (ft)	137	34	255		m43	410	
Internal Link Dist (ft)	91		514			964	
Turn Bay Length (ft)					25		
Base Capacity (vph)	210	273	1387		345	1733	
Starvation Cap Reductn	0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.61	0.40	0.62		0.19	0.50	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 91 (76%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 46.4%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Brookline Ave & BIDMC East Campus Entrance





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	100	85	625	75	60	810
Future Volume (vph)	100	85	625	75	60	810
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0	5.5		3.5	5.5
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1486	1268	2762		1516	2775
Flt Permitted	0.95	1.00	1.00		0.24	1.00
Satd. Flow (perm)	1486	1268	2762		390	2775
Peak-hour factor, PHF	0.78	0.78	0.81	0.81	0.94	0.94
Adj. Flow (vph)	128	109	772	93	64	862
RTOR Reduction (vph)	0	96	7	0	0	0
Lane Group Flow (vph)	128	13	858	0	64	862
Confl. Bikes (#/hr)				15		
Heavy Vehicles (%)	2%	7%	7%	13%	0%	6%
Bus Blockages (#/hr)	0	0	0	0	0	15
Turn Type	Prot	Prot	NA		D.P+P	NA
Protected Phases	5	5	1		6	1 6
Permitted Phases					1	
Actuated Green, G (s)	14.3	14.3	59.2		70.7	74.2
Effective Green, g (s)	14.3	14.3	59.2		70.7	70.7
Actuated g/C Ratio	0.12	0.12	0.49		0.59	0.59
Clearance Time (s)	6.0	6.0	5.5		3.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	177	151	1362		337	1634
v/s Ratio Prot	c0.09	0.01	c0.31		0.02	c0.31
v/s Ratio Perm					0.09	
v/c Ratio	0.72	0.09	0.63		0.19	0.53
Uniform Delay, d1	50.9	47.0	22.3		11.7	14.7
Progression Factor	1.00	1.00	0.76		1.14	1.49
Incremental Delay, d2	13.6	0.2	1.7		0.2	0.2
Delay (s)	64.5	47.3	18.7		13.5	22.1
Level of Service	E	D	B		B	C
Approach Delay (s)	56.6		18.7			21.5
Approach LOS	E		B			C

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	70	150	45	160	180	230	25	490	75	200	525	85	
Future Volume (vph)	70	150	45	160	180	230	25	490	75	200	525	85	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	10	10	10	10	10	10	10	10	
Storage Length (ft)	170		0	155		0	110		0	0		0	
Storage Lanes	1		0	1		1	1		0	1		0	
Taper Length (ft)	25			70			100			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor		1.00				0.98		1.00			1.00		
Frt		0.965				0.850		0.980			0.979		
Flt Protected	0.950			0.950			0.950			0.950			
Satd. Flow (prot)	1525	1523	0	1430	1565	1233	1516	2779	0	1391	2806	0	
Flt Permitted	0.542			0.454			0.290			0.271			
Satd. Flow (perm)	870	1523	0	684	1565	1204	463	2779	0	397	2806	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		617			195			447			594		
Travel Time (s)		16.8			5.3			12.2			16.2		
Confl. Bikes (#/hr)			5			17			3			7	
Peak Hour Factor	0.82	0.82	0.82	0.95	0.95	0.95	0.89	0.89	0.89	0.95	0.95	0.95	
Heavy Vehicles (%)	3%	5%	2%	6%	2%	10%	0%	7%	4%	9%	5%	8%	
Adj. Flow (vph)	85	183	55	168	189	242	28	551	84	211	553	89	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	85	238	0	168	189	242	28	635	0	211	642	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1	1	1	1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50	50	50	50		50	50		
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Size(ft)	50	50		50	50	50	50	50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA		
Protected Phases		5			5	6		1		6	1 6		2
Permitted Phases	5			5		5	1			1			
Detector Phase	5	5		5	5	6	1	1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0	6.0	10.0	10.0		6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	11.5	15.5	15.5		11.5			27.0
Total Split (s)	36.0	36.0		36.0	36.0	13.0	44.0	44.0		13.0			27.0
Total Split (%)	30.0%	30.0%		30.0%	30.0%	10.8%	36.7%	36.7%		10.8%			23%
Maximum Green (s)	30.0	30.0		30.0	30.0	9.5	38.5	38.5		9.5			23.0
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5	0.0	2.0	2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.0	6.0		6.0	6.0	3.5	5.5	5.5		3.5			
Lead/Lag	Lead	Lead		Lead	Lead	Lag	Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0			2.0
Recall Mode	None	None		None	None	None	C-Max	C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													16.0
Pedestrian Calls (#/hr)													259
Act Effct Green (s)	30.0	30.0		30.0	30.0	42.0	38.5	38.5		50.0	51.5		
Actuated g/C Ratio	0.25	0.25		0.25	0.25	0.35	0.32	0.32		0.42	0.43		
v/c Ratio	0.39	0.63		0.98	0.48	0.57	0.19	0.71		0.86	0.53		
Control Delay	66.0	70.6		110.4	43.3	35.4	37.8	42.3		44.6	11.3		
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.1		0.0	0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay	66.0	70.6		110.4	43.3	35.4	37.8	42.4		44.6	11.3		
LOS	E	E		F	D	D	D	D		D	B		
Approach Delay		69.4			58.9			42.2			19.6		
Approach LOS		E			E			D			B		
Queue Length 50th (ft)	67	191		130	125	143	16	188		37	97		
Queue Length 95th (ft)	m89	m237		#276	201	227	m34	232		#157	91		
Internal Link Dist (ft)		537			115			367			514		
Turn Bay Length (ft)	170			155			110						
Base Capacity (vph)	217	380		171	391	423	148	891		244	1204		
Starvation Cap Reductn	0	0		0	0	0	0	8		0	0		
Spillback Cap Reductn	0	0		0	0	0	0	0		0	28		
Storage Cap Reductn	0	0		0	0	0	0	0		0	0		
Reduced v/c Ratio	0.39	0.63		0.98	0.48	0.57	0.19	0.72		0.86	0.55		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 109 (91%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 42.0		Intersection LOS: D	
Intersection Capacity Utilization 69.6%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Brookline Ave & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	150	45	160	180	230	25	490	75	200	525	85
Future Volume (vph)	70	150	45	160	180	230	25	490	75	200	525	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0		6.0	6.0	3.5	5.5	5.5		3.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1525	1524		1430	1565	1211	1516	2779		1391	2806	
Flt Permitted	0.54	1.00		0.45	1.00	1.00	0.29	1.00		0.27	1.00	
Satd. Flow (perm)	869	1524		683	1565	1211	463	2779		397	2806	
Peak-hour factor, PHF	0.82	0.82	0.82	0.95	0.95	0.95	0.89	0.89	0.89	0.95	0.95	0.95
Adj. Flow (vph)	85	183	55	168	189	242	28	551	84	211	553	89
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	85	238	0	168	189	242	28	635	0	211	642	0
Confl. Bikes (#/hr)			5			17			3			7
Heavy Vehicles (%)	3%	5%	2%	6%	2%	10%	0%	7%	4%	9%	5%	8%
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA	
Protected Phases		5			5	6		1		6	1 6	
Permitted Phases	5			5		5	1			1		
Actuated Green, G (s)	30.0	30.0		30.0	30.0	39.5	38.5	38.5		48.0	51.5	
Effective Green, g (s)	30.0	30.0		30.0	30.0	39.5	38.5	38.5		48.0	48.0	
Actuated g/C Ratio	0.25	0.25		0.25	0.25	0.33	0.32	0.32		0.40	0.40	
Clearance Time (s)	6.0	6.0		6.0	6.0	3.5	5.5	5.5		3.5		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0		
Lane Grp Cap (vph)	217	381		170	391	398	148	891		237	1122	
v/s Ratio Prot		0.16			0.12	0.05		0.23		c0.07	0.23	
v/s Ratio Perm	0.10			c0.25		0.15	0.06			c0.28		
v/c Ratio	0.39	0.62		0.99	0.48	0.61	0.19	0.71		0.89	0.57	
Uniform Delay, d1	37.4	40.0		44.8	38.4	33.8	29.5	35.9		30.3	28.0	
Progression Factor	1.61	1.59		1.00	1.00	1.00	1.14	1.04		0.53	0.38	
Incremental Delay, d2	0.3	1.7		64.8	0.3	1.8	2.6	4.4		27.6	0.4	
Delay (s)	60.4	65.2		109.6	38.7	35.6	36.2	41.8		43.7	11.1	
Level of Service	E	E		F	D	D	D	D		D	B	
Approach Delay (s)		64.0			57.3			41.6			19.2	
Approach LOS		E			E			D			B	

Intersection Summary			
HCM 2000 Control Delay	40.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	70	25	105	125	0	125	0	430	45	55	670	0	
Future Volume (vph)	70	25	105	125	0	125	0	430	45	55	670	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	10	10	10	10	10	10	11	11	11	
Storage Length (ft)	130		0	90		0	0		0	0		0	
Storage Lanes	1		0	1		1	0		0	0		0	
Taper Length (ft)	25			60			0			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	
Ped Bike Factor								1.00					
Frt		0.879				0.850		0.986					
Flt Protected	0.950			0.950							0.996		
Satd. Flow (prot)	1399	1259	0	1472	0	1201	0	2886	0	0	3012	0	
Flt Permitted	0.950			0.579							0.852		
Satd. Flow (perm)	1399	1259	0	897	0	1201	0	2886	0	0	2577	0	
Right Turn on Red			Yes			No			Yes			Yes	
Satd. Flow (RTOR)		115						9					
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		331			357			455			447		
Travel Time (s)		9.0			9.7			12.4			12.2		
Confl. Bikes (#/hr)									3			6	
Peak Hour Factor	0.91	0.91	0.91	0.87	0.88	0.87	0.87	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	1%	12%	2%	3%	0%	13%	0%	3%	7%	2%	4%	0%	
Parking (#/hr)	6	6	6										
Adj. Flow (vph)	77	27	115	144	0	144	0	478	50	61	744	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	77	142	0	144	0	144	0	528	0	0	805	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		12			15			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.36	1.36	1.14	1.25	1.25	1.25	1.25	1.25	1.25	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1		1		1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50		50		50		50	50		
Trailing Detector (ft)	0	0		0		0		0		0	0		
Detector 1 Position(ft)	0	0		0		0		0		0	0		
Detector 1 Size(ft)	50	50		50		50		50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA		
Protected Phases		5						1		6	1 6		2
Permitted Phases	5			5		5				1			
Detector Phase	5	5		5		5		1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0		8.0		10.0		6.0			7.0
Minimum Split (s)	13.5	13.5		13.5		13.5		18.5		11.5			28.0
Total Split (s)	37.0	37.0		37.0		37.0		41.0		14.0			28.0
Total Split (%)	30.8%	30.8%		30.8%		30.8%		34.2%		11.7%			23%
Maximum Green (s)	31.5	31.5		31.5		31.5		35.5		10.5			24.0
Yellow Time (s)	3.5	3.5		3.5		3.5		3.5		3.5			4.0
All-Red Time (s)	2.0	2.0		2.0		2.0		2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0					
Total Lost Time (s)	5.5	5.5		5.5		5.5		5.5					
Lead/Lag	Lead	Lead		Lead		Lead		Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0		2.0			2.0
Recall Mode	None	None		None		None		C-Max		Max			Ped
Walk Time (s)								7.0					7.0
Flash Dont Walk (s)								6.0					17.0
Pedestrian Calls (#/hr)								30					122
Act Effct Green (s)	22.1	22.1		22.1		22.1		44.9			53.4		
Actuated g/C Ratio	0.18	0.18		0.18		0.18		0.37			0.44		
v/c Ratio	0.30	0.44		0.88		0.65		0.49			0.68		
Control Delay	42.8	14.7		89.9		57.9		19.2			14.0		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Queue Delay	0.0	0.0		0.0		0.0		0.0			0.0		
Total Delay	42.8	14.7		89.9		57.9		19.2			14.0		
LOS	D	B		F		E		B			B		
Approach Delay		24.6			73.9			19.2			14.0		
Approach LOS		C			E			B			B		
Queue Length 50th (ft)	52	18		109		104		99			105		
Queue Length 95th (ft)	89	70		166		154		125			m271		
Internal Link Dist (ft)		251			277			375			367		
Turn Bay Length (ft)	130			90									
Base Capacity (vph)	367	415		235		315		1086			1177		
Starvation Cap Reductn	0	0		0		0		0			4		
Spillback Cap Reductn	0	0		0		0		0			0		
Storage Cap Reductn	0	0		0		0		0			0		
Reduced v/c Ratio	0.21	0.34		0.61		0.46		0.49			0.69		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 2 (2%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 26.1		Intersection LOS: C	
Intersection Capacity Utilization 70.6%		ICU Level of Service C	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Brookline Ave & Deaconess Rd/Jimmy Fund Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	25	105	125	0	125	0	430	45	55	670	0
Future Volume (vph)	70	25	105	125	0	125	0	430	45	55	670	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	10	10	10	10	10	11	11	11
Total Lost time (s)	5.5	5.5		5.5		5.5		5.5			5.5	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Frt	1.00	0.88		1.00		0.85		0.99			1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00			1.00	
Satd. Flow (prot)	1399	1258		1472		1201		2885			3013	
Flt Permitted	0.95	1.00		0.58		1.00		1.00			0.85	
Satd. Flow (perm)	1399	1258		898		1201		2885			2578	
Peak-hour factor, PHF	0.91	0.91	0.91	0.87	0.88	0.87	0.87	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	77	27	115	144	0	144	0	478	50	61	744	0
RTOR Reduction (vph)	0	94	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	77	48	0	144	0	144	0	522	0	0	805	0
Confl. Bikes (#/hr)									3			6
Heavy Vehicles (%)	1%	12%	2%	3%	0%	13%	0%	3%	7%	2%	4%	0%
Parking (#/hr)	6	6	6									
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5			5		5				1		
Actuated Green, G (s)	22.1	22.1		22.1		22.1		44.9			55.4	
Effective Green, g (s)	22.1	22.1		22.1		22.1		44.9			55.4	
Actuated g/C Ratio	0.18	0.18		0.18		0.18		0.37			0.46	
Clearance Time (s)	5.5	5.5		5.5		5.5		5.5				
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0				
Lane Grp Cap (vph)	257	231		165		221		1079			1228	
v/s Ratio Prot		0.04						0.18			c0.06	
v/s Ratio Perm	0.06			c0.16		0.12					c0.25	
v/c Ratio	0.30	0.21		0.87		0.65		0.48			0.66	
Uniform Delay, d1	42.3	41.5		47.6		45.4		28.7			24.9	
Progression Factor	1.00	1.00		1.00		1.00		0.59			0.42	
Incremental Delay, d2	0.2	0.2		35.4		5.2		1.4			2.2	
Delay (s)	42.5	41.7		83.0		50.5		18.4			12.7	
Level of Service	D	D		F		D		B			B	
Approach Delay (s)		42.0			66.8			18.4			12.7	
Approach LOS		D			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	30	65	50	225	75	110	40	335	75	160	710	30	
Future Volume (vph)	30	65	50	225	75	110	40	335	75	160	710	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	15	15	15	11	11	11	11	11	11	10	10	10	
Storage Length (ft)	0		0	0		0	0		0	240		0	
Storage Lanes	0		0	1		0	0		1	1		0	
Taper Length (ft)	0			0			0			45			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95	
Ped Bike Factor									0.98		1.00		
Frt		0.953			0.911				0.850		0.994		
Flt Protected		0.990		0.950				0.995		0.950			
Satd. Flow (prot)	0	1750	0	1510	1465	0	0	3017	1351	1366	2954	0	
Flt Permitted		0.853		0.539				0.747		0.461			
Satd. Flow (perm)	0	1507	0	857	1465	0	0	2265	1322	663	2954	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)					57								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		176			309			203			455		
Travel Time (s)		4.8			8.4			5.5			12.4		
Confl. Bikes (#/hr)									1			12	
Peak Hour Factor	0.78	0.78	0.78	0.92	0.92	0.92	0.93	0.93	0.93	0.97	0.97	0.97	
Heavy Vehicles (%)	7%	0%	0%	4%	4%	2%	0%	4%	4%	11%	2%	0%	
Adj. Flow (vph)	38	83	64	245	82	120	43	360	81	165	732	31	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	185	0	245	202	0	0	403	81	165	763	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.01	1.01	1.01	1.19	1.19	1.19	1.19	1.19	1.19	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1		1	1	1	1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50		50	50	50	50	50		
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Size(ft)	50	50		50	50		50	50	50	50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases	5			5			1		1	1			
Detector Phase	5	5		5	5		1	1	1	6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		10.0	10.0	10.0	6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		16.0	16.0	16.0	12.0			29.0
Total Split (s)	34.0	34.0		34.0	34.0		43.0	43.0	43.0	14.0			29.0
Total Split (%)	28.3%	28.3%		28.3%	28.3%		35.8%	35.8%	35.8%	11.7%			24%
Maximum Green (s)	28.0	28.0		28.0	28.0		37.0	37.0	37.0	10.5			25.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5	2.5	0.0			0.0
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0	0.0			
Total Lost Time (s)		6.0		6.0	6.0			6.0	6.0	3.5			
Lead/Lag	Lead	Lead		Lead	Lead		Lead	Lead	Lead	Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0			3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													59
Act Effct Green (s)		28.0		28.0	28.0			42.8	42.8	55.8	56.8		
Actuated g/C Ratio		0.23		0.23	0.23			0.36	0.36	0.46	0.47		
v/c Ratio		0.53		1.23	0.52			0.50	0.17	0.45	0.55		
Control Delay		46.5		179.5	34.1			42.3	35.7	10.4	10.2		
Queue Delay		0.4		1.1	0.0			0.2	0.0	0.0	0.3		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		47.0		180.6	34.1			42.5	35.7	10.4	10.5		
LOS		D		F	C			D	D	B	B		
Approach Delay		47.0			114.4			41.4			10.5		
Approach LOS		D			F			D			B		
Queue Length 50th (ft)		126		~234	98			137	48	30	75		
Queue Length 95th (ft)		171		#398	177			m112	m41	m70	166		
Internal Link Dist (ft)		96			229			123			375		
Turn Bay Length (ft)										240			
Base Capacity (vph)		351		199	385			807	471	369	1398		
Starvation Cap Reductn		0		0	0			72	0	0	130		
Spillback Cap Reductn		24		13	0			0	0	0	206		
Storage Cap Reductn		0		0	0			0	0	0	0		
Reduced v/c Ratio		0.57		1.32	0.52			0.55	0.17	0.45	0.64		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 2 (2%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.23			
Intersection Signal Delay: 43.8		Intersection LOS: D	
Intersection Capacity Utilization 77.3%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 11: Brookline Ave & Francis St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	65	50	225	75	110	40	335	75	160	710	30
Future Volume (vph)	30	65	50	225	75	110	40	335	75	160	710	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	11	11	11	11	11	11	10	10	10
Total Lost time (s)		6.0		6.0	6.0			6.0	6.0	3.5	6.0	
Lane Util. Factor		1.00		1.00	1.00			0.95	1.00	1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00			1.00	0.98	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frt		0.95		1.00	0.91			1.00	0.85	1.00	0.99	
Flt Protected		0.99		0.95	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (prot)		1750		1510	1465			3016	1323	1366	2954	
Flt Permitted		0.85		0.54	1.00			0.75	1.00	0.46	1.00	
Satd. Flow (perm)		1507		856	1465			2265	1323	662	2954	
Peak-hour factor, PHF	0.78	0.78	0.78	0.92	0.92	0.92	0.93	0.93	0.93	0.97	0.97	0.97
Adj. Flow (vph)	38	83	64	245	82	120	43	360	81	165	732	31
RTOR Reduction (vph)	0	0	0	0	44	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	185	0	245	158	0	0	403	81	165	763	0
Confl. Bikes (#/hr)									1			12
Heavy Vehicles (%)	7%	0%	0%	4%	4%	2%	0%	4%	4%	11%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases	5			5			1		1	1		
Actuated Green, G (s)		28.0		28.0	28.0			42.0	42.0	52.5	56.0	
Effective Green, g (s)		28.0		28.0	28.0			42.0	42.0	52.5	52.5	
Actuated g/C Ratio		0.23		0.23	0.23			0.35	0.35	0.44	0.44	
Clearance Time (s)		6.0		6.0	6.0			6.0	6.0	3.5		
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0	3.0		
Lane Grp Cap (vph)		351		199	341			792	463	351	1292	
v/s Ratio Prot					0.11					0.04	c0.26	
v/s Ratio Perm		0.12		c0.29				0.18	0.06	0.16		
v/c Ratio		0.53		1.23	0.46			0.51	0.17	0.47	0.59	
Uniform Delay, d1		40.2		46.0	39.6			30.8	27.0	21.7	25.6	
Progression Factor		1.00		1.00	1.00			1.28	1.17	0.36	0.37	
Incremental Delay, d2		1.4		139.9	1.0			0.2	0.1	3.5	1.5	
Delay (s)		41.6		185.9	40.6			39.6	31.7	11.2	10.9	
Level of Service		D		F	D			D	C	B	B	
Approach Delay (s)		41.6			120.2			38.3			10.9	
Approach LOS		D			F			D			B	

Intersection Summary			
HCM 2000 Control Delay	44.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	77.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	0	1105	55	5	755	195	110	255	10	540	420	25	
Future Volume (vph)	0	1105	55	5	755	195	110	255	10	540	420	25	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11	
Storage Length (ft)	0		0	0		0	280		0	0		0	
Storage Lanes	0		0	0		0	1		0	1		0	
Taper Length (ft)	0			0			25			0			
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor											1.00		
Frt		0.993			0.969			0.994			0.992		
Flt Protected							0.950			0.950			
Satd. Flow (prot)	0	3116	0	0	3007	0	1570	2925	0	1570	2945	0	
Flt Permitted					0.843		0.267			0.435			
Satd. Flow (perm)	0	3116	0	0	2535	0	441	2925	0	719	2945	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		5			31			3			5		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		497			489			442			108		
Travel Time (s)		13.6			13.3			12.1			2.9		
Confl. Bikes (#/hr)												10	
Peak Hour Factor	0.88	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.85	0.85	0.85	
Heavy Vehicles (%)	0%	0%	2%	0%	1%	2%	0%	7%	0%	0%	6%	0%	
Adj. Flow (vph)	0	1228	61	6	839	217	120	277	11	635	494	29	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	1289	0	0	1062	0	120	288	0	635	523	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		0			0			11			11		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors		1		1	1		1	1		1	1		
Detector Template													
Leading Detector (ft)		50		50	50		50	50		50	50		
Trailing Detector (ft)		0		0	0		0	0		0	0		
Detector 1 Position(ft)		0		0	0		0	0		0	0		
Detector 1 Size(ft)		50		50	50		50	50		50	50		
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Turn Type		NA			NA		Perm	NA		D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases							1			1			
Detector Phase		5			5		1	1		6	1 6		
Switch Phase													
Minimum Initial (s)		8.0			8.0		10.0	10.0		6.0			1.0
Minimum Split (s)		14.0			14.0		16.0	16.0		12.0			27.0
Total Split (s)		52.0			52.0		16.0	16.0		25.0			27.0
Total Split (%)		43.3%			43.3%		13.3%	13.3%		20.8%			23%
Maximum Green (s)		46.0			46.0		10.0	10.0		22.0			25.0
Yellow Time (s)		3.0			3.0		3.0	3.0		3.0			2.0
All-Red Time (s)		3.0			3.0		3.0	3.0		0.0			0.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0			
Total Lost Time (s)		6.0			6.0		6.0	6.0		3.0			
Lead/Lag		Lead			Lead		Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0			2.0
Recall Mode		Max			Max		C-Max	C-Max		Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													49
Act Effct Green (s)		46.0			46.0		15.4	15.4		40.4	40.4		
Actuated g/C Ratio		0.38			0.38		0.13	0.13		0.34	0.34		
v/c Ratio		1.08			7.00dr		2.14	0.76		1.60	0.53		
Control Delay		65.0			1166.1		598.7	66.2		300.6	22.4		
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.5		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		65.0			1166.1		598.7	66.2		300.6	23.0		
LOS		E			F		F	E		F	C		
Approach Delay		65.0			1166.1			222.8			175.2		
Approach LOS		E			F			F			F		
Queue Length 50th (ft)		~594			~663		~164	~138		~661	144		
Queue Length 95th (ft)		m#697			#799		#288	#233		m#774	m182		
Internal Link Dist (ft)		417			409			362			28		
Turn Bay Length (ft)							280						
Base Capacity (vph)		1197			300		56	377		397	994		
Starvation Cap Reductn		0			0		0	0		0	172		
Spillback Cap Reductn		0			0		0	0		0	0		
Storage Cap Reductn		0			0		0	0		0	0		
Reduced v/c Ratio		1.08			3.54		2.14	0.76		1.60	0.64		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 26 (22%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 3.54			
Intersection Signal Delay: 412.6		Intersection LOS: F	
Intersection Capacity Utilization 90.8%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Splits and Phases: 12: Brookline Ave & Riverway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1105	55	5	755	195	110	255	10	540	420	25
Future Volume (vph)	0	1105	55	5	755	195	110	255	10	540	420	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		6.0			6.0		6.0	6.0		3.0	6.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.97		1.00	0.99		1.00	0.99	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3115			3008		1570	2926		1570	2944	
Flt Permitted		1.00			0.84		0.27	1.00		0.44	1.00	
Satd. Flow (perm)		3115			2536		441	2926		719	2944	
Peak-hour factor, PHF	0.88	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.85	0.85	0.85
Adj. Flow (vph)	0	1228	61	6	839	217	120	277	11	635	494	29
RTOR Reduction (vph)	0	3	0	0	19	0	0	3	0	0	3	0
Lane Group Flow (vph)	0	1286	0	0	1043	0	120	285	0	635	520	0
Confl. Bikes (#/hr)												10
Heavy Vehicles (%)	0%	0%	2%	0%	1%	2%	0%	7%	0%	0%	6%	0%
Turn Type		NA			NA		Perm	NA		D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases							1			1		
Actuated Green, G (s)		46.0			46.0		15.0	15.0		37.0	40.0	
Effective Green, g (s)		46.0			46.0		15.0	15.0		37.0	37.0	
Actuated g/C Ratio		0.38			0.38		0.12	0.12		0.31	0.31	
Clearance Time (s)		6.0			6.0		6.0	6.0		3.0		
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0		
Lane Grp Cap (vph)		1194			972		55	365		377	907	
v/s Ratio Prot		c0.41						0.10		c0.31	0.18	
v/s Ratio Perm					0.41		c0.27			0.21		
v/c Ratio		1.08			7.00dr		2.18	0.78		1.68	0.57	
Uniform Delay, d1		37.0			37.0		52.5	50.9		38.8	34.9	
Progression Factor		0.48			1.00		1.00	1.00		0.62	0.61	
Incremental Delay, d2		44.9			50.5		586.6	15.3		316.8	2.0	
Delay (s)		62.7			87.5		639.1	66.2		340.8	23.4	
Level of Service		E			F		F	E		F	C	
Approach Delay (s)		62.7			87.5			234.7			197.5	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	127.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	5	5	10	5	135	5	875	10	65	1145	85
Future Volume (vph)	15	5	5	10	5	135	5	875	10	65	1145	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	11	11	11	11	11	11
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.972			0.879			0.998			0.990	
Flt Protected		0.971			0.997						0.997	
Satd. Flow (prot)	0	1722	0	0	1567	0	0	3098	0	0	3100	0
Flt Permitted		0.971			0.997						0.997	
Satd. Flow (perm)	0	1722	0	0	1567	0	0	3098	0	0	3100	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		418			141			497			1033	
Travel Time (s)		11.4			3.8			13.6			28.2	
Confl. Peds. (#/hr)			11			11			22	22		
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.75	0.75	0.75	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	33%	1%	0%	1%	18%	0%	0%	0%
Adj. Flow (vph)	20	7	7	12	6	157	5	962	11	70	1231	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	34	0	0	175	0	0	978	0	0	1392	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	1.05	1.05	1.05	1.19	1.19	1.19	1.19	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 89.5%		ICU Level of Service E	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	20.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	5	5	10	5	135	5	875	10	65	1145	85
Future Vol, veh/h	15	5	5	10	5	135	5	875	10	65	1145	85
Conflicting Peds, #/hr	0	0	11	0	0	11	0	0	22	22	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	86	86	86	91	91	91	93	93	93
Heavy Vehicles, %	0	0	0	0	33	1	0	1	18	0	0	0
Mvmt Flow	20	7	7	12	6	157	5	962	11	70	1231	91

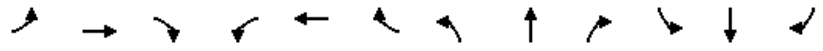
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1922	2422	672	1770	2462	520	1322	0	0	995	0	0
Stage 1	1417	1417	-	1000	1000	-	-	-	-	-	-	-
Stage 2	505	1005	-	770	1462	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	7.16	6.92	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	6.16	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	6.16	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.33	3.31	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	41	33	403	54	19	504	529	-	-	703	-	-
Stage 1	147	205	-	264	258	-	-	-	-	-	-	-
Stage 2	523	322	-	364	145	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 11	19	400	26	11	489	529	-	-	688	-	-
Mov Cap-2 Maneuver	~ 11	19	-	26	11	-	-	-	-	-	-	-
Stage 1	144	123	-	253	247	-	-	-	-	-	-	-
Stage 2	337	308	-	202	87	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 1081.8	80.8	0.2	2.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	529	-	-	15	192	688	-	-
HCM Lane V/C Ratio	0.01	-	-	2.222	0.848	0.102	-	-
HCM Control Delay (s)	11.9	0.1	-	$ 1081.8	80.8	10.8	1.9	-
HCM Lane LOS	B	A	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0	-	-	4.9	6.2	0.3	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

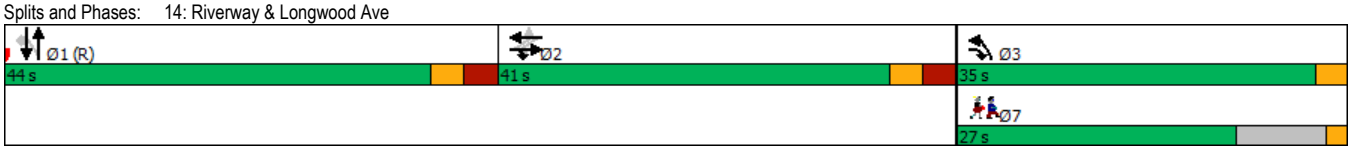


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Lane Configurations													
Traffic Volume (vph)	100	375	180	80	280	55	270	730	10	0	1020	75	
Future Volume (vph)	100	375	180	80	280	55	270	730	10	0	1020	75	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	11	11	10	11	11	11	11	11	
Storage Length (ft)	25		120	40		0	300		0	0		0	
Storage Lanes	1		1	1		0	1		0	0		1	
Taper Length (ft)	0			25			25			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	
Ped Bike Factor					0.99								
Frt			0.850		0.975			0.998				0.850	
Flt Protected	0.950			0.950			0.950						
Satd. Flow (prot)	1555	1637	1405	1516	1571	0	1501	3104	0	0	3110	1364	
Flt Permitted	0.279			0.221			0.102						
Satd. Flow (perm)	457	1637	1405	353	1571	0	161	3104	0	0	3110	1364	
Right Turn on Red			Yes			Yes			No			No	
Satd. Flow (RTOR)			27		8								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		327			278			1033			510		
Travel Time (s)		8.9			7.6			28.2			13.9		
Confl. Bikes (#/hr)			8			28							
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95	0.93	0.93	0.93	
Heavy Vehicles (%)	1%	1%	0%	0%	1%	7%	1%	1%	0%	0%	1%	3%	
Adj. Flow (vph)	105	395	189	85	298	59	284	768	11	0	1097	81	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	105	395	189	85	357	0	284	779	0	0	1097	81	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.19	1.19	1.25	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1	1	1	1		1	1			1	1	
Detector Template													
Leading Detector (ft)	50	50	50	50	50		50	50			50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Size(ft)	50	50	50	50	50		50	50			50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm	
Protected Phases		2	2 3		2		3	1			1		7
Permitted Phases	2			2			1					1	
Detector Phase	2	2	2 3	2	2		3	1			1	1	
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	18.0			18.0	18.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	26.0			26.0	26.0	27.0
Total Split (s)	41.0	41.0		41.0	41.0		35.0	44.0			44.0	44.0	27.0
Total Split (%)	34.2%	34.2%		34.2%	34.2%		29.2%	36.7%			36.7%	36.7%	23%
Maximum Green (s)	35.0	35.0		35.0	35.0		32.0	38.0			38.0	38.0	25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)	3.0	3.0		3.0	3.0		0.0	3.0			3.0	3.0	0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0	
Lead/Lag	Lag	Lag		Lag	Lag			Lead			Lead	Lead	
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0	2.0
Recall Mode	None	None		None	None		None	C-Max			C-Max	C-Max	None
Walk Time (s)								7.0			7.0	7.0	7.0
Flash Dont Walk (s)								13.0			13.0	13.0	18.0
Pedestrian Calls (#/hr)								6			6	6	111
Act Effct Green (s)	32.1	32.1	61.1	32.1	32.1		75.9	46.9			46.9	46.9	
Actuated g/C Ratio	0.27	0.27	0.51	0.27	0.27		0.63	0.39			0.39	0.39	
v/c Ratio	0.86	0.90	0.26	0.90	0.84		0.72	0.64			0.90	0.15	
Control Delay	93.6	67.1	14.1	107.1	51.1		18.3	31.9			46.8	27.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Total Delay	93.6	67.1	14.1	107.1	51.1		18.3	31.9			46.8	27.1	
LOS	F	E	B	F	D		B	C			D	C	
Approach Delay		56.6			61.9			28.2			45.4		
Approach LOS		E			E			C			D		
Queue Length 50th (ft)	75	286	66	64	234		109	305			421	41	
Queue Length 95th (ft)	#178	#449	97	#163	#388		m23	m139			#643	86	
Internal Link Dist (ft)		247			198			953			430		
Turn Bay Length (ft)	25		120	40			300						
Base Capacity (vph)	133	477	792	102	463		462	1213			1216	533	
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0	
Storage Cap Reductn	0	0	0	0	0		0	0			0	0	
Reduced v/c Ratio	0.79	0.83	0.24	0.83	0.77		0.61	0.64			0.90	0.15	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 34 (28%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 44.5		Intersection LOS: D	
Intersection Capacity Utilization 94.9%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 14: Riverway & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	375	180	80	280	55	270	730	10	0	1020	75
Future Volume (vph)	100	375	180	80	280	55	270	730	10	0	1020	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	11	11	10	11	11	11	11	11
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0		3.0	6.0			6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1555	1637	1405	1516	1571		1501	3103			3110	1364
Flt Permitted	0.28	1.00	1.00	0.22	1.00		0.10	1.00			1.00	1.00
Satd. Flow (perm)	457	1637	1405	352	1571		161	3103			3110	1364
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95	0.93	0.93	0.93
Adj. Flow (vph)	105	395	189	85	298	59	284	768	11	0	1097	81
RTOR Reduction (vph)	0	0	13	0	6	0	0	0	0	0	0	0
Lane Group Flow (vph)	105	395	176	85	351	0	284	779	0	0	1097	81
Confl. Bikes (#/hr)			8			28						
Heavy Vehicles (%)	1%	1%	0%	0%	1%	7%	1%	1%	0%	0%	1%	3%
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm
Protected Phases		2	2 3		2		3	1			1	
Permitted Phases	2			2			1					1
Actuated Green, G (s)	32.1	32.1	64.1	32.1	32.1		72.9	46.9			46.9	46.9
Effective Green, g (s)	32.1	32.1	64.1	32.1	32.1		72.9	46.9			46.9	46.9
Actuated g/C Ratio	0.27	0.27	0.53	0.27	0.27		0.61	0.39			0.39	0.39
Clearance Time (s)	6.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	122	437	750	94	420		388	1212			1215	533
v/s Ratio Prot		0.24	0.13		0.22		c0.16	0.25			c0.35	
v/s Ratio Perm	0.23			c0.24			0.29					0.06
v/c Ratio	0.86	0.90	0.24	0.90	0.84		0.73	0.64			0.90	0.15
Uniform Delay, d1	41.8	42.5	14.9	42.5	41.5		28.8	29.7			34.4	23.7
Progression Factor	1.00	1.00	1.00	0.84	0.83		0.67	1.01			1.00	1.00
Incremental Delay, d2	41.2	21.3	0.1	60.2	12.6		0.6	0.2			11.0	0.6
Delay (s)	83.0	63.7	15.0	95.8	46.9		19.8	30.1			45.4	24.3
Level of Service	F	E	B	F	D		B	C			D	C
Approach Delay (s)		53.3			56.3			27.4			44.0	
Approach LOS		D			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	42.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	94.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	35	70	915	0	0	1035	
Future Volume (vph)	35	70	915	0	0	1035	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	10	10	10	10	
Storage Length (ft)	30	0		0	0		
Storage Lanes	1	1		0	0		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1450	1253	4272	0	0	4314	
Flt Permitted	0.950						
Satd. Flow (perm)	1450	1253	4272	0	0	4314	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		127					
Link Speed (mph)	25		25			25	
Link Distance (ft)	246		343			858	
Travel Time (s)	6.7		9.4			23.4	
Peak Hour Factor	0.55	0.55	0.88	0.89	0.92	0.88	
Heavy Vehicles (%)	12%	16%	2%	2%	2%	1%	
Adj. Flow (vph)	64	127	1040	0	0	1176	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	64	127	1040	0	0	1176	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.14	1.14	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	2			2	
Detector Template	Left	Right	Thru			Thru	
Leading Detector (ft)	20	20	100			100	
Trailing Detector (ft)	0	0	0			0	
Detector 1 Position(ft)	0	0	0			0	
Detector 1 Size(ft)	20	20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)			94			94	
Detector 2 Size(ft)			6			6	
Detector 2 Type			Cl+Ex			Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)			0.0			0.0	
Turn Type	Prot	Perm	NA			NA	
Protected Phases	5		1			1	2
Permitted Phases		5					
Detector Phase	5	5	1			1	
Switch Phase							
Minimum Initial (s)	8.0	8.0	15.0			15.0	7.0
Minimum Split (s)	14.0	14.0	20.0			20.0	25.0
Total Split (s)	16.0	16.0	49.0			49.0	25.0
Total Split (%)	17.8%	17.8%	54.4%			54.4%	28%
Maximum Green (s)	10.0	10.0	44.0			44.0	21.0
Yellow Time (s)	3.0	3.0	3.0			3.0	2.0
All-Red Time (s)	3.0	3.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	
Total Lost Time (s)	6.0	6.0	5.0			5.0	
Lead/Lag			Lead			Lead	Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	3.0			3.0	3.0
Recall Mode	None	None	C-Max			C-Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							14.0
Pedestrian Calls (#/hr)							18
Act Effct Green (s)	8.9	8.9	60.1			60.1	
Actuated g/C Ratio	0.10	0.10	0.67			0.67	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
v/c Ratio	0.45	0.53	0.36			0.41	
Control Delay	48.5	16.0	9.5			9.9	
Queue Delay	0.0	0.0	0.0			0.0	
Total Delay	48.5	16.0	9.5			9.9	
LOS	D	B	A			A	
Approach Delay	26.9		9.5			9.9	
Approach LOS	C		A			A	
Queue Length 50th (ft)	35	0	46			54	
Queue Length 95th (ft)	44	4	172			200	
Internal Link Dist (ft)	166		263			778	
Turn Bay Length (ft)	30						
Base Capacity (vph)	161	252	2854			2882	
Starvation Cap Reductn	0	0	0			0	
Spillback Cap Reductn	0	0	0			0	
Storage Cap Reductn	0	0	0			0	
Reduced v/c Ratio	0.40	0.50	0.36			0.41	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 82 (91%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 38.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 15: Riverway & Short St Ext





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	35	70	915	0	0	1035
Future Volume (vph)	35	70	915	0	0	1035
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	10	10	10
Total Lost time (s)	6.0	6.0	5.0			5.0
Lane Util. Factor	1.00	1.00	0.91			0.91
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1450	1253	4272			4314
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1450	1253	4272			4314
Peak-hour factor, PHF	0.55	0.55	0.88	0.89	0.92	0.88
Adj. Flow (vph)	64	127	1040	0	0	1176
RTOR Reduction (vph)	0	114	0	0	0	0
Lane Group Flow (vph)	64	13	1040	0	0	1176
Heavy Vehicles (%)	12%	16%	2%	2%	2%	1%
Turn Type	Prot	Perm	NA			NA
Protected Phases	5		1			1
Permitted Phases		5				
Actuated Green, G (s)	8.9	8.9	57.7			57.7
Effective Green, g (s)	8.9	8.9	57.7			57.7
Actuated g/C Ratio	0.10	0.10	0.64			0.64
Clearance Time (s)	6.0	6.0	5.0			5.0
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Lane Grp Cap (vph)	143	123	2738			2765
v/s Ratio Prot	c0.04		0.24			c0.27
v/s Ratio Perm		0.01				
v/c Ratio	0.45	0.10	0.38			0.43
Uniform Delay, d1	38.2	36.9	7.7			8.0
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.8	0.1	0.4			0.5
Delay (s)	39.0	37.0	8.1			8.4
Level of Service	D	D	A			A
Approach Delay (s)	37.7		8.1			8.4
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	105
Future Volume (vph)	0	0	0	0	0	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	0	0	0	1676	1155	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1676	1155	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	246			134	562	
Travel Time (s)	6.7			3.7	15.3	
Confl. Peds. (#/hr)			14			14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.55
Heavy Vehicles (%)	2%	2%	2%	2%	2%	14%
Parking (#/hr)					2	2
Adj. Flow (vph)	0	0	0	0	0	191
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	191	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.32	1.14
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	9.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	105
Future Vol, veh/h	0	0	0	0	0	105
Conflicting Peds, #/hr	0	0	14	0	0	14
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	55
Heavy Vehicles, %	2	2	2	2	2	14
Mvmt Flow	0	0	0	0	0	191

Major/Minor	Major1		Minor2	
Conflicting Flow All	14	0	14	28
Stage 1	-	-	14	-
Stage 2	-	-	0	-
Critical Hdwy	4.12	-	6.52	6.34
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.52	-
Follow-up Hdwy	2.218	-	4.018	3.426
Pot Cap-1 Maneuver	1604	-	880	1014
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %		-		
Mov Cap-1 Maneuver	1585	-	0	990
Mov Cap-2 Maneuver	-	-	0	-
Stage 1	-	-	0	-
Stage 2	-	-	0	-

Approach	NB	SB
HCM Control Delay, s	0	9.5
HCM LOS		A

Minor Lane/Major Mvmt	NBL	NBT	SBLn1
Capacity (veh/h)	1585	-	990
HCM Lane V/C Ratio	-	-	0.193
HCM Control Delay (s)	0	-	9.5
HCM Lane LOS	A	-	A
HCM 95th %tile Q(veh)	0	-	0.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	380	0	0	390	10	25	0	25	0	0	0
Future Volume (vph)	5	380	0	0	390	10	25	0	25	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	16	12	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.997			0.932				
Flt Protected		0.999						0.976				
Satd. Flow (prot)	0	1880	0	0	1850	0	0	1428	0	0	0	0
Flt Permitted		0.999						0.976				
Satd. Flow (perm)	0	1880	0	0	1850	0	0	1428	0	0	0	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			617			174			541	
Travel Time (s)		7.6			16.8			4.7			14.8	
Confl. Peds. (#/hr)	189		192	192		189	4		22	22		4
Confl. Bikes (#/hr)			11			43						
Peak Hour Factor	0.80	0.80	0.92	0.92	0.86	0.86	0.71	0.71	0.71	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	2%	2%	18%	17%	0%	25%	2%	2%	2%
Adj. Flow (vph)	6	475	0	0	453	12	35	0	35	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	481	0	0	465	0	0	70	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.00	0.85
Turning Speed (mph)	15		60	60		9	60		60	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	380	0	0	390	10	25	0	25	0	0	0
Future Vol, veh/h	5	380	0	0	390	10	25	0	25	0	0	0
Conflicting Peds, #/hr	189	0	192	192	0	189	4	0	22	22	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	92	92	86	86	71	71	71	92	92	92
Heavy Vehicles, %	0	1	2	2	2	18	17	0	25	2	2	2
Mvmt Flow	6	475	0	0	453	12	35	0	35	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	654	0	-	-	-	0	950	1141	497
Stage 1	-	-	-	-	-	-	487	487	-
Stage 2	-	-	-	-	-	-	463	654	-
Critical Hdwy	4.1	-	-	-	-	-	6.57	6.5	6.45
Critical Hdwy Stg 1	-	-	-	-	-	-	5.57	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.57	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.653	4	3.525
Pot Cap-1 Maneuver	943	-	0	0	-	-	271	202	529
Stage 1	-	-	0	0	-	-	588	554	-
Stage 2	-	-	0	0	-	-	603	466	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	943	-	-	-	-	-	268	0	519
Mov Cap-2 Maneuver	-	-	-	-	-	-	268	0	-
Stage 1	-	-	-	-	-	-	583	0	-
Stage 2	-	-	-	-	-	-	601	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	353	943	-	-	-
HCM Lane V/C Ratio	0.199	0.007	-	-	-
HCM Control Delay (s)	17.7	8.8	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	0.7	0	-	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	30	885	0	0	1070
Future Volume (vph)	25	30	885	0	0	1070
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91
Ped Bike Factor						
Frt	0.926					
Flt Protected	0.978					
Satd. Flow (prot)	1950	0	5085	0	0	5136
Flt Permitted	0.978					
Satd. Flow (perm)	1950	0	5085	0	0	5136
Link Speed (mph)	25		25			25
Link Distance (ft)	541		510			343
Travel Time (s)	14.8		13.9			9.4
Confl. Peds. (#/hr)				22	22	
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.63	0.63	0.90	0.92	0.92	0.91
Heavy Vehicles (%)	0%	0%	2%	2%	2%	1%
Adj. Flow (vph)	40	48	983	0	0	1176
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	0	983	0	0	1176
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	30	885	0	0	1070
Future Vol, veh/h	25	30	885	0	0	1070
Conflicting Peds, #/hr	0	0	0	22	22	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	63	63	90	92	92	91
Heavy Vehicles, %	0	0	2	2	2	1
Mvmt Flow	40	48	983	0	0	1176

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1453	492	0	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Critical Hdwy	5.7	7.1	-	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.8	3.9	-	-	-	-
Pot Cap-1 Maneuver	186	451	-	0	0	-
Stage 1	251	-	-	0	0	-
Stage 2	549	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	186	451	-	-	-	-
Mov Cap-2 Maneuver	186	-	-	-	-	-
Stage 1	251	-	-	-	-	-
Stage 2	549	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	274	-
HCM Lane V/C Ratio	-	0.319	-
HCM Control Delay (s)	-	24.2	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	1.3	-

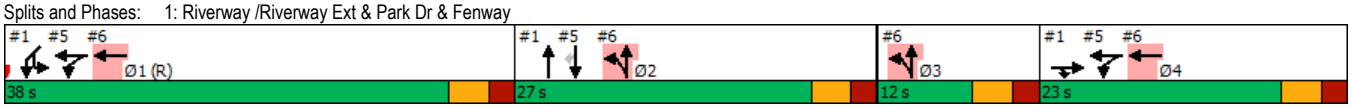
2032 No-Build Conditions

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Lane Configurations						
Traffic Volume (vph)	435	410	415	225	430	
Future Volume (vph)	435	410	415	225	430	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	
Storage Length (ft)		120			0	
Storage Lanes		2			3	
Taper Length (ft)					25	
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97	
Ped Bike Factor	0.97			0.96	0.86	
Frt	0.964	0.850				
Flt Protected				0.950	0.950	
Satd. Flow (prot)	2795	1284	3217	1477	3060	
Flt Permitted				0.950	0.950	
Satd. Flow (perm)	2795	1284	3217	1421	2625	
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		25		25	
Link Distance (ft)	260		238		234	
Travel Time (s)	7.1		6.5		6.4	
Confl. Peds. (#/hr)		54		24	54	
Confl. Bikes (#/hr)		5				
Peak Hour Factor	0.88	0.88	0.73	0.83	0.83	
Heavy Vehicles (%)	5%	3%	1%	10%	3%	
Adj. Flow (vph)	494	466	568	271	518	
Shared Lane Traffic (%)		33%				
Lane Group Flow (vph)	648	312	568	271	518	
Enter Blocked Intersection	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	
Median Width(ft)	0		0		36	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.14	
Turning Speed (mph)		9		15	15	
Number of Detectors	1	1	1	1	1	
Detector Template						
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	50	50	50	50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Turn Type	NA	Prot	NA	Prot	Prot	
Protected Phases	4	4	2	1	1	3
Permitted Phases						
Detector Phase	4	4	2	1	1	
Switch Phase						
Minimum Initial (s)	8.0	8.0	8.0	15.0	15.0	5.0
Minimum Split (s)	22.0	22.0	27.0	24.0	24.0	10.0
Total Split (s)	23.0	23.0	27.0	38.0	38.0	12.0
Total Split (%)	23.0%	23.0%	27.0%	38.0%	38.0%	12%
Maximum Green (s)	18.0	18.0	22.0	33.0	33.0	7.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Ped	Ped	Ped	C-Max	C-Max	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	10.0	10.0	15.0	12.0	12.0	
Pedestrian Calls (#/hr)	23	23	37	6	6	
Act Effct Green (s)	19.0	19.0	23.0	34.0	34.0	
Actuated g/C Ratio	0.19	0.19	0.23	0.34	0.34	
v/c Ratio	1.22	1.28	0.77	0.54	0.50	
Control Delay	151.6	190.6	44.0	28.9	25.8	
Queue Delay	6.0	0.0	4.2	10.8	1.0	

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Total Delay	157.6	190.6	48.2	39.6	26.8	
LOS	F	F	D	D	C	
Approach Delay	168.3		48.2		31.2	
Approach LOS	F		D		C	
Queue Length 50th (ft)	~280	~279	178	171	165	
Queue Length 95th (ft)	#385	#448	185	227	195	
Internal Link Dist (ft)	180		158		154	
Turn Bay Length (ft)		120				
Base Capacity (vph)	531	243	739	502	1040	
Starvation Cap Reductn	0	0	0	116	285	
Spillback Cap Reductn	240	0	106	199	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	2.23	1.28	0.90	0.89	0.69	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 92.2		Intersection LOS: F	
Intersection Capacity Utilization 55.8%		ICU Level of Service B	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Riverway /Riverway Ext & Park Dr & Fenway



Movement	EBT	EBR	NBT	SWL2	SWL
Lane Configurations					
Traffic Volume (vph)	435	410	415	225	430
Future Volume (vph)	435	410	415	225	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97
Frpb, ped/bikes	0.97	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00
Frt	0.96	0.85	1.00	1.00	1.00
Flt Protected	1.00	1.00	1.00	0.95	0.95
Satd. Flow (prot)	2796	1284	3217	1477	3060
Flt Permitted	1.00	1.00	1.00	0.95	0.95
Satd. Flow (perm)	2796	1284	3217	1477	3060
Peak-hour factor, PHF	0.88	0.88	0.73	0.83	0.83
Adj. Flow (vph)	494	466	568	271	518
RTOR Reduction (vph)	0	0	0	0	0
Lane Group Flow (vph)	648	312	568	271	518
Confl. Peds. (#/hr)		54		24	54
Confl. Bikes (#/hr)		5			
Heavy Vehicles (%)	5%	3%	1%	10%	3%
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	4	4	2	1	1
Permitted Phases					
Actuated Green, G (s)	18.0	18.0	22.0	33.0	33.0
Effective Green, g (s)	19.0	19.0	23.0	34.0	34.0
Actuated g/C Ratio	0.19	0.19	0.23	0.34	0.34
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	531	243	739	502	1040
v/s Ratio Prot	0.23	c0.24	c0.18	c0.18	0.17
v/s Ratio Perm					
v/c Ratio	1.22	1.28	0.77	0.54	0.50
Uniform Delay, d1	40.5	40.5	36.0	26.7	26.2
Progression Factor	1.00	1.00	1.00	0.91	0.91
Incremental Delay, d2	115.3	155.3	4.3	3.8	1.6
Delay (s)	155.8	195.8	40.4	28.2	25.5
Level of Service	F	F	D	C	C
Approach Delay (s)	168.8		40.4		26.4
Approach LOS	F		D		C

Intersection Summary			
HCM 2000 Control Delay	88.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	660	0	0	0	0	775
Future Volume (vph)	660	0	0	0	0	775
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	12	12	12	12
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3269	0	0	0	0	2508
Flt Permitted						
Satd. Flow (perm)	3269	0	0	0	0	2508
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	196			385	251	
Travel Time (s)	5.3			10.5	6.8	
Peak Hour Factor	0.88	0.92	0.92	0.92	0.92	0.87
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%
Adj. Flow (vph)	750	0	0	0	0	891
Shared Lane Traffic (%)						
Lane Group Flow (vph)	750	0	0	0	0	891
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	1.14	1.14	1.14	1.14
Turning Speed (mph)		9	15		15	9
Number of Detectors	1					1
Detector Template						
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Detector 1 Position(ft)	0					0
Detector 1 Size(ft)	50					50
Detector 1 Type	Cl+Ex					Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0					0.0
Detector 1 Queue (s)	0.0					0.0
Detector 1 Delay (s)	0.0					0.0
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Detector Phase	1					2
Switch Phase						
Minimum Initial (s)	10.0					6.0
Minimum Split (s)	25.0					29.0
Total Split (s)	65.0					35.0
Total Split (%)	65.0%					35.0%
Maximum Green (s)	60.0					30.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
Lost Time Adjust (s)	-1.0					-1.0
Total Lost Time (s)	4.0					4.0
Lead/Lag	Lead					Lag
Lead-Lag Optimize?	Yes					Yes
Vehicle Extension (s)	2.0					2.0
Recall Mode	C-Max					Max
Walk Time (s)	10.0					10.0
Flash Dont Walk (s)	10.0					14.0
Pedestrian Calls (#/hr)	0					0
Act Effct Green (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
v/c Ratio	0.38					1.15
Control Delay	22.0					114.0
Queue Delay	53.5					0.2
Total Delay	75.5					114.2
LOS	E					F
Approach Delay	75.5				114.2	
Approach LOS	E				F	
Queue Length 50th (ft)	266					~380

Lane Group	SET	SER	NWL	NWT	NEL	NER
Queue Length 95th (ft)	m231					#487
Internal Link Dist (ft)	116			305	171	
Turn Bay Length (ft)						
Base Capacity (vph)	1994					777
Starvation Cap Reductn	1422					0
Spillback Cap Reductn	0					27
Storage Cap Reductn	0					0
Reduced v/c Ratio	1.31					1.19

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 25 (25%), Referenced to phase 1:SET, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay: 96.5		Intersection LOS: F	
Intersection Capacity Utilization 57.1%		ICU Level of Service B	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverway & Fenway



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	660	0	0	0	0	775
Future Volume (vph)	660	0	0	0	0	775
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	14	14	12	12	12	12
Total Lost time (s)	4.0					4.0
Lane Util. Factor	0.95					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	3269					2508
Flt Permitted	1.00					1.00
Satd. Flow (perm)	3269					2508
Peak-hour factor, PHF	0.88	0.92	0.92	0.92	0.92	0.87
Adj. Flow (vph)	750	0	0	0	0	891
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	750	0	0	0	0	891
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Actuated Green, G (s)	60.0					30.0
Effective Green, g (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
Clearance Time (s)	5.0					5.0
Vehicle Extension (s)	2.0					2.0
Lane Grp Cap (vph)	1994					777
v/s Ratio Prot	c0.23					c0.36
v/s Ratio Perm						
v/c Ratio	0.38					1.15
Uniform Delay, d1	9.9					34.5
Progression Factor	2.18					1.00
Incremental Delay, d2	0.1					80.8
Delay (s)	21.7					115.3
Level of Service	C					F
Approach Delay (s)	21.7			0.0	115.3	
Approach LOS	C			A	F	

Intersection Summary			
HCM 2000 Control Delay	72.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



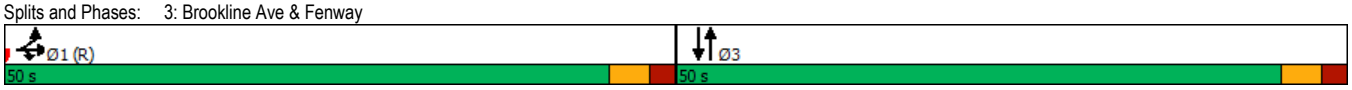
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	630	655	150	0	0	0	0	725	55	0	950	0
Future Volume (vph)	630	655	150	0	0	0	0	725	55	0	950	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor								0.99				
Frt			0.850					0.989				
Flt Protected	0.950	0.987										
Satd. Flow (prot)	1387	2862	1301	0	0	0	0	2811	0	0	2963	0
Flt Permitted	0.950	0.987										
Satd. Flow (perm)	1387	2862	1301	0	0	0	0	2811	0	0	2963	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)			50									
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			672			160			269	
Travel Time (s)		10.5			18.3			4.4			7.3	
Confl. Peds. (#/hr)									274			
Confl. Bikes (#/hr)			9						5			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	3%	4%	8%	2%	2%	2%	2%	9%	7%	2%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	0
Adj. Flow (vph)	692	720	165	0	0	0	0	780	59	0	1033	0
Shared Lane Traffic (%)	36%											
Lane Group Flow (vph)	443	969	165	0	0	0	0	839	0	0	1033	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.19	1.19	1.19	1.14	1.14	1.14	1.19	1.19	1.19	1.19	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1			1	
Detector Template												
Leading Detector (ft)	50	50	50					50			50	
Trailing Detector (ft)	0	0	0					0			0	
Detector 1 Position(ft)	0	0	0					0			0	
Detector 1 Size(ft)	50	50	50					50			50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0			0.0	
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Detector Phase	1	1	1					3			3	
Switch Phase												
Minimum Initial (s)	35.0	35.0	35.0					44.0			44.0	
Minimum Split (s)	40.0	40.0	40.0					49.0			49.0	
Total Split (s)	50.0	50.0	50.0					50.0			50.0	
Total Split (%)	50.0%	50.0%	50.0%					50.0%			50.0%	
Maximum Green (s)	45.0	45.0	45.0					45.0			45.0	
Yellow Time (s)	3.0	3.0	3.0					3.0			3.0	
All-Red Time (s)	2.0	2.0	2.0					2.0			2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	5.0	5.0	5.0					5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Recall Mode	C-Max	C-Max	C-Max					Max			Max	
Walk Time (s)	13.0	13.0	13.0					20.0			20.0	
Flash Dont Walk (s)	16.0	16.0	16.0					21.0			21.0	
Pedestrian Calls (#/hr)	0	0	0					98			98	
Act Effct Green (s)	45.0	45.0	45.0					45.0			45.0	
Actuated g/C Ratio	0.45	0.45	0.45					0.45			0.45	
v/c Ratio	0.71	0.75	0.27					0.66			0.77	
Control Delay	20.5	18.7	9.6					24.7			23.6	
Queue Delay	5.4	6.3	0.0					0.9			39.1	
Total Delay	25.9	25.0	9.6					25.6			62.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	C	A					C			E	
Approach Delay		23.6						25.6			62.7	
Approach LOS		C						C			E	
Queue Length 50th (ft)	118	141	18					214			253	
Queue Length 95th (ft)	m181	m185	m31					283			305	
Internal Link Dist (ft)		305			592			80			189	
Turn Bay Length (ft)												
Base Capacity (vph)	624	1287	612					1264			1333	
Starvation Cap Reductn	125	267	0					0			372	
Spillback Cap Reductn	17	36	0					183			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.89	0.95	0.27					0.78			1.07	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 1:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 35.8		Intersection LOS: D	
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Brookline Ave & Fenway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	630	655	150	0	0	0	0	725	55	0	950	0
Future Volume (vph)	630	655	150	0	0	0	0	725	55	0	950	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0					5.0			5.0	
Lane Util. Factor	0.91	0.91	1.00					0.95			0.95	
Frpb, ped/bikes	1.00	1.00	1.00					0.99			1.00	
Flpb, ped/bikes	1.00	1.00	1.00					1.00			1.00	
Frt	1.00	1.00	0.85					0.99			1.00	
Flt Protected	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (prot)	1387	2863	1301					2812			2963	
Flt Permitted	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (perm)	1387	2863	1301					2812			2963	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	692	720	165	0	0	0	0	780	59	0	1033	0
RTOR Reduction (vph)	0	0	28	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	443	969	138	0	0	0	0	839	0	0	1033	0
Confl. Peds. (#/hr)									274			
Confl. Bikes (#/hr)			9						5			
Heavy Vehicles (%)	3%	4%	8%	2%	2%	2%	2%	9%	7%	2%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	0
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Actuated Green, G (s)	45.0	45.0	45.0					45.0			45.0	
Effective Green, g (s)	45.0	45.0	45.0					45.0			45.0	
Actuated g/C Ratio	0.45	0.45	0.45					0.45			0.45	
Clearance Time (s)	5.0	5.0	5.0					5.0			5.0	
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Lane Grp Cap (vph)	624	1288	585					1265			1333	
v/s Ratio Prot	0.32	c0.34	0.11					0.30			c0.35	
v/s Ratio Perm												
v/c Ratio	0.71	0.75	0.24					0.66			0.77	
Uniform Delay, d1	22.2	22.9	16.9					21.6			23.2	
Progression Factor	0.71	0.70	0.74					1.00			0.87	
Incremental Delay, d2	4.0	2.4	0.5					2.8			3.0	
Delay (s)	19.8	18.4	13.1					24.3			23.2	
Level of Service	B	B	B					C			C	
Approach Delay (s)		18.2			0.0			24.3			23.2	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	260	620	85	100	70	350	935	290	140	400	120	5
Future Volume (vph)	260	620	85	100	70	350	935	290	140	400	120	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		150		0		0		165	0	280	
Storage Lanes	1		1		1		2		1	2	0	
Taper Length (ft)	25				25					25		
Lane Util. Factor	0.91	0.91	1.00	0.91	1.00	1.00	0.88	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor		1.00			0.91			0.94		0.86		
Frt			0.850				0.850	0.951		0.964		
Flt Protected		0.985			0.950					0.963		
Satd. Flow (prot)	0	4464	1368	0	1269	1449	2508	2524	0	2593	0	0
Flt Permitted		0.985			0.950					0.963		
Satd. Flow (perm)	0	4453	1368	0	1154	1449	2508	2524	0	2583	0	0
Right Turn on Red				Yes					Yes			Yes
Satd. Flow (RTOR)			158					76		169		
Link Speed (mph)		25				25		25		25		
Link Distance (ft)		563				269		1590		1367		
Travel Time (s)		15.4				7.3		43.4		37.3		
Confl. Peds. (#/hr)	7		149	160	109		271		109	7	109	149
Confl. Bikes (#/hr)							9		21			1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	9%	28%	18%	2%	14%	16%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	13	0	0	0
Adj. Flow (vph)	289	689	94	111	78	389	1039	312	151	421	126	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	978	205	0	78	389	1039	463	0	552	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Right	Left	Right	Left	Right	Right
Median Width(ft)		0				12		12		24		
Link Offset(ft)		0				0		0		0		
Crosswalk Width(ft)		16				16		16		16		
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	9	15		9		9	15	9	9
Number of Detectors	1	1	1		1	1	1	1		1		
Detector Template												
Leading Detector (ft)	50	50	50		50	50	50	50		50		
Trailing Detector (ft)	0	0	0		0	0	0	0		0		
Detector 1 Position(ft)	0	0	0		0	0	0	0		0		
Detector 1 Size(ft)	50	50	50		50	50	50	50		50		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Detector Phase	4	4	4		3	2 3	1 2 3	2		1		
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		6.0			8.0		10.0		
Minimum Split (s)	30.5	30.5	30.5		12.0			24.5		24.0		
Total Split (s)	32.0	32.0	32.0		12.0			28.0		28.0		
Total Split (%)	32.0%	32.0%	32.0%		12.0%			28.0%		28.0%		
Maximum Green (s)	25.0	25.0	25.0		6.0			22.5		22.0		
Yellow Time (s)	3.5	3.5	3.5		3.5			3.5		3.5		
All-Red Time (s)	3.5	3.5	3.5		2.5			2.0		2.5		
Lost Time Adjust (s)		-2.0	-2.0		-2.0			-1.0		-2.0		
Total Lost Time (s)		5.0	5.0		4.0			4.5		4.0		
Lead/Lag	Lag	Lag	Lag		Lead			Lag		Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		Yes			Yes		Yes		
Vehicle Extension (s)	2.0	2.0	2.0		2.0			2.0		2.0		
Recall Mode	Ped	Ped	Ped		None			Ped		C-Max		
Walk Time (s)	7.0	7.0	7.0					7.0		7.0		
Flash Dont Walk (s)	16.5	16.5	16.5					12.0		9.0		
Pedestrian Calls (#/hr)	0	0	0					95		37		
Act Effct Green (s)		26.7	26.7		8.4	35.5	64.3	23.1		24.3		
Actuated g/C Ratio		0.27	0.27		0.08	0.36	0.64	0.23		0.24		
v/c Ratio		0.82	0.43		0.74	0.76	0.64	0.72		0.73		
Control Delay		41.1	11.4		75.0	36.4	12.6	36.6		30.3		

Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Queue Delay		24.8	0.0		0.0	54.8	4.5	0.2		0.4		
Total Delay		65.9	11.4		75.0	91.3	17.1	36.8		30.7		
LOS		E	B		E	F	B	D		C		
Approach Delay		56.4				39.3		36.8		30.7		
Approach LOS		E				D		D		C		
Queue Length 50th (ft)		213	23		49	188	243	120		117		
Queue Length 95th (ft)		266	84		m#84	m#341	338	178		179		
Internal Link Dist (ft)		483				189		1510		1287		
Turn Bay Length (ft)			150									
Base Capacity (vph)		1205	484		106	506	1602	651		757		
Starvation Cap Reductn		0	0		0	160	478	0		0		
Spillback Cap Reductn		262	0		0	0	0	13		29		
Storage Cap Reductn		0	0		0	0	0	0		0		
Reduced v/c Ratio		1.04	0.42		0.74	1.12	0.92	0.73		0.76		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 67 (67%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 43.2		Intersection LOS: D	
Intersection Capacity Utilization 73.8%		ICU Level of Service D	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Brookline Ave & Park Dr & Boylston St



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	260	620	85	100	70	350	935	290	140	400	120	5
Future Volume (vph)	260	620	85	100	70	350	935	290	140	400	120	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		4.0	4.5	4.0	4.5		4.0		
Lane Util. Factor		0.91	1.00		1.00	1.00	0.88	0.95		0.97		
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	0.94		0.86		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00		
Frt		1.00	0.85		1.00	1.00	0.85	0.95		0.96		
Flt Protected		0.99	1.00		0.95	1.00	1.00	1.00		0.96		
Satd. Flow (prot)		4466	1368		1269	1449	2508	2524		2595		
Flt Permitted		0.99	1.00		0.95	1.00	1.00	1.00		0.96		
Satd. Flow (perm)		4466	1368		1269	1449	2508	2524		2595		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	289	689	94	111	78	389	1039	312	151	421	126	5
RTOR Reduction (vph)	0	0	116	0	0	0	0	58	0	128	0	0
Lane Group Flow (vph)	0	978	89	0	78	389	1039	405	0	424	0	0
Confl. Peds. (#/hr)	7		149	160	109		271		109	7	109	149
Confl. Bikes (#/hr)							9		21			1
Heavy Vehicles (%)	3%	3%	3%	9%	28%	18%	2%	14%	16%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	13	0	0	0
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Actuated Green, G (s)		24.7	24.7		6.4	34.0	62.3	22.1		22.3		
Effective Green, g (s)		26.7	26.7		8.4	35.0	60.8	23.1		24.3		
Actuated g/C Ratio		0.27	0.27		0.08	0.35	0.61	0.23		0.24		
Clearance Time (s)		7.0	7.0		6.0			5.5		6.0		
Vehicle Extension (s)		2.0	2.0		2.0			2.0		2.0		
Lane Grp Cap (vph)		1192	365		106	507	1524	583		630		
v/s Ratio Prot		c0.22	0.07		0.06	c0.27	c0.41	0.16		0.16		
v/s Ratio Perm												
v/c Ratio		0.82	0.24		0.74	0.77	0.68	0.69		0.67		
Uniform Delay, d1		34.4	28.7		44.7	28.9	13.1	35.2		34.3		
Progression Factor		1.00	1.00		0.99	0.98	0.99	1.00		1.00		
Incremental Delay, d2		4.4	0.1		15.2	4.6	0.7	2.9		5.7		
Delay (s)		38.8	28.9		59.7	32.9	13.7	38.1		39.9		
Level of Service		D	C		E	C	B	D		D		
Approach Delay (s)		37.1				21.0		38.1		39.9		
Approach LOS		D				C		D		D		

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

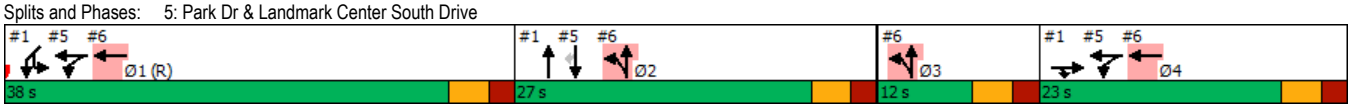


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Lane Configurations															
Traffic Volume (vph)	0	0	0	625	265	60	0	0	0	0	30	15			
Future Volume (vph)	0	0	0	625	265	60	0	0	0	0	30	15			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.95	1.00	1.00	1.00	1.00	1.00	1.00			
Ped Bike Factor					0.94										
Frt					0.974							0.850			
Flt Protected				0.950	0.996										
Satd. Flow (prot)	0	0	0	2687	2392	0	0	0	0	0	1103	1232			
Flt Permitted				0.950	0.996										
Satd. Flow (perm)	0	0	0	2687	2392	0	0	0	0	0	1103	1232			
Right Turn on Red			No	No		Yes			No			Yes			
Satd. Flow (RTOR)					35							131			
Link Speed (mph)		25			25			25			25				
Link Distance (ft)		187			355			234			168				
Travel Time (s)		5.1			9.7			6.4			4.6				
Confl. Peds. (#/hr)						125									
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92	0.84	0.39	0.39			
Heavy Vehicles (%)	2%	2%	2%	4%	9%	30%	2%	2%	2%	2%	55%	18%			
Adj. Flow (vph)	0	0	0	694	294	67	0	0	0	0	77	38			
Shared Lane Traffic (%)				4%											
Lane Group Flow (vph)	0	0	0	666	389	0	0	0	0	0	77	38			
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No			
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right			
Median Width(ft)		24			24			0			0				
Link Offset(ft)		0			0			0			0				
Crosswalk Width(ft)		16			16			16			16				
Two way Left Turn Lane															
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14			
Turning Speed (mph)	15		9	15		9	15		9	15		9			
Number of Detectors				1	1						1	1			
Detector Template															
Leading Detector (ft)				50	50						50	50			
Trailing Detector (ft)				0	0						0	0			
Detector 1 Position(ft)				0	0						0	0			
Detector 1 Size(ft)				50	50						50	50			
Detector 1 Type				Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex			
Detector 1 Channel															
Detector 1 Extend (s)				0.0	0.0						0.0	0.0			
Detector 1 Queue (s)				0.0	0.0						0.0	0.0			
Detector 1 Delay (s)				0.0	0.0						0.0	0.0			
Turn Type				Split	NA						NA	Perm			
Protected Phases				1 4	1 4						2		1	3	4
Permitted Phases												2			
Detector Phase				1 4	1 4						2	2			
Switch Phase															
Minimum Initial (s)											8.0	8.0	15.0	5.0	8.0
Minimum Split (s)											27.0	27.0	24.0	10.0	22.0
Total Split (s)											27.0	27.0	38.0	12.0	23.0
Total Split (%)											27.0%	27.0%	38%	12%	23%
Maximum Green (s)											22.0	22.0	33.0	7.0	18.0
Yellow Time (s)											3.0	3.0	3.0	3.0	3.0
All-Red Time (s)											2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)											-1.0	-1.0			
Total Lost Time (s)											4.0	4.0			
Lead/Lag											Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?											Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)											2.0	2.0	2.0	2.0	2.0
Recall Mode											Ped	Ped	C-Max	None	Ped
Walk Time (s)											7.0	7.0	7.0		7.0
Flash Dont Walk (s)											15.0	15.0	12.0		10.0
Pedestrian Calls (#/hr)											37	37	6		23
Act Effct Green (s)				57.0	57.0						23.0	23.0			
Actuated g/C Ratio				0.57	0.57						0.23	0.23			
v/c Ratio				0.44	0.28						0.30	0.10			
Control Delay				24.9	21.6						35.9	0.5			
Queue Delay				0.9	0.1						0.0	0.0			
Total Delay				25.8	21.6						35.9	0.5			
LOS				C	C						D	A			
Approach Delay					24.3						24.2				
Approach LOS					C						C				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Queue Length 50th (ft)				173	93						41	0			
Queue Length 95th (ft)				m228	m126						34	0			
Internal Link Dist (ft)		107			275			154			88				
Turn Bay Length (ft)															
Base Capacity (vph)				1531	1378						253	384			
Starvation Cap Reductn				548	0						0	0			
Spillback Cap Reductn				251	167						0	0			
Storage Cap Reductn				0	0						0	0			
Reduced v/c Ratio				0.68	0.32						0.30	0.10			

Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.28	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 29.2%	ICU Level of Service A
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 5: Park Dr & Landmark Center South Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	625	265	60	0	0	0	0	30	15
Future Volume (vph)	0	0	0	625	265	60	0	0	0	0	30	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						1.00	1.00
Frpb, ped/bikes				1.00	0.94						1.00	1.00
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	0.97						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				2687	2393						1103	1232
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				2687	2393						1103	1232
Peak-hour factor, PHF	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92	0.84	0.39	0.39
Adj. Flow (vph)	0	0	0	694	294	67	0	0	0	0	77	38
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	0	29
Lane Group Flow (vph)	0	0	0	666	374	0	0	0	0	0	77	9
Confl. Peds. (#/hr)						125						
Heavy Vehicles (%)	2%	2%	2%	4%	9%	30%	2%	2%	2%	2%	55%	18%
Turn Type				Split	NA						NA	Perm
Protected Phases				1 4	1 4						2	
Permitted Phases												2
Actuated Green, G (s)				56.0	56.0						22.0	22.0
Effective Green, g (s)				57.0	57.0						23.0	23.0
Actuated g/C Ratio				0.57	0.57						0.23	0.23
Clearance Time (s)											5.0	5.0
Vehicle Extension (s)											2.0	2.0
Lane Grp Cap (vph)				1531	1364						253	283
v/s Ratio Prot				c0.25	0.16						c0.07	
v/s Ratio Perm												0.01
v/c Ratio				0.44	0.27						0.30	0.03
Uniform Delay, d1				12.3	11.0						31.9	29.9
Progression Factor				1.95	2.11						1.00	1.00
Incremental Delay, d2				0.0	0.0						0.2	0.0
Delay (s)				24.0	23.2						32.1	29.9
Level of Service				C	C						C	C
Approach Delay (s)		0.0			23.7			0.0			31.4	
Approach LOS		A			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	29.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



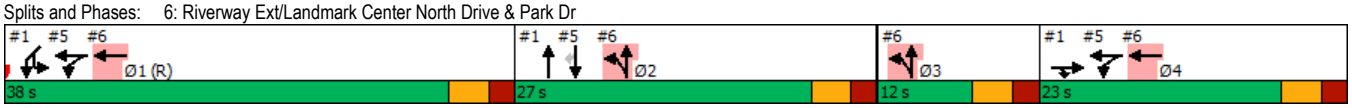
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Lane Configurations																
Traffic Volume (vph)	0	0	0	0	275	5	390	25	0	0	0	0				
Future Volume (vph)	0	0	0	0	275	5	390	25	0	0	0	0				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00				
Ped Bike Factor					1.00											
Frt					0.997											
Flt Protected							0.950	0.970								
Satd. Flow (prot)	0	0	0	0	3002	0	1528	1566	0	0	0	0				
Flt Permitted							0.950	0.970								
Satd. Flow (perm)	0	0	0	0	3002	0	1528	1566	0	0	0	0				
Right Turn on Red			No			Yes	No		Yes			Yes				
Satd. Flow (RTOR)					3											
Link Speed (mph)		25			25			25			25					
Link Distance (ft)		135			187			191			124					
Travel Time (s)		3.7			5.1			5.2			3.4					
Confl. Bikes (#/hr)						2										
Peak Hour Factor	0.92	0.92	0.92	0.92	0.80	0.80	0.77	0.77	0.92	0.92	0.92	0.92				
Heavy Vehicles (%)	2%	2%	2%	2%	8%	0%	1%	0%	2%	2%	2%	2%				
Adj. Flow (vph)	0	0	0	0	344	6	506	32	0	0	0	0				
Shared Lane Traffic (%)							10%									
Lane Group Flow (vph)	0	0	0	0	350	0	455	83	0	0	0	0				
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No				
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right				
Median Width(ft)		0			0			12			12					
Link Offset(ft)		0			0			0			0					
Crosswalk Width(ft)		16			16			16			16					
Two way Left Turn Lane																
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Turning Speed (mph)	15		9	15		9	15		9	15		9				
Number of Detectors					1		1	2								
Detector Template								Thru								
Leading Detector (ft)					50		50	100								
Trailing Detector (ft)					0		0	0								
Detector 1 Position(ft)					0		0	0								
Detector 1 Size(ft)					50		50	6								
Detector 1 Type					Cl+Ex		Cl+Ex	Cl+Ex								
Detector 1 Channel																
Detector 1 Extend (s)					0.0		0.0	0.0								
Detector 1 Queue (s)					0.0		0.0	0.0								
Detector 1 Delay (s)					0.0		0.0	0.0								
Detector 2 Position(ft)								94								
Detector 2 Size(ft)								6								
Detector 2 Type								Cl+Ex								
Detector 2 Channel																
Detector 2 Extend (s)								0.0								
Turn Type					NA		Split	NA								
Protected Phases					1 4		2 3	2 3					1	2	3	4
Permitted Phases																
Detector Phase					1 4		2 3	2 3								
Switch Phase																
Minimum Initial (s)													15.0	8.0	5.0	8.0
Minimum Split (s)													24.0	27.0	10.0	22.0
Total Split (s)													38.0	27.0	12.0	23.0
Total Split (%)													38%	27%	12%	23%
Maximum Green (s)													33.0	22.0	7.0	18.0
Yellow Time (s)													3.0	3.0	3.0	3.0
All-Red Time (s)													2.0	2.0	2.0	2.0
Lost Time Adjust (s)																
Total Lost Time (s)																
Lead/Lag													Lead	Lag	Lead	Lag
Lead-Lag Optimize?													Yes	Yes	Yes	Yes
Vehicle Extension (s)													2.0	2.0	2.0	2.0
Recall Mode													C-Max	Ped	None	Ped
Walk Time (s)													7.0	7.0		7.0
Flash Dont Walk (s)													12.0	15.0		10.0
Pedestrian Calls (#/hr)													6	37		23
Act Effct Green (s)					57.0		35.0	34.0								
Actuated g/C Ratio					0.57		0.35	0.34								
v/c Ratio					0.20		0.85	0.16								
Control Delay					6.8		22.2	0.4								

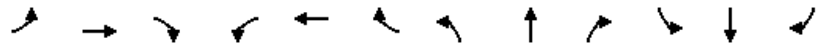
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Queue Delay					0.5		35.4	0.9								
Total Delay					7.3		57.6	1.3								
LOS					A		E	A								
Approach Delay					7.3			48.9								
Approach LOS					A			D								
Queue Length 50th (ft)					25		148	0								
Queue Length 95th (ft)					26		118	m0								
Internal Link Dist (ft)		55			107			111			44					
Turn Bay Length (ft)																
Base Capacity (vph)					1712		534	532								
Starvation Cap Reductn					917		104	287								
Spillback Cap Reductn					0		0	0								
Storage Cap Reductn					0		0	0								
Reduced v/c Ratio					0.44		1.06	0.34								

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 32.5		Intersection LOS: C	
Intersection Capacity Utilization 32.7%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Riverway Ext/Landmark Center North Drive & Park Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	275	5	390	25	0	0	0	0
Future Volume (vph)	0	0	0	0	275	5	390	25	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	5.0				
Lane Util. Factor					0.95		0.95	0.95				
Frpb, ped/bikes					1.00		1.00	1.00				
Flpb, ped/bikes					1.00		1.00	1.00				
Frt					1.00		1.00	1.00				
Flt Protected					1.00		0.95	0.97				
Satd. Flow (prot)					3003		1528	1566				
Flt Permitted					1.00		0.95	0.97				
Satd. Flow (perm)					3003		1528	1566				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.80	0.80	0.77	0.77	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	344	6	506	32	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	349	0	455	83	0	0	0	0
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	2%	2%	2%	2%	8%	0%	1%	0%	2%	2%	2%	2%
Turn Type					NA		Split	NA				
Protected Phases					1 4		2 3	2 3				
Permitted Phases												
Actuated Green, G (s)					56.0		34.0	34.0				
Effective Green, g (s)					57.0		35.0	34.0				
Actuated g/C Ratio					0.57		0.35	0.34				
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)					1711		534	532				
v/s Ratio Prot					c0.12		c0.30	0.05				
v/s Ratio Perm												
v/c Ratio					0.20		0.85	0.16				
Uniform Delay, d1					10.5		30.1	23.0				
Progression Factor					0.63		0.33	0.00				
Incremental Delay, d2					0.0		7.8	0.0				
Delay (s)					6.6		17.7	0.0				
Level of Service					A		B	A				
Approach Delay (s)		0.0			6.6			15.0			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	780	970	130
Future Volume (vph)	0	0	0	780	970	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	11	11	11	16
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						
Frt					0.982	
Flt Protected						
Satd. Flow (prot)	0	0	0	2881	2902	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	2881	2902	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	540			1044	160	
Travel Time (s)	14.7			28.5	4.4	
Confl. Peds. (#/hr)			115			115
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.92	0.92	0.93	0.93	0.88	0.88
Heavy Vehicles (%)	2%	2%	0%	9%	7%	1%
Adj. Flow (vph)	0	0	0	839	1102	148
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	839	1250	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.19	1.19	1.19	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.5%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	780	970	130
Future Volume (Veh/h)	0	0	0	780	970	130
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.93	0.93	0.88	0.88
Hourly flow rate (vph)	0	0	0	839	1102	148
Pedestrians	115					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1044	160	
pX, platoon unblocked	0.75	0.71	0.71			
vC, conflicting volume	1710	740	1365			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	793	0	705			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	246	773	643			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	280	559	735	515
Volume Left	0	0	0	0
Volume Right	0	0	0	148
cSH	643	1700	1700	1700
Volume to Capacity	0.00	0.33	0.43	0.30
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)	15		

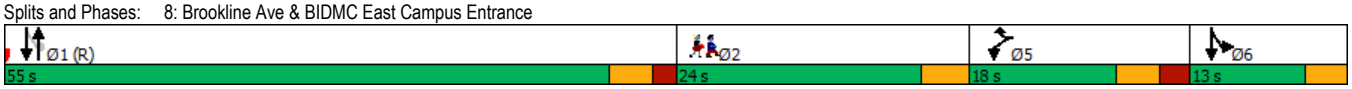
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	85	70	725	95	70	910	
Future Volume (vph)	85	70	725	95	70	910	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	10	10	10	10	10	
Storage Length (ft)	0	0		0	25		
Storage Lanes	1	1		0	1		
Taper Length (ft)	0				0		
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95	
Ped Bike Factor			1.00				
Frt		0.850	0.983				
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1516	1357	2725	0	1516	2721	
Flt Permitted	0.950				0.212		
Satd. Flow (perm)	1516	1357	2725	0	338	2721	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		101	17				
Link Speed (mph)	25		25			25	
Link Distance (ft)	171		594			1044	
Travel Time (s)	4.7		16.2			28.5	
Confl. Bikes (#/hr)				16			
Peak Hour Factor	0.69	0.69	0.86	0.86	0.91	0.91	
Heavy Vehicles (%)	0%	0%	10%	1%	0%	7%	
Bus Blockages (#/hr)	0	0	0	0	0	20	
Adj. Flow (vph)	123	101	843	110	77	1000	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	123	101	953	0	77	1000	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	10		10			10	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.25	1.25	1.25	1.25	1.25	1.31	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	1		1	1	
Detector Template							
Leading Detector (ft)	50	50	50		50	50	
Trailing Detector (ft)	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0		0	0	
Detector 1 Size(ft)	50	50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	
Turn Type	Prot	Prot	NA		D.P+P	NA	
Protected Phases	5	5	1		6	1 6	2
Permitted Phases					1		
Detector Phase	5	5	1		6	1 6	
Switch Phase							
Minimum Initial (s)	8.0	8.0	10.0		6.0		1.0
Minimum Split (s)	14.0	14.0	15.5		9.5		24.0
Total Split (s)	18.0	18.0	55.0		13.0		24.0
Total Split (%)	16.4%	16.4%	50.0%		11.8%		22%
Maximum Green (s)	12.0	12.0	49.5		9.5		20.0
Yellow Time (s)	3.5	3.5	3.5		3.5		4.0
All-Red Time (s)	2.5	2.5	2.0		0.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	6.0	6.0	5.5		3.5		
Lead/Lag	Lead	Lead	Lead		Lag		Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	2.0		2.0		2.0
Recall Mode	None	None	C-Max		Max		None
Walk Time (s)							7.0
Flash Dont Walk (s)							13.0
Pedestrian Calls (#/hr)							80
Act Effct Green (s)	11.2	11.2	55.1		66.6	68.1	
Actuated g/C Ratio	0.10	0.10	0.50		0.61	0.62	
v/c Ratio	0.80	0.44	0.69		0.25	0.59	
Control Delay	83.2	15.6	9.8		11.8	16.3	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	83.2	15.6	9.8		11.8	16.3	
LOS	F	B	A		B	B	
Approach Delay	52.7		9.8			16.0	
Approach LOS	D		A			B	
Queue Length 50th (ft)	86	0	164		22	240	
Queue Length 95th (ft)	112	22	m128		44	310	
Internal Link Dist (ft)	91		514			964	
Turn Bay Length (ft)					25		
Base Capacity (vph)	165	238	1374		306	1685	
Starvation Cap Reductn	0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.75	0.42	0.69		0.25	0.59	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 107 (97%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 17.0		Intersection LOS: B	
Intersection Capacity Utilization 50.2%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Brookline Ave & BIDMC East Campus Entrance





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	85	70	725	95	70	910
Future Volume (vph)	85	70	725	95	70	910
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0	5.5		3.5	5.5
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1516	1357	2725		1516	2721
Flt Permitted	0.95	1.00	1.00		0.21	1.00
Satd. Flow (perm)	1516	1357	2725		338	2721
Peak-hour factor, PHF	0.69	0.69	0.86	0.86	0.91	0.91
Adj. Flow (vph)	123	101	843	110	77	1000
RTOR Reduction (vph)	0	91	9	0	0	0
Lane Group Flow (vph)	123	10	944	0	77	1000
Confl. Bikes (#/hr)				16		
Heavy Vehicles (%)	0%	0%	10%	1%	0%	7%
Bus Blockages (#/hr)	0	0	0	0	0	20
Turn Type	Prot	Prot	NA		D.P+P	NA
Protected Phases	5	5	1		6	1 6
Permitted Phases					1	
Actuated Green, G (s)	11.2	11.2	54.3		63.8	67.3
Effective Green, g (s)	11.2	11.2	54.3		63.8	63.8
Actuated g/C Ratio	0.10	0.10	0.49		0.58	0.58
Clearance Time (s)	6.0	6.0	5.5		3.5	
Vehicle Extension (s)	2.0	2.0	2.0		2.0	
Lane Grp Cap (vph)	154	138	1345		297	1578
v/s Ratio Prot	c0.08	0.01	c0.35		0.02	c0.37
v/s Ratio Perm					0.13	
v/c Ratio	0.80	0.07	0.70		0.26	0.63
Uniform Delay, d1	48.3	44.7	21.6		11.6	15.3
Progression Factor	1.00	1.00	0.41		1.00	1.00
Incremental Delay, d2	22.9	0.1	0.3		2.1	2.0
Delay (s)	71.2	44.8	9.2		13.7	17.3
Level of Service	E	D	A		B	B
Approach Delay (s)	59.3		9.2			17.0
Approach LOS	E		A			B

Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	80	230	35	125	215	280	45	595	90	200	520	215	
Future Volume (vph)	80	230	35	125	215	280	45	595	90	200	520	215	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	10	10	10	10	10	10	10	10	
Storage Length (ft)	170		0	155		0	110		0	0		0	
Storage Lanes	1		0	1		1	0		0	1		0	
Taper Length (ft)	25			70			100			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor		1.00				0.99		1.00			0.99		
Frt		0.980				0.850		0.981			0.956		
Flt Protected	0.950			0.950				0.997		0.950			
Satd. Flow (prot)	1555	1573	0	1318	1550	1233	0	2680	0	1404	2701	0	
Flt Permitted	0.433			0.329				0.698		0.190			
Satd. Flow (perm)	709	1573	0	457	1550	1217	0	1876	0	281	2701	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		617			195			447			594		
Travel Time (s)		16.8			5.3			12.2			16.2		
Confl. Bikes (#/hr)			15			2			1			5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.95	0.95	0.95	0.84	0.84	0.84	
Heavy Vehicles (%)	1%	3%	0%	15%	3%	10%	5%	11%	9%	8%	8%	3%	
Adj. Flow (vph)	90	258	39	140	242	315	47	626	95	238	619	256	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	90	297	0	140	242	315	0	768	0	238	875	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1	1	1	1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50	50	50	50		50	50		
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Size(ft)	50	50		50	50	50	50	50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA		
Protected Phases		5			5	6		1		6	1 6		2
Permitted Phases	5			5		5	1			1			
Detector Phase	5	5		5	5	6	1	1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0	6.0	10.0	10.0		6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	11.5	15.5	15.5		11.5			27.0
Total Split (s)	31.0	31.0		31.0	31.0	12.0	40.0	40.0		12.0			27.0
Total Split (%)	28.2%	28.2%		28.2%	28.2%	10.9%	36.4%	36.4%		10.9%			25%
Maximum Green (s)	25.0	25.0		25.0	25.0	8.5	34.5	34.5		8.5			23.0
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5	0.0	2.0	2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0			
Total Lost Time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5			
Lead/Lag	Lead	Lead		Lead	Lead	Lag	Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0			2.0
Recall Mode	None	None		None	None	None	C-Max	C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													16.0
Pedestrian Calls (#/hr)													249
Act Effct Green (s)	25.0	25.0		25.0	25.0	36.0		34.5		45.0	46.5		
Actuated g/C Ratio	0.23	0.23		0.23	0.23	0.33		0.31		0.41	0.42		
v/c Ratio	0.56	0.83		1.36	0.69	0.79		1.31		1.18	0.77		
Control Delay	52.6	61.3		247.3	50.3	46.8		168.8		146.1	20.7		
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay	52.6	61.3		247.3	50.3	46.8		168.8		146.1	20.7		
LOS	D	E		F	D	D		F		F	C		
Approach Delay		59.3			88.3			168.8			47.5		
Approach LOS		E			F			F			D		
Queue Length 50th (ft)	57	201		~130	157	190		~373		~138	121		
Queue Length 95th (ft)	112	#339		#252	244	#327		#482		m#261	157		
Internal Link Dist (ft)		537			115			367			514		
Turn Bay Length (ft)	170			155									
Base Capacity (vph)	161	357		103	352	399		588		201	1141		
Starvation Cap Reductn	0	0		0	0	0		0		0	0		
Spillback Cap Reductn	0	0		0	0	0		0		0	0		
Storage Cap Reductn	0	0		0	0	0		0		0	0		
Reduced v/c Ratio	0.56	0.83		1.36	0.69	0.79		1.31		1.18	0.77		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 109 (99%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.36			
Intersection Signal Delay: 90.1		Intersection LOS: F	
Intersection Capacity Utilization 89.2%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Brookline Ave & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	230	35	125	215	280	45	595	90	200	520	215
Future Volume (vph)	80	230	35	125	215	280	45	595	90	200	520	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99		1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1555	1574		1318	1550	1221		2681		1404	2702	
Flt Permitted	0.43	1.00		0.33	1.00	1.00		0.70		0.19	1.00	
Satd. Flow (perm)	709	1574		456	1550	1221		1877		280	2702	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.95	0.95	0.95	0.84	0.84	0.84
Adj. Flow (vph)	90	258	39	140	242	315	47	626	95	238	619	256
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	90	297	0	140	242	315	0	768	0	238	875	0
Confl. Bikes (#/hr)			15			2			1			5
Heavy Vehicles (%)	1%	3%	0%	15%	3%	10%	5%	11%	9%	8%	8%	3%
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA	
Protected Phases		5			5	6		1		6	1 6	
Permitted Phases	5			5		5	1			1		
Actuated Green, G (s)	25.0	25.0		25.0	25.0	33.5		34.5		43.0	46.5	
Effective Green, g (s)	25.0	25.0		25.0	25.0	33.5		34.5		43.0	43.0	
Actuated g/C Ratio	0.23	0.23		0.23	0.23	0.30		0.31		0.39	0.39	
Clearance Time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0		2.0		
Lane Grp Cap (vph)	161	357		103	352	371		588		196	1056	
v/s Ratio Prot		0.19			0.16	0.07				c0.09	0.32	
v/s Ratio Perm	0.13			c0.31		0.19		c0.41		0.38		
v/c Ratio	0.56	0.83		1.36	0.69	0.85		1.31		1.21	0.83	
Uniform Delay, d1	37.6	40.5		42.5	38.9	35.9		37.8		29.5	30.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.50		1.33	0.61	
Incremental Delay, d2	2.4	14.5		212.1	4.4	15.8		146.8		127.6	4.2	
Delay (s)	40.0	55.0		254.6	43.3	51.6		165.8		166.9	22.5	
Level of Service	D	E		F	D	D		F		F	C	
Approach Delay (s)		51.5			89.5			165.8			53.4	
Approach LOS		D			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	90.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	89.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



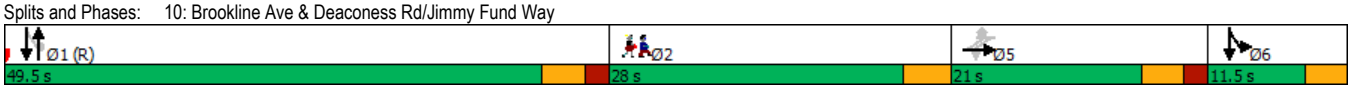
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	60	15	90	85	0	100	0	675	75	85	685	0	
Future Volume (vph)	60	15	90	85	0	100	0	675	75	85	685	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	10	10	10	10	10	10	11	11	11	
Storage Length (ft)	130		0	90		0	0		0	0		0	
Storage Lanes	1		0	1		1	0		0	0		0	
Taper Length (ft)	25			60			0			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	
Ped Bike Factor								1.00					
Frt		0.872				0.850		0.985					
Flt Protected	0.950			0.950							0.994		
Satd. Flow (prot)	1433	1283	0	1458	0	1130	0	2822	0	0	2912	0	
Flt Permitted	0.950			0.522							0.666		
Satd. Flow (perm)	1433	1283	0	801	0	1130	0	2822	0	0	1951	0	
Right Turn on Red			Yes			No			Yes			Yes	
Satd. Flow (RTOR)		125						13					
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		331			357			455			447		
Travel Time (s)		9.0			9.7			12.4			12.2		
Confl. Bikes (#/hr)									12			8	
Peak Hour Factor	0.72	0.72	0.72	0.95	0.95	0.95	0.91	0.91	0.91	0.97	0.97	0.97	
Heavy Vehicles (%)	2%	8%	0%	4%	0%	20%	0%	6%	1%	1%	8%	0%	
Parking (#/hr)	0	6	6										
Adj. Flow (vph)	83	21	125	89	0	105	0	742	82	88	706	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	83	146	0	89	0	105	0	824	0	0	794	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		12			15			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.30	1.36	1.14	1.25	1.25	1.25	1.25	1.25	1.25	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1		1		1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50		50		50		50	50		
Trailing Detector (ft)	0	0		0		0		0		0	0		
Detector 1 Position(ft)	0	0		0		0		0		0	0		
Detector 1 Size(ft)	50	50		50		50		50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA		
Protected Phases		5						1		6	1 6		2
Permitted Phases	5			5		5				1			
Detector Phase	5	5		5		5		1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0		8.0		10.0		6.0			1.0
Minimum Split (s)	13.5	13.5		13.5		13.5		29.5		11.5			28.0
Total Split (s)	21.0	21.0		21.0		21.0		49.5		11.5			28.0
Total Split (%)	19.1%	19.1%		19.1%		19.1%		45.0%		10.5%			25%
Maximum Green (s)	15.5	15.5		15.5		15.5		44.0		8.0			24.0
Yellow Time (s)	3.5	3.5		3.5		3.5		3.5		3.5			4.0
All-Red Time (s)	2.0	2.0		2.0		2.0		2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0					
Total Lost Time (s)	5.5	5.5		5.5		5.5		5.5					
Lead/Lag	Lead	Lead		Lead		Lead		Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0		2.0			2.0
Recall Mode	None	None		None		None		C-Max		Max			None
Walk Time (s)								7.0					7.0
Flash Dont Walk (s)								6.0					17.0
Pedestrian Calls (#/hr)								45					102
Act Effct Green (s)	13.9	13.9		13.9		13.9		45.6			51.6		
Actuated g/C Ratio	0.13	0.13		0.13		0.13		0.41			0.47		
v/c Ratio	0.46	0.54		0.88		0.73		0.70			0.82		
Control Delay	52.5	18.8		110.4		75.0		30.5			19.4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Queue Delay	0.0	0.0		0.0		0.0		0.5			0.0		
Total Delay	52.5	18.8		110.4		75.0		31.0			19.4		
LOS	D	B		F		E		C			B		
Approach Delay		31.0			91.3			31.0			19.4		
Approach LOS		C			F			C			B		
Queue Length 50th (ft)	54	13		62		71		251			104		
Queue Length 95th (ft)	82	40		#153		#149		327			m137		
Internal Link Dist (ft)		251			277			375			367		
Turn Bay Length (ft)	130			90									
Base Capacity (vph)	201	288		112		159		1176			967		
Starvation Cap Reductn	0	0		0		0		100			0		
Spillback Cap Reductn	0	0		0		0		0			0		
Storage Cap Reductn	0	0		0		0		0			0		
Reduced v/c Ratio	0.41	0.51		0.79		0.66		0.77			0.82		

Intersection Summary

Area Type: CBD
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 93 (85%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 32.2 Intersection LOS: C
Intersection Capacity Utilization 71.6% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Brookline Ave & Deaconess Rd/Jimmy Fund Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	15	90	85	0	100	0	675	75	85	685	0
Future Volume (vph)	60	15	90	85	0	100	0	675	75	85	685	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	10	10	10	10	10	11	11	11
Total Lost time (s)	5.5	5.5		5.5		5.5		5.5			5.5	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Frt	1.00	0.87		1.00		0.85		0.99			1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00			0.99	
Satd. Flow (prot)	1433	1282		1458		1130		2823			2913	
Flt Permitted	0.95	1.00		0.52		1.00		1.00			0.67	
Satd. Flow (perm)	1433	1282		800		1130		2823			1952	
Peak-hour factor, PHF	0.72	0.72	0.72	0.95	0.95	0.95	0.91	0.91	0.91	0.97	0.97	0.97
Adj. Flow (vph)	83	21	125	89	0	105	0	742	82	88	706	0
RTOR Reduction (vph)	0	109	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	83	37	0	89	0	105	0	816	0	0	794	0
Confl. Bikes (#/hr)									12			8
Heavy Vehicles (%)	2%	8%	0%	4%	0%	20%	0%	6%	1%	1%	8%	0%
Parking (#/hr)	0	6	6									
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5			5		5				1		
Actuated Green, G (s)	13.9	13.9		13.9		13.9		45.6			53.6	
Effective Green, g (s)	13.9	13.9		13.9		13.9		45.6			53.6	
Actuated g/C Ratio	0.13	0.13		0.13		0.13		0.41			0.49	
Clearance Time (s)	5.5	5.5		5.5		5.5		5.5				
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0				
Lane Grp Cap (vph)	181	161		101		142		1170			1021	
v/s Ratio Prot		0.03						0.29			c0.06	
v/s Ratio Perm	0.06			c0.11		0.09					c0.32	
v/c Ratio	0.46	0.23		0.88		0.74		0.70			0.78	
Uniform Delay, d1	44.6	43.2		47.2		46.3		26.5			23.3	
Progression Factor	1.00	1.00		1.00		1.00		1.00			0.63	
Incremental Delay, d2	0.7	0.3		52.4		15.8		3.5			2.8	
Delay (s)	45.2	43.5		99.6		62.1		30.0			17.4	
Level of Service	D	D		F		E		C			B	
Approach Delay (s)		44.1			79.3			30.0			17.4	
Approach LOS		D			E			C			B	

Intersection Summary			
HCM 2000 Control Delay	31.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

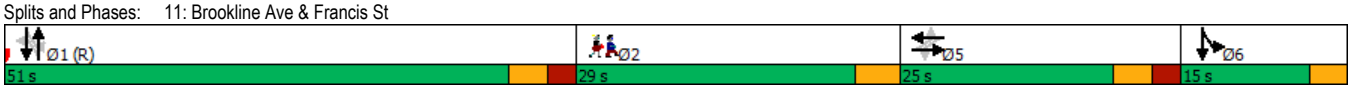


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	10	110	15	145	80	80	45	660	135	200	630	30	
Future Volume (vph)	10	110	15	145	80	80	45	660	135	200	630	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	15	15	15	11	11	11	11	11	11	10	10	10	
Storage Length (ft)	0		0	0		0	0		0	240		0	
Storage Lanes	0		0	1		0	0		1	1		0	
Taper Length (ft)	0			0			0			45			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95	
Ped Bike Factor		1.00							0.97		1.00		
Frt		0.985			0.925				0.850		0.993		
Flt Protected		0.996		0.950				0.997		0.950			
Satd. Flow (prot)	0	1798	0	1481	1409	0	0	3015	1338	1330	2919	0	
Flt Permitted		0.969		0.455				0.834		0.228			
Satd. Flow (perm)	0	1750	0	710	1409	0	0	2522	1296	319	2919	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)					36								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		176			309			203			455		
Travel Time (s)		4.8			8.4			5.5			12.4		
Confl. Bikes (#/hr)			3						12			7	
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.85	0.85	0.85	0.96	0.96	0.96	
Heavy Vehicles (%)	0%	2%	7%	6%	3%	14%	2%	4%	5%	14%	3%	4%	
Adj. Flow (vph)	12	136	19	159	88	88	53	776	159	208	656	31	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	167	0	159	176	0	0	829	159	208	687	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.01	1.01	1.01	1.19	1.19	1.19	1.19	1.19	1.19	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1		1	1	1	1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50		50	50	50	50	50		
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Size(ft)	50	50		50	50		50	50	50	50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases	5			5			1		1	1			
Detector Phase	5	5		5	5		1	1	1	6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		10.0	10.0	10.0	6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		16.0	16.0	16.0	12.0			29.0
Total Split (s)	25.0	25.0		25.0	25.0		51.0	51.0	51.0	15.0			29.0
Total Split (%)	20.8%	20.8%		20.8%	20.8%		42.5%	42.5%	42.5%	12.5%			24%
Maximum Green (s)	19.0	19.0		19.0	19.0		45.0	45.0	45.0	11.5			25.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5	2.5	0.0			0.0
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0	0.0			
Total Lost Time (s)		6.0		6.0	6.0			6.0	6.0	3.5			
Lead/Lag	Lead	Lead		Lead	Lead		Lead	Lead	Lead	Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0			3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													57
Act Effct Green (s)		19.0		19.0	19.0			50.8	50.8	64.8	65.8		
Actuated g/C Ratio		0.16		0.16	0.16			0.42	0.42	0.54	0.55		
v/c Ratio		0.60		1.42	0.70			0.78	0.29	0.78	0.43		
Control Delay		57.1		270.6	53.3			17.5	12.7	38.1	18.8		
Queue Delay		0.0		0.0	0.0			21.8	0.7	0.0	0.4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		57.1		270.6	53.3			39.4	13.5	38.1	19.1		
LOS		E		F	D			D	B	D	B		
Approach Delay		57.1			156.4			35.2			23.6		
Approach LOS		E			F			D			C		
Queue Length 50th (ft)		122		~166	104			151	55	88	177		
Queue Length 95th (ft)		174		#306	#200			m108	m40	#179	228		
Internal Link Dist (ft)		96			229			123			375		
Turn Bay Length (ft)										240			
Base Capacity (vph)		277		112	253			1067	549	268	1600		
Starvation Cap Reductn		0		0	0			257	182	0	416		
Spillback Cap Reductn		0		0	0			0	0	0	19		
Storage Cap Reductn		0		0	0			0	0	0	0		
Reduced v/c Ratio		0.60		1.42	0.70			1.02	0.43	0.78	0.58		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 111 (93%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.42			
Intersection Signal Delay: 49.4		Intersection LOS: D	
Intersection Capacity Utilization 80.3%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

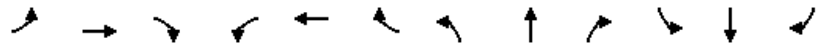
Splits and Phases: 11: Brookline Ave & Francis St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	110	15	145	80	80	45	660	135	200	630	30
Future Volume (vph)	10	110	15	145	80	80	45	660	135	200	630	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	11	11	11	11	11	11	10	10	10
Total Lost time (s)		6.0		6.0	6.0			6.0	6.0	3.5	6.0	
Lane Util. Factor		1.00		1.00	1.00			0.95	1.00	1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00			1.00	0.97	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frt		0.98		1.00	0.93			1.00	0.85	1.00	0.99	
Flt Protected		1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1798		1481	1409			3014	1297	1330	2920	
Flt Permitted		0.97		0.45	1.00			0.83	1.00	0.23	1.00	
Satd. Flow (perm)		1748		709	1409			2522	1297	319	2920	
Peak-hour factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91	0.85	0.85	0.85	0.96	0.96	0.96
Adj. Flow (vph)	12	136	19	159	88	88	53	776	159	208	656	31
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	167	0	159	146	0	0	829	159	208	687	0
Confl. Bikes (#/hr)			3						12			7
Heavy Vehicles (%)	0%	2%	7%	6%	3%	14%	2%	4%	5%	14%	3%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases	5			5			1		1	1		
Actuated Green, G (s)		19.0		19.0	19.0			50.0	50.0	61.5	65.0	
Effective Green, g (s)		19.0		19.0	19.0			50.0	50.0	61.5	61.5	
Actuated g/C Ratio		0.16		0.16	0.16			0.42	0.42	0.51	0.51	
Clearance Time (s)		6.0		6.0	6.0			6.0	6.0	3.5		
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0	3.0		
Lane Grp Cap (vph)		276		112	223			1050	540	260	1496	
v/s Ratio Prot					0.10					c0.08	0.24	
v/s Ratio Perm		0.10		c0.22				0.33	0.12	c0.33		
v/c Ratio		0.61		1.42	0.65			0.79	0.29	0.80	0.46	
Uniform Delay, d1		47.0		50.5	47.4			30.4	23.3	18.9	18.6	
Progression Factor		1.00		1.00	1.00			0.50	0.49	1.00	1.00	
Incremental Delay, d2		3.7		232.9	6.7			0.6	0.1	22.2	1.0	
Delay (s)		50.7		283.4	54.1			15.8	11.4	41.1	19.7	
Level of Service		D		F	D			B	B	D	B	
Approach Delay (s)		50.7			163.0			15.1			24.6	
Approach LOS		D			F			B			C	

Intersection Summary			
HCM 2000 Control Delay	42.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	0	705	90	0	990	395	200	450	35	330	450	10	
Future Volume (vph)	0	705	90	0	990	395	200	450	35	330	450	10	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11	
Storage Length (ft)	0		0	0		0	280		0	0		0	
Storage Lanes	0		0	0		0	1		0	1		0	
Taper Length (ft)	0			0			25			0			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor		1.00						1.00			1.00		
Frt		0.983			0.957			0.989			0.997		
Flt Protected							0.950			0.950			
Satd. Flow (prot)	0	3022	0	0	2976	0	1555	2939	0	1540	2930	0	
Flt Permitted							0.267			0.267			
Satd. Flow (perm)	0	3022	0	0	2976	0	437	2939	0	433	2930	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		14			61			5			2		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		497			489			442			108		
Travel Time (s)		13.6			13.3			12.1			2.9		
Confl. Bikes (#/hr)			1						1			3	
Peak Hour Factor	0.86	0.86	0.86	0.96	0.96	0.96	0.78	0.78	0.78	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	2%	2%	0%	1%	1%	1%	6%	0%	2%	7%	0%	
Adj. Flow (vph)	0	820	105	0	1031	411	256	577	45	359	489	11	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	925	0	0	1442	0	256	622	0	359	500	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		0			0			11			11		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors		1			1		1	1		1	1		
Detector Template													
Leading Detector (ft)		50			50		50	50		50	50		
Trailing Detector (ft)		0			0		0	0		0	0		
Detector 1 Position(ft)		0			0		0	0		0	0		
Detector 1 Size(ft)		50			50		50	50		50	50		
Detector 1 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)		0.0			0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)		0.0			0.0		0.0	0.0		0.0	0.0		
Turn Type		NA			NA		Perm	NA		D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases							1			1			
Detector Phase		5			5		1	1		6	1 6		
Switch Phase													
Minimum Initial (s)		8.0			8.0		10.0	10.0		6.0			7.0
Minimum Split (s)		14.0			14.0		16.0	16.0		12.0			27.0
Total Split (s)		56.0			56.0		21.0	21.0		16.0			27.0
Total Split (%)		46.7%			46.7%		17.5%	17.5%		13.3%			23%
Maximum Green (s)		50.0			50.0		15.0	15.0		13.0			25.0
Yellow Time (s)		3.0			3.0		3.0	3.0		3.0			2.0
All-Red Time (s)		3.0			3.0		3.0	3.0		0.0			0.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0			
Total Lost Time (s)		6.0			6.0		6.0	6.0		3.0			
Lead/Lag		Lead			Lead		Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0			2.0
Recall Mode		Max			Max		C-Max	C-Max		Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													91
Act Effct Green (s)		50.0			50.0		15.0	15.0		31.0	31.0		
Actuated g/C Ratio		0.42			0.42		0.12	0.12		0.26	0.26		
v/c Ratio		0.73			1.13		4.74	1.68		1.55	0.66		
Control Delay		29.4			101.5		1736.9	348.9		289.8	28.1		
Queue Delay		1.2			0.6		0.0	0.7		0.0	1.2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		30.6			102.2		1736.9	349.6		289.8	29.3		
LOS		C			F		F	F		F	C		
Approach Delay		30.6			102.2			754.1			138.2		
Approach LOS		C			F			F			F		
Queue Length 50th (ft)		198			~668		~369	~371		~319	131		
Queue Length 95th (ft)		308			#810		#459	#405		m#450	m153		
Internal Link Dist (ft)		417			409			362			28		
Turn Bay Length (ft)							280						
Base Capacity (vph)		1267			1275		54	371		231	758		
Starvation Cap Reductn		156			0		0	0		0	101		
Spillback Cap Reductn		0			180		0	25		0	0		
Storage Cap Reductn		0			0		0	0		0	0		
Reduced v/c Ratio		0.83			1.32		4.74	1.80		1.55	0.76		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 1 (1%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 4.74			
Intersection Signal Delay: 233.1		Intersection LOS: F	
Intersection Capacity Utilization 93.1%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

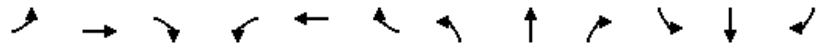
Splits and Phases: 12: Brookline Ave & Riverway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	705	90	0	990	395	200	450	35	330	450	10
Future Volume (vph)	0	705	90	0	990	395	200	450	35	330	450	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		6.0			6.0		6.0	6.0		3.0	6.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.98			0.96		1.00	0.99		1.00	1.00	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3022			2977		1555	2940		1540	2929	
Flt Permitted		1.00			1.00		0.27	1.00		0.27	1.00	
Satd. Flow (perm)		3022			2977		436	2940		432	2929	
Peak-hour factor, PHF	0.86	0.86	0.86	0.96	0.96	0.96	0.78	0.78	0.78	0.92	0.92	0.92
Adj. Flow (vph)	0	820	105	0	1031	411	256	577	45	359	489	11
RTOR Reduction (vph)	0	8	0	0	36	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	917	0	0	1406	0	256	618	0	359	498	0
Confl. Bikes (#/hr)			1						1			3
Heavy Vehicles (%)	0%	2%	2%	0%	1%	1%	1%	6%	0%	2%	7%	0%
Turn Type		NA			NA		Perm	NA		D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases							1			1		
Actuated Green, G (s)		50.0			50.0		15.0	15.0		28.0	31.0	
Effective Green, g (s)		50.0			50.0		15.0	15.0		28.0	28.0	
Actuated g/C Ratio		0.42			0.42		0.12	0.12		0.23	0.23	
Clearance Time (s)		6.0			6.0		6.0	6.0		3.0		
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0		
Lane Grp Cap (vph)		1259			1240		54	367		220	683	
v/s Ratio Prot		0.30			c0.47			0.21		c0.18	0.17	
v/s Ratio Perm							c0.59			0.20		
v/c Ratio		0.73			1.13		4.74	1.68		1.63	0.73	
Uniform Delay, d1		29.3			35.0		52.5	52.5		43.2	42.5	
Progression Factor		0.93			1.00		1.00	1.00		0.66	0.61	
Incremental Delay, d2		2.0			70.9		1724.6	319.0		300.3	5.4	
Delay (s)		29.4			105.9		1777.1	371.5		328.9	31.5	
Level of Service		C			F		F	F		F	C	
Approach Delay (s)		29.4			105.9			781.3			155.8	
Approach LOS		C			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	243.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.44		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	93.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	95	20	0	5	5	105	0	1165	35	110	790	50	
Future Volume (vph)	95	20	0	5	5	105	0	1165	35	110	790	50	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	14	14	14	14	14	11	11	11	11	11	11	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	
Ped Bike Factor								1.00			1.00		
Frt					0.877			0.996			0.992		
Flt Protected		0.960			0.998						0.994		
Satd. Flow (prot)	0	1723	0	0	1540	0	0	3091	0	0	3040	0	
Flt Permitted		0.539			0.987						0.565		
Satd. Flow (perm)	0	967	0	0	1523	0	0	3091	0	0	1728	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					124			3			6		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		418			141			497			1033		
Travel Time (s)		11.4			3.8			13.6			28.2		
Confl. Peds. (#/hr)									16	16		16	
Confl. Bikes (#/hr)			3									2	
Peak Hour Factor	0.60	0.60	0.60	0.85	0.85	0.85	0.98	0.98	0.98	0.91	0.91	0.91	
Heavy Vehicles (%)	2%	0%	0%	0%	0%	4%	0%	1%	4%	0%	2%	0%	
Adj. Flow (vph)	158	33	0	6	6	124	0	1189	36	121	868	55	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	191	0	0	136	0	0	1225	0	0	1044	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		0			0			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.05	1.05	1.05	1.05	1.05	1.05	1.19	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1		1	1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50		50	50		50	50		
Trailing Detector (ft)	0	0		0	0		0	0		0	0		
Detector 1 Position(ft)	0	0		0	0		0	0		0	0		
Detector 1 Size(ft)	50	50		50	50		50	50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Turn Type	Perm	NA		Perm	NA			NA		pm+pt	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases	5			5			1			1 6			
Detector Phase	5	5		5	5		1	1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		6.0			8.0
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	14.0		11.0			27.0
Total Split (s)	24.0	24.0		24.0	24.0		58.0	58.0		11.0			27.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		48.3%	48.3%		9.2%			23%
Maximum Green (s)	18.0	18.0		18.0	18.0		52.0	52.0		8.0			25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0			2.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		0.0			0.0
Lost Time Adjust (s)		0.0			0.0			0.0					
Total Lost Time (s)		6.0			6.0			6.0					
Lead/Lag	Lead	Lead		Lead	Lead		Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0			3.0
Recall Mode	None	None		None	None		C-Max	C-Max		Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													7
Act Effct Green (s)		18.0			18.0			73.6			78.6		
Actuated g/C Ratio		0.15			0.15			0.61			0.66		
v/c Ratio		1.32			0.41			0.65			0.88		
Control Delay		223.5			13.9			12.4			34.1		
Queue Delay		0.0			0.0			2.6			0.0		
Total Delay		223.5			13.9			15.0			34.1		
LOS		F			B			B			C		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Approach Delay		223.5			13.9			15.0			34.1		
Approach LOS		F			B			B			C		
Queue Length 50th (ft)		~191			8			116			379		
Queue Length 95th (ft)		#189			57			m292			m#660		
Internal Link Dist (ft)		338			61			417			953		
Turn Bay Length (ft)													
Base Capacity (vph)		145			333			1896			1188		
Starvation Cap Reductn		0			0			528			0		
Spillback Cap Reductn		0			0			0			0		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		1.32			0.41			0.90			0.88		

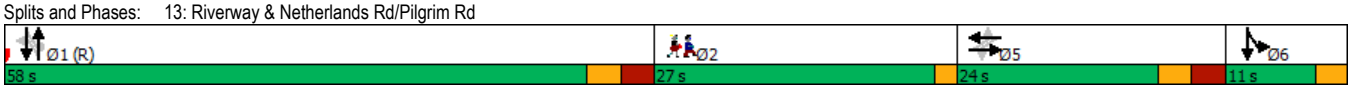
Intersection Summary	
Area Type:	CBD
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 75 (63%), Referenced to phase 1:NBSB, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.32	
Intersection Signal Delay: 38.0	Intersection LOS: D
Intersection Capacity Utilization 95.4%	ICU Level of Service F
Analysis Period (min) 15	

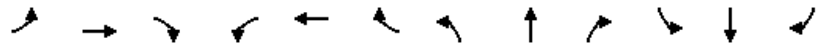
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 13: Riverway & Netherlands Rd/Pilgrim Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	20	0	5	5	105	0	1165	35	110	790	50
Future Volume (vph)	95	20	0	5	5	105	0	1165	35	110	790	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	11	11	11	11	11	11
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.88			1.00			0.99	
Flt Protected		0.96			1.00			1.00			0.99	
Satd. Flow (prot)		1723			1540			3090			3042	
Flt Permitted		0.54			0.99			1.00			0.57	
Satd. Flow (perm)		967			1523			3090			1730	
Peak-hour factor, PHF	0.60	0.60	0.60	0.85	0.85	0.85	0.98	0.98	0.98	0.91	0.91	0.91
Adj. Flow (vph)	158	33	0	6	6	124	0	1189	36	121	868	55
RTOR Reduction (vph)	0	0	0	0	105	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	191	0	0	31	0	0	1224	0	0	1042	0
Confl. Peds. (#/hr)									16	16		16
Confl. Bikes (#/hr)			3									2
Heavy Vehicles (%)	2%	0%	0%	0%	0%	4%	0%	1%	4%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA			NA		pm+pt	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases	5			5			1			1 6		
Actuated Green, G (s)		18.0			18.0			72.0			80.0	
Effective Green, g (s)		18.0			18.0			72.0			80.0	
Actuated g/C Ratio		0.15			0.15			0.60			0.67	
Clearance Time (s)		6.0			6.0			6.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		145			228			1854			1240	
v/s Ratio Prot								0.40			c0.06	
v/s Ratio Perm		c0.20			0.02						c0.50	
v/c Ratio		1.32			0.13			0.66			0.84	
Uniform Delay, d1		51.0			44.2			15.9			15.2	
Progression Factor		1.00			1.00			0.68			1.93	
Incremental Delay, d2		183.0			0.3			0.2			4.2	
Delay (s)		234.0			44.5			11.0			33.4	
Level of Service		F			D			B			C	
Approach Delay (s)		234.0			44.5			11.0			33.4	
Approach LOS		F			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	38.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	95.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



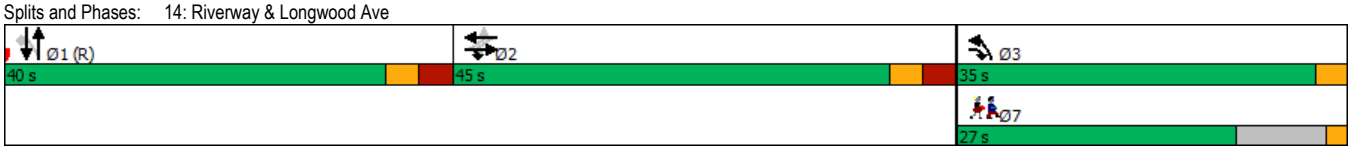
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Lane Configurations													
Traffic Volume (vph)	90	320	80	60	305	45	260	930	105	0	840	75	
Future Volume (vph)	90	320	80	60	305	45	260	930	105	0	840	75	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	11	11	10	11	11	11	11	11	
Storage Length (ft)	25		120	40		0	300		0	0		0	
Storage Lanes	1		1	1		0	1		0	0		1	
Taper Length (ft)	0			25			25			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	
Ped Bike Factor					1.00								
Frt			0.850		0.981			0.985				0.850	
Flt Protected	0.950			0.950			0.950						
Satd. Flow (prot)	1496	1589	1378	1516	1565	0	1472	3094	0	0	3079	1391	
Flt Permitted	0.252			0.328			0.123						
Satd. Flow (perm)	397	1589	1378	523	1565	0	191	3094	0	0	3079	1391	
Right Turn on Red			Yes			Yes			No			No	
Satd. Flow (RTOR)			27		7								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		327			278			1033			510		
Travel Time (s)		8.9			7.6			28.2			13.9		
Confl. Bikes (#/hr)			85			3							
Peak Hour Factor	0.95	0.95	0.95	0.89	0.89	0.89	0.92	0.92	0.92	0.83	0.83	0.83	
Heavy Vehicles (%)	5%	4%	2%	0%	2%	13%	3%	0%	0%	0%	2%	1%	
Adj. Flow (vph)	95	337	84	67	343	51	283	1011	114	0	1012	90	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	95	337	84	67	394	0	283	1125	0	0	1012	90	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.19	1.19	1.25	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1	1	1	1		1	1			1	1	
Detector Template													
Leading Detector (ft)	50	50	50	50	50		50	50			50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Size(ft)	50	50	50	50	50		50	50			50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm	
Protected Phases		2	2 3		2		3	1			1		7
Permitted Phases	2			2			1					1	
Detector Phase	2	2	2 3	2	2		3	1			1	1	
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	18.0			18.0	18.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	26.0			26.0	26.0	27.0
Total Split (s)	45.0	45.0		45.0	45.0		35.0	40.0			40.0	40.0	27.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		29.2%	33.3%			33.3%	33.3%	23%
Maximum Green (s)	39.0	39.0		39.0	39.0		32.0	34.0			34.0	34.0	25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)	3.0	3.0		3.0	3.0		0.0	3.0			3.0	3.0	0.0
Lost Time Adjust (s)	-1.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0	
Total Lost Time (s)	5.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0	
Lead/Lag	Lag	Lag		Lag	Lag			Lead			Lead	Lead	
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0	2.0
Recall Mode	None	None		None	None		None	C-Max			C-Max	C-Max	None
Walk Time (s)								7.0			7.0	7.0	7.0
Flash Dont Walk (s)								13.0			13.0	13.0	18.0
Pedestrian Calls (#/hr)								2			2	2	137
Act Effct Green (s)	34.7	33.7	62.9	33.7	33.7		74.3	45.1			45.1	45.1	
Actuated g/C Ratio	0.29	0.28	0.52	0.28	0.28		0.62	0.38			0.38	0.38	
v/c Ratio	0.83	0.76	0.11	0.46	0.89		0.71	0.97			0.88	0.17	
Control Delay	87.6	50.1	8.6	44.9	62.1		28.4	51.0			45.9	29.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Total Delay	87.6	50.1	8.6	44.9	62.1		28.4	51.0			45.9	29.4	
LOS	F	D	A	D	E		C	D			D	C	
Approach Delay		50.2			59.6			46.5			44.6		
Approach LOS		D			E			D			D		
Queue Length 50th (ft)	67	234	21	42	282		113	476			376	46	
Queue Length 95th (ft)	#159	329	38	86	388		m144	m#701			#544	90	
Internal Link Dist (ft)		247			198			953			430		
Turn Bay Length (ft)	25		120	40			300						
Base Capacity (vph)	132	516	795	169	513		463	1162			1156	522	
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0	
Storage Cap Reductn	0	0	0	0	0		0	0			0	0	
Reduced v/c Ratio	0.72	0.65	0.11	0.40	0.77		0.61	0.97			0.88	0.17	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 11 (9%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 48.2 Intersection LOS: D
Intersection Capacity Utilization 86.8% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Riverway & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	320	80	60	305	45	260	930	105	0	840	75
Future Volume (vph)	90	320	80	60	305	45	260	930	105	0	840	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	11	11	10	11	11	11	11	11
Total Lost time (s)	5.0	6.0	6.0	6.0	6.0		3.0	6.0			6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.98			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1496	1589	1378	1516	1564		1472	3093			3079	1391
Flt Permitted	0.25	1.00	1.00	0.33	1.00		0.12	1.00			1.00	1.00
Satd. Flow (perm)	397	1589	1378	524	1564		191	3093			3079	1391
Peak-hour factor, PHF	0.95	0.95	0.95	0.89	0.89	0.89	0.92	0.92	0.92	0.83	0.83	0.83
Adj. Flow (vph)	95	337	84	67	343	51	283	1011	114	0	1012	90
RTOR Reduction (vph)	0	0	12	0	5	0	0	0	0	0	0	0
Lane Group Flow (vph)	95	337	72	67	389	0	283	1125	0	0	1012	90
Confl. Bikes (#/hr)			85			3						
Heavy Vehicles (%)	5%	4%	2%	0%	2%	13%	3%	0%	0%	0%	2%	1%
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm
Protected Phases		2	2 3		2		3	1			1	
Permitted Phases	2			2			1					1
Actuated Green, G (s)	33.7	33.7	65.9	33.7	33.7		71.3	45.1			45.1	45.1
Effective Green, g (s)	34.7	33.7	65.9	33.7	33.7		71.3	45.1			45.1	45.1
Actuated g/C Ratio	0.29	0.28	0.55	0.28	0.28		0.59	0.38			0.38	0.38
Clearance Time (s)	6.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	114	446	756	147	439		393	1162			1157	522
v/s Ratio Prot		0.21	0.05		c0.25		c0.16	c0.36			0.33	
v/s Ratio Perm	0.24			0.13			0.27					0.06
v/c Ratio	0.83	0.76	0.10	0.46	0.89		0.72	0.97			0.87	0.17
Uniform Delay, d1	39.9	39.4	12.9	35.6	41.3		25.8	36.7			34.8	25.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.90	0.91			1.00	1.00
Incremental Delay, d2	36.8	6.4	0.0	0.8	18.4		3.9	15.8			9.3	0.7
Delay (s)	76.7	45.8	12.9	36.4	59.7		27.1	49.3			44.1	25.7
Level of Service	E	D	B	D	E		C	D			D	C
Approach Delay (s)		46.1			56.3			44.9			42.6	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	45.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	75	105	1080	0	0	830	
Future Volume (vph)	75	105	1080	0	0	830	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	10	10	10	10	
Storage Length (ft)	30	0		0	0		
Storage Lanes	1	1		0	0		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1490	1454	4272	0	0	4230	
Flt Permitted	0.950						
Satd. Flow (perm)	1490	1454	4272	0	0	4230	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		223					
Link Speed (mph)	25		25			25	
Link Distance (ft)	246		343			858	
Travel Time (s)	6.7		9.4			23.4	
Peak Hour Factor	0.47	0.47	0.87	0.89	0.92	0.89	
Heavy Vehicles (%)	9%	0%	2%	2%	2%	3%	
Adj. Flow (vph)	160	223	1241	0	0	933	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	160	223	1241	0	0	933	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.14	1.14	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	2			2	
Detector Template	Left	Right	Thru			Thru	
Leading Detector (ft)	20	20	100			100	
Trailing Detector (ft)	0	0	0			0	
Detector 1 Position(ft)	0	0	0			0	
Detector 1 Size(ft)	20	20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)			94			94	
Detector 2 Size(ft)			6			6	
Detector 2 Type			Cl+Ex			Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)			0.0			0.0	
Turn Type	Prot	Perm	NA			NA	
Protected Phases	5		1			1	2
Permitted Phases		5					
Detector Phase	5	5	1			1	
Switch Phase							
Minimum Initial (s)	8.0	8.0	15.0			15.0	7.0
Minimum Split (s)	14.0	14.0	20.0			20.0	25.0
Total Split (s)	17.0	17.0	48.0			48.0	25.0
Total Split (%)	18.9%	18.9%	53.3%			53.3%	28%
Maximum Green (s)	11.0	11.0	43.0			43.0	21.0
Yellow Time (s)	3.0	3.0	3.0			3.0	2.0
All-Red Time (s)	3.0	3.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	
Total Lost Time (s)	6.0	6.0	5.0			5.0	
Lead/Lag			Lead			Lead	Lag
Lead-Lag Optimize?			Yes			Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0			3.0	3.0
Recall Mode	None	None	C-Max			C-Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							14.0
Pedestrian Calls (#/hr)							0
Act Effct Green (s)	15.4	15.4	63.6			63.6	
Actuated g/C Ratio	0.17	0.17	0.71			0.71	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
v/c Ratio	0.63	0.52	0.41			0.31	
Control Delay	45.4	9.0	6.3			5.6	
Queue Delay	0.0	0.0	0.0			0.0	
Total Delay	45.4	9.0	6.3			5.6	
LOS	D	A	A			A	
Approach Delay	24.2		6.3			5.6	
Approach LOS	C		A			A	
Queue Length 50th (ft)	85	0	93			63	
Queue Length 95th (ft)	68	0	130			94	
Internal Link Dist (ft)	166		263			778	
Turn Bay Length (ft)	30						
Base Capacity (vph)	257	435	3018			2989	
Starvation Cap Reductn	0	0	0			0	
Spillback Cap Reductn	0	0	0			0	
Storage Cap Reductn	0	0	0			0	
Reduced v/c Ratio	0.62	0.51	0.41			0.31	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 82 (91%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 39.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 15: Riverway & Short St Ext





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	75	105	1080	0	0	830
Future Volume (vph)	75	105	1080	0	0	830
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	10	10	10
Total Lost time (s)	6.0	6.0	5.0			5.0
Lane Util. Factor	1.00	1.00	0.91			0.91
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1490	1454	4272			4230
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1490	1454	4272			4230
Peak-hour factor, PHF	0.47	0.47	0.87	0.89	0.92	0.89
Adj. Flow (vph)	160	223	1241	0	0	933
RTOR Reduction (vph)	0	185	0	0	0	0
Lane Group Flow (vph)	160	38	1241	0	0	933
Heavy Vehicles (%)	9%	0%	2%	2%	2%	3%
Turn Type	Prot	Perm	NA			NA
Protected Phases	5		1			1
Permitted Phases		5				
Actuated Green, G (s)	15.4	15.4	63.6			63.6
Effective Green, g (s)	15.4	15.4	63.6			63.6
Actuated g/C Ratio	0.17	0.17	0.71			0.71
Clearance Time (s)	6.0	6.0	5.0			5.0
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Lane Grp Cap (vph)	254	248	3018			2989
v/s Ratio Prot	c0.11		c0.29			0.22
v/s Ratio Perm		0.03				
v/c Ratio	0.63	0.15	0.41			0.31
Uniform Delay, d1	34.7	31.8	5.5			5.0
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	3.5	0.1	0.4			0.3
Delay (s)	38.1	31.9	5.9			5.2
Level of Service	D	C	A			A
Approach Delay (s)	34.5		5.9			5.2
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	39.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	180
Future Volume (vph)	0	0	0	0	0	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	0	0	0	1676	1266	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1676	1266	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	246			134	562	
Travel Time (s)	6.7			3.7	15.3	
Confl. Peds. (#/hr)			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.47
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%
Parking (#/hr)					2	2
Adj. Flow (vph)	0	0	0	0	0	383
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	383	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.32	1.14
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	10.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	180
Future Vol, veh/h	0	0	0	0	0	180
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	47
Heavy Vehicles, %	2	2	2	2	2	4
Mvmt Flow	0	0	0	0	0	383

Major/Minor	Major1		Minor2	
Conflicting Flow All	5	0	5	10
Stage 1	-	-	5	-
Stage 2	-	-	0	-
Critical Hdwy	4.12	-	6.52	6.24
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.52	-
Follow-up Hdwy	2.218	-	4.018	3.336
Pot Cap-1 Maneuver	1616	-	890	1066
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %		-		
Mov Cap-1 Maneuver	1609	-	0	1057
Mov Cap-2 Maneuver	-	-	0	-
Stage 1	-	-	0	-
Stage 2	-	-	0	-

Approach	NB	SB
HCM Control Delay, s	0	10.3
HCM LOS		B

Minor Lane/Major Mvmt	NBL	NBT	SBLn1
Capacity (veh/h)	1609	-	1057
HCM Lane V/C Ratio	-	-	0.362
HCM Control Delay (s)	0	-	10.3
HCM Lane LOS	A	-	B
HCM 95th %tile Q(veh)	0	-	1.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	415	0	0	355	10	55	5	35	0	0	0
Future Volume (vph)	10	415	0	0	355	10	55	5	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	16	12	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.996			0.950				
Flt Protected		0.999						0.972				
Satd. Flow (prot)	0	1844	0	0	1846	0	0	1686	0	0	0	0
Flt Permitted		0.999						0.972				
Satd. Flow (perm)	0	1844	0	0	1846	0	0	1686	0	0	0	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			617			174			541	
Travel Time (s)		7.6			16.8			4.7			14.8	
Confl. Peds. (#/hr)	213		285	285		213	2		10	10		2
Confl. Bikes (#/hr)			114			5						
Peak Hour Factor	0.78	0.78	0.92	0.92	0.80	0.80	0.72	0.72	0.72	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	2%	2%	2%	20%	0%	0%	11%	2%	2%	2%
Adj. Flow (vph)	13	532	0	0	444	13	76	7	49	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	545	0	0	457	0	0	132	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.00	0.85
Turning Speed (mph)	60		9	15		60	15		9	60		9
Sign Control		Free			Free			Stop			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	415	0	0	355	10	55	5	35	0	0	0
Future Vol, veh/h	10	415	0	0	355	10	55	5	35	0	0	0
Conflicting Peds, #/hr	213	0	285	285	0	213	2	0	10	10	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	92	92	80	80	72	72	72	92	92	92
Heavy Vehicles, %	0	3	2	2	2	20	0	0	11	2	2	2
Mvmt Flow	13	532	0	0	444	13	76	7	49	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	670	0	-	-	-	0	1011	1228	542
Stage 1	-	-	-	-	-	-	558	558	-
Stage 2	-	-	-	-	-	-	453	670	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.399
Pot Cap-1 Maneuver	930	-	0	0	-	-	268	180	523
Stage 1	-	-	0	0	-	-	577	515	-
Stage 2	-	-	0	0	-	-	645	459	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	930	-	-	-	-	-	262	0	519
Mov Cap-2 Maneuver	-	-	-	-	-	-	262	0	-
Stage 1	-	-	-	-	-	-	565	0	-
Stage 2	-	-	-	-	-	-	644	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.2	0	23.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	324	930	-	-	-
HCM Lane V/C Ratio	0.407	0.014	-	-	-
HCM Control Delay (s)	23.5	8.9	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	1.9	0	-	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	15	1065	0	0	905
Future Volume (vph)	10	15	1065	0	0	905
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91
Ped Bike Factor						
Frt	0.919					
Flt Protected	0.980					
Satd. Flow (prot)	1836	0	5187	0	0	5136
Flt Permitted	0.980					
Satd. Flow (perm)	1836	0	5187	0	0	5136
Link Speed (mph)	25		25			25
Link Distance (ft)	541		510			343
Travel Time (s)	14.8		13.9			9.4
Confl. Peds. (#/hr)				9	9	
Peak Hour Factor	0.45	0.45	0.93	0.92	0.92	0.98
Heavy Vehicles (%)	14%	0%	0%	2%	2%	1%
Adj. Flow (vph)	22	33	1145	0	0	923
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	0	1145	0	0	923
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	15	1065	0	0	905
Future Vol, veh/h	10	15	1065	0	0	905
Conflicting Peds, #/hr	0	0	0	9	9	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	45	45	93	92	92	98
Heavy Vehicles, %	14	0	0	2	2	1
Mvmt Flow	22	33	1145	0	0	923

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1514	573	0	-	-	-
Stage 1	1145	-	-	-	-	-
Stage 2	369	-	-	-	-	-
Critical Hdwy	5.98	7.1	-	-	-	-
Critical Hdwy Stg 1	6.88	-	-	-	-	-
Critical Hdwy Stg 2	6.28	-	-	-	-	-
Follow-up Hdwy	3.94	3.9	-	-	-	-
Pot Cap-1 Maneuver	151	400	-	0	0	-
Stage 1	180	-	-	0	0	-
Stage 2	583	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	151	400	-	-	-	-
Mov Cap-2 Maneuver	151	-	-	-	-	-
Stage 1	180	-	-	-	-	-
Stage 2	583	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.4	0	0
HCM LOS	C		

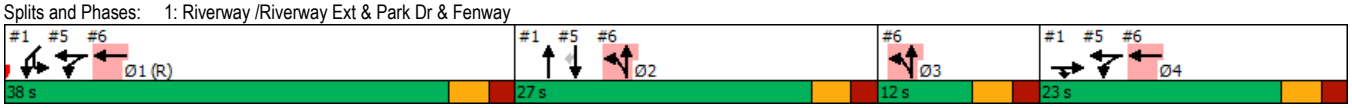
Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	241	-
HCM Lane V/C Ratio	-	0.231	-
HCM Control Delay (s)	-	24.4	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.9	-

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Lane Configurations						
Traffic Volume (vph)	440	530	520	170	610	
Future Volume (vph)	440	530	520	170	610	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	
Storage Length (ft)		120			0	
Storage Lanes		2			3	
Taper Length (ft)					25	
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97	
Ped Bike Factor	0.95			0.95	0.75	
Frt	0.957	0.850				
Flt Protected				0.950	0.950	
Satd. Flow (prot)	2729	1323	3249	1518	3120	
Flt Permitted				0.950	0.950	
Satd. Flow (perm)	2729	1323	3249	1449	2340	
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		25		25	
Link Distance (ft)	260		238		234	
Travel Time (s)	7.1		6.5		6.4	
Confl. Peds. (#/hr)		95		29	95	
Confl. Bikes (#/hr)		4				
Peak Hour Factor	0.91	0.91	0.94	0.92	0.92	
Heavy Vehicles (%)	5%	0%	0%	7%	1%	
Adj. Flow (vph)	484	582	553	185	663	
Shared Lane Traffic (%)		33%				
Lane Group Flow (vph)	676	390	553	185	663	
Enter Blocked Intersection	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	
Median Width(ft)	0		0		36	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.14	
Turning Speed (mph)		9		15	15	
Number of Detectors	1	1	1	1	1	
Detector Template						
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	50	50	50	50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Turn Type	NA	Prot	NA	Prot	Prot	
Protected Phases	4	4	2	1	1	3
Permitted Phases						
Detector Phase	4	4	2	1	1	
Switch Phase						
Minimum Initial (s)	8.0	8.0	8.0	15.0	15.0	5.0
Minimum Split (s)	22.0	22.0	27.0	24.0	24.0	10.0
Total Split (s)	23.0	23.0	27.0	38.0	38.0	12.0
Total Split (%)	23.0%	23.0%	27.0%	38.0%	38.0%	12%
Maximum Green (s)	18.0	18.0	22.0	33.0	33.0	7.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Ped	Ped	Ped	C-Max	C-Max	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	10.0	10.0	15.0	12.0	12.0	
Pedestrian Calls (#/hr)	53	53	78	13	13	
Act Effct Green (s)	19.0	19.0	23.0	34.0	34.0	
Actuated g/C Ratio	0.19	0.19	0.23	0.34	0.34	
v/c Ratio	1.31	1.55	0.74	0.36	0.63	
Control Delay	185.4	298.5	42.7	20.8	24.7	
Queue Delay	6.1	0.0	6.5	1.9	1.6	

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Total Delay	191.5	298.5	49.2	22.7	26.3	
LOS	F	F	D	C	C	
Approach Delay	230.7		49.2		25.5	
Approach LOS	F		D		C	
Queue Length 50th (ft)	~305	~387	173	94	191	
Queue Length 95th (ft)	#425	#587	234	157	251	
Internal Link Dist (ft)	180		158		154	
Turn Bay Length (ft)		120				
Base Capacity (vph)	518	251	747	516	1060	
Starvation Cap Reductn	0	0	0	183	229	
Spillback Cap Reductn	235	0	147	204	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	2.39	1.55	0.92	0.59	0.80	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.55			
Intersection Signal Delay: 119.5		Intersection LOS: F	
Intersection Capacity Utilization 66.8%		ICU Level of Service C	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Riverway /Riverway Ext & Park Dr & Fenway



Movement	EBT	EBR	NBT	SWL2	SWL
Lane Configurations					
Traffic Volume (vph)	440	530	520	170	610
Future Volume (vph)	440	530	520	170	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97
Frpb, ped/bikes	0.95	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00
Frt	0.96	0.85	1.00	1.00	1.00
Flt Protected	1.00	1.00	1.00	0.95	0.95
Satd. Flow (prot)	2730	1323	3249	1518	3120
Flt Permitted	1.00	1.00	1.00	0.95	0.95
Satd. Flow (perm)	2730	1323	3249	1518	3120
Peak-hour factor, PHF	0.91	0.91	0.94	0.92	0.92
Adj. Flow (vph)	484	582	553	185	663
RTOR Reduction (vph)	0	0	0	0	0
Lane Group Flow (vph)	676	390	553	185	663
Confl. Peds. (#/hr)		95		29	95
Confl. Bikes (#/hr)		4			
Heavy Vehicles (%)	5%	0%	0%	7%	1%
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	4	4	2	1	1
Permitted Phases					
Actuated Green, G (s)	18.0	18.0	22.0	33.0	33.0
Effective Green, g (s)	19.0	19.0	23.0	34.0	34.0
Actuated g/C Ratio	0.19	0.19	0.23	0.34	0.34
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	518	251	747	516	1060
v/s Ratio Prot	0.25	c0.29	c0.17	0.12	c0.21
v/s Ratio Perm					
v/c Ratio	1.31	1.55	0.74	0.36	0.63
Uniform Delay, d1	40.5	40.5	35.7	24.8	27.7
Progression Factor	1.00	1.00	1.00	0.75	0.79
Incremental Delay, d2	150.8	267.9	3.5	1.8	2.6
Delay (s)	191.3	308.4	39.2	20.4	24.4
Level of Service	F	F	D	C	C
Approach Delay (s)	234.1		39.2		23.5
Approach LOS	F		D		C

Intersection Summary			
HCM 2000 Control Delay	118.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	610	0	0	0	0	505
Future Volume (vph)	610	0	0	0	0	505
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	12	12	12	12
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3269	0	0	0	0	2484
Flt Permitted						
Satd. Flow (perm)	3269	0	0	0	0	2484
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	196			385	251	
Travel Time (s)	5.3			10.5	6.8	
Peak Hour Factor	0.90	0.92	0.92	0.92	0.92	0.91
Heavy Vehicles (%)	6%	2%	2%	2%	2%	3%
Adj. Flow (vph)	678	0	0	0	0	555
Shared Lane Traffic (%)						
Lane Group Flow (vph)	678	0	0	0	0	555
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	1.14	1.14	1.14	1.14
Turning Speed (mph)		9	15		15	9
Number of Detectors	1					1
Detector Template						
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Detector 1 Position(ft)	0					0
Detector 1 Size(ft)	50					50
Detector 1 Type	Cl+Ex					Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0					0.0
Detector 1 Queue (s)	0.0					0.0
Detector 1 Delay (s)	0.0					0.0
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Detector Phase	1					2
Switch Phase						
Minimum Initial (s)	10.0					6.0
Minimum Split (s)	25.0					29.0
Total Split (s)	65.0					35.0
Total Split (%)	65.0%					35.0%
Maximum Green (s)	60.0					30.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
Lost Time Adjust (s)	-1.0					-1.0
Total Lost Time (s)	4.0					4.0
Lead/Lag	Lead					Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0					2.0
Recall Mode	C-Max					Max
Walk Time (s)	10.0					10.0
Flash Dont Walk (s)	10.0					14.0
Pedestrian Calls (#/hr)	0					0
Act Effct Green (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
v/c Ratio	0.34					0.72
Control Delay	22.9					37.0
Queue Delay	54.6					0.0
Total Delay	77.4					37.0
LOS	E					D
Approach Delay	77.4				37.0	
Approach LOS	E				D	
Queue Length 50th (ft)	237					177

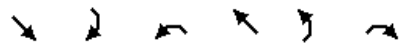
Lane Group	SET	SER	NWL	NWT	NEL	NER
Queue Length 95th (ft)	m213					246
Internal Link Dist (ft)	116			305	171	
Turn Bay Length (ft)						
Base Capacity (vph)	1994					770
Starvation Cap Reductn	1491					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	1.35					0.72

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 25 (25%), Referenced to phase 1:SET, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 59.2		Intersection LOS: E	
Intersection Capacity Utilization 45.0%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverway & Fenway





Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	610	0	0	0	0	505
Future Volume (vph)	610	0	0	0	0	505
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	14	14	12	12	12	12
Total Lost time (s)	4.0					4.0
Lane Util. Factor	0.95					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	3269					2484
Flt Permitted	1.00					1.00
Satd. Flow (perm)	3269					2484
Peak-hour factor, PHF	0.90	0.92	0.92	0.92	0.92	0.91
Adj. Flow (vph)	678	0	0	0	0	555
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	678	0	0	0	0	555
Heavy Vehicles (%)	6%	2%	2%	2%	2%	3%
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Actuated Green, G (s)	60.0					30.0
Effective Green, g (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
Clearance Time (s)	5.0					5.0
Vehicle Extension (s)	2.0					2.0
Lane Grp Cap (vph)	1994					770
v/s Ratio Prot	c0.21					c0.22
v/s Ratio Perm						
v/c Ratio	0.34					0.72
Uniform Delay, d1	9.6					30.7
Progression Factor	2.35					1.00
Incremental Delay, d2	0.0					5.8
Delay (s)	22.6					36.4
Level of Service	C					D
Approach Delay (s)	22.6			0.0	36.4	
Approach LOS	C			A	D	

Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	420	555	140	0	0	0	0	700	50	0	920	0
Future Volume (vph)	420	555	140	0	0	0	0	700	50	0	920	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00	1.00						0.98				
Frt			0.850					0.990				
Flt Protected	0.950	0.989										
Satd. Flow (prot)	1387	2824	1338	0	0	0	0	2876	0	0	2935	0
Flt Permitted	0.950	0.989										
Satd. Flow (perm)	1386	2823	1338	0	0	0	0	2876	0	0	2935	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)			62									
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			672			160			269	
Travel Time (s)		10.5			18.3			4.4			7.3	
Confl. Peds. (#/hr)	1		3						343			
Confl. Bikes (#/hr)			4						14			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.88	0.88	0.92	0.77	0.92
Heavy Vehicles (%)	3%	6%	5%	2%	2%	2%	2%	6%	4%	2%	7%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	12	0	0	0
Adj. Flow (vph)	462	610	154	0	0	0	0	795	57	0	1195	0
Shared Lane Traffic (%)	36%											
Lane Group Flow (vph)	296	776	154	0	0	0	0	852	0	0	1195	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.19	1.19	1.19	1.14	1.14	1.14	1.19	1.19	1.19	1.19	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1			1	
Detector Template												
Leading Detector (ft)	50	50	50					50			50	
Trailing Detector (ft)	0	0	0					0			0	
Detector 1 Position(ft)	0	0	0					0			0	
Detector 1 Size(ft)	50	50	50					50			50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0			0.0	
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Detector Phase	1	1	1					3			3	
Switch Phase												
Minimum Initial (s)	35.0	35.0	35.0					44.0			44.0	
Minimum Split (s)	40.0	40.0	40.0					49.0			49.0	
Total Split (s)	48.0	48.0	48.0					72.0			72.0	
Total Split (%)	40.0%	40.0%	40.0%					60.0%			60.0%	
Maximum Green (s)	43.0	43.0	43.0					67.0			67.0	
Yellow Time (s)	3.0	3.0	3.0					3.0			3.0	
All-Red Time (s)	2.0	2.0	2.0					2.0			2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	5.0	5.0	5.0					5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Recall Mode	C-Max	C-Max	C-Max					Max			Max	
Walk Time (s)	13.0	13.0	13.0					20.0			20.0	
Flash Dont Walk (s)	16.0	16.0	16.0					21.0			21.0	
Pedestrian Calls (#/hr)	1	1	1					133			133	
Act Effct Green (s)	43.0	43.0	43.0					67.0			67.0	
Actuated g/C Ratio	0.36	0.36	0.36					0.56			0.56	
v/c Ratio	0.60	0.77	0.30					0.53			0.73	
Control Delay	37.4	40.2	17.9					7.7			20.1	
Queue Delay	2.5	8.7	0.0					0.1			49.5	
Total Delay	39.9	48.9	17.9					7.9			69.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	D	B					A			E	
Approach Delay		42.8						7.9			69.6	
Approach LOS		D						A			E	
Queue Length 50th (ft)	204	289	49					103			378	
Queue Length 95th (ft)	310	371	103					90			343	
Internal Link Dist (ft)		305			592			80			189	
Turn Bay Length (ft)												
Base Capacity (vph)	497	1011	519					1605			1638	
Starvation Cap Reductn	104	204	0					0			661	
Spillback Cap Reductn	0	0	0					136			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.75	0.96	0.30					0.58			1.22	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 80 (67%), Referenced to phase 1:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 43.5		Intersection LOS: D	
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Brookline Ave & Fenway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	420	555	140	0	0	0	0	700	50	0	920	0
Future Volume (vph)	420	555	140	0	0	0	0	700	50	0	920	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0					5.0			5.0	
Lane Util. Factor	0.91	0.91	1.00					0.95			0.95	
Frpb, ped/bikes	1.00	1.00	1.00					0.98			1.00	
Flpb, ped/bikes	1.00	1.00	1.00					1.00			1.00	
Frt	1.00	1.00	0.85					0.99			1.00	
Flt Protected	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (prot)	1387	2825	1338					2876			2935	
Flt Permitted	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (perm)	1387	2825	1338					2876			2935	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.88	0.88	0.92	0.77	0.92
Adj. Flow (vph)	462	610	154	0	0	0	0	795	57	0	1195	0
RTOR Reduction (vph)	0	0	40	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	296	776	114	0	0	0	0	852	0	0	1195	0
Confl. Peds. (#/hr)	1		3						343			
Confl. Bikes (#/hr)			4						14			
Heavy Vehicles (%)	3%	6%	5%	2%	2%	2%	2%	6%	4%	2%	7%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	12	0	0	0
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Actuated Green, G (s)	43.0	43.0	43.0					67.0			67.0	
Effective Green, g (s)	43.0	43.0	43.0					67.0			67.0	
Actuated g/C Ratio	0.36	0.36	0.36					0.56			0.56	
Clearance Time (s)	5.0	5.0	5.0					5.0			5.0	
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Lane Grp Cap (vph)	497	1012	479					1605			1638	
v/s Ratio Prot	0.21	c0.27	0.09					0.30			c0.41	
v/s Ratio Perm												
v/c Ratio	0.60	0.77	0.24					0.53			0.73	
Uniform Delay, d1	31.4	34.1	27.0					16.6			19.7	
Progression Factor	1.00	1.00	1.00					0.40			0.91	
Incremental Delay, d2	5.2	5.6	1.2					1.0			1.7	
Delay (s)	36.6	39.6	28.2					7.6			19.7	
Level of Service	D	D	C					A			B	
Approach Delay (s)		37.5			0.0			7.6			19.7	
Approach LOS		D			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	220	600	75	90	100	260	760	255	200	445	250	10
Future Volume (vph)	220	600	75	90	100	260	760	255	200	445	250	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		150		0		0		165	0	280	
Storage Lanes	1		1		1		2		1	2	0	
Taper Length (ft)	25				25					25		
Lane Util. Factor	0.91	0.91	1.00	0.91	1.00	1.00	0.88	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor		0.99			0.84			0.86		0.70		
Frt			0.850				0.850	0.934		0.945		
Flt Protected		0.987			0.950					0.969		
Satd. Flow (prot)	0	4459	1383	0	1547	1513	2508	2440	0	2129	0	0
Flt Permitted		0.987			0.950					0.969		
Satd. Flow (perm)	0	4398	1383	0	1301	1513	2508	2440	0	2080	0	0
Right Turn on Red				Yes					Yes			Yes
Satd. Flow (RTOR)			132					149		141		
Link Speed (mph)		25				25		25		25		
Link Distance (ft)		563				269		1590		1367		
Travel Time (s)		15.4				7.3		43.4		37.3		
Confl. Peds. (#/hr)	33		270	346	202		415		202	33	202	270
Confl. Bikes (#/hr)			2	2			15		3		3	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	7%	2%	10%	1%	5%	13%	2%	8%	5%	3%	2%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	10	0	0	0
Adj. Flow (vph)	239	652	82	98	115	299	874	277	217	506	284	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	891	180	0	115	299	874	494	0	801	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Right	Left	Right	Left	Right	Right
Median Width(ft)		0				12		12		24		
Link Offset(ft)		0				0		0		0		
Crosswalk Width(ft)		16				16		16		16		
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	9	15		9		9	15	9	9
Number of Detectors	1	1	1		1	1	1	1		1		
Detector Template												
Leading Detector (ft)	50	50	50		50	50	50	50		50		
Trailing Detector (ft)	0	0	0		0	0	0	0		0		
Detector 1 Position(ft)	0	0	0		0	0	0	0		0		
Detector 1 Size(ft)	50	50	50		50	50	50	50		50		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Detector Phase	4	4	4		3	2 3	1 2 3	2		1		
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		6.0			8.0		10.0		
Minimum Split (s)	30.5	30.5	30.5		12.0			24.5		22.0		
Total Split (s)	32.0	32.0	32.0		15.0			29.0		44.0		
Total Split (%)	26.7%	26.7%	26.7%		12.5%			24.2%		36.7%		
Maximum Green (s)	25.0	25.0	25.0		9.0			23.5		38.0		
Yellow Time (s)	3.5	3.5	3.5		3.5			3.5		3.5		
All-Red Time (s)	3.5	3.5	3.5		2.5			2.0		2.5		
Lost Time Adjust (s)		-2.0	-2.0		-2.0			-1.0		-2.0		
Total Lost Time (s)		5.0	5.0		4.0			4.5		4.0		
Lead/Lag					Lag			Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0		2.0			2.0		2.0		
Recall Mode	Ped	Ped	Ped		Max			Ped		C-Max		
Walk Time (s)	7.0	7.0	7.0					7.0		7.0		
Flash Dont Walk (s)	16.5	16.5	16.5					12.0		9.0		
Pedestrian Calls (#/hr)	223	223	223					154		68		
Act Effct Green (s)		26.8	26.8		11.9	39.5	84.2	23.6		40.2		
Actuated g/C Ratio		0.22	0.22		0.10	0.33	0.70	0.20		0.34		
v/c Ratio		0.89	0.44		0.75	0.60	0.50	0.82		0.99		
Control Delay		57.7	15.9		78.8	37.6	7.5	44.4		63.4		

Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Queue Delay		0.0	0.0		0.0	9.1	0.4	1.2		40.6		
Total Delay		57.7	15.9		78.8	46.7	7.9	45.6		104.0		
LOS		E	B		E	D	A	D		F		
Approach Delay		50.7				23.2		45.6		104.0		
Approach LOS		D				C		D		F		
Queue Length 50th (ft)		246	30		95	213	142	137		275		
Queue Length 95th (ft)		#320	98		m#179	m320	159	#210		#399		
Internal Link Dist (ft)		483				189		1510		1287		
Turn Bay Length (ft)			150									
Base Capacity (vph)		1003	413		153	498	1759	616		806		
Starvation Cap Reductn		0	0		0	162	387	0		0		
Spillback Cap Reductn		0	0		0	0	0	29		398		
Storage Cap Reductn		0	0		0	0	0	0		0		
Reduced v/c Ratio		0.89	0.44		0.75	0.89	0.64	0.84		1.96		

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 113 (94%), Referenced to phase 1:SWL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 52.0 Intersection LOS: D
Intersection Capacity Utilization 85.0% ICU Level of Service E
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Brookline Ave & Park Dr & Boylston St



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	220	600	75	90	100	260	760	255	200	445	250	10
Future Volume (vph)	220	600	75	90	100	260	760	255	200	445	250	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		4.0	4.5	4.0	4.5		4.0		
Lane Util. Factor		0.91	1.00		1.00	1.00	0.88	0.95		0.97		
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	0.86		0.72		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00		
Frt		1.00	0.85		1.00	1.00	0.85	0.93		0.94		
Flt Protected		0.99	1.00		0.95	1.00	1.00	1.00		0.97		
Satd. Flow (prot)		4458	1383		1547	1513	2508	2440		2129		
Flt Permitted		0.99	1.00		0.95	1.00	1.00	1.00		0.97		
Satd. Flow (perm)		4458	1383		1547	1513	2508	2440		2129		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	239	652	82	98	115	299	874	277	217	506	284	11
RTOR Reduction (vph)	0	0	103	0	0	0	0	120	0	94	0	0
Lane Group Flow (vph)	0	891	77	0	115	299	874	374	0	707	0	0
Confl. Peds. (#/hr)	33		270	346	202		415		202	33	202	270
Confl. Bikes (#/hr)			2	2			15		3		3	3
Heavy Vehicles (%)	7%	2%	10%	1%	5%	13%	2%	8%	5%	3%	2%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	10	0	0	0
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Actuated Green, G (s)		24.8	24.8		9.9	38.0	82.2	22.6		38.2		
Effective Green, g (s)		26.8	26.8		11.9	39.0	80.7	23.6		40.2		
Actuated g/C Ratio		0.22	0.22		0.10	0.32	0.67	0.20		0.34		
Clearance Time (s)		7.0	7.0		6.0			5.5		6.0		
Vehicle Extension (s)		2.0	2.0		2.0			2.0		2.0		
Lane Grp Cap (vph)		995	308		153	491	1686	479		713		
v/s Ratio Prot		c0.20	0.06		c0.07	0.20	0.35	c0.15		c0.33		
v/s Ratio Perm												
v/c Ratio		0.90	0.25		0.75	0.61	0.52	0.78		0.99		
Uniform Delay, d1		45.2	38.3		52.6	34.1	9.9	45.8		39.7		
Progression Factor		1.00	1.00		1.00	0.96	0.79	1.00		1.00		
Incremental Delay, d2		10.2	0.2		24.4	1.2	0.1	7.5		31.8		
Delay (s)		55.5	38.5		77.2	34.1	7.9	53.2		71.5		
Level of Service		E	D		E	C	A	D		E		
Approach Delay (s)		52.6				20.2		53.2		71.5		
Approach LOS		D				C		D		E		

Intersection Summary			
HCM 2000 Control Delay	45.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

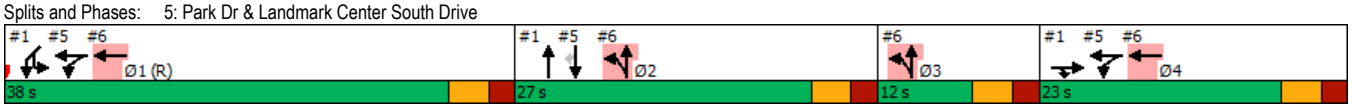


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Lane Configurations															
Traffic Volume (vph)	0	0	0	695	415	40	0	0	0	0	85	15			
Future Volume (vph)	0	0	0	695	415	40	0	0	0	0	85	15			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.95	1.00	1.00	1.00	1.00	1.00	1.00			
Ped Bike Factor					0.96										
Frt					0.987							0.850			
Flt Protected				0.950	0.997										
Satd. Flow (prot)	0	0	0	2739	2644	0	0	0	0	0	1513	1286			
Flt Permitted				0.950	0.997										
Satd. Flow (perm)	0	0	0	2739	2644	0	0	0	0	0	1513	1286			
Right Turn on Red			No	No		Yes			No			Yes			
Satd. Flow (RTOR)					14							131			
Link Speed (mph)		25			25			25			25				
Link Distance (ft)		187			355			234			168				
Travel Time (s)		5.1			9.7			6.4			4.6				
Confl. Peds. (#/hr)						238									
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.67	0.67			
Heavy Vehicles (%)	2%	2%	2%	2%	4%	12%	2%	2%	2%	2%	13%	13%			
Adj. Flow (vph)	0	0	0	739	441	43	0	0	0	0	127	22			
Shared Lane Traffic (%)				4%											
Lane Group Flow (vph)	0	0	0	709	514	0	0	0	0	0	127	22			
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No			
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right			
Median Width(ft)		24			24			0			0				
Link Offset(ft)		0			0			0			0				
Crosswalk Width(ft)		16			16			16			16				
Two way Left Turn Lane															
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14			
Turning Speed (mph)	15		9	15		9	15		9	15		9			
Number of Detectors				1	1						1	1			
Detector Template															
Leading Detector (ft)				50	50						50	50			
Trailing Detector (ft)				0	0						0	0			
Detector 1 Position(ft)				0	0						0	0			
Detector 1 Size(ft)				50	50						50	50			
Detector 1 Type				Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex			
Detector 1 Channel															
Detector 1 Extend (s)				0.0	0.0						0.0	0.0			
Detector 1 Queue (s)				0.0	0.0						0.0	0.0			
Detector 1 Delay (s)				0.0	0.0						0.0	0.0			
Turn Type				Split	NA						NA	Perm			
Protected Phases				1 4	1 4						2		1	3	4
Permitted Phases												2			
Detector Phase				1 4	1 4						2	2			
Switch Phase															
Minimum Initial (s)											8.0	8.0	15.0	5.0	8.0
Minimum Split (s)											27.0	27.0	24.0	10.0	22.0
Total Split (s)											27.0	27.0	38.0	12.0	23.0
Total Split (%)											27.0%	27.0%	38%	12%	23%
Maximum Green (s)											22.0	22.0	33.0	7.0	18.0
Yellow Time (s)											3.0	3.0	3.0	3.0	3.0
All-Red Time (s)											2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)											-1.0	-1.0			
Total Lost Time (s)											4.0	4.0			
Lead/Lag											Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?															
Vehicle Extension (s)											2.0	2.0	2.0	2.0	2.0
Recall Mode											Ped	Ped	C-Max	None	Ped
Walk Time (s)											7.0	7.0	7.0		7.0
Flash Dont Walk (s)											15.0	15.0	12.0		10.0
Pedestrian Calls (#/hr)											78	78	13		53
Act Effct Green (s)				57.0	57.0						23.0	23.0			
Actuated g/C Ratio				0.57	0.57						0.23	0.23			
v/c Ratio				0.45	0.34						0.37	0.06			
Control Delay				13.7	11.9						36.0	0.3			
Queue Delay				1.0	0.1						0.0	0.0			
Total Delay				14.6	12.0						36.0	0.3			
LOS				B	B						D	A			
Approach Delay					13.5						30.7				
Approach LOS					B						C				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Queue Length 50th (ft)				143	92						68	0			
Queue Length 95th (ft)				191	129						88	0			
Internal Link Dist (ft)		107			275			154			88				
Turn Bay Length (ft)															
Base Capacity (vph)				1561	1513						347	396			
Starvation Cap Reductn				551	0						0	0			
Spillback Cap Reductn				318	230						0	0			
Storage Cap Reductn				0	0						0	0			
Reduced v/c Ratio				0.70	0.40						0.37	0.06			

Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.55	
Intersection Signal Delay: 15.4	Intersection LOS: B
Intersection Capacity Utilization 31.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Park Dr & Landmark Center South Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	695	415	40	0	0	0	0	85	15
Future Volume (vph)	0	0	0	695	415	40	0	0	0	0	85	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						1.00	1.00
Frpb, ped/bikes				1.00	0.96						1.00	1.00
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	0.99						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				2739	2646						1513	1286
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				2739	2646						1513	1286
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.67	0.67
Adj. Flow (vph)	0	0	0	739	441	43	0	0	0	0	127	22
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	0	17
Lane Group Flow (vph)	0	0	0	709	508	0	0	0	0	0	127	5
Confl. Peds. (#/hr)						238						
Heavy Vehicles (%)	2%	2%	2%	2%	4%	12%	2%	2%	2%	2%	13%	13%
Turn Type				Split	NA						NA	Perm
Protected Phases				1 4	1 4						2	
Permitted Phases												2
Actuated Green, G (s)				56.0	56.0						22.0	22.0
Effective Green, g (s)				57.0	57.0						23.0	23.0
Actuated g/C Ratio				0.57	0.57						0.23	0.23
Clearance Time (s)											5.0	5.0
Vehicle Extension (s)											2.0	2.0
Lane Grp Cap (vph)				1561	1508						347	295
v/s Ratio Prot				c0.26	0.19						c0.08	
v/s Ratio Perm												0.00
v/c Ratio				0.45	0.34						0.37	0.02
Uniform Delay, d1				12.5	11.4						32.4	29.8
Progression Factor				1.00	1.00						1.00	1.00
Incremental Delay, d2				0.1	0.0						0.2	0.0
Delay (s)				12.6	11.5						32.6	29.8
Level of Service				B	B						C	C
Approach Delay (s)		0.0			12.1			0.0			32.2	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	31.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



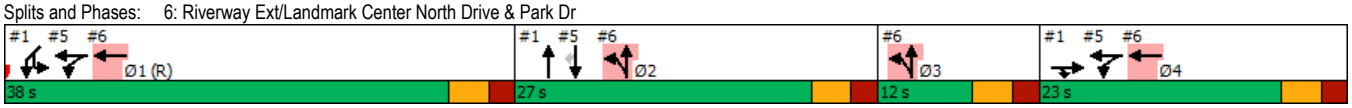
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Lane Configurations																
Traffic Volume (vph)	0	0	0	0	425	5	505	15	0	0	0	0				
Future Volume (vph)	0	0	0	0	425	5	505	15	0	0	0	0				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00				
Ped Bike Factor					1.00											
Frt					0.998											
Flt Protected							0.950	0.963								
Satd. Flow (prot)	0	0	0	0	3148	0	1528	1552	0	0	0	0				
Flt Permitted							0.950	0.963								
Satd. Flow (perm)	0	0	0	0	3148	0	1528	1552	0	0	0	0				
Right Turn on Red			No			Yes	No		Yes			Yes				
Satd. Flow (RTOR)					2											
Link Speed (mph)		25			25			25			25					
Link Distance (ft)		135			187			191			124					
Travel Time (s)		3.7			5.1			5.2			3.4					
Confl. Bikes (#/hr)						11										
Peak Hour Factor	0.92	0.92	0.92	0.92	0.94	0.94	0.93	0.93	0.92	0.92	0.92	0.92				
Heavy Vehicles (%)	2%	2%	2%	2%	3%	0%	1%	0%	2%	2%	2%	2%				
Adj. Flow (vph)	0	0	0	0	452	5	543	16	0	0	0	0				
Shared Lane Traffic (%)							10%									
Lane Group Flow (vph)	0	0	0	0	457	0	489	70	0	0	0	0				
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No				
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right				
Median Width(ft)		0			0			12			12					
Link Offset(ft)		0			0			0			0					
Crosswalk Width(ft)		16			16			16			16					
Two way Left Turn Lane																
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Turning Speed (mph)	15		9	15		9	15		9	15		9				
Number of Detectors					1		1	2								
Detector Template								Thru								
Leading Detector (ft)					50		50	100								
Trailing Detector (ft)					0		0	0								
Detector 1 Position(ft)					0		0	0								
Detector 1 Size(ft)					50		50	6								
Detector 1 Type					Cl+Ex		Cl+Ex	Cl+Ex								
Detector 1 Channel																
Detector 1 Extend (s)					0.0		0.0	0.0								
Detector 1 Queue (s)					0.0		0.0	0.0								
Detector 1 Delay (s)					0.0		0.0	0.0								
Detector 2 Position(ft)								94								
Detector 2 Size(ft)								6								
Detector 2 Type								Cl+Ex								
Detector 2 Channel																
Detector 2 Extend (s)								0.0								
Turn Type					NA		Split	NA								
Protected Phases					1 4		2 3	2 3					1	2	3	4
Permitted Phases																
Detector Phase					1 4		2 3	2 3								
Switch Phase																
Minimum Initial (s)													15.0	8.0	5.0	8.0
Minimum Split (s)													24.0	27.0	10.0	22.0
Total Split (s)													38.0	27.0	12.0	23.0
Total Split (%)													38%	27%	12%	23%
Maximum Green (s)													33.0	22.0	7.0	18.0
Yellow Time (s)													3.0	3.0	3.0	3.0
All-Red Time (s)													2.0	2.0	2.0	2.0
Lost Time Adjust (s)																
Total Lost Time (s)																
Lead/Lag													Lead	Lag	Lead	Lag
Lead-Lag Optimize?																
Vehicle Extension (s)													2.0	2.0	2.0	2.0
Recall Mode													C-Max	Ped	None	Ped
Walk Time (s)													7.0	7.0		7.0
Flash Dont Walk (s)													12.0	15.0		10.0
Pedestrian Calls (#/hr)													13	78		53
Act Effct Green (s)					57.0		35.0	34.0								
Actuated g/C Ratio					0.57		0.35	0.34								
v/c Ratio					0.25		0.92	0.13								
Control Delay					2.9		31.4	0.5								

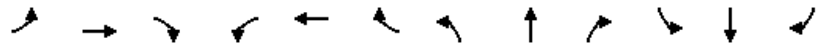
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Queue Delay					0.3		47.2	0.8								
Total Delay					3.3		78.6	1.4								
LOS					A		E	A								
Approach Delay					3.3			68.9								
Approach LOS					A			E								
Queue Length 50th (ft)					12		180	0								
Queue Length 95th (ft)					15		#538	m0								
Internal Link Dist (ft)		55			107			111			44					
Turn Bay Length (ft)																
Base Capacity (vph)					1795		534	527								
Starvation Cap Reductn					769		104	294								
Spillback Cap Reductn					0		0	0								
Storage Cap Reductn					0		0	0								
Reduced v/c Ratio					0.45		1.14	0.30								

Intersection Summary

Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.55
Intersection Signal Delay: 39.4 Intersection LOS: D
Intersection Capacity Utilization 36.7% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Riverway Ext/Landmark Center North Drive & Park Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	425	5	505	15	0	0	0	0
Future Volume (vph)	0	0	0	0	425	5	505	15	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	5.0				
Lane Util. Factor					0.95		0.95	0.95				
Frpb, ped/bikes					1.00		1.00	1.00				
Flpb, ped/bikes					1.00		1.00	1.00				
Frt					1.00		1.00	1.00				
Flt Protected					1.00		0.95	0.96				
Satd. Flow (prot)					3149		1528	1552				
Flt Permitted					1.00		0.95	0.96				
Satd. Flow (perm)					3149		1528	1552				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.94	0.94	0.93	0.93	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	452	5	543	16	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	456	0	489	70	0	0	0	0
Confl. Bikes (#/hr)						11						
Heavy Vehicles (%)	2%	2%	2%	2%	3%	0%	1%	0%	2%	2%	2%	2%
Turn Type					NA		Split	NA				
Protected Phases					1 4		2 3	2 3				
Permitted Phases												
Actuated Green, G (s)					56.0		34.0	34.0				
Effective Green, g (s)					57.0		35.0	34.0				
Actuated g/C Ratio					0.57		0.35	0.34				
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)					1794		534	527				
v/s Ratio Prot					c0.14		c0.32	0.05				
v/s Ratio Perm												
v/c Ratio					0.25		0.92	0.13				
Uniform Delay, d1					10.8		31.1	22.8				
Progression Factor					0.24		0.38	0.01				
Incremental Delay, d2					0.0		14.7	0.0				
Delay (s)					2.6		26.4	0.2				
Level of Service					A		C	A				
Approach Delay (s)		0.0			2.6			23.2			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	750	1000	60
Future Volume (vph)	0	0	0	750	1000	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	11	11	11	16
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						
Frt					0.991	
Flt Protected						
Satd. Flow (prot)	0	0	0	2963	2969	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	2963	2969	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	540			1044	160	
Travel Time (s)	14.7			28.5	4.4	
Confl. Peds. (#/hr)			190			190
Confl. Bikes (#/hr)						2
Peak Hour Factor	0.92	0.92	0.88	0.88	0.94	0.94
Heavy Vehicles (%)	2%	2%	0%	6%	5%	2%
Adj. Flow (vph)	0	0	0	852	1064	64
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	852	1128	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.19	1.19	1.19	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	750	1000	60
Future Volume (Veh/h)	0	0	0	750	1000	60
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.88	0.88	0.94	0.94
Hourly flow rate (vph)	0	0	0	852	1064	64
Pedestrians	190					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1044	160	
pX, platoon unblocked	0.78	0.71	0.71			
vC, conflicting volume	1712	754	1318			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	620	0	644			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	326	774	679			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	284	568	709	419
Volume Left	0	0	0	0
Volume Right	0	0	0	64
cSH	679	1700	1700	1700
Volume to Capacity	0.00	0.33	0.42	0.25
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
Analysis Period (min)	15		



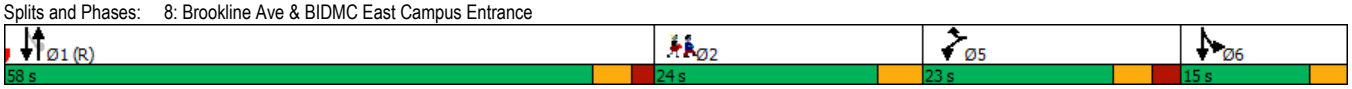
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	100	85	650	75	60	855	
Future Volume (vph)	100	85	650	75	60	855	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	10	10	10	10	10	
Storage Length (ft)	0	0		0	25		
Storage Lanes	1	1		0	1		
Taper Length (ft)	0				0		
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95	
Ped Bike Factor			1.00				
Frt		0.850	0.984				
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1486	1268	2763	0	1516	2775	
Flt Permitted	0.950				0.232		
Satd. Flow (perm)	1486	1268	2763	0	370	2775	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		109	13				
Link Speed (mph)	25		25			25	
Link Distance (ft)	171		594			1044	
Travel Time (s)	4.7		16.2			28.5	
Confl. Bikes (#/hr)				15			
Peak Hour Factor	0.78	0.78	0.81	0.81	0.94	0.94	
Heavy Vehicles (%)	2%	7%	7%	13%	0%	6%	
Bus Blockages (#/hr)	0	0	0	0	0	15	
Adj. Flow (vph)	128	109	802	93	64	910	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	128	109	895	0	64	910	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	10		10			10	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.25	1.25	1.25	1.25	1.25	1.30	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	1		1	1	
Detector Template							
Leading Detector (ft)	50	50	50		50	50	
Trailing Detector (ft)	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0		0	0	
Detector 1 Size(ft)	50	50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	
Turn Type	Prot	Prot	NA		D.P+P	NA	
Protected Phases	5	5	1		6	1 6	2
Permitted Phases					1		
Detector Phase	5	5	1		6	1 6	
Switch Phase							
Minimum Initial (s)	8.0	8.0	10.0		6.0		8.0
Minimum Split (s)	14.0	14.0	15.5		9.5		24.0
Total Split (s)	23.0	23.0	58.0		15.0		24.0
Total Split (%)	19.2%	19.2%	48.3%		12.5%		20%
Maximum Green (s)	17.0	17.0	52.5		11.5		20.0
Yellow Time (s)	3.5	3.5	3.5		3.5		4.0
All-Red Time (s)	2.5	2.5	2.0		0.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	6.0	6.0	5.5		3.5		
Lead/Lag	Lead	Lead	Lead		Lag		Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0
Recall Mode	None	None	C-Max		None		None
Walk Time (s)							7.0
Flash Dont Walk (s)							13.0
Pedestrian Calls (#/hr)							71
Act Effct Green (s)	14.3	14.3	60.0		73.5	75.0	
Actuated g/C Ratio	0.12	0.12	0.50		0.61	0.62	
v/c Ratio	0.72	0.44	0.65		0.19	0.53	
Control Delay	73.1	14.4	25.3		12.7	22.1	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	73.1	14.4	25.3		12.7	22.1	
LOS	E	B	C		B	C	
Approach Delay	46.1		25.3			21.4	
Approach LOS	D		C			C	
Queue Length 50th (ft)	96	0	245		31	366	
Queue Length 95th (ft)	137	34	271		m39	427	
Internal Link Dist (ft)	91		514			964	
Turn Bay Length (ft)					25		
Base Capacity (vph)	210	273	1387		336	1733	
Starvation Cap Reductn	0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.61	0.40	0.65		0.19	0.53	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 91 (76%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 25.9		Intersection LOS: C	
Intersection Capacity Utilization 47.2%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Brookline Ave & BIDMC East Campus Entrance





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	100	85	650	75	60	855
Future Volume (vph)	100	85	650	75	60	855
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0	5.5		3.5	5.5
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1486	1268	2765		1516	2775
Flt Permitted	0.95	1.00	1.00		0.23	1.00
Satd. Flow (perm)	1486	1268	2765		370	2775
Peak-hour factor, PHF	0.78	0.78	0.81	0.81	0.94	0.94
Adj. Flow (vph)	128	109	802	93	64	910
RTOR Reduction (vph)	0	96	7	0	0	0
Lane Group Flow (vph)	128	13	888	0	64	910
Confl. Bikes (#/hr)				15		
Heavy Vehicles (%)	2%	7%	7%	13%	0%	6%
Bus Blockages (#/hr)	0	0	0	0	0	15
Turn Type	Prot	Prot	NA		D.P+P	NA
Protected Phases	5	5	1		6	1 6
Permitted Phases					1	
Actuated Green, G (s)	14.3	14.3	59.2		70.7	74.2
Effective Green, g (s)	14.3	14.3	59.2		70.7	70.7
Actuated g/C Ratio	0.12	0.12	0.49		0.59	0.59
Clearance Time (s)	6.0	6.0	5.5		3.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	177	151	1364		327	1634
v/s Ratio Prot	c0.09	0.01	c0.32		0.02	c0.33
v/s Ratio Perm					0.10	
v/c Ratio	0.72	0.09	0.65		0.20	0.56
Uniform Delay, d1	50.9	47.0	22.7		11.8	15.1
Progression Factor	1.00	1.00	0.97		1.10	1.44
Incremental Delay, d2	13.6	0.2	1.5		0.2	0.3
Delay (s)	64.5	47.3	23.6		13.2	21.9
Level of Service	E	D	C		B	C
Approach Delay (s)	56.6		23.6			21.4
Approach LOS	E		C			C

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	70	150	45	165	180	230	25	515	85	200	570	85	
Future Volume (vph)	70	150	45	165	180	230	25	515	85	200	570	85	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	10	10	10	10	10	10	10	10	
Storage Length (ft)	170		0	155		0	110		0	0		0	
Storage Lanes	1		0	1		1	0		0	1		0	
Taper Length (ft)	25			70			100			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor		1.00				0.98		1.00			1.00		
Frt		0.965				0.850		0.980			0.981		
Flt Protected	0.950			0.950				0.998		0.950			
Satd. Flow (prot)	1525	1524	0	1430	1565	1233	0	2781	0	1391	2813	0	
Flt Permitted	0.547			0.462				0.874		0.224			
Satd. Flow (perm)	878	1524	0	696	1565	1205	0	2435	0	328	2813	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		617			195			447			594		
Travel Time (s)		16.8			5.3			12.2			16.2		
Confl. Bikes (#/hr)			5			17			3			7	
Peak Hour Factor	0.82	0.82	0.82	0.95	0.95	0.95	0.89	0.89	0.89	0.95	0.95	0.95	
Heavy Vehicles (%)	3%	5%	2%	6%	2%	10%	0%	7%	4%	9%	5%	8%	
Adj. Flow (vph)	85	183	55	174	189	242	28	579	96	211	600	89	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	85	238	0	174	189	242	0	703	0	211	689	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1	1	1	1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50	50	50	50		50	50		
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Size(ft)	50	50		50	50	50	50	50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA		
Protected Phases		5			5	6		1		6	1 6		2
Permitted Phases	5			5		5	1			1			
Detector Phase	5	5		5	5	6	1	1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0	6.0	10.0	10.0		6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	11.5	15.5	15.5		11.5			27.0
Total Split (s)	37.0	37.0		37.0	37.0	12.7	43.3	43.3		12.7			27.0
Total Split (%)	30.8%	30.8%		30.8%	30.8%	10.6%	36.1%	36.1%		10.6%			23%
Maximum Green (s)	31.0	31.0		31.0	31.0	9.2	37.8	37.8		9.2			23.0
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5	0.0	2.0	2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0			
Total Lost Time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5			
Lead/Lag	Lead	Lead		Lead	Lead	Lag	Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0			2.0
Recall Mode	None	None		None	None	None	C-Max	C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													16.0
Pedestrian Calls (#/hr)													259
Act Effct Green (s)	31.0	31.0		31.0	31.0	42.7		37.8		49.0	50.5		
Actuated g/C Ratio	0.26	0.26		0.26	0.26	0.36		0.32		0.41	0.42		
v/c Ratio	0.38	0.61		0.97	0.47	0.56		0.92		0.98	0.58		
Control Delay	64.6	69.1		106.0	42.1	34.6		56.7		73.9	11.8		
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.3		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay	64.6	69.1		106.0	42.1	34.6		56.7		73.9	12.1		
LOS	E	E		F	D	C		E		E	B		
Approach Delay		67.9			57.5			56.7			26.6		
Approach LOS		E			E			E			C		
Queue Length 50th (ft)	67	191		134	124	142		222		43	111		
Queue Length 95th (ft)	m87	m234		#281	198	225		#375		#197	102		
Internal Link Dist (ft)		537			115			367			514		
Turn Bay Length (ft)	170			155									
Base Capacity (vph)	226	393		179	404	430		768		215	1184		
Starvation Cap Reductn	0	0		0	0	0		0		0	0		
Spillback Cap Reductn	0	0		0	0	0		0		0	117		
Storage Cap Reductn	0	0		0	0	0		0		0	0		
Reduced v/c Ratio	0.38	0.61		0.97	0.47	0.56		0.92		0.98	0.65		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 109 (91%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 47.6		Intersection LOS: D	
Intersection Capacity Utilization 81.3%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Brookline Ave & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	150	45	165	180	230	25	515	85	200	570	85
Future Volume (vph)	70	150	45	165	180	230	25	515	85	200	570	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98		1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00	0.85		0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1525	1524		1430	1565	1211		2779		1391	2812	
Flt Permitted	0.55	1.00		0.46	1.00	1.00		0.87		0.22	1.00	
Satd. Flow (perm)	878	1524		695	1565	1211		2435		328	2812	
Peak-hour factor, PHF	0.82	0.82	0.82	0.95	0.95	0.95	0.89	0.89	0.89	0.95	0.95	0.95
Adj. Flow (vph)	85	183	55	174	189	242	28	579	96	211	600	89
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	85	238	0	174	189	242	0	703	0	211	689	0
Confl. Bikes (#/hr)			5			17			3			7
Heavy Vehicles (%)	3%	5%	2%	6%	2%	10%	0%	7%	4%	9%	5%	8%
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA	
Protected Phases		5			5	6		1		6	1 6	
Permitted Phases	5			5		5	1			1		
Actuated Green, G (s)	31.0	31.0		31.0	31.0	40.2		37.8		47.0	50.5	
Effective Green, g (s)	31.0	31.0		31.0	31.0	40.2		37.8		47.0	47.0	
Actuated g/C Ratio	0.26	0.26		0.26	0.26	0.34		0.31		0.39	0.39	
Clearance Time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0		2.0		
Lane Grp Cap (vph)	226	393		179	404	405		767		209	1101	
v/s Ratio Prot		0.16			0.12	0.05				c0.08	0.25	
v/s Ratio Perm	0.10			c0.25		0.15		0.29		c0.32		
v/c Ratio	0.38	0.61		0.97	0.47	0.60		0.92		1.01	0.63	
Uniform Delay, d1	36.6	39.1		44.1	37.5	33.2		39.6		32.9	29.4	
Progression Factor	1.62	1.60		1.00	1.00	1.00		1.01		0.65	0.37	
Incremental Delay, d2	0.3	1.4		58.5	0.3	1.6		16.2		60.0	0.7	
Delay (s)	59.4	64.0		102.6	37.9	34.8		56.3		81.5	11.6	
Level of Service	E	E		F	D	C		E		F	B	
Approach Delay (s)		62.8			55.2			56.3			28.0	
Approach LOS		E			E			E			C	

Intersection Summary			
HCM 2000 Control Delay	46.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	90	25	115	125	0	125	0	450	45	55	710	0	
Future Volume (vph)	90	25	115	125	0	125	0	450	45	55	710	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	10	10	10	10	10	10	11	11	11	
Storage Length (ft)	130		0	90		0	0		0	0		0	
Storage Lanes	1		0	1		1	0		0	0		0	
Taper Length (ft)	25			60			0			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	
Ped Bike Factor								1.00					
Frt		0.876				0.850		0.986					
Flt Protected	0.950			0.950							0.996		
Satd. Flow (prot)	1399	1256	0	1472	0	1201	0	2887	0	0	3012	0	
Flt Permitted	0.950			0.552							0.850		
Satd. Flow (perm)	1399	1256	0	855	0	1201	0	2887	0	0	2570	0	
Right Turn on Red			Yes			No			Yes			Yes	
Satd. Flow (RTOR)		126						10					
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		331			357			455			447		
Travel Time (s)		9.0			9.7			12.4			12.2		
Confl. Bikes (#/hr)									3			6	
Peak Hour Factor	0.91	0.91	0.91	0.87	0.88	0.87	0.87	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	1%	12%	2%	3%	0%	13%	0%	3%	7%	2%	4%	0%	
Parking (#/hr)	6	6	6										
Adj. Flow (vph)	99	27	126	144	0	144	0	500	50	61	789	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	99	153	0	144	0	144	0	550	0	0	850	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		12			15			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.36	1.36	1.14	1.25	1.25	1.25	1.25	1.25	1.25	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1		1		1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50		50		50		50	50		
Trailing Detector (ft)	0	0		0		0		0		0	0		
Detector 1 Position(ft)	0	0		0		0		0		0	0		
Detector 1 Size(ft)	50	50		50		50		50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA		
Protected Phases		5						1		6	1 6		2
Permitted Phases	5			5		5				1			
Detector Phase	5	5		5		5		1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0		8.0		10.0		6.0			7.0
Minimum Split (s)	13.5	13.5		13.5		13.5		18.5		11.5			28.0
Total Split (s)	32.0	32.0		32.0		32.0		48.5		11.5			28.0
Total Split (%)	26.7%	26.7%		26.7%		26.7%		40.4%		9.6%			23%
Maximum Green (s)	26.5	26.5		26.5		26.5		43.0		8.0			24.0
Yellow Time (s)	3.5	3.5		3.5		3.5		3.5		3.5			4.0
All-Red Time (s)	2.0	2.0		2.0		2.0		2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0					
Total Lost Time (s)	5.5	5.5		5.5		5.5		5.5					
Lead/Lag	Lead	Lead		Lead		Lead		Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0		2.0			2.0
Recall Mode	None	None		None		None		C-Max		Max			Ped
Walk Time (s)								7.0					7.0
Flash Dont Walk (s)								6.0					17.0
Pedestrian Calls (#/hr)								30					122
Act Effct Green (s)	22.1	22.1		22.1		22.1		47.4			53.4		
Actuated g/C Ratio	0.18	0.18		0.18		0.18		0.40			0.44		
v/c Ratio	0.38	0.46		0.92		0.65		0.48			0.73		
Control Delay	46.0	15.1		100.2		58.5		18.8			20.9		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Queue Delay	0.0	0.0		0.0		0.0		0.0			0.8		
Total Delay	46.0	15.1		100.2		58.5		18.8			21.8		
LOS	D	B		F		E		B			C		
Approach Delay		27.2			79.4			18.8			21.8		
Approach LOS		C			E			B			C		
Queue Length 50th (ft)	66	17		108		102		97			291		
Queue Length 95th (ft)	118	77		#201		163		114			m327		
Internal Link Dist (ft)		251			277			375			367		
Turn Bay Length (ft)	130			90									
Base Capacity (vph)	308	375		188		265		1145			1164		
Starvation Cap Reductn	0	0		0		0		0			110		
Spillback Cap Reductn	0	0		0		0		0			0		
Storage Cap Reductn	0	0		0		0		0			0		
Reduced v/c Ratio	0.32	0.41		0.77		0.54		0.48			0.81		

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 2 (2%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 30.2 Intersection LOS: C
Intersection Capacity Utilization 73.1% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Brookline Ave & Deaconess Rd/Jimmy Fund Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	25	115	125	0	125	0	450	45	55	710	0
Future Volume (vph)	90	25	115	125	0	125	0	450	45	55	710	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	10	10	10	10	10	11	11	11
Total Lost time (s)	5.5	5.5		5.5		5.5		5.5			5.5	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Frt	1.00	0.88		1.00		0.85		0.99			1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00			1.00	
Satd. Flow (prot)	1399	1257		1472		1201		2888			3013	
Flt Permitted	0.95	1.00		0.55		1.00		1.00			0.85	
Satd. Flow (perm)	1399	1257		856		1201		2888			2570	
Peak-hour factor, PHF	0.91	0.91	0.91	0.87	0.88	0.87	0.87	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	99	27	126	144	0	144	0	500	50	61	789	0
RTOR Reduction (vph)	0	103	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	99	50	0	144	0	144	0	544	0	0	850	0
Confl. Bikes (#/hr)									3			6
Heavy Vehicles (%)	1%	12%	2%	3%	0%	13%	0%	3%	7%	2%	4%	0%
Parking (#/hr)	6	6	6									
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5			5		5				1		
Actuated Green, G (s)	22.1	22.1		22.1		22.1		47.4			55.4	
Effective Green, g (s)	22.1	22.1		22.1		22.1		47.4			55.4	
Actuated g/C Ratio	0.18	0.18		0.18		0.18		0.39			0.46	
Clearance Time (s)	5.5	5.5		5.5		5.5		5.5				
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0				
Lane Grp Cap (vph)	257	231		157		221		1140			1216	
v/s Ratio Prot		0.04						0.19			c0.05	
v/s Ratio Perm	0.07			c0.17		0.12					c0.28	
v/c Ratio	0.39	0.22		0.92		0.65		0.48			0.70	
Uniform Delay, d1	43.0	41.6		48.1		45.4		27.1			25.7	
Progression Factor	1.00	1.00		1.00		1.00		0.63			0.65	
Incremental Delay, d2	0.4	0.2		47.0		5.2		1.2			2.6	
Delay (s)	43.3	41.8		95.1		50.5		18.3			19.2	
Level of Service	D	D		F		D		B			B	
Approach Delay (s)		42.4			72.8			18.3			19.2	
Approach LOS		D			E			B			B	

Intersection Summary				
HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.58			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5	
Intersection Capacity Utilization	73.1%	ICU Level of Service	D	
Analysis Period (min)	15			

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	30	70	50	225	75	110	40	355	75	160	760	30	
Future Volume (vph)	30	70	50	225	75	110	40	355	75	160	760	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	15	15	15	11	11	11	11	11	11	10	10	10	
Storage Length (ft)	0		0	0		0	0		0	240		0	
Storage Lanes	0		0	1		0	0		1	1		0	
Taper Length (ft)	0			0			0			45			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95	
Ped Bike Factor									0.98		1.00		
Frt		0.955			0.911				0.850		0.994		
Flt Protected		0.990		0.950				0.995		0.950			
Satd. Flow (prot)	0	1754	0	1510	1465	0	0	3017	1351	1366	2954	0	
Flt Permitted		0.856		0.527				0.730		0.443			
Satd. Flow (perm)	0	1517	0	838	1465	0	0	2213	1322	637	2954	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)					57								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		176			309			203			455		
Travel Time (s)		4.8			8.4			5.5			12.4		
Confl. Bikes (#/hr)									1			12	
Peak Hour Factor	0.78	0.78	0.78	0.92	0.92	0.92	0.93	0.93	0.93	0.97	0.97	0.97	
Heavy Vehicles (%)	7%	0%	0%	4%	4%	2%	0%	4%	4%	11%	2%	0%	
Adj. Flow (vph)	38	90	64	245	82	120	43	382	81	165	784	31	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	192	0	245	202	0	0	425	81	165	815	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.01	1.01	1.01	1.19	1.19	1.19	1.19	1.19	1.19	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1		1	1	1	1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50		50	50	50	50	50		
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Size(ft)	50	50		50	50		50	50	50	50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases	5			5			1		1	1			
Detector Phase	5	5		5	5		1	1	1	6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		10.0	10.0	10.0	6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		16.0	16.0	16.0	12.0			29.0
Total Split (s)	34.0	34.0		34.0	34.0		43.0	43.0	43.0	14.0			29.0
Total Split (%)	28.3%	28.3%		28.3%	28.3%		35.8%	35.8%	35.8%	11.7%			24%
Maximum Green (s)	28.0	28.0		28.0	28.0		37.0	37.0	37.0	10.5			25.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5	2.5	0.0			0.0
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0	0.0			
Total Lost Time (s)		6.0		6.0	6.0			6.0	6.0	3.5			
Lead/Lag	Lead	Lead		Lead	Lead		Lead	Lead	Lead	Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0			3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													59
Act Effct Green (s)		28.0		28.0	28.0			42.8	42.8	55.8	56.8		
Actuated g/C Ratio		0.23		0.23	0.23			0.36	0.36	0.46	0.47		
v/c Ratio		0.54		1.26	0.52			0.54	0.17	0.46	0.58		
Control Delay		47.1		189.2	34.1			45.2	36.0	14.3	15.0		
Queue Delay		1.5		2.9	0.0			0.2	0.0	0.0	0.4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		48.6		192.1	34.1			45.4	36.0	14.3	15.4		
LOS		D		F	C			D	D	B	B		
Approach Delay		48.6			120.7			43.9			15.2		
Approach LOS		D			F			D			B		
Queue Length 50th (ft)		131		~237	98			147	47	32	116		
Queue Length 95th (ft)		176		#402	177			m110	m37	m79	212		
Internal Link Dist (ft)		96			229			123			375		
Turn Bay Length (ft)										240			
Base Capacity (vph)		353		195	385			789	471	360	1398		
Starvation Cap Reductn		0		0	0			57	0	0	126		
Spillback Cap Reductn		57		31	0			0	0	0	206		
Storage Cap Reductn		0		0	0			0	0	0	0		
Reduced v/c Ratio		0.65		1.49	0.52			0.58	0.17	0.46	0.68		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 2 (2%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.26			
Intersection Signal Delay: 47.2		Intersection LOS: D	
Intersection Capacity Utilization 79.8%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

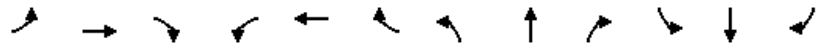
Splits and Phases: 11: Brookline Ave & Francis St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	70	50	225	75	110	40	355	75	160	760	30
Future Volume (vph)	30	70	50	225	75	110	40	355	75	160	760	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	11	11	11	11	11	11	10	10	10
Total Lost time (s)		6.0		6.0	6.0			6.0	6.0	3.5	6.0	
Lane Util. Factor		1.00		1.00	1.00			0.95	1.00	1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00			1.00	0.98	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frt		0.95		1.00	0.91			1.00	0.85	1.00	0.99	
Flt Protected		0.99		0.95	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (prot)		1754		1510	1465			3016	1323	1366	2955	
Flt Permitted		0.86		0.53	1.00			0.73	1.00	0.44	1.00	
Satd. Flow (perm)		1516		838	1465			2214	1323	637	2955	
Peak-hour factor, PHF	0.78	0.78	0.78	0.92	0.92	0.92	0.93	0.93	0.93	0.97	0.97	0.97
Adj. Flow (vph)	38	90	64	245	82	120	43	382	81	165	784	31
RTOR Reduction (vph)	0	0	0	0	44	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	192	0	245	158	0	0	425	81	165	815	0
Confl. Bikes (#/hr)									1			12
Heavy Vehicles (%)	7%	0%	0%	4%	4%	2%	0%	4%	4%	11%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases	5			5			1		1	1		
Actuated Green, G (s)		28.0		28.0	28.0			42.0	42.0	52.5	56.0	
Effective Green, g (s)		28.0		28.0	28.0			42.0	42.0	52.5	52.5	
Actuated g/C Ratio		0.23		0.23	0.23			0.35	0.35	0.44	0.44	
Clearance Time (s)		6.0		6.0	6.0			6.0	6.0	3.5		
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0	3.0		
Lane Grp Cap (vph)		353		195	341			774	463	342	1292	
v/s Ratio Prot					0.11					0.04	c0.28	
v/s Ratio Perm		0.13		c0.29				0.19	0.06	0.17		
v/c Ratio		0.54		1.26	0.46			0.55	0.17	0.48	0.63	
Uniform Delay, d1		40.4		46.0	39.6			31.4	27.0	21.7	26.2	
Progression Factor		1.00		1.00	1.00			1.34	1.18	0.54	0.54	
Incremental Delay, d2		1.7		150.1	1.0			0.3	0.1	3.4	1.7	
Delay (s)		42.1		196.1	40.6			42.3	32.0	15.2	15.9	
Level of Service		D		F	D			D	C	B	B	
Approach Delay (s)		42.1			125.8			40.6			15.8	
Approach LOS		D			F			D			B	

Intersection Summary			
HCM 2000 Control Delay	47.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	0	1175	60	5	790	195	110	275	10	545	465	25	
Future Volume (vph)	0	1175	60	5	790	195	110	275	10	545	465	25	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11	
Storage Length (ft)	0		0	0		0	280		0	0		0	
Storage Lanes	0		0	0		0	1		0	1		0	
Taper Length (ft)	0			0			25			0			
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor											1.00		
Frt		0.993			0.970			0.995			0.992		
Flt Protected							0.950			0.950			
Satd. Flow (prot)	0	3116	0	0	3011	0	1570	2927	0	1570	2945	0	
Flt Permitted					0.793		0.267			0.396			
Satd. Flow (perm)	0	3116	0	0	2387	0	441	2927	0	655	2945	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		5			29			2			4		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		497			489			442			108		
Travel Time (s)		13.6			13.3			12.1			2.9		
Confl. Bikes (#/hr)												10	
Peak Hour Factor	0.88	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.85	0.85	0.85	
Heavy Vehicles (%)	0%	0%	2%	0%	1%	2%	0%	7%	0%	0%	6%	0%	
Adj. Flow (vph)	0	1306	67	6	878	217	120	299	11	641	547	29	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	1373	0	0	1101	0	120	310	0	641	576	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		0			0			11			11		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors		1		1	1		1	1		1	1		
Detector Template													
Leading Detector (ft)		50		50	50		50	50		50	50		
Trailing Detector (ft)		0		0	0		0	0		0	0		
Detector 1 Position(ft)		0		0	0		0	0		0	0		
Detector 1 Size(ft)		50		50	50		50	50		50	50		
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Turn Type		NA			NA		Perm	NA		D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases							1			1			
Detector Phase		5			5		1	1		6	1 6		
Switch Phase													
Minimum Initial (s)		8.0			8.0		10.0	10.0		6.0			1.0
Minimum Split (s)		14.0			14.0		16.0	16.0		12.0			27.0
Total Split (s)		52.0			52.0		16.0	16.0		25.0			27.0
Total Split (%)		43.3%			43.3%		13.3%	13.3%		20.8%			23%
Maximum Green (s)		46.0			46.0		10.0	10.0		22.0			25.0
Yellow Time (s)		3.0			3.0		3.0	3.0		3.0			2.0
All-Red Time (s)		3.0			3.0		3.0	3.0		0.0			0.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0			
Total Lost Time (s)		6.0			6.0		6.0	6.0		3.0			
Lead/Lag		Lead			Lead		Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0			2.0
Recall Mode		Max			Max		C-Max	C-Max		Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													49
Act Effct Green (s)		46.0			46.0		15.4	15.4		40.4	40.4		
Actuated g/C Ratio		0.38			0.38		0.13	0.13		0.34	0.34		
v/c Ratio		1.15			7.48dr		2.14	0.82		1.65	0.58		
Control Delay		109.5			1618.6		598.7	71.1		325.6	25.6		
Queue Delay		0.2			1.0		0.0	0.0		0.0	0.7		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		109.7			1619.7		598.7	71.1		325.6	26.3		
LOS		F			F		F	E		F	C		
Approach Delay		109.7			1619.7			218.3			183.9		
Approach LOS		F			F			F			F		
Queue Length 50th (ft)		~644			~745		~164	~158		~694	186		
Queue Length 95th (ft)		#783			#882		#288	#255		m#771	m197		
Internal Link Dist (ft)		417			409			362			28		
Turn Bay Length (ft)							280						
Base Capacity (vph)		1197			242		56	377		388	993		
Starvation Cap Reductn		60			0		0	0		0	164		
Spillback Cap Reductn		0			17		0	0		0	0		
Storage Cap Reductn		0			0		0	0		0	0		
Reduced v/c Ratio		1.21			4.89		2.14	0.82		1.65	0.69		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 26 (22%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 4.55			
Intersection Signal Delay: 546.4		Intersection LOS: F	
Intersection Capacity Utilization 93.9%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Splits and Phases: 12: Brookline Ave & Riverway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1175	60	5	790	195	110	275	10	545	465	25
Future Volume (vph)	0	1175	60	5	790	195	110	275	10	545	465	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		6.0			6.0		6.0	6.0		3.0	6.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.97		1.00	0.99		1.00	0.99	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3115			3011		1570	2926		1570	2946	
Flt Permitted		1.00			0.79		0.27	1.00		0.40	1.00	
Satd. Flow (perm)		3115			2387		441	2926		654	2946	
Peak-hour factor, PHF	0.88	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.85	0.85	0.85
Adj. Flow (vph)	0	1306	67	6	878	217	120	299	11	641	547	29
RTOR Reduction (vph)	0	3	0	0	18	0	0	2	0	0	3	0
Lane Group Flow (vph)	0	1370	0	0	1083	0	120	308	0	641	573	0
Confl. Bikes (#/hr)												10
Heavy Vehicles (%)	0%	0%	2%	0%	1%	2%	0%	7%	0%	0%	6%	0%
Turn Type		NA			NA		Perm	NA		D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases							1			1		
Actuated Green, G (s)		46.0			46.0		15.0	15.0		37.0	40.0	
Effective Green, g (s)		46.0			46.0		15.0	15.0		37.0	37.0	
Actuated g/C Ratio		0.38			0.38		0.12	0.12		0.31	0.31	
Clearance Time (s)		6.0			6.0		6.0	6.0		3.0		
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0		
Lane Grp Cap (vph)		1194			915		55	365		369	908	
v/s Ratio Prot		0.44						0.11		c0.32	0.19	
v/s Ratio Perm					c0.45		c0.27			0.22		
v/c Ratio		1.15			7.48dr		2.18	0.84		1.74	0.63	
Uniform Delay, d1		37.0			37.0		52.5	51.4		38.5	35.6	
Progression Factor		1.09			1.00		1.00	1.00		0.69	0.68	
Incremental Delay, d2		72.5			93.8		586.6	20.7		340.1	2.5	
Delay (s)		112.7			130.8		639.1	72.0		366.9	26.7	
Level of Service		F			F		F	E		F	C	
Approach Delay (s)		112.7			130.8			230.3			205.9	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	157.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	93.9%	ICU Level of Service	F
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	15	5	5	15	5	135	5	905	15	65	1215	85	
Future Volume (vph)	15	5	5	15	5	135	5	905	15	65	1215	85	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	14	14	14	14	14	11	11	11	11	11	11	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	
Ped Bike Factor		0.99			0.95			1.00			1.00		
Frt		0.972			0.882			0.998			0.991		
Flt Protected		0.971			0.995						0.998		
Satd. Flow (prot)	0	1700	0	0	1487	0	0	3093	0	0	3106	0	
Flt Permitted		0.408			0.961			0.947			0.807		
Satd. Flow (perm)	0	714	0	0	1436	0	0	2929	0	0	2511	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		7			157			2			9		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		418			141			497			1033		
Travel Time (s)		11.4			3.8			13.6			28.2		
Confl. Peds. (#/hr)			11			11			22	22			
Confl. Bikes (#/hr)									1				
Peak Hour Factor	0.75	0.75	0.75	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93	
Heavy Vehicles (%)	0%	0%	0%	0%	33%	1%	0%	1%	18%	0%	0%	0%	
Adj. Flow (vph)	20	7	7	17	6	157	5	995	16	70	1306	91	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	34	0	0	180	0	0	1016	0	0	1467	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		0			0			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.05	1.05	1.05	1.05	1.05	1.05	1.19	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1		1	1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50		50	50		50	50		
Trailing Detector (ft)	0	0		0	0		0	0		0	0		
Detector 1 Position(ft)	0	0		0	0		0	0		0	0		
Detector 1 Size(ft)	50	50		50	50		50	50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases	5			5			1			1 6			
Detector Phase	5	5		5	5		1	1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		6.0			8.0
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	14.0		11.0			27.0
Total Split (s)	14.0	14.0		14.0	14.0		68.0	68.0		11.0			27.0
Total Split (%)	11.7%	11.7%		11.7%	11.7%		56.7%	56.7%		9.2%			23%
Maximum Green (s)	8.0	8.0		8.0	8.0		62.0	62.0		8.0			25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0			2.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		0.0			0.0
Lost Time Adjust (s)		0.0			0.0			0.0					
Total Lost Time (s)		6.0			6.0			6.0					
Lead/Lag	Lead	Lead		Lead	Lead		Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0			3.0
Recall Mode	None	None		None	None		C-Max	C-Max		Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													12
Act Effct Green (s)		8.0			8.0			78.2			83.2		
Actuated g/C Ratio		0.07			0.07			0.65			0.69		
v/c Ratio		0.63			0.74			0.53			0.83		
Control Delay		91.8			31.2			9.3			23.9		
Queue Delay		0.0			40.4			16.4			11.1		
Total Delay		91.8			71.6			25.7			35.0		
LOS		F			E			C			D		

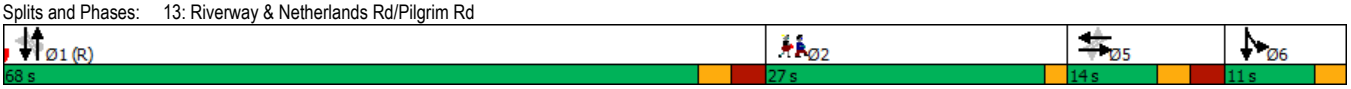
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Approach Delay		91.8			71.6			25.7			35.0		
Approach LOS		F			E			C			D		
Queue Length 50th (ft)		21			17			68			498		
Queue Length 95th (ft)		#56			#101			m27			m#705		
Internal Link Dist (ft)		338			61			417			953		
Turn Bay Length (ft)													
Base Capacity (vph)		54			242			1909			1768		
Starvation Cap Reductn		0			0			898			0		
Spillback Cap Reductn		0			68			0			299		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		0.63			1.03			1.00			1.00		

Intersection Summary	
Area Type:	CBD
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 89 (74%), Referenced to phase 1:NBSB, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 34.7	Intersection LOS: C
Intersection Capacity Utilization 97.3%	ICU Level of Service F
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 13: Riverway & Netherlands Rd/Pilgrim Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	5	5	15	5	135	5	905	15	65	1215	85
Future Volume (vph)	15	5	5	15	5	135	5	905	15	65	1215	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	11	11	11	11	11	11
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.95			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.97			0.88			1.00			0.99	
Flt Protected		0.97			1.00			1.00			1.00	
Satd. Flow (prot)		1701			1488			3092			3104	
Flt Permitted		0.41			0.96			0.95			0.81	
Satd. Flow (perm)		714			1437			2928			2512	
Peak-hour factor, PHF	0.75	0.75	0.75	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93
Adj. Flow (vph)	20	7	7	17	6	157	5	995	16	70	1306	91
RTOR Reduction (vph)	0	7	0	0	147	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	27	0	0	33	0	0	1015	0	0	1464	0
Confl. Peds. (#/hr)			11			11			22	22		
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	0%	33%	1%	0%	1%	18%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases	5			5			1			1 6		
Actuated Green, G (s)		8.0			8.0			77.0			85.0	
Effective Green, g (s)		8.0			8.0			77.0			85.0	
Actuated g/C Ratio		0.07			0.07			0.64			0.71	
Clearance Time (s)		6.0			6.0			6.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		47			95			1878			1818	
v/s Ratio Prot											c0.05	
v/s Ratio Perm		c0.04			0.02			0.35			c0.52	
v/c Ratio		0.58			0.35			0.54			0.81	
Uniform Delay, d1		54.4			53.5			11.8			11.9	
Progression Factor		1.00			1.00			0.66			1.41	
Incremental Delay, d2		17.2			2.2			0.1			2.0	
Delay (s)		71.6			55.8			7.9			18.8	
Level of Service		E			E			A			B	
Approach Delay (s)		71.6			55.8			7.9			18.8	
Approach LOS		E			E			A			B	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	97.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

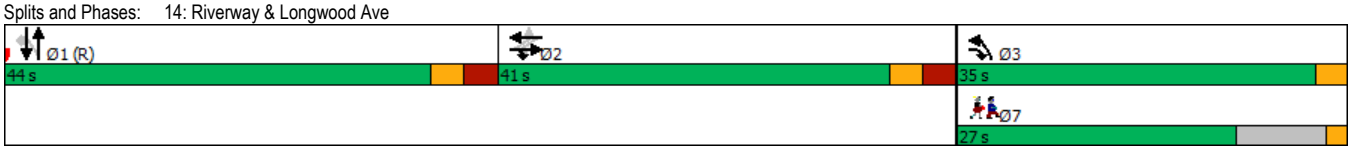


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Lane Configurations													
Traffic Volume (vph)	100	380	180	80	285	55	270	765	10	0	1085	75	
Future Volume (vph)	100	380	180	80	285	55	270	765	10	0	1085	75	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	11	11	10	11	11	11	11	11	
Storage Length (ft)	25		120	40		0	300		0	0		0	
Storage Lanes	1		1	1		0	1		0	0		1	
Taper Length (ft)	0			25			25			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	
Ped Bike Factor					0.99								
Frt			0.850		0.976			0.998				0.850	
Flt Protected	0.950			0.950			0.950						
Satd. Flow (prot)	1555	1637	1405	1516	1573	0	1501	3104	0	0	3110	1364	
Flt Permitted	0.273			0.214			0.085						
Satd. Flow (perm)	447	1637	1405	342	1573	0	134	3104	0	0	3110	1364	
Right Turn on Red			Yes			Yes			No			No	
Satd. Flow (RTOR)			27		8								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		327			278			1033			510		
Travel Time (s)		8.9			7.6			28.2			13.9		
Confl. Bikes (#/hr)			8			28							
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95	0.93	0.93	0.93	
Heavy Vehicles (%)	1%	1%	0%	0%	1%	7%	1%	1%	0%	0%	1%	3%	
Adj. Flow (vph)	105	400	189	85	303	59	284	805	11	0	1167	81	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	105	400	189	85	362	0	284	816	0	0	1167	81	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.19	1.19	1.25	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1	1	1	1		1	1			1	1	
Detector Template													
Leading Detector (ft)	50	50	50	50	50		50	50			50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Size(ft)	50	50	50	50	50		50	50			50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm	
Protected Phases		2	2 3		2		3	1			1		7
Permitted Phases	2			2			1					1	
Detector Phase	2	2	2 3	2	2		3	1			1	1	
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	18.0			18.0	18.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	26.0			26.0	26.0	27.0
Total Split (s)	41.0	41.0		41.0	41.0		35.0	44.0			44.0	44.0	27.0
Total Split (%)	34.2%	34.2%		34.2%	34.2%		29.2%	36.7%			36.7%	36.7%	23%
Maximum Green (s)	35.0	35.0		35.0	35.0		32.0	38.0			38.0	38.0	25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)	3.0	3.0		3.0	3.0		0.0	3.0			3.0	3.0	0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0	
Lead/Lag	Lag	Lag		Lag	Lag			Lead			Lead	Lead	
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0	2.0
Recall Mode	None	None		None	None		None	C-Max			C-Max	C-Max	None
Walk Time (s)								7.0			7.0	7.0	7.0
Flash Dont Walk (s)								13.0			13.0	13.0	18.0
Pedestrian Calls (#/hr)								6			6	6	111
Act Effct Green (s)	32.2	32.2	61.2	32.2	32.2		75.8	46.8			46.8	46.8	
Actuated g/C Ratio	0.27	0.27	0.51	0.27	0.27		0.63	0.39			0.39	0.39	
v/c Ratio	0.88	0.91	0.26	0.93	0.85		0.75	0.67			0.96	0.15	
Control Delay	97.4	68.2	14.0	113.3	51.5		31.3	33.4			55.2	27.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Total Delay	97.4	68.2	14.0	113.3	51.5		31.3	33.4			55.2	27.1	
LOS	F	E	B	F	D		C	C			E	C	
Approach Delay		57.9			63.2			32.8			53.4		
Approach LOS		E			E			C			D		
Queue Length 50th (ft)	75	290	66	65	265		124	333			464	41	
Queue Length 95th (ft)	#180	#457	97	m#159	m#390		m164	421			#704	86	
Internal Link Dist (ft)		247			198			953			430		
Turn Bay Length (ft)	25		120	40			300						
Base Capacity (vph)	130	477	793	99	464		451	1210			1212	531	
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0	
Storage Cap Reductn	0	0	0	0	0		0	0			0	0	
Reduced v/c Ratio	0.81	0.84	0.24	0.86	0.78		0.63	0.67			0.96	0.15	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 34 (28%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 49.1		Intersection LOS: D	
Intersection Capacity Utilization 97.2%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 14: Riverway & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	380	180	80	285	55	270	765	10	0	1085	75
Future Volume (vph)	100	380	180	80	285	55	270	765	10	0	1085	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	11	11	10	11	11	11	11	11
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0		3.0	6.0			6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1555	1637	1405	1516	1572		1501	3104			3110	1364
Flt Permitted	0.27	1.00	1.00	0.21	1.00		0.09	1.00			1.00	1.00
Satd. Flow (perm)	446	1637	1405	342	1572		135	3104			3110	1364
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95	0.93	0.93	0.93
Adj. Flow (vph)	105	400	189	85	303	59	284	805	11	0	1167	81
RTOR Reduction (vph)	0	0	13	0	6	0	0	0	0	0	0	0
Lane Group Flow (vph)	105	400	176	85	356	0	284	816	0	0	1167	81
Confl. Bikes (#/hr)			8			28						
Heavy Vehicles (%)	1%	1%	0%	0%	1%	7%	1%	1%	0%	0%	1%	3%
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm
Protected Phases		2	2 3		2		3	1			1	
Permitted Phases	2			2			1					1
Actuated Green, G (s)	32.2	32.2	64.2	32.2	32.2		72.8	46.8			46.8	46.8
Effective Green, g (s)	32.2	32.2	64.2	32.2	32.2		72.8	46.8			46.8	46.8
Actuated g/C Ratio	0.27	0.27	0.54	0.27	0.27		0.61	0.39			0.39	0.39
Clearance Time (s)	6.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	119	439	751	91	421		377	1210			1212	531
v/s Ratio Prot		0.24	0.13		0.23		c0.16	0.26			c0.38	
v/s Ratio Perm	0.24			c0.25			0.29					0.06
v/c Ratio	0.88	0.91	0.23	0.93	0.85		0.75	0.67			0.96	0.15
Uniform Delay, d1	42.1	42.5	14.8	42.9	41.6		31.7	30.3			35.8	23.7
Progression Factor	1.00	1.00	1.00	0.83	0.82		0.71	0.96			1.00	1.00
Incremental Delay, d2	47.1	22.5	0.1	70.0	13.5		6.2	2.5			18.4	0.6
Delay (s)	89.2	65.1	14.9	105.7	47.7		28.8	31.7			54.1	24.3
Level of Service	F	E	B	F	D		C	C			D	C
Approach Delay (s)		55.0			58.8			30.9			52.2	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	46.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	97.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	35	70	950	0	0	1100	
Future Volume (vph)	35	70	950	0	0	1100	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	10	10	10	10	
Storage Length (ft)	30	0		0	0		
Storage Lanes	1	1		0	0		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1450	1253	4272	0	0	4314	
Flt Permitted	0.950						
Satd. Flow (perm)	1450	1253	4272	0	0	4314	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		127					
Link Speed (mph)	25		25			25	
Link Distance (ft)	246		343			858	
Travel Time (s)	6.7		9.4			23.4	
Peak Hour Factor	0.55	0.55	0.88	0.89	0.92	0.88	
Heavy Vehicles (%)	12%	16%	2%	2%	2%	1%	
Adj. Flow (vph)	64	127	1080	0	0	1250	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	64	127	1080	0	0	1250	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.14	1.14	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	2			2	
Detector Template	Left	Right	Thru			Thru	
Leading Detector (ft)	20	20	100			100	
Trailing Detector (ft)	0	0	0			0	
Detector 1 Position(ft)	0	0	0			0	
Detector 1 Size(ft)	20	20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)			94			94	
Detector 2 Size(ft)			6			6	
Detector 2 Type			Cl+Ex			Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)			0.0			0.0	
Turn Type	Prot	Perm	NA			NA	
Protected Phases	5		1			1	2
Permitted Phases		5					
Detector Phase	5	5	1			1	
Switch Phase							
Minimum Initial (s)	8.0	8.0	15.0			15.0	7.0
Minimum Split (s)	14.0	14.0	20.0			20.0	25.0
Total Split (s)	16.0	16.0	49.0			49.0	25.0
Total Split (%)	17.8%	17.8%	54.4%			54.4%	28%
Maximum Green (s)	10.0	10.0	44.0			44.0	21.0
Yellow Time (s)	3.0	3.0	3.0			3.0	2.0
All-Red Time (s)	3.0	3.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	
Total Lost Time (s)	6.0	6.0	5.0			5.0	
Lead/Lag			Lead			Lead	Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	3.0			3.0	3.0
Recall Mode	None	None	C-Max			C-Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							14.0
Pedestrian Calls (#/hr)							18
Act Effct Green (s)	8.9	8.9	60.1			60.1	
Actuated g/C Ratio	0.10	0.10	0.67			0.67	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
v/c Ratio	0.45	0.53	0.38			0.43	
Control Delay	48.5	16.0	9.6			10.2	
Queue Delay	0.0	0.0	0.0			0.0	
Total Delay	48.5	16.0	9.6			10.2	
LOS	D	B	A			B	
Approach Delay	26.9		9.6			10.2	
Approach LOS	C		A			B	
Queue Length 50th (ft)	35	0	49			59	
Queue Length 95th (ft)	44	4	180			216	
Internal Link Dist (ft)	166		263			778	
Turn Bay Length (ft)	30						
Base Capacity (vph)	161	252	2854			2882	
Starvation Cap Reductn	0	0	0			0	
Spillback Cap Reductn	0	0	0			0	
Storage Cap Reductn	0	0	0			0	
Reduced v/c Ratio	0.40	0.50	0.38			0.43	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 82 (91%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 11.2		Intersection LOS: B	
Intersection Capacity Utilization 39.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 15: Riverway & Short St Ext





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	35	70	950	0	0	1100
Future Volume (vph)	35	70	950	0	0	1100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	10	10	10
Total Lost time (s)	6.0	6.0	5.0			5.0
Lane Util. Factor	1.00	1.00	0.91			0.91
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1450	1253	4272			4314
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1450	1253	4272			4314
Peak-hour factor, PHF	0.55	0.55	0.88	0.89	0.92	0.88
Adj. Flow (vph)	64	127	1080	0	0	1250
RTOR Reduction (vph)	0	114	0	0	0	0
Lane Group Flow (vph)	64	13	1080	0	0	1250
Heavy Vehicles (%)	12%	16%	2%	2%	2%	1%
Turn Type	Prot	Perm	NA			NA
Protected Phases	5		1			1
Permitted Phases		5				
Actuated Green, G (s)	8.9	8.9	57.7			57.7
Effective Green, g (s)	8.9	8.9	57.7			57.7
Actuated g/C Ratio	0.10	0.10	0.64			0.64
Clearance Time (s)	6.0	6.0	5.0			5.0
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Lane Grp Cap (vph)	143	123	2738			2765
v/s Ratio Prot	c0.04		0.25			c0.29
v/s Ratio Perm		0.01				
v/c Ratio	0.45	0.10	0.39			0.45
Uniform Delay, d1	38.2	36.9	7.8			8.2
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.8	0.1	0.4			0.5
Delay (s)	39.0	37.0	8.2			8.7
Level of Service	D	D	A			A
Approach Delay (s)	37.7		8.2			8.7
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	105
Future Volume (vph)	0	0	0	0	0	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	0	0	0	1676	1155	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1676	1155	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	246			134	562	
Travel Time (s)	6.7			3.7	15.3	
Confl. Peds. (#/hr)			14			14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.55
Heavy Vehicles (%)	2%	2%	2%	2%	2%	14%
Parking (#/hr)					2	2
Adj. Flow (vph)	0	0	0	0	0	191
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	191	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.32	1.14
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	9.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	105
Future Vol, veh/h	0	0	0	0	0	105
Conflicting Peds, #/hr	0	0	14	0	0	14
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	55
Heavy Vehicles, %	2	2	2	2	2	14
Mvmt Flow	0	0	0	0	0	191

Major/Minor	Major1		Minor2	
Conflicting Flow All	14	0	14	28
Stage 1	-	-	14	-
Stage 2	-	-	0	-
Critical Hdwy	4.12	-	6.52	6.34
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.52	-
Follow-up Hdwy	2.218	-	4.018	3.426
Pot Cap-1 Maneuver	1604	-	880	1014
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %		-		
Mov Cap-1 Maneuver	1585	-	0	990
Mov Cap-2 Maneuver	-	-	0	-
Stage 1	-	-	0	-
Stage 2	-	-	0	-

Approach	NB	SB
HCM Control Delay, s	0	9.5
HCM LOS		A

Minor Lane/Major Mvmt	NBL	NBT	SBLn1
Capacity (veh/h)	1585	-	990
HCM Lane V/C Ratio	-	-	0.193
HCM Control Delay (s)	0	-	9.5
HCM Lane LOS	A	-	A
HCM 95th %tile Q(veh)	0	-	0.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	385	0	0	395	10	25	0	25	0	0	0
Future Volume (vph)	5	385	0	0	395	10	25	0	25	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	16	12	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.997			0.932				
Flt Protected		0.999						0.976				
Satd. Flow (prot)	0	1880	0	0	1850	0	0	1428	0	0	0	0
Flt Permitted		0.999						0.976				
Satd. Flow (perm)	0	1880	0	0	1850	0	0	1428	0	0	0	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			617			174			541	
Travel Time (s)		7.6			16.8			4.7			14.8	
Confl. Peds. (#/hr)	189		192	192		189	4		22	22		4
Confl. Bikes (#/hr)			11			43						
Peak Hour Factor	0.80	0.80	0.92	0.92	0.86	0.86	0.71	0.71	0.71	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	2%	2%	18%	17%	0%	25%	2%	2%	2%
Adj. Flow (vph)	6	481	0	0	459	12	35	0	35	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	487	0	0	471	0	0	70	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.00	0.85
Turning Speed (mph)	15		60	60		9	60		60	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	385	0	0	395	10	25	0	25	0	0	0
Future Vol, veh/h	5	385	0	0	395	10	25	0	25	0	0	0
Conflicting Peds, #/hr	189	0	192	192	0	189	4	0	22	22	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	92	92	86	86	71	71	71	92	92	92
Heavy Vehicles, %	0	1	2	2	2	18	17	0	25	2	2	2
Mvmt Flow	6	481	0	0	459	12	35	0	35	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	660	0	-	-	-	0	962	1153	503
Stage 1	-	-	-	-	-	-	493	493	-
Stage 2	-	-	-	-	-	-	469	660	-
Critical Hdwy	4.1	-	-	-	-	-	6.57	6.5	6.45
Critical Hdwy Stg 1	-	-	-	-	-	-	5.57	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.57	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.653	4	3.525
Pot Cap-1 Maneuver	938	-	0	0	-	-	267	199	525
Stage 1	-	-	0	0	-	-	584	550	-
Stage 2	-	-	0	0	-	-	599	463	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	938	-	-	-	-	-	264	0	515
Mov Cap-2 Maneuver	-	-	-	-	-	-	264	0	-
Stage 1	-	-	-	-	-	-	579	0	-
Stage 2	-	-	-	-	-	-	597	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	349	938	-	-	-
HCM Lane V/C Ratio	0.202	0.007	-	-	-
HCM Control Delay (s)	17.9	8.9	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	0.7	0	-	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	30	920	0	0	1135
Future Volume (vph)	25	30	920	0	0	1135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91
Ped Bike Factor						
Frt	0.926					
Flt Protected	0.978					
Satd. Flow (prot)	1950	0	5085	0	0	5136
Flt Permitted	0.978					
Satd. Flow (perm)	1950	0	5085	0	0	5136
Link Speed (mph)	25		25			25
Link Distance (ft)	541		510			343
Travel Time (s)	14.8		13.9			9.4
Confl. Peds. (#/hr)				22	22	
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.63	0.63	0.90	0.92	0.92	0.91
Heavy Vehicles (%)	0%	0%	2%	2%	2%	1%
Adj. Flow (vph)	40	48	1022	0	0	1247
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	0	1022	0	0	1247
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	30	920	0	0	1135
Future Vol, veh/h	25	30	920	0	0	1135
Conflicting Peds, #/hr	0	0	0	22	22	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	63	63	90	92	92	91
Heavy Vehicles, %	0	0	2	2	2	1
Mvmt Flow	40	48	1022	0	0	1247

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1521	511	0	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Critical Hdwy	5.7	7.1	-	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.8	3.9	-	-	-	-
Pot Cap-1 Maneuver	171	439	-	0	0	-
Stage 1	238	-	-	0	0	-
Stage 2	531	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	171	439	-	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	238	-	-	-	-	-
Stage 2	531	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.2	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	256	-
HCM Lane V/C Ratio	-	0.341	-
HCM Control Delay (s)	-	26.2	-
HCM Lane LOS	-	D	-
HCM 95th %tile Q(veh)	-	1.5	-

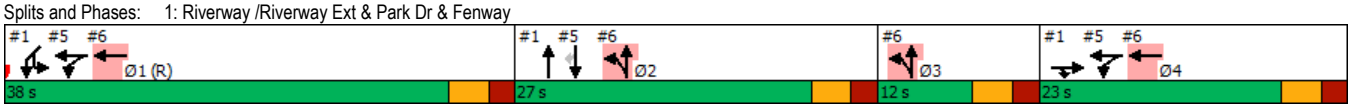
2032 Build Conditions

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Lane Configurations						
Traffic Volume (vph)	445	530	535	170	610	
Future Volume (vph)	445	530	535	170	610	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	
Storage Length (ft)		120			0	
Storage Lanes		2			3	
Taper Length (ft)					25	
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97	
Ped Bike Factor	0.95			0.95	0.75	
Frt	0.958	0.850				
Flt Protected				0.950	0.950	
Satd. Flow (prot)	2732	1323	3249	1518	3120	
Flt Permitted				0.950	0.950	
Satd. Flow (perm)	2732	1323	3249	1449	2340	
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		25		25	
Link Distance (ft)	260		238		234	
Travel Time (s)	7.1		6.5		6.4	
Confl. Peds. (#/hr)		95		29	95	
Confl. Bikes (#/hr)		4				
Peak Hour Factor	0.91	0.91	0.94	0.92	0.92	
Heavy Vehicles (%)	5%	0%	0%	7%	1%	
Adj. Flow (vph)	489	582	569	185	663	
Shared Lane Traffic (%)		33%				
Lane Group Flow (vph)	681	390	569	185	663	
Enter Blocked Intersection	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	
Median Width(ft)	0		0		36	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.14	
Turning Speed (mph)		9		15	15	
Number of Detectors	1	1	1	1	1	
Detector Template						
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	50	50	50	50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Turn Type	NA	Prot	NA	Prot	Prot	
Protected Phases	4	4	2	1	1	3
Permitted Phases						
Detector Phase	4	4	2	1	1	
Switch Phase						
Minimum Initial (s)	8.0	8.0	8.0	15.0	15.0	5.0
Minimum Split (s)	22.0	22.0	27.0	24.0	24.0	10.0
Total Split (s)	23.0	23.0	27.0	38.0	38.0	12.0
Total Split (%)	23.0%	23.0%	27.0%	38.0%	38.0%	12%
Maximum Green (s)	18.0	18.0	22.0	33.0	33.0	7.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Ped	Ped	Ped	C-Max	C-Max	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	10.0	10.0	15.0	12.0	12.0	
Pedestrian Calls (#/hr)	53	53	78	13	13	
Act Effct Green (s)	19.0	19.0	23.0	34.0	34.0	
Actuated g/C Ratio	0.19	0.19	0.23	0.34	0.34	
v/c Ratio	1.31	1.55	0.76	0.36	0.63	
Control Delay	188.3	298.5	43.6	20.8	24.7	
Queue Delay	6.3	0.0	8.3	1.9	1.6	

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Total Delay	194.6	298.5	51.9	22.7	26.3	
LOS	F	F	D	C	C	
Approach Delay	232.4		51.9		25.5	
Approach LOS	F		D		C	
Queue Length 50th (ft)	~308	~387	178	94	191	
Queue Length 95th (ft)	#429	#587	241	157	251	
Internal Link Dist (ft)	180		158		154	
Turn Bay Length (ft)		120				
Base Capacity (vph)	519	251	747	516	1060	
Starvation Cap Reductn	0	0	0	183	229	
Spillback Cap Reductn	240	0	144	204	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	2.44	1.55	0.94	0.59	0.80	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.55			
Intersection Signal Delay: 120.6		Intersection LOS: F	
Intersection Capacity Utilization 67.4%		ICU Level of Service C	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Riverway /Riverway Ext & Park Dr & Fenway



Movement	EBT	EBR	NBT	SWL2	SWL
Lane Configurations					
Traffic Volume (vph)	445	530	535	170	610
Future Volume (vph)	445	530	535	170	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97
Frpb, ped/bikes	0.95	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00
Frt	0.96	0.85	1.00	1.00	1.00
Flt Protected	1.00	1.00	1.00	0.95	0.95
Satd. Flow (prot)	2732	1323	3249	1518	3120
Flt Permitted	1.00	1.00	1.00	0.95	0.95
Satd. Flow (perm)	2732	1323	3249	1518	3120
Peak-hour factor, PHF	0.91	0.91	0.94	0.92	0.92
Adj. Flow (vph)	489	582	569	185	663
RTOR Reduction (vph)	0	0	0	0	0
Lane Group Flow (vph)	681	390	569	185	663
Confl. Peds. (#/hr)		95		29	95
Confl. Bikes (#/hr)		4			
Heavy Vehicles (%)	5%	0%	0%	7%	1%
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	4	4	2	1	1
Permitted Phases					
Actuated Green, G (s)	18.0	18.0	22.0	33.0	33.0
Effective Green, g (s)	19.0	19.0	23.0	34.0	34.0
Actuated g/C Ratio	0.19	0.19	0.23	0.34	0.34
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	519	251	747	516	1060
v/s Ratio Prot	0.25	c0.29	c0.18	0.12	c0.21
v/s Ratio Perm					
v/c Ratio	1.31	1.55	0.76	0.36	0.63
Uniform Delay, d1	40.5	40.5	35.9	24.8	27.7
Progression Factor	1.00	1.00	1.00	0.75	0.79
Incremental Delay, d2	153.8	267.9	4.2	1.8	2.6
Delay (s)	194.3	308.4	40.1	20.4	24.4
Level of Service	F	F	D	C	C
Approach Delay (s)	235.8		40.1		23.5
Approach LOS	F		D		C

Intersection Summary			
HCM 2000 Control Delay	118.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	615	0	0	0	0	560
Future Volume (vph)	615	0	0	0	0	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	12	12	12	12
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3269	0	0	0	0	2484
Flt Permitted						
Satd. Flow (perm)	3269	0	0	0	0	2484
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	196			385	251	
Travel Time (s)	5.3			10.5	6.8	
Peak Hour Factor	0.90	0.92	0.92	0.92	0.92	0.91
Heavy Vehicles (%)	6%	2%	2%	2%	2%	3%
Adj. Flow (vph)	683	0	0	0	0	615
Shared Lane Traffic (%)						
Lane Group Flow (vph)	683	0	0	0	0	615
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	1.14	1.14	1.14	1.14
Turning Speed (mph)		9	15		15	9
Number of Detectors	1					1
Detector Template						
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Detector 1 Position(ft)	0					0
Detector 1 Size(ft)	50					50
Detector 1 Type	Cl+Ex					Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0					0.0
Detector 1 Queue (s)	0.0					0.0
Detector 1 Delay (s)	0.0					0.0
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Detector Phase	1					2
Switch Phase						
Minimum Initial (s)	10.0					6.0
Minimum Split (s)	25.0					29.0
Total Split (s)	65.0					35.0
Total Split (%)	65.0%					35.0%
Maximum Green (s)	60.0					30.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
Lost Time Adjust (s)	-1.0					-1.0
Total Lost Time (s)	4.0					4.0
Lead/Lag	Lead					Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0					2.0
Recall Mode	C-Max					Max
Walk Time (s)	10.0					10.0
Flash Dont Walk (s)	10.0					14.0
Pedestrian Calls (#/hr)	0					0
Act Effct Green (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
v/c Ratio	0.34					0.80
Control Delay	23.0					40.8
Queue Delay	54.6					0.0
Total Delay	77.6					40.8
LOS	E					D
Approach Delay	77.6				40.8	
Approach LOS	E				D	
Queue Length 50th (ft)	239					203

Lane Group	SET	SER	NWL	NWT	NEL	NER
Queue Length 95th (ft)	m213					#281
Internal Link Dist (ft)	116			305	171	
Turn Bay Length (ft)						
Base Capacity (vph)	1994					770
Starvation Cap Reductn	1491					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	1.36					0.80

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 25 (25%), Referenced to phase 1:SET, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 60.2		Intersection LOS: E	
Intersection Capacity Utilization 47.3%		ICU Level of Service A	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverway & Fenway



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	615	0	0	0	0	560
Future Volume (vph)	615	0	0	0	0	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	14	14	12	12	12	12
Total Lost time (s)	4.0					4.0
Lane Util. Factor	0.95					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	3269					2484
Flt Permitted	1.00					1.00
Satd. Flow (perm)	3269					2484
Peak-hour factor, PHF	0.90	0.92	0.92	0.92	0.92	0.91
Adj. Flow (vph)	683	0	0	0	0	615
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	683	0	0	0	0	615
Heavy Vehicles (%)	6%	2%	2%	2%	2%	3%
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Actuated Green, G (s)	60.0					30.0
Effective Green, g (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
Clearance Time (s)	5.0					5.0
Vehicle Extension (s)	2.0					2.0
Lane Grp Cap (vph)	1994					770
v/s Ratio Prot	c0.21					c0.25
v/s Ratio Perm						
v/c Ratio	0.34					0.80
Uniform Delay, d1	9.6					31.6
Progression Factor	2.36					1.00
Incremental Delay, d2	0.0					8.5
Delay (s)	22.7					40.1
Level of Service	C					D
Approach Delay (s)	22.7			0.0	40.1	
Approach LOS	C			A	D	

Intersection Summary			
HCM 2000 Control Delay	31.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	420	605	150	0	0	0	0	765	65	0	965	0
Future Volume (vph)	420	605	150	0	0	0	0	765	65	0	965	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00	1.00						0.98				
Frt			0.850					0.988				
Flt Protected	0.950	0.990										
Satd. Flow (prot)	1387	2826	1338	0	0	0	0	2861	0	0	2935	0
Flt Permitted	0.950	0.990										
Satd. Flow (perm)	1386	2825	1338	0	0	0	0	2861	0	0	2935	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)			54									
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			672			160			269	
Travel Time (s)		10.5			18.3			4.4			7.3	
Confl. Peds. (#/hr)	1		3						343			
Confl. Bikes (#/hr)			4						14			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.88	0.88	0.92	0.77	0.92
Heavy Vehicles (%)	3%	6%	5%	2%	2%	2%	2%	6%	4%	2%	7%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	12	0	0	0
Adj. Flow (vph)	462	665	165	0	0	0	0	869	74	0	1253	0
Shared Lane Traffic (%)	36%											
Lane Group Flow (vph)	296	831	165	0	0	0	0	943	0	0	1253	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.19	1.19	1.19	1.14	1.14	1.14	1.19	1.19	1.19	1.19	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1			1	
Detector Template												
Leading Detector (ft)	50	50	50					50			50	
Trailing Detector (ft)	0	0	0					0			0	
Detector 1 Position(ft)	0	0	0					0			0	
Detector 1 Size(ft)	50	50	50					50			50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0			0.0	
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Detector Phase	1	1	1					3			3	
Switch Phase												
Minimum Initial (s)	35.0	35.0	35.0					44.0			44.0	
Minimum Split (s)	40.0	40.0	40.0					49.0			49.0	
Total Split (s)	48.0	48.0	48.0					72.0			72.0	
Total Split (%)	40.0%	40.0%	40.0%					60.0%			60.0%	
Maximum Green (s)	43.0	43.0	43.0					67.0			67.0	
Yellow Time (s)	3.0	3.0	3.0					3.0			3.0	
All-Red Time (s)	2.0	2.0	2.0					2.0			2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	5.0	5.0	5.0					5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Recall Mode	C-Max	C-Max	C-Max					Max			Max	
Walk Time (s)	13.0	13.0	13.0					20.0			20.0	
Flash Dont Walk (s)	16.0	16.0	16.0					21.0			21.0	
Pedestrian Calls (#/hr)	1	1	1					133			133	
Act Effct Green (s)	43.0	43.0	43.0					67.0			67.0	
Actuated g/C Ratio	0.36	0.36	0.36					0.56			0.56	
v/c Ratio	0.60	0.82	0.32					0.59			0.76	
Control Delay	37.4	43.0	20.4					4.5			21.3	
Queue Delay	2.5	21.2	0.0					0.1			49.3	
Total Delay	39.9	64.2	20.4					4.6			70.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	E	C					A			E	
Approach Delay		53.0						4.6			70.6	
Approach LOS		D						A			E	
Queue Length 50th (ft)	204	318	60					42			415	
Queue Length 95th (ft)	310	408	118					94			378	
Internal Link Dist (ft)		305			592			80			189	
Turn Bay Length (ft)												
Base Capacity (vph)	497	1012	514					1597			1638	
Starvation Cap Reductn	104	200	0					0			648	
Spillback Cap Reductn	17	34	0					93			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.75	1.02	0.32					0.63			1.27	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 80 (67%), Referenced to phase 1:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 46.3		Intersection LOS: D	
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Brookline Ave & Fenway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	420	605	150	0	0	0	0	765	65	0	965	0
Future Volume (vph)	420	605	150	0	0	0	0	765	65	0	965	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0					5.0			5.0	
Lane Util. Factor	0.91	0.91	1.00					0.95			0.95	
Frpb, ped/bikes	1.00	1.00	1.00					0.98			1.00	
Flpb, ped/bikes	1.00	1.00	1.00					1.00			1.00	
Frt	1.00	1.00	0.85					0.99			1.00	
Flt Protected	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (prot)	1387	2826	1338					2861			2935	
Flt Permitted	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (perm)	1387	2826	1338					2861			2935	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.88	0.88	0.92	0.77	0.92
Adj. Flow (vph)	462	665	165	0	0	0	0	869	74	0	1253	0
RTOR Reduction (vph)	0	0	35	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	296	831	130	0	0	0	0	943	0	0	1253	0
Confl. Peds. (#/hr)	1		3						343			
Confl. Bikes (#/hr)			4						14			
Heavy Vehicles (%)	3%	6%	5%	2%	2%	2%	2%	6%	4%	2%	7%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	12	0	0	0
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Actuated Green, G (s)	43.0	43.0	43.0					67.0			67.0	
Effective Green, g (s)	43.0	43.0	43.0					67.0			67.0	
Actuated g/C Ratio	0.36	0.36	0.36					0.56			0.56	
Clearance Time (s)	5.0	5.0	5.0					5.0			5.0	
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Lane Grp Cap (vph)	497	1012	479					1597			1638	
v/s Ratio Prot	0.21	c0.29	0.10					0.33			c0.43	
v/s Ratio Perm												
v/c Ratio	0.60	0.82	0.27					0.59			0.76	
Uniform Delay, d1	31.4	35.0	27.4					17.5			20.4	
Progression Factor	1.00	1.00	1.00					0.17			0.92	
Incremental Delay, d2	5.2	7.5	1.4					1.5			2.0	
Delay (s)	36.6	42.5	28.8					4.5			20.9	
Level of Service	D	D	C					A			C	
Approach Delay (s)		39.4			0.0			4.5			20.9	
Approach LOS		D			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	240	600	75	90	100	270	815	265	200	460	250	10
Future Volume (vph)	240	600	75	90	100	270	815	265	200	460	250	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		150		0		0		165	0	280	
Storage Lanes	1		1		1		2		1	2	0	
Taper Length (ft)	25				25					25		
Lane Util. Factor	0.91	0.91	1.00	0.91	1.00	1.00	0.88	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor		0.99			0.84			0.86		0.71		
Frt			0.850				0.850	0.936		0.946		
Flt Protected		0.986			0.950					0.969		
Satd. Flow (prot)	0	4450	1383	0	1547	1513	2508	2453	0	2148	0	0
Flt Permitted		0.986			0.950					0.969		
Satd. Flow (perm)	0	4386	1383	0	1304	1513	2508	2453	0	2102	0	0
Right Turn on Red				Yes					Yes			Yes
Satd. Flow (RTOR)			132					144		141		
Link Speed (mph)		25				25		25		25		
Link Distance (ft)		563				269		1590		1367		
Travel Time (s)		15.4				7.3		43.4		37.3		
Confl. Peds. (#/hr)	33		270	346	202		415		202	33	202	270
Confl. Bikes (#/hr)			2	2			15		3		3	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	7%	2%	10%	1%	5%	13%	2%	8%	5%	3%	2%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	10	0	0	0
Adj. Flow (vph)	261	652	82	98	115	310	937	288	217	523	284	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	913	180	0	115	310	937	505	0	818	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Right	Left	Right	Left	Right	Right
Median Width(ft)		0				12		12		24		
Link Offset(ft)		0				0		0		0		
Crosswalk Width(ft)		16				16		16		16		
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	9	15		9		9	15	9	9
Number of Detectors	1	1	1		1	1	1	1		1		
Detector Template												
Leading Detector (ft)	50	50	50		50	50	50	50		50		
Trailing Detector (ft)	0	0	0		0	0	0	0		0		
Detector 1 Position(ft)	0	0	0		0	0	0	0		0		
Detector 1 Size(ft)	50	50	50		50	50	50	50		50		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Detector Phase	4	4	4		3	2 3	1 2 3	2		1		
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		6.0			8.0		10.0		
Minimum Split (s)	30.5	30.5	30.5		12.0			24.5		22.0		
Total Split (s)	32.0	32.0	32.0		15.0			29.0		44.0		
Total Split (%)	26.7%	26.7%	26.7%		12.5%			24.2%		36.7%		
Maximum Green (s)	25.0	25.0	25.0		9.0			23.5		38.0		
Yellow Time (s)	3.5	3.5	3.5		3.5			3.5		3.5		
All-Red Time (s)	3.5	3.5	3.5		2.5			2.0		2.5		
Lost Time Adjust (s)		-2.0	-2.0		-2.0			-1.0		-2.0		
Total Lost Time (s)		5.0	5.0		4.0			4.5		4.0		
Lead/Lag					Lag			Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0		2.0			2.0		2.0		
Recall Mode	Ped	Ped	Ped		Max			Ped		C-Max		
Walk Time (s)	7.0	7.0	7.0					7.0		7.0		
Flash Dont Walk (s)	16.5	16.5	16.5					12.0		9.0		
Pedestrian Calls (#/hr)	223	223	223					154		68		
Act Effct Green (s)		27.0	27.0		11.9	39.5	84.0	23.6		40.0		
Actuated g/C Ratio		0.22	0.22		0.10	0.33	0.70	0.20		0.33		
v/c Ratio		0.91	0.44		0.75	0.62	0.53	0.84		1.01		
Control Delay		59.5	15.8		72.9	34.4	9.1	46.8		67.5		

Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Queue Delay		0.4	0.0		0.0	13.4	0.5	1.5		37.4		
Total Delay		59.9	15.8		72.9	47.9	9.7	48.4		104.9		
LOS		E	B		E	D	A	D		F		
Approach Delay		52.6				23.7		48.4		104.9		
Approach LOS		D				C		D		F		
Queue Length 50th (ft)		254	30		88	165	161	144		~290		
Queue Length 95th (ft)		#334	98		m#173	m260	194	#228		#411		
Internal Link Dist (ft)		483				189		1510		1287		
Turn Bay Length (ft)			150									
Base Capacity (vph)		1001	413		153	498	1755	615		810		
Starvation Cap Reductn		0	0		0	166	391	0		0		
Spillback Cap Reductn		8	0		0	0	0	30		426		
Storage Cap Reductn		0	0		0	0	0	0		0		
Reduced v/c Ratio		0.92	0.44		0.75	0.93	0.69	0.86		2.13		

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 113 (94%), Referenced to phase 1:SWL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 52.9 Intersection LOS: D
Intersection Capacity Utilization 85.7% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Brookline Ave & Park Dr & Boylston St



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	240	600	75	90	100	270	815	265	200	460	250	10
Future Volume (vph)	240	600	75	90	100	270	815	265	200	460	250	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		4.0	4.5	4.0	4.5		4.0		
Lane Util. Factor		0.91	1.00		1.00	1.00	0.88	0.95		0.97		
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	0.86		0.73		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00		
Frt		1.00	0.85		1.00	1.00	0.85	0.94		0.95		
Flt Protected		0.99	1.00		0.95	1.00	1.00	1.00		0.97		
Satd. Flow (prot)		4450	1383		1547	1513	2508	2452		2148		
Flt Permitted		0.99	1.00		0.95	1.00	1.00	1.00		0.97		
Satd. Flow (perm)		4450	1383		1547	1513	2508	2452		2148		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	261	652	82	98	115	310	937	288	217	523	284	11
RTOR Reduction (vph)	0	0	102	0	0	0	0	116	0	94	0	0
Lane Group Flow (vph)	0	913	78	0	115	310	937	389	0	724	0	0
Confl. Peds. (#/hr)	33		270	346	202		415		202	33	202	270
Confl. Bikes (#/hr)			2	2			15		3		3	3
Heavy Vehicles (%)	7%	2%	10%	1%	5%	13%	2%	8%	5%	3%	2%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	10	0	0	0
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Actuated Green, G (s)		25.0	25.0		9.9	38.0	82.0	22.6		38.0		
Effective Green, g (s)		27.0	27.0		11.9	39.0	80.5	23.6		40.0		
Actuated g/C Ratio		0.22	0.22		0.10	0.32	0.67	0.20		0.33		
Clearance Time (s)		7.0	7.0		6.0			5.5		6.0		
Vehicle Extension (s)		2.0	2.0		2.0			2.0		2.0		
Lane Grp Cap (vph)		1001	311		153	491	1682	482		716		
v/s Ratio Prot		c0.21	0.06		c0.07	0.20	0.37	c0.16		c0.34		
v/s Ratio Perm												
v/c Ratio		0.91	0.25		0.75	0.63	0.56	0.81		1.01		
Uniform Delay, d1		45.3	38.2		52.6	34.4	10.4	46.0		40.0		
Progression Factor		1.00	1.00		0.90	0.86	0.93	1.00		1.00		
Incremental Delay, d2		12.0	0.2		23.5	1.6	0.2	9.1		36.4		
Delay (s)		57.3	38.3		70.9	31.1	9.9	55.1		76.4		
Level of Service		E	D		E	C	A	E		E		
Approach Delay (s)		54.2				19.8		55.1		76.4		
Approach LOS		D				B		E		E		

Intersection Summary			
HCM 2000 Control Delay	46.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	85.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

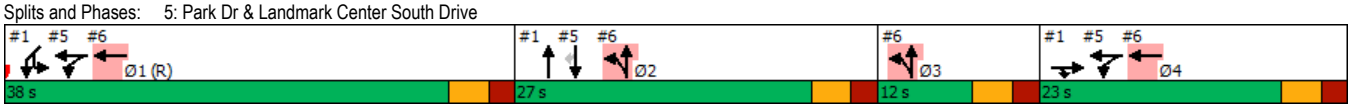


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Lane Configurations															
Traffic Volume (vph)	0	0	0	695	415	40	0	0	0	0	85	15			
Future Volume (vph)	0	0	0	695	415	40	0	0	0	0	85	15			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.95	1.00	1.00	1.00	1.00	1.00	1.00			
Ped Bike Factor					0.96										
Frt					0.987							0.850			
Flt Protected				0.950	0.997										
Satd. Flow (prot)	0	0	0	2739	2644	0	0	0	0	0	1513	1286			
Flt Permitted				0.950	0.997										
Satd. Flow (perm)	0	0	0	2739	2644	0	0	0	0	0	1513	1286			
Right Turn on Red			No	No		Yes			No			Yes			
Satd. Flow (RTOR)					14							131			
Link Speed (mph)		25			25			25			25				
Link Distance (ft)		187			355			234			168				
Travel Time (s)		5.1			9.7			6.4			4.6				
Confl. Peds. (#/hr)						238									
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.67	0.67			
Heavy Vehicles (%)	2%	2%	2%	2%	4%	12%	2%	2%	2%	2%	13%	13%			
Adj. Flow (vph)	0	0	0	739	441	43	0	0	0	0	127	22			
Shared Lane Traffic (%)				4%											
Lane Group Flow (vph)	0	0	0	709	514	0	0	0	0	0	127	22			
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No			
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right			
Median Width(ft)		24			24			0			0				
Link Offset(ft)		0			0			0			0				
Crosswalk Width(ft)		16			16			16			16				
Two way Left Turn Lane															
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14			
Turning Speed (mph)	15		9	15		9	15		9	15		9			
Number of Detectors				1	1						1	1			
Detector Template															
Leading Detector (ft)				50	50						50	50			
Trailing Detector (ft)				0	0						0	0			
Detector 1 Position(ft)				0	0						0	0			
Detector 1 Size(ft)				50	50						50	50			
Detector 1 Type				Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex			
Detector 1 Channel															
Detector 1 Extend (s)				0.0	0.0						0.0	0.0			
Detector 1 Queue (s)				0.0	0.0						0.0	0.0			
Detector 1 Delay (s)				0.0	0.0						0.0	0.0			
Turn Type				Split	NA						NA	Perm			
Protected Phases				1 4	1 4						2		1	3	4
Permitted Phases												2			
Detector Phase				1 4	1 4						2	2			
Switch Phase															
Minimum Initial (s)											8.0	8.0	15.0	5.0	8.0
Minimum Split (s)											27.0	27.0	24.0	10.0	22.0
Total Split (s)											27.0	27.0	38.0	12.0	23.0
Total Split (%)											27.0%	27.0%	38%	12%	23%
Maximum Green (s)											22.0	22.0	33.0	7.0	18.0
Yellow Time (s)											3.0	3.0	3.0	3.0	3.0
All-Red Time (s)											2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)											-1.0	-1.0			
Total Lost Time (s)											4.0	4.0			
Lead/Lag											Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?															
Vehicle Extension (s)											2.0	2.0	2.0	2.0	2.0
Recall Mode											Ped	Ped	C-Max	None	Ped
Walk Time (s)											7.0	7.0	7.0		7.0
Flash Dont Walk (s)											15.0	15.0	12.0		10.0
Pedestrian Calls (#/hr)											78	78	13		53
Act Effct Green (s)				57.0	57.0						23.0	23.0			
Actuated g/C Ratio				0.57	0.57						0.23	0.23			
v/c Ratio				0.45	0.34						0.37	0.06			
Control Delay				13.7	11.9						36.0	0.3			
Queue Delay				1.0	0.1						0.0	0.0			
Total Delay				14.6	12.0						36.0	0.3			
LOS				B	B						D	A			
Approach Delay					13.5						30.7				
Approach LOS					B						C				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Queue Length 50th (ft)				143	92						68	0			
Queue Length 95th (ft)				191	129						88	0			
Internal Link Dist (ft)		107			275			154			88				
Turn Bay Length (ft)															
Base Capacity (vph)				1561	1513						347	396			
Starvation Cap Reductn				551	0						0	0			
Spillback Cap Reductn				318	230						0	0			
Storage Cap Reductn				0	0						0	0			
Reduced v/c Ratio				0.70	0.40						0.37	0.06			

Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.55	
Intersection Signal Delay: 15.4	Intersection LOS: B
Intersection Capacity Utilization 31.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Park Dr & Landmark Center South Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	695	415	40	0	0	0	0	85	15
Future Volume (vph)	0	0	0	695	415	40	0	0	0	0	85	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						1.00	1.00
Frpb, ped/bikes				1.00	0.96						1.00	1.00
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	0.99						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				2739	2646						1513	1286
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				2739	2646						1513	1286
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.67	0.67
Adj. Flow (vph)	0	0	0	739	441	43	0	0	0	0	127	22
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	0	17
Lane Group Flow (vph)	0	0	0	709	508	0	0	0	0	0	127	5
Confl. Peds. (#/hr)						238						
Heavy Vehicles (%)	2%	2%	2%	2%	4%	12%	2%	2%	2%	2%	13%	13%
Turn Type				Split	NA						NA	Perm
Protected Phases				1 4	1 4						2	
Permitted Phases												2
Actuated Green, G (s)				56.0	56.0						22.0	22.0
Effective Green, g (s)				57.0	57.0						23.0	23.0
Actuated g/C Ratio				0.57	0.57						0.23	0.23
Clearance Time (s)											5.0	5.0
Vehicle Extension (s)											2.0	2.0
Lane Grp Cap (vph)				1561	1508						347	295
v/s Ratio Prot				c0.26	0.19						c0.08	
v/s Ratio Perm												0.00
v/c Ratio				0.45	0.34						0.37	0.02
Uniform Delay, d1				12.5	11.4						32.4	29.8
Progression Factor				1.00	1.00						1.00	1.00
Incremental Delay, d2				0.1	0.0						0.2	0.0
Delay (s)				12.6	11.5						32.6	29.8
Level of Service				B	B						C	C
Approach Delay (s)		0.0			12.1			0.0			32.2	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	31.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Lane Configurations																
Traffic Volume (vph)	0	0	0	0	425	5	520	15	0	0	0	0				
Future Volume (vph)	0	0	0	0	425	5	520	15	0	0	0	0				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00				
Ped Bike Factor					1.00											
Frt					0.998											
Flt Protected							0.950	0.963								
Satd. Flow (prot)	0	0	0	0	3148	0	1528	1552	0	0	0	0				
Flt Permitted							0.950	0.963								
Satd. Flow (perm)	0	0	0	0	3148	0	1528	1552	0	0	0	0				
Right Turn on Red			No			Yes	No		Yes			Yes				
Satd. Flow (RTOR)					2											
Link Speed (mph)		25			25			25			25					
Link Distance (ft)		135			187			191			124					
Travel Time (s)		3.7			5.1			5.2			3.4					
Confl. Bikes (#/hr)						11										
Peak Hour Factor	0.92	0.92	0.92	0.92	0.94	0.94	0.93	0.93	0.92	0.92	0.92	0.92				
Heavy Vehicles (%)	2%	2%	2%	2%	3%	0%	1%	0%	2%	2%	2%	2%				
Adj. Flow (vph)	0	0	0	0	452	5	559	16	0	0	0	0				
Shared Lane Traffic (%)							10%									
Lane Group Flow (vph)	0	0	0	0	457	0	503	72	0	0	0	0				
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No				
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right				
Median Width(ft)		0			0			12			12					
Link Offset(ft)		0			0			0			0					
Crosswalk Width(ft)		16			16			16			16					
Two way Left Turn Lane																
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Turning Speed (mph)	15		9	15		9	15		9	15		9				
Number of Detectors					1		1	2								
Detector Template								Thru								
Leading Detector (ft)					50		50	100								
Trailing Detector (ft)					0		0	0								
Detector 1 Position(ft)					0		0	0								
Detector 1 Size(ft)					50		50	6								
Detector 1 Type					Cl+Ex		Cl+Ex	Cl+Ex								
Detector 1 Channel																
Detector 1 Extend (s)					0.0		0.0	0.0								
Detector 1 Queue (s)					0.0		0.0	0.0								
Detector 1 Delay (s)					0.0		0.0	0.0								
Detector 2 Position(ft)								94								
Detector 2 Size(ft)								6								
Detector 2 Type								Cl+Ex								
Detector 2 Channel																
Detector 2 Extend (s)								0.0								
Turn Type					NA		Split	NA								
Protected Phases					1 4		2 3	2 3					1	2	3	4
Permitted Phases																
Detector Phase					1 4		2 3	2 3								
Switch Phase																
Minimum Initial (s)													15.0	8.0	5.0	8.0
Minimum Split (s)													24.0	27.0	10.0	22.0
Total Split (s)													38.0	27.0	12.0	23.0
Total Split (%)													38%	27%	12%	23%
Maximum Green (s)													33.0	22.0	7.0	18.0
Yellow Time (s)													3.0	3.0	3.0	3.0
All-Red Time (s)													2.0	2.0	2.0	2.0
Lost Time Adjust (s)																
Total Lost Time (s)																
Lead/Lag													Lead	Lag	Lead	Lag
Lead-Lag Optimize?																
Vehicle Extension (s)													2.0	2.0	2.0	2.0
Recall Mode													C-Max	Ped	None	Ped
Walk Time (s)													7.0	7.0		7.0
Flash Dont Walk (s)													12.0	15.0		10.0
Pedestrian Calls (#/hr)													13	78		53
Act Effct Green (s)					57.0		35.0	34.0								
Actuated g/C Ratio					0.57		0.35	0.34								
v/c Ratio					0.25		0.94	0.14								
Control Delay					2.9		35.2	0.5								



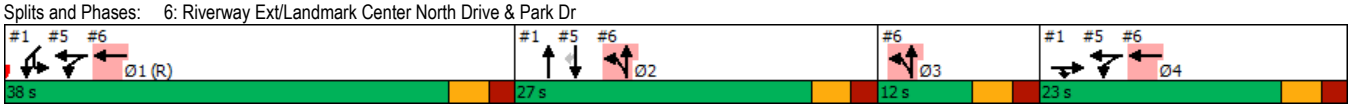
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Queue Delay					0.3		44.7	0.9								
Total Delay					3.3		79.9	1.4								
LOS					A		E	A								
Approach Delay					3.3			70.1								
Approach LOS					A			E								
Queue Length 50th (ft)					12		183	0								
Queue Length 95th (ft)					15		#563	m0								
Internal Link Dist (ft)		55			107			111			44					
Turn Bay Length (ft)																
Base Capacity (vph)					1795		534	527								
Starvation Cap Reductn					769		104	294								
Spillback Cap Reductn					0		0	0								
Storage Cap Reductn					0		0	0								
Reduced v/c Ratio					0.45		1.17	0.31								

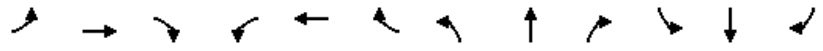
Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.55			
Intersection Signal Delay: 40.5		Intersection LOS: D	
Intersection Capacity Utilization 37.2%		ICU Level of Service A	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Riverway Ext/Landmark Center North Drive & Park Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	425	5	520	15	0	0	0	0
Future Volume (vph)	0	0	0	0	425	5	520	15	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	5.0				
Lane Util. Factor					0.95		0.95	0.95				
Frpb, ped/bikes					1.00		1.00	1.00				
Flpb, ped/bikes					1.00		1.00	1.00				
Frt					1.00		1.00	1.00				
Flt Protected					1.00		0.95	0.96				
Satd. Flow (prot)					3149		1528	1552				
Flt Permitted					1.00		0.95	0.96				
Satd. Flow (perm)					3149		1528	1552				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.94	0.94	0.93	0.93	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	452	5	559	16	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	456	0	503	72	0	0	0	0
Confl. Bikes (#/hr)						11						
Heavy Vehicles (%)	2%	2%	2%	2%	3%	0%	1%	0%	2%	2%	2%	2%
Turn Type					NA		Split	NA				
Protected Phases					1 4		2 3	2 3				
Permitted Phases												
Actuated Green, G (s)					56.0		34.0	34.0				
Effective Green, g (s)					57.0		35.0	34.0				
Actuated g/C Ratio					0.57		0.35	0.34				
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)					1794		534	527				
v/s Ratio Prot					c0.14		c0.33	0.05				
v/s Ratio Perm												
v/c Ratio					0.25		0.94	0.14				
Uniform Delay, d1					10.8		31.5	22.8				
Progression Factor					0.24		0.39	0.01				
Incremental Delay, d2					0.0		18.3	0.0				
Delay (s)					2.6		30.5	0.2				
Level of Service					A		C	A				
Approach Delay (s)		0.0			2.6			26.7			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	37.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	830	1050	65
Future Volume (vph)	0	0	0	830	1050	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	11	11	11	16
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt					0.991	
Flt Protected						
Satd. Flow (prot)	0	0	0	2963	2969	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	2963	2969	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	540			446	160	
Travel Time (s)	14.7			12.2	4.4	
Confl. Peds. (#/hr)			190			190
Confl. Bikes (#/hr)						2
Peak Hour Factor	0.92	0.92	0.88	0.88	0.94	0.94
Heavy Vehicles (%)	2%	2%	0%	6%	5%	2%
Adj. Flow (vph)	0	0	0	943	1117	69
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	943	1186	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.19	1.19	1.19	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	830	1050	65
Future Volume (Veh/h)	0	0	0	830	1050	65
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.88	0.88	0.94	0.94
Hourly flow rate (vph)	0	0	0	943	1117	69
Pedestrians	190					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				446	160	
pX, platoon unblocked	0.76	0.69	0.69			
vC, conflicting volume	1813	783	1376			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	607	0	640			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	324	746	656			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	472	472	745	441
Volume Left	0	0	0	0
Volume Right	0	0	0	69
cSH	1700	1700	1700	1700
Volume to Capacity	0.28	0.28	0.44	0.26
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

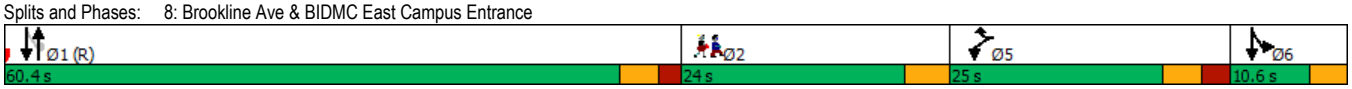
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	100	85	660	75	60	895	
Future Volume (vph)	100	85	660	75	60	895	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	10	10	10	10	10	
Storage Length (ft)	0	0		0	25		
Storage Lanes	1	1		0	1		
Taper Length (ft)	0				0		
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95	
Ped Bike Factor			1.00				
Frt		0.850	0.985				
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1486	1268	2766	0	1516	2775	
Flt Permitted	0.950				0.238		
Satd. Flow (perm)	1486	1268	2766	0	380	2775	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		109	13				
Link Speed (mph)	25		25			25	
Link Distance (ft)	171		594			598	
Travel Time (s)	4.7		16.2			16.3	
Confl. Bikes (#/hr)				15			
Peak Hour Factor	0.78	0.78	0.81	0.81	0.94	0.94	
Heavy Vehicles (%)	2%	7%	7%	13%	0%	6%	
Bus Blockages (#/hr)	0	0	0	0	0	15	
Adj. Flow (vph)	128	109	815	93	64	952	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	128	109	908	0	64	952	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	10		10			10	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.25	1.25	1.25	1.25	1.25	1.30	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	1		1	1	
Detector Template							
Leading Detector (ft)	50	50	50		50	50	
Trailing Detector (ft)	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0		0	0	
Detector 1 Size(ft)	50	50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	
Turn Type	Prot	Prot	NA		D.P+P	NA	
Protected Phases	5	5	1		6	1 6	2
Permitted Phases					1		
Detector Phase	5	5	1		6	1 6	
Switch Phase							
Minimum Initial (s)	8.0	8.0	10.0		6.0		8.0
Minimum Split (s)	14.0	14.0	15.5		9.5		24.0
Total Split (s)	25.0	25.0	60.4		10.6		24.0
Total Split (%)	20.8%	20.8%	50.3%		8.8%		20%
Maximum Green (s)	19.0	19.0	54.9		7.1		20.0
Yellow Time (s)	3.5	3.5	3.5		3.5		4.0
All-Red Time (s)	2.5	2.5	2.0		0.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	6.0	6.0	5.5		3.5		
Lead/Lag	Lead	Lead	Lead		Lag		Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0
Recall Mode	None	None	C-Max		None		None
Walk Time (s)							7.0
Flash Dont Walk (s)							13.0
Pedestrian Calls (#/hr)							71
Act Effct Green (s)	15.0	15.0	63.7		72.8	74.3	
Actuated g/C Ratio	0.12	0.12	0.53		0.61	0.62	
v/c Ratio	0.69	0.43	0.62		0.22	0.55	
Control Delay	68.8	13.8	14.7		20.4	25.6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	68.8	13.8	14.7		20.4	25.6	
LOS	E	B	B		C	C	
Approach Delay	43.5		14.7			25.3	
Approach LOS	D		B			C	
Queue Length 50th (ft)	96	0	137		31	255	
Queue Length 95th (ft)	134	34	144		m50	282	
Internal Link Dist (ft)	91		514			518	
Turn Bay Length (ft)					25		
Base Capacity (vph)	235	292	1474		297	1718	
Starvation Cap Reductn	0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.54	0.37	0.62		0.22	0.55	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 22.8		Intersection LOS: C	
Intersection Capacity Utilization 47.5%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Brookline Ave & BIDMC East Campus Entrance

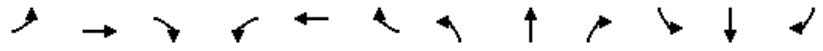




Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	100	85	660	75	60	895
Future Volume (vph)	100	85	660	75	60	895
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0	5.5		3.5	5.5
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1486	1268	2766		1516	2775
Flt Permitted	0.95	1.00	1.00		0.24	1.00
Satd. Flow (perm)	1486	1268	2766		381	2775
Peak-hour factor, PHF	0.78	0.78	0.81	0.81	0.94	0.94
Adj. Flow (vph)	128	109	815	93	64	952
RTOR Reduction (vph)	0	95	6	0	0	0
Lane Group Flow (vph)	128	14	902	0	64	952
Confl. Bikes (#/hr)				15		
Heavy Vehicles (%)	2%	7%	7%	13%	0%	6%
Bus Blockages (#/hr)	0	0	0	0	0	15
Turn Type	Prot	Prot	NA		D.P+P	NA
Protected Phases	5	5	1		6	1 6
Permitted Phases					1	
Actuated Green, G (s)	15.0	15.0	62.9		70.0	73.5
Effective Green, g (s)	15.0	15.0	62.9		70.0	70.0
Actuated g/C Ratio	0.12	0.12	0.52		0.58	0.58
Clearance Time (s)	6.0	6.0	5.5		3.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	185	158	1449		289	1618
v/s Ratio Prot	c0.09	0.01	c0.33		0.01	c0.34
v/s Ratio Perm					0.12	
v/c Ratio	0.69	0.09	0.62		0.22	0.59
Uniform Delay, d1	50.3	46.4	20.2		12.0	15.9
Progression Factor	1.00	1.00	0.61		1.69	1.56
Incremental Delay, d2	10.6	0.2	1.2		0.3	0.5
Delay (s)	60.9	46.7	13.6		20.5	25.2
Level of Service	E	D	B		C	C
Approach Delay (s)	54.4		13.6			24.9
Approach LOS	D		B			C

Intersection Summary			
HCM 2000 Control Delay	23.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	70	150	45	165	180	230	25	520	85	205	605	85	
Future Volume (vph)	70	150	45	165	180	230	25	520	85	205	605	85	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	10	10	10	10	10	10	10	10	
Storage Length (ft)	170		0	155		0	110		0	0		0	
Storage Lanes	1		0	1		1	0		0	1		0	
Taper Length (ft)	25			70			100			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor		1.00				0.98		1.00			1.00		
Frt		0.965				0.850		0.980			0.982		
Flt Protected	0.950			0.950				0.998		0.950			
Satd. Flow (prot)	1525	1524	0	1430	1565	1233	0	2781	0	1391	2817	0	
Flt Permitted	0.547			0.462				0.857		0.221			
Satd. Flow (perm)	878	1524	0	696	1565	1205	0	2388	0	324	2817	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		617			195			447			594		
Travel Time (s)		16.8			5.3			12.2			16.2		
Confl. Bikes (#/hr)			5			17			3			7	
Peak Hour Factor	0.82	0.82	0.82	0.95	0.95	0.95	0.89	0.89	0.89	0.95	0.95	0.95	
Heavy Vehicles (%)	3%	5%	2%	6%	2%	10%	0%	7%	4%	9%	5%	8%	
Adj. Flow (vph)	85	183	55	174	189	242	28	584	96	216	637	89	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	85	238	0	174	189	242	0	708	0	216	726	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1	1	1	1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50	50	50	50		50	50		
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Size(ft)	50	50		50	50	50	50	50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA		
Protected Phases		5			5	6		1		6	1 6		2
Permitted Phases	5			5		5	1			1			
Detector Phase	5	5		5	5	6	1	1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0	6.0	10.0	10.0		6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	11.5	15.5	15.5		11.5			27.0
Total Split (s)	37.0	37.0		37.0	37.0	12.7	43.3	43.3		12.7			27.0
Total Split (%)	30.8%	30.8%		30.8%	30.8%	10.6%	36.1%	36.1%		10.6%			23%
Maximum Green (s)	31.0	31.0		31.0	31.0	9.2	37.8	37.8		9.2			23.0
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5	0.0	2.0	2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0			
Total Lost Time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5			
Lead/Lag	Lead	Lead		Lead	Lead	Lag	Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0			2.0
Recall Mode	None	None		None	None	None	C-Max	C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													16.0
Pedestrian Calls (#/hr)													259
Act Effct Green (s)	31.0	31.0		31.0	31.0	42.7		37.8		49.0	50.5		
Actuated g/C Ratio	0.26	0.26		0.26	0.26	0.36		0.32		0.41	0.42		
v/c Ratio	0.38	0.61		0.97	0.47	0.56		0.94		1.01	0.61		
Control Delay	64.6	69.1		106.0	42.1	34.6		60.8		94.0	25.1		
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.1		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay	64.6	69.1		106.0	42.1	34.6		60.8		94.0	25.3		
LOS	E	E		F	D	C		E		F	C		
Approach Delay		67.9			57.5			60.8			41.0		
Approach LOS		E			E			E			D		
Queue Length 50th (ft)	67	191		134	124	142		224		~101	117		
Queue Length 95th (ft)	m87	m234		#281	198	225		#387		#233	227		
Internal Link Dist (ft)		537			115			367			514		
Turn Bay Length (ft)	170			155									
Base Capacity (vph)	226	393		179	404	430		753		214	1186		
Starvation Cap Reductn	0	0		0	0	0		0		0	0		
Spillback Cap Reductn	0	0		0	0	0		0		0	57		
Storage Cap Reductn	0	0		0	0	0		0		0	0		
Reduced v/c Ratio	0.38	0.61		0.97	0.47	0.56		0.94		1.01	0.64		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 109 (91%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 53.7		Intersection LOS: D	
Intersection Capacity Utilization 82.5%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Brookline Ave & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	150	45	165	180	230	25	520	85	205	605	85
Future Volume (vph)	70	150	45	165	180	230	25	520	85	205	605	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98		1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00	0.85		0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1525	1524		1430	1565	1211		2780		1391	2816	
Flt Permitted	0.55	1.00		0.46	1.00	1.00		0.86		0.22	1.00	
Satd. Flow (perm)	878	1524		695	1565	1211		2388		324	2816	
Peak-hour factor, PHF	0.82	0.82	0.82	0.95	0.95	0.95	0.89	0.89	0.89	0.95	0.95	0.95
Adj. Flow (vph)	85	183	55	174	189	242	28	584	96	216	637	89
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	85	238	0	174	189	242	0	708	0	216	726	0
Confl. Bikes (#/hr)			5			17			3			7
Heavy Vehicles (%)	3%	5%	2%	6%	2%	10%	0%	7%	4%	9%	5%	8%
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA	
Protected Phases		5			5	6		1		6	1 6	
Permitted Phases	5			5		5	1			1		
Actuated Green, G (s)	31.0	31.0		31.0	31.0	40.2		37.8		47.0	50.5	
Effective Green, g (s)	31.0	31.0		31.0	31.0	40.2		37.8		47.0	47.0	
Actuated g/C Ratio	0.26	0.26		0.26	0.26	0.34		0.31		0.39	0.39	
Clearance Time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0		2.0		
Lane Grp Cap (vph)	226	393		179	404	405		752		208	1102	
v/s Ratio Prot		0.16			0.12	0.05				c0.08	0.26	
v/s Ratio Perm	0.10			c0.25		0.15		0.30		c0.33		
v/c Ratio	0.38	0.61		0.97	0.47	0.60		0.94		1.04	0.66	
Uniform Delay, d1	36.6	39.1		44.1	37.5	33.2		40.0		32.9	29.9	
Progression Factor	1.62	1.60		1.00	1.00	1.00		1.02		1.28	0.84	
Incremental Delay, d2	0.3	1.4		58.5	0.3	1.6		19.7		67.6	0.9	
Delay (s)	59.4	64.0		102.6	37.9	34.8		60.5		109.7	26.1	
Level of Service	E	E		F	D	C		E		F	C	
Approach Delay (s)		62.8			55.2			60.5			45.3	
Approach LOS		E			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	54.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	90	25	115	125	0	125	0	455	45	55	745	0	
Future Volume (vph)	90	25	115	125	0	125	0	455	45	55	745	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	10	10	10	10	10	10	11	11	11	
Storage Length (ft)	130		0	90		0	0		0	0		0	
Storage Lanes	1		0	1		1	0		0	0		0	
Taper Length (ft)	25			60			0			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	
Ped Bike Factor								1.00					
Frt		0.876				0.850		0.987					
Flt Protected	0.950			0.950							0.997		
Satd. Flow (prot)	1399	1256	0	1472	0	1201	0	2890	0	0	3015	0	
Flt Permitted	0.950			0.552							0.851		
Satd. Flow (perm)	1399	1256	0	855	0	1201	0	2890	0	0	2573	0	
Right Turn on Red			Yes			No			Yes			Yes	
Satd. Flow (RTOR)		126						10					
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		331			357			455			447		
Travel Time (s)		9.0			9.7			12.4			12.2		
Confl. Bikes (#/hr)									3			6	
Peak Hour Factor	0.91	0.91	0.91	0.87	0.88	0.87	0.87	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	1%	12%	2%	3%	0%	13%	0%	3%	7%	2%	4%	0%	
Parking (#/hr)	6	6	6										
Adj. Flow (vph)	99	27	126	144	0	144	0	506	50	61	828	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	99	153	0	144	0	144	0	556	0	0	889	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		12			15			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.36	1.36	1.14	1.25	1.25	1.25	1.25	1.25	1.25	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1		1		1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50		50		50		50	50		
Trailing Detector (ft)	0	0		0		0		0		0	0		
Detector 1 Position(ft)	0	0		0		0		0		0	0		
Detector 1 Size(ft)	50	50		50		50		50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA		
Protected Phases		5						1		6	1 6		2
Permitted Phases	5			5		5				1			
Detector Phase	5	5		5		5		1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0		8.0		10.0		6.0			7.0
Minimum Split (s)	13.5	13.5		13.5		13.5		18.5		11.5			28.0
Total Split (s)	32.0	32.0		32.0		32.0		48.5		11.5			28.0
Total Split (%)	26.7%	26.7%		26.7%		26.7%		40.4%		9.6%			23%
Maximum Green (s)	26.5	26.5		26.5		26.5		43.0		8.0			24.0
Yellow Time (s)	3.5	3.5		3.5		3.5		3.5		3.5			4.0
All-Red Time (s)	2.0	2.0		2.0		2.0		2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0					
Total Lost Time (s)	5.5	5.5		5.5		5.5		5.5					
Lead/Lag	Lead	Lead		Lead		Lead		Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0		2.0			2.0
Recall Mode	None	None		None		None		C-Max		Max			Ped
Walk Time (s)								7.0					7.0
Flash Dont Walk (s)								6.0					17.0
Pedestrian Calls (#/hr)								30					122
Act Effct Green (s)	22.1	22.1		22.1		22.1		47.4			53.4		
Actuated g/C Ratio	0.18	0.18		0.18		0.18		0.40			0.44		
v/c Ratio	0.38	0.46		0.92		0.65		0.49			0.76		
Control Delay	46.0	15.1		100.2		58.5		18.6			19.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Queue Delay	0.0	0.0		0.0		0.0		0.0			1.2		
Total Delay	46.0	15.1		100.2		58.5		18.6			20.2		
LOS	D	B		F		E		B			C		
Approach Delay		27.2			79.4			18.6			20.2		
Approach LOS		C			E			B			C		
Queue Length 50th (ft)	66	17		108		102		97			248		
Queue Length 95th (ft)	118	77		#201		163		114			m325		
Internal Link Dist (ft)		251			277			375			367		
Turn Bay Length (ft)	130			90									
Base Capacity (vph)	308	375		188		265		1146			1166		
Starvation Cap Reductn	0	0		0		0		0			110		
Spillback Cap Reductn	0	0		0		0		0			0		
Storage Cap Reductn	0	0		0		0		0			0		
Reduced v/c Ratio	0.32	0.41		0.77		0.54		0.49			0.84		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 2 (2%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 29.2		Intersection LOS: C	
Intersection Capacity Utilization 74.3%		ICU Level of Service D	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Brookline Ave & Deaconess Rd/Jimmy Fund Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	25	115	125	0	125	0	455	45	55	745	0
Future Volume (vph)	90	25	115	125	0	125	0	455	45	55	745	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	10	10	10	10	10	11	11	11
Total Lost time (s)	5.5	5.5		5.5		5.5		5.5			5.5	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Frt	1.00	0.88		1.00		0.85		0.99			1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00			1.00	
Satd. Flow (prot)	1399	1257		1472		1201		2888			3014	
Flt Permitted	0.95	1.00		0.55		1.00		1.00			0.85	
Satd. Flow (perm)	1399	1257		856		1201		2888			2572	
Peak-hour factor, PHF	0.91	0.91	0.91	0.87	0.88	0.87	0.87	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	99	27	126	144	0	144	0	506	50	61	828	0
RTOR Reduction (vph)	0	103	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	99	50	0	144	0	144	0	550	0	0	889	0
Confl. Bikes (#/hr)									3			6
Heavy Vehicles (%)	1%	12%	2%	3%	0%	13%	0%	3%	7%	2%	4%	0%
Parking (#/hr)	6	6	6									
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5			5		5				1		
Actuated Green, G (s)	22.1	22.1		22.1		22.1		47.4			55.4	
Effective Green, g (s)	22.1	22.1		22.1		22.1		47.4			55.4	
Actuated g/C Ratio	0.18	0.18		0.18		0.18		0.39			0.46	
Clearance Time (s)	5.5	5.5		5.5		5.5		5.5				
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0				
Lane Grp Cap (vph)	257	231		157		221		1140			1216	
v/s Ratio Prot		0.04						0.19			c0.05	
v/s Ratio Perm	0.07			c0.17		0.12					c0.29	
v/c Ratio	0.39	0.22		0.92		0.65		0.48			0.73	
Uniform Delay, d1	43.0	41.6		48.1		45.4		27.1			26.2	
Progression Factor	1.00	1.00		1.00		1.00		0.62			0.54	
Incremental Delay, d2	0.4	0.2		47.0		5.2		1.2			2.9	
Delay (s)	43.3	41.8		95.1		50.5		18.1			17.1	
Level of Service	D	D		F		D		B			B	
Approach Delay (s)		42.4			72.8			18.1			17.1	
Approach LOS		D			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	28.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	74.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	30	70	50	225	75	110	40	360	75	160	795	30	
Future Volume (vph)	30	70	50	225	75	110	40	360	75	160	795	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	15	15	15	11	11	11	11	11	11	10	10	10	
Storage Length (ft)	0		0	0		0	0		0	240		0	
Storage Lanes	0		0	1		0	0		1	1		0	
Taper Length (ft)	0			0			0			45			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95	
Ped Bike Factor									0.98		1.00		
Frt		0.955			0.911				0.850		0.995		
Flt Protected		0.990		0.950				0.995		0.950			
Satd. Flow (prot)	0	1754	0	1510	1465	0	0	3016	1351	1366	2957	0	
Flt Permitted		0.856		0.527				0.717		0.439			
Satd. Flow (perm)	0	1517	0	838	1465	0	0	2174	1322	631	2957	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)					57								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		176			309			203			455		
Travel Time (s)		4.8			8.4			5.5			12.4		
Confl. Bikes (#/hr)									1			12	
Peak Hour Factor	0.78	0.78	0.78	0.92	0.92	0.92	0.93	0.93	0.93	0.97	0.97	0.97	
Heavy Vehicles (%)	7%	0%	0%	4%	4%	2%	0%	4%	4%	11%	2%	0%	
Adj. Flow (vph)	38	90	64	245	82	120	43	387	81	165	820	31	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	192	0	245	202	0	0	430	81	165	851	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.01	1.01	1.01	1.19	1.19	1.19	1.19	1.19	1.19	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1		1	1	1	1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50		50	50	50	50	50		
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Size(ft)	50	50		50	50		50	50	50	50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases	5			5			1		1	1			
Detector Phase	5	5		5	5		1	1	1	6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		10.0	10.0	10.0	6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		16.0	16.0	16.0	12.0			29.0
Total Split (s)	34.0	34.0		34.0	34.0		43.0	43.0	43.0	14.0			29.0
Total Split (%)	28.3%	28.3%		28.3%	28.3%		35.8%	35.8%	35.8%	11.7%			24%
Maximum Green (s)	28.0	28.0		28.0	28.0		37.0	37.0	37.0	10.5			25.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5	2.5	0.0			0.0
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0	0.0			
Total Lost Time (s)		6.0		6.0	6.0			6.0	6.0	3.5			
Lead/Lag	Lead	Lead		Lead	Lead		Lead	Lead	Lead	Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0			3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													59
Act Effct Green (s)		28.0		28.0	28.0			42.8	42.8	55.8	56.8		
Actuated g/C Ratio		0.23		0.23	0.23			0.36	0.36	0.46	0.47		
v/c Ratio		0.54		1.26	0.52			0.55	0.17	0.46	0.61		
Control Delay		47.1		189.2	34.1			46.1	36.1	15.1	15.9		
Queue Delay		1.8		3.2	0.0			0.2	0.0	0.0	0.5		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		48.8		192.4	34.1			46.3	36.1	15.1	16.4		
LOS		D		F	C			D	D	B	B		
Approach Delay		48.8			120.9			44.7			16.2		
Approach LOS		D			F			D			B		
Queue Length 50th (ft)		131		~237	98			150	47	36	131		
Queue Length 95th (ft)		176		#402	177			m110	m36	m77	222		
Internal Link Dist (ft)		96			229			123			375		
Turn Bay Length (ft)										240			
Base Capacity (vph)		353		195	385			775	471	357	1399		
Starvation Cap Reductn		0		0	0			47	0	0	125		
Spillback Cap Reductn		63		34	0			0	0	0	207		
Storage Cap Reductn		0		0	0			0	0	0	0		
Reduced v/c Ratio		0.66		1.52	0.52			0.59	0.17	0.46	0.71		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 2 (2%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.26			
Intersection Signal Delay: 47.4		Intersection LOS: D	
Intersection Capacity Utilization 81.0%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 11: Brookline Ave & Francis St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	70	50	225	75	110	40	360	75	160	795	30
Future Volume (vph)	30	70	50	225	75	110	40	360	75	160	795	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	11	11	11	11	11	11	10	10	10
Total Lost time (s)		6.0		6.0	6.0			6.0	6.0	3.5	6.0	
Lane Util. Factor		1.00		1.00	1.00			0.95	1.00	1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00			1.00	0.98	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frt		0.95		1.00	0.91			1.00	0.85	1.00	0.99	
Flt Protected		0.99		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1754		1510	1465			3016	1323	1366	2956	
Flt Permitted		0.86		0.53	1.00			0.72	1.00	0.44	1.00	
Satd. Flow (perm)		1516		838	1465			2173	1323	632	2956	
Peak-hour factor, PHF	0.78	0.78	0.78	0.92	0.92	0.92	0.93	0.93	0.93	0.97	0.97	0.97
Adj. Flow (vph)	38	90	64	245	82	120	43	387	81	165	820	31
RTOR Reduction (vph)	0	0	0	0	44	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	192	0	245	158	0	0	430	81	165	851	0
Confl. Bikes (#/hr)									1			12
Heavy Vehicles (%)	7%	0%	0%	4%	4%	2%	0%	4%	4%	11%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases	5			5			1		1	1		
Actuated Green, G (s)		28.0		28.0	28.0			42.0	42.0	52.5	56.0	
Effective Green, g (s)		28.0		28.0	28.0			42.0	42.0	52.5	52.5	
Actuated g/C Ratio		0.23		0.23	0.23			0.35	0.35	0.44	0.44	
Clearance Time (s)		6.0		6.0	6.0			6.0	6.0	3.5		
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0	3.0		
Lane Grp Cap (vph)		353		195	341			760	463	340	1293	
v/s Ratio Prot					0.11					0.04	c0.29	
v/s Ratio Perm		0.13		c0.29				0.20	0.06	0.17		
v/c Ratio		0.54		1.26	0.46			0.57	0.17	0.49	0.66	
Uniform Delay, d1		40.4		46.0	39.6			31.6	27.0	21.7	26.7	
Progression Factor		1.00		1.00	1.00			1.35	1.19	0.58	0.57	
Incremental Delay, d2		1.7		150.1	1.0			0.3	0.1	3.3	1.8	
Delay (s)		42.1		196.1	40.6			43.1	32.1	16.0	16.9	
Level of Service		D		F	D			D	C	B	B	
Approach Delay (s)		42.1			125.8			41.4			16.8	
Approach LOS		D			F			D			B	

Intersection Summary			
HCM 2000 Control Delay	47.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	0	1190	60	5	800	195	110	280	10	565	480	25	
Future Volume (vph)	0	1190	60	5	800	195	110	280	10	565	480	25	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11	
Storage Length (ft)	0		0	0		0	280		0	0		0	
Storage Lanes	0		0	0		0	1		0	1		0	
Taper Length (ft)	0			0			25			0			
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor											1.00		
Frt		0.993			0.971			0.995			0.993		
Flt Protected							0.950			0.950			
Satd. Flow (prot)	0	3116	0	0	3014	0	1570	2927	0	1570	2947	0	
Flt Permitted					0.783		0.267			0.387			
Satd. Flow (perm)	0	3116	0	0	2360	0	441	2927	0	640	2947	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		5			29			2			4		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		497			489			442			108		
Travel Time (s)		13.6			13.3			12.1			2.9		
Confl. Bikes (#/hr)												10	
Peak Hour Factor	0.88	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.85	0.85	0.85	
Heavy Vehicles (%)	0%	0%	2%	0%	1%	2%	0%	7%	0%	0%	6%	0%	
Adj. Flow (vph)	0	1322	67	6	889	217	120	304	11	665	565	29	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	1389	0	0	1112	0	120	315	0	665	594	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		0			0			11			11		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors		1		1	1		1	1		1	1		
Detector Template													
Leading Detector (ft)		50		50	50		50	50		50	50		
Trailing Detector (ft)		0		0	0		0	0		0	0		
Detector 1 Position(ft)		0		0	0		0	0		0	0		
Detector 1 Size(ft)		50		50	50		50	50		50	50		
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Turn Type		NA			NA		Perm	NA		D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases							1			1			
Detector Phase		5			5		1	1		6	1 6		
Switch Phase													
Minimum Initial (s)		8.0			8.0		10.0	10.0		6.0			1.0
Minimum Split (s)		14.0			14.0		16.0	16.0		12.0			27.0
Total Split (s)		52.0			52.0		16.0	16.0		25.0			27.0
Total Split (%)		43.3%			43.3%		13.3%	13.3%		20.8%			23%
Maximum Green (s)		46.0			46.0		10.0	10.0		22.0			25.0
Yellow Time (s)		3.0			3.0		3.0	3.0		3.0			2.0
All-Red Time (s)		3.0			3.0		3.0	3.0		0.0			0.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0			
Total Lost Time (s)		6.0			6.0		6.0	6.0		3.0			
Lead/Lag		Lead			Lead		Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0			2.0
Recall Mode		Max			Max		C-Max	C-Max		Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													49
Act Effct Green (s)		46.0			46.0		15.4	15.4		40.4	40.4		
Actuated g/C Ratio		0.38			0.38		0.13	0.13		0.34	0.34		
v/c Ratio		1.16			7.48dr		2.14	0.84		1.72	0.60		
Control Delay		114.9			1728.0		598.7	72.4		356.0	25.6		
Queue Delay		0.2			1.1		0.0	0.0		0.0	0.8		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		115.1			1729.1		598.7	72.4		356.0	26.4		
LOS		F			F		F	E		F	C		
Approach Delay		115.1			1729.1			217.5			200.5		
Approach LOS		F			F			F			F		
Queue Length 50th (ft)		~658			~763		~164	~163		~736	197		
Queue Length 95th (ft)		#797			#900		#288	#260		m#803	m200		
Internal Link Dist (ft)		417			409			362			28		
Turn Bay Length (ft)							280						
Base Capacity (vph)		1197			232		56	377		386	994		
Starvation Cap Reductn		60			0		0	0		0	164		
Spillback Cap Reductn		0			17		0	0		0	0		
Storage Cap Reductn		0			0		0	0		0	0		
Reduced v/c Ratio		1.22			5.17		2.14	0.84		1.72	0.72		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 26 (22%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 4.79			
Intersection Signal Delay: 579.2		Intersection LOS: F	
Intersection Capacity Utilization 95.7%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Splits and Phases: 12: Brookline Ave & Riverway

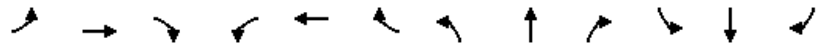




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1190	60	5	800	195	110	280	10	565	480	25
Future Volume (vph)	0	1190	60	5	800	195	110	280	10	565	480	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		6.0			6.0		6.0	6.0		3.0	6.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.97		1.00	0.99		1.00	0.99	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3115			3012		1570	2927		1570	2947	
Flt Permitted		1.00			0.78		0.27	1.00		0.39	1.00	
Satd. Flow (perm)		3115			2358		441	2927		639	2947	
Peak-hour factor, PHF	0.88	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.85	0.85	0.85
Adj. Flow (vph)	0	1322	67	6	889	217	120	304	11	665	565	29
RTOR Reduction (vph)	0	3	0	0	18	0	0	2	0	0	3	0
Lane Group Flow (vph)	0	1386	0	0	1094	0	120	313	0	665	591	0
Confl. Bikes (#/hr)												10
Heavy Vehicles (%)	0%	0%	2%	0%	1%	2%	0%	7%	0%	0%	6%	0%
Turn Type		NA			NA		Perm	NA		D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases							1			1		
Actuated Green, G (s)		46.0			46.0		15.0	15.0		37.0	40.0	
Effective Green, g (s)		46.0			46.0		15.0	15.0		37.0	37.0	
Actuated g/C Ratio		0.38			0.38		0.12	0.12		0.31	0.31	
Clearance Time (s)		6.0			6.0		6.0	6.0		3.0		
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0		
Lane Grp Cap (vph)		1194			903		55	365		367	908	
v/s Ratio Prot		0.44						0.11		c0.33	0.20	
v/s Ratio Perm					c0.46		c0.27			0.23		
v/c Ratio		1.16			7.48dr		2.18	0.86		1.81	0.65	
Uniform Delay, d1		37.0			37.0		52.5	51.5		38.5	35.9	
Progression Factor		1.10			1.00		1.00	1.00		0.70	0.67	
Incremental Delay, d2		78.0			105.5		586.6	22.2		373.3	2.7	
Delay (s)		118.5			142.5		639.1	73.6		400.1	26.8	
Level of Service		F			F		F	E		F	C	
Approach Delay (s)		118.5			142.5			229.6			224.0	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	168.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	95.7%	ICU Level of Service	F
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



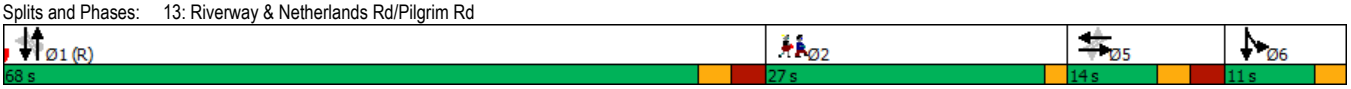
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	15	5	5	15	5	135	5	915	15	65	1230	85	
Future Volume (vph)	15	5	5	15	5	135	5	915	15	65	1230	85	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	14	14	14	14	14	11	11	11	11	11	11	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	
Ped Bike Factor		0.99			0.95			1.00			1.00		
Frt		0.972			0.882			0.998			0.991		
Flt Protected		0.971			0.995						0.998		
Satd. Flow (prot)	0	1700	0	0	1487	0	0	3093	0	0	3106	0	
Flt Permitted		0.408			0.961			0.947			0.806		
Satd. Flow (perm)	0	714	0	0	1436	0	0	2929	0	0	2508	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		7			157			2			9		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		418			141			497			1033		
Travel Time (s)		11.4			3.8			13.6			28.2		
Confl. Peds. (#/hr)			11			11			22	22			
Confl. Bikes (#/hr)									1				
Peak Hour Factor	0.75	0.75	0.75	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93	
Heavy Vehicles (%)	0%	0%	0%	0%	33%	1%	0%	1%	18%	0%	0%	0%	
Adj. Flow (vph)	20	7	7	17	6	157	5	1005	16	70	1323	91	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	34	0	0	180	0	0	1026	0	0	1484	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		0			0			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.05	1.05	1.05	1.05	1.05	1.05	1.19	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1		1	1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50		50	50		50	50		
Trailing Detector (ft)	0	0		0	0		0	0		0	0		
Detector 1 Position(ft)	0	0		0	0		0	0		0	0		
Detector 1 Size(ft)	50	50		50	50		50	50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases	5			5			1			1 6			
Detector Phase	5	5		5	5		1	1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		6.0			8.0
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	14.0		11.0			27.0
Total Split (s)	14.0	14.0		14.0	14.0		68.0	68.0		11.0			27.0
Total Split (%)	11.7%	11.7%		11.7%	11.7%		56.7%	56.7%		9.2%			23%
Maximum Green (s)	8.0	8.0		8.0	8.0		62.0	62.0		8.0			25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0			2.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		0.0			0.0
Lost Time Adjust (s)		0.0			0.0			0.0					
Total Lost Time (s)		6.0			6.0			6.0					
Lead/Lag	Lead	Lead		Lead	Lead		Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0			3.0
Recall Mode	None	None		None	None		C-Max	C-Max		Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													12
Act Effct Green (s)		8.0			8.0			78.2			83.2		
Actuated g/C Ratio		0.07			0.07			0.65			0.69		
v/c Ratio		0.63			0.74			0.54			0.84		
Control Delay		91.8			31.2			9.5			24.3		
Queue Delay		0.0			42.3			20.5			17.1		
Total Delay		91.8			73.4			29.9			41.4		
LOS		F			E			C			D		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Approach Delay		91.8			73.4			29.9			41.4		
Approach LOS		F			E			C			D		
Queue Length 50th (ft)		21			17			69			507		
Queue Length 95th (ft)		#56			#101			m26			m#707		
Internal Link Dist (ft)		338			61			417			953		
Turn Bay Length (ft)													
Base Capacity (vph)		54			242			1909			1766		
Starvation Cap Reductn		0			0			903			0		
Spillback Cap Reductn		0			69			0			313		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		0.63			1.04			1.02			1.02		

Intersection Summary	
Area Type:	CBD
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 89 (74%), Referenced to phase 1:NBSB, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 39.8	Intersection LOS: D
Intersection Capacity Utilization 98.1%	ICU Level of Service F
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 13: Riverway & Netherlands Rd/Pilgrim Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	5	5	15	5	135	5	915	15	65	1230	85
Future Volume (vph)	15	5	5	15	5	135	5	915	15	65	1230	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	11	11	11	11	11	11
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.95			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.97			0.88			1.00			0.99	
Flt Protected		0.97			1.00			1.00			1.00	
Satd. Flow (prot)		1701			1488			3092			3104	
Flt Permitted		0.41			0.96			0.95			0.81	
Satd. Flow (perm)		714			1437			2928			2507	
Peak-hour factor, PHF	0.75	0.75	0.75	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93
Adj. Flow (vph)	20	7	7	17	6	157	5	1005	16	70	1323	91
RTOR Reduction (vph)	0	7	0	0	147	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	27	0	0	33	0	0	1025	0	0	1481	0
Confl. Peds. (#/hr)			11			11			22	22		
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	0%	33%	1%	0%	1%	18%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases	5			5			1			1 6		
Actuated Green, G (s)		8.0			8.0			77.0			85.0	
Effective Green, g (s)		8.0			8.0			77.0			85.0	
Actuated g/C Ratio		0.07			0.07			0.64			0.71	
Clearance Time (s)		6.0			6.0			6.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		47			95			1878			1815	
v/s Ratio Prot											c0.05	
v/s Ratio Perm		c0.04			0.02			0.35			c0.52	
v/c Ratio		0.58			0.35			0.55			0.82	
Uniform Delay, d1		54.4			53.5			11.9			12.1	
Progression Factor		1.00			1.00			0.67			1.42	
Incremental Delay, d2		17.2			2.2			0.1			2.1	
Delay (s)		71.6			55.8			8.0			19.3	
Level of Service		E			E			A			B	
Approach Delay (s)		71.6			55.8			8.0			19.3	
Approach LOS		E			E			A			B	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	98.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

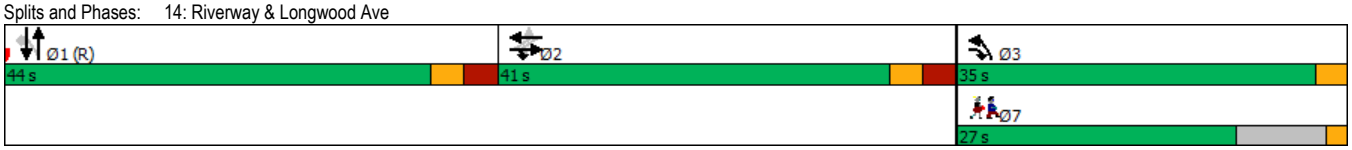


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Lane Configurations													
Traffic Volume (vph)	100	380	180	80	285	55	270	775	10	0	1100	80	
Future Volume (vph)	100	380	180	80	285	55	270	775	10	0	1100	80	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	11	11	10	11	11	11	11	11	
Storage Length (ft)	25		120	40		0	300		0	0		0	
Storage Lanes	1		1	1		0	1		0	0		1	
Taper Length (ft)	0			25			25			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	
Ped Bike Factor					0.99								
Frt			0.850		0.976			0.998				0.850	
Flt Protected	0.950			0.950			0.950						
Satd. Flow (prot)	1555	1637	1405	1516	1573	0	1501	3104	0	0	3110	1364	
Flt Permitted	0.273			0.214			0.085						
Satd. Flow (perm)	447	1637	1405	342	1573	0	134	3104	0	0	3110	1364	
Right Turn on Red			Yes			Yes			No			No	
Satd. Flow (RTOR)			27		8								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		327			278			1033			510		
Travel Time (s)		8.9			7.6			28.2			13.9		
Confl. Bikes (#/hr)			8			28							
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95	0.93	0.93	0.93	
Heavy Vehicles (%)	1%	1%	0%	0%	1%	7%	1%	1%	0%	0%	1%	3%	
Adj. Flow (vph)	105	400	189	85	303	59	284	816	11	0	1183	86	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	105	400	189	85	362	0	284	827	0	0	1183	86	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.19	1.19	1.25	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1	1	1	1		1	1			1	1	
Detector Template													
Leading Detector (ft)	50	50	50	50	50		50	50			50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Size(ft)	50	50	50	50	50		50	50			50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm	
Protected Phases		2	2 3		2		3	1			1		7
Permitted Phases	2			2			1					1	
Detector Phase	2	2	2 3	2	2		3	1			1	1	
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	18.0			18.0	18.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	26.0			26.0	26.0	27.0
Total Split (s)	41.0	41.0		41.0	41.0		35.0	44.0			44.0	44.0	27.0
Total Split (%)	34.2%	34.2%		34.2%	34.2%		29.2%	36.7%			36.7%	36.7%	23%
Maximum Green (s)	35.0	35.0		35.0	35.0		32.0	38.0			38.0	38.0	25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)	3.0	3.0		3.0	3.0		0.0	3.0			3.0	3.0	0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0	
Lead/Lag	Lag	Lag		Lag	Lag			Lead			Lead	Lead	
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0	2.0
Recall Mode	None	None		None	None		None	C-Max			C-Max	C-Max	None
Walk Time (s)								7.0			7.0	7.0	7.0
Flash Dont Walk (s)								13.0			13.0	13.0	18.0
Pedestrian Calls (#/hr)								6			6	6	111
Act Effct Green (s)	32.2	32.2	61.2	32.2	32.2		75.8	46.8			46.8	46.8	
Actuated g/C Ratio	0.27	0.27	0.51	0.27	0.27		0.63	0.39			0.39	0.39	
v/c Ratio	0.88	0.91	0.26	0.93	0.85		0.75	0.68			0.98	0.16	
Control Delay	97.4	68.2	14.0	112.4	50.6		31.4	33.6			57.8	27.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Total Delay	97.4	68.2	14.0	112.4	50.6		31.4	33.6			57.8	27.2	
LOS	F	E	B	F	D		C	C			E	C	
Approach Delay		57.9			62.4			33.0			55.7		
Approach LOS		E			E			C			E		
Queue Length 50th (ft)	75	290	66	65	265		125	337			474	43	
Queue Length 95th (ft)	#180	#457	97	m#155	m#389		m166	427			#717	91	
Internal Link Dist (ft)		247			198			953			430		
Turn Bay Length (ft)	25		120	40			300						
Base Capacity (vph)	130	477	793	99	464		451	1210			1212	531	
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0	
Storage Cap Reductn	0	0	0	0	0		0	0			0	0	
Reduced v/c Ratio	0.81	0.84	0.24	0.86	0.78		0.63	0.68			0.98	0.16	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 34 (28%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 49.8		Intersection LOS: D	
Intersection Capacity Utilization 97.6%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 14: Riverway & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	380	180	80	285	55	270	775	10	0	1100	80
Future Volume (vph)	100	380	180	80	285	55	270	775	10	0	1100	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	11	11	10	11	11	11	11	11
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0		3.0	6.0			6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1555	1637	1405	1516	1572		1501	3104			3110	1364
Flt Permitted	0.27	1.00	1.00	0.21	1.00		0.09	1.00			1.00	1.00
Satd. Flow (perm)	446	1637	1405	342	1572		135	3104			3110	1364
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95	0.93	0.93	0.93
Adj. Flow (vph)	105	400	189	85	303	59	284	816	11	0	1183	86
RTOR Reduction (vph)	0	0	13	0	6	0	0	0	0	0	0	0
Lane Group Flow (vph)	105	400	176	85	356	0	284	827	0	0	1183	86
Confl. Bikes (#/hr)			8			28						
Heavy Vehicles (%)	1%	1%	0%	0%	1%	7%	1%	1%	0%	0%	1%	3%
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm
Protected Phases		2	2 3		2		3	1			1	
Permitted Phases	2			2			1					1
Actuated Green, G (s)	32.2	32.2	64.2	32.2	32.2		72.8	46.8			46.8	46.8
Effective Green, g (s)	32.2	32.2	64.2	32.2	32.2		72.8	46.8			46.8	46.8
Actuated g/C Ratio	0.27	0.27	0.54	0.27	0.27		0.61	0.39			0.39	0.39
Clearance Time (s)	6.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	119	439	751	91	421		377	1210			1212	531
v/s Ratio Prot		0.24	0.13		0.23		c0.16	0.27			c0.38	
v/s Ratio Perm	0.24			c0.25			0.29					0.06
v/c Ratio	0.88	0.91	0.23	0.93	0.85		0.75	0.68			0.98	0.16
Uniform Delay, d1	42.1	42.5	14.8	42.9	41.6		31.8	30.4			36.0	23.8
Progression Factor	1.00	1.00	1.00	0.81	0.81		0.72	0.96			1.00	1.00
Incremental Delay, d2	47.1	22.5	0.1	69.9	13.4		6.2	2.6			20.7	0.7
Delay (s)	89.2	65.1	14.9	104.7	46.9		29.0	31.9			56.8	24.5
Level of Service	F	E	B	F	D		C	C			E	C
Approach Delay (s)		55.0			57.9			31.2			54.6	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	47.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	97.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	55	130	960	0	0	1100	
Future Volume (vph)	55	130	960	0	0	1100	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	10	10	10	10	
Storage Length (ft)	30	0		0	0		
Storage Lanes	1	1		0	0		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1450	1253	4272	0	0	4314	
Flt Permitted	0.950						
Satd. Flow (perm)	1450	1253	4272	0	0	4314	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		236					
Link Speed (mph)	25		25			25	
Link Distance (ft)	246		343			858	
Travel Time (s)	6.7		9.4			23.4	
Peak Hour Factor	0.55	0.55	0.88	0.89	0.92	0.88	
Heavy Vehicles (%)	12%	16%	2%	2%	2%	1%	
Adj. Flow (vph)	100	236	1091	0	0	1250	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	100	236	1091	0	0	1250	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.14	1.14	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	2			2	
Detector Template	Left	Right	Thru			Thru	
Leading Detector (ft)	20	20	100			100	
Trailing Detector (ft)	0	0	0			0	
Detector 1 Position(ft)	0	0	0			0	
Detector 1 Size(ft)	20	20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)			94			94	
Detector 2 Size(ft)			6			6	
Detector 2 Type			Cl+Ex			Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)			0.0			0.0	
Turn Type	Prot	Perm	NA			NA	
Protected Phases	5		1			1	2
Permitted Phases		5					
Detector Phase	5	5	1			1	
Switch Phase							
Minimum Initial (s)	8.0	8.0	15.0			15.0	7.0
Minimum Split (s)	14.0	14.0	20.0			20.0	25.0
Total Split (s)	16.0	16.0	49.0			49.0	25.0
Total Split (%)	17.8%	17.8%	54.4%			54.4%	28%
Maximum Green (s)	10.0	10.0	44.0			44.0	21.0
Yellow Time (s)	3.0	3.0	3.0			3.0	2.0
All-Red Time (s)	3.0	3.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	
Total Lost Time (s)	6.0	6.0	5.0			5.0	
Lead/Lag			Lead			Lead	Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	3.0			3.0	3.0
Recall Mode	None	None	C-Max			C-Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							14.0
Pedestrian Calls (#/hr)							18
Act Effct Green (s)	9.5	9.5	59.5			59.5	
Actuated g/C Ratio	0.11	0.11	0.66			0.66	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
v/c Ratio	0.65	0.69	0.39			0.44	
Control Delay	59.4	16.8	9.9			10.4	
Queue Delay	0.0	0.0	0.0			0.0	
Total Delay	59.4	16.8	9.9			10.4	
LOS	E	B	A			B	
Approach Delay	29.5		9.9			10.4	
Approach LOS	C		A			B	
Queue Length 50th (ft)	55	0	58			70	
Queue Length 95th (ft)	62	0	182			216	
Internal Link Dist (ft)	166		263			778	
Turn Bay Length (ft)	30						
Base Capacity (vph)	164	351	2823			2851	
Starvation Cap Reductn	0	0	0			0	
Spillback Cap Reductn	0	0	0			0	
Storage Cap Reductn	0	0	0			0	
Reduced v/c Ratio	0.61	0.67	0.39			0.44	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 82 (91%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 12.6		Intersection LOS: B	
Intersection Capacity Utilization 39.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 15: Riverway & Short St Ext





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	55	130	960	0	0	1100
Future Volume (vph)	55	130	960	0	0	1100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	10	10	10
Total Lost time (s)	6.0	6.0	5.0			5.0
Lane Util. Factor	1.00	1.00	0.91			0.91
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1450	1253	4272			4314
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1450	1253	4272			4314
Peak-hour factor, PHF	0.55	0.55	0.88	0.89	0.92	0.88
Adj. Flow (vph)	100	236	1091	0	0	1250
RTOR Reduction (vph)	0	211	0	0	0	0
Lane Group Flow (vph)	100	25	1091	0	0	1250
Heavy Vehicles (%)	12%	16%	2%	2%	2%	1%
Turn Type	Prot	Perm	NA			NA
Protected Phases	5		1			1
Permitted Phases		5				
Actuated Green, G (s)	9.5	9.5	57.1			57.1
Effective Green, g (s)	9.5	9.5	57.1			57.1
Actuated g/C Ratio	0.11	0.11	0.63			0.63
Clearance Time (s)	6.0	6.0	5.0			5.0
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Lane Grp Cap (vph)	153	132	2710			2736
v/s Ratio Prot	c0.07		0.26			c0.29
v/s Ratio Perm		0.02				
v/c Ratio	0.65	0.19	0.40			0.46
Uniform Delay, d1	38.7	36.7	8.1			8.5
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	7.4	0.3	0.4			0.6
Delay (s)	46.1	37.0	8.5			9.0
Level of Service	D	D	A			A
Approach Delay (s)	39.7		8.5			9.0
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø2
Lane Configurations							
Traffic Volume (vph)	80	40	10	785	990	50	
Future Volume (vph)	80	40	10	785	990	50	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95	
Frt		0.850			0.993		
Flt Protected	0.950			0.999			
Satd. Flow (prot)	1770	1583	0	3536	3514	0	
Flt Permitted	0.950			0.935			
Satd. Flow (perm)	1770	1583	0	3309	3514	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		43			7		
Link Speed (mph)	25			25	25		
Link Distance (ft)	362			598	446		
Travel Time (s)	9.9			16.3	12.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	87	43	11	853	1076	54	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	87	43	0	864	1130	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12			10	10		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9	15			9	
Turn Type	Prot	Perm	Perm	NA	NA		
Protected Phases	5			1	1		2
Permitted Phases		5	1				
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0
Total Split (s)	25.0	25.0	73.0	73.0	73.0		22.0
Total Split (%)	20.8%	20.8%	60.8%	60.8%	60.8%		18%
Maximum Green (s)	20.0	20.0	68.0	68.0	68.0		17.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		
Lead/Lag			Lead	Lead	Lead		Lag
Lead-Lag Optimize?			Yes	Yes	Yes		Yes
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0	0		0
Act Effct Green (s)	20.0	20.0		68.0	68.0		
Actuated g/C Ratio	0.17	0.17		0.57	0.57		
v/c Ratio	0.29	0.14		0.46	0.57		
Control Delay	47.2	13.8		3.6	6.5		
Queue Delay	0.0	0.0		0.0	0.2		
Total Delay	47.2	13.8		3.6	6.7		
LOS	D	B		A	A		
Approach Delay	36.1			3.6	6.7		
Approach LOS	D			A	A		
Queue Length 50th (ft)	60	1		18	63		
Queue Length 95th (ft)	m110	m32		35	121		
Internal Link Dist (ft)	282			518	366		
Turn Bay Length (ft)							
Base Capacity (vph)	295	299		1875	1994		
Starvation Cap Reductn	0	0		0	241		
Spillback Cap Reductn	0	0		0	0		
Storage Cap Reductn	0	0		0	0		
Reduced v/c Ratio	0.29	0.14		0.46	0.64		

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 10 (8%), Referenced to phase 6:, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 7.2	Intersection LOS: A

Intersection Capacity Utilization 41.7% ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 16: Brookline Ave & Mid-Block Rd





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	80	40	10	785	990	50
Future Volume (vph)	80	40	10	785	990	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00		0.95	0.95	
Frt	1.00	0.85		1.00	0.99	
Flt Protected	0.95	1.00		1.00	1.00	
Satd. Flow (prot)	1770	1583		3537	3514	
Flt Permitted	0.95	1.00		0.94	1.00	
Satd. Flow (perm)	1770	1583		3309	3514	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	43	11	853	1076	54
RTOR Reduction (vph)	0	36	0	0	3	0
Lane Group Flow (vph)	87	7	0	864	1127	0
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	5			1	1	
Permitted Phases		5	1			
Actuated Green, G (s)	20.0	20.0		68.0	68.0	
Effective Green, g (s)	20.0	20.0		68.0	68.0	
Actuated g/C Ratio	0.17	0.17		0.57	0.57	
Clearance Time (s)	5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	295	263		1875	1991	
v/s Ratio Prot	c0.05				c0.32	
v/s Ratio Perm		0.00		0.26		
v/c Ratio	0.29	0.03		0.46	0.57	
Uniform Delay, d1	43.8	41.9		15.2	16.6	
Progression Factor	1.00	1.01		0.19	0.34	
Incremental Delay, d2	2.5	0.2		0.7	0.8	
Delay (s)	46.6	42.4		3.6	6.4	
Level of Service	D	D		A	A	
Approach Delay (s)	45.2			3.6	6.4	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	41.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	185
Future Volume (vph)	0	0	0	0	0	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	0	0	0	1676	1155	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1676	1155	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	246			134	485	
Travel Time (s)	6.7			3.7	13.2	
Confl. Peds. (#/hr)			14			14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.55
Heavy Vehicles (%)	2%	2%	2%	2%	2%	14%
Parking (#/hr)					2	2
Adj. Flow (vph)	0	0	0	0	0	336
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	336	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.32	1.14
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	10.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	185
Future Vol, veh/h	0	0	0	0	0	185
Conflicting Peds, #/hr	0	0	14	0	0	14
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	55
Heavy Vehicles, %	2	2	2	2	2	14
Mvmt Flow	0	0	0	0	0	336

Major/Minor	Major1		Minor2	
Conflicting Flow All	14	0	14	28
Stage 1	-	-	14	-
Stage 2	-	-	0	-
Critical Hdwy	4.12	-	6.52	6.34
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.52	-
Follow-up Hdwy	2.218	-	4.018	3.426
Pot Cap-1 Maneuver	1604	-	880	1014
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %		-		
Mov Cap-1 Maneuver	1585	-	0	990
Mov Cap-2 Maneuver	-	-	0	-
Stage 1	-	-	0	-
Stage 2	-	-	0	-

Approach	NB	SB
HCM Control Delay, s	0	10.5
HCM LOS		B

Minor Lane/Major Mvmt	NBL	NBT	SBLn1
Capacity (veh/h)	1585	-	990
HCM Lane V/C Ratio	-	-	0.34
HCM Control Delay (s)	0	-	10.5
HCM Lane LOS	A	-	B
HCM 95th %tile Q(veh)	0	-	1.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	385	0	0	395	10	25	0	25	0	0	0
Future Volume (vph)	5	385	0	0	395	10	25	0	25	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	16	12	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.997			0.932				
Flt Protected		0.999						0.976				
Satd. Flow (prot)	0	1880	0	0	1850	0	0	1428	0	0	0	0
Flt Permitted		0.999						0.976				
Satd. Flow (perm)	0	1880	0	0	1850	0	0	1428	0	0	0	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			617			174			541	
Travel Time (s)		7.6			16.8			4.7			14.8	
Confl. Peds. (#/hr)	189		192	192		189	4		22	22		4
Confl. Bikes (#/hr)			11			43						
Peak Hour Factor	0.80	0.80	0.92	0.92	0.86	0.86	0.71	0.71	0.71	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	2%	2%	18%	17%	0%	25%	2%	2%	2%
Adj. Flow (vph)	6	481	0	0	459	12	35	0	35	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	487	0	0	471	0	0	70	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.00	0.85
Turning Speed (mph)	15		60	60		9	60		60	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	385	0	0	395	10	25	0	25	0	0	0
Future Vol, veh/h	5	385	0	0	395	10	25	0	25	0	0	0
Conflicting Peds, #/hr	189	0	192	192	0	189	4	0	22	22	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	92	92	86	86	71	71	71	92	92	92
Heavy Vehicles, %	0	1	2	2	2	18	17	0	25	2	2	2
Mvmt Flow	6	481	0	0	459	12	35	0	35	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	660	0	-	-	-	0	962	1153	503
Stage 1	-	-	-	-	-	-	493	493	-
Stage 2	-	-	-	-	-	-	469	660	-
Critical Hdwy	4.1	-	-	-	-	-	6.57	6.5	6.45
Critical Hdwy Stg 1	-	-	-	-	-	-	5.57	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.57	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.653	4	3.525
Pot Cap-1 Maneuver	938	-	0	0	-	-	267	199	525
Stage 1	-	-	0	0	-	-	584	550	-
Stage 2	-	-	0	0	-	-	599	463	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	938	-	-	-	-	-	264	0	515
Mov Cap-2 Maneuver	-	-	-	-	-	-	264	0	-
Stage 1	-	-	-	-	-	-	579	0	-
Stage 2	-	-	-	-	-	-	597	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	349	938	-	-	-
HCM Lane V/C Ratio	0.202	0.007	-	-	-
HCM Control Delay (s)	17.9	8.9	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	0.7	0	-	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	30	930	0	0	1155
Future Volume (vph)	25	30	930	0	0	1155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91
Ped Bike Factor						
Frt	0.926					
Flt Protected	0.978					
Satd. Flow (prot)	1950	0	5085	0	0	5136
Flt Permitted	0.978					
Satd. Flow (perm)	1950	0	5085	0	0	5136
Link Speed (mph)	25		25			25
Link Distance (ft)	541		510			343
Travel Time (s)	14.8		13.9			9.4
Confl. Peds. (#/hr)				22	22	
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.63	0.63	0.90	0.92	0.92	0.91
Heavy Vehicles (%)	0%	0%	2%	2%	2%	1%
Adj. Flow (vph)	40	48	1033	0	0	1269
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	0	1033	0	0	1269
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	30	930	0	0	1155
Future Vol, veh/h	25	30	930	0	0	1155
Conflicting Peds, #/hr	0	0	0	22	22	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	63	63	90	92	92	91
Heavy Vehicles, %	0	0	2	2	2	1
Mvmt Flow	40	48	1033	0	0	1269

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1541	517	0	-	-	-
Stage 1	1033	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Critical Hdwy	5.7	7.1	-	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.8	3.9	-	-	-	-
Pot Cap-1 Maneuver	167	435	-	0	0	-
Stage 1	234	-	-	0	0	-
Stage 2	525	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	167	435	-	-	-	-
Mov Cap-2 Maneuver	167	-	-	-	-	-
Stage 1	234	-	-	-	-	-
Stage 2	525	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.7	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	252	-
HCM Lane V/C Ratio	-	0.346	-
HCM Control Delay (s)	-	26.7	-
HCM Lane LOS	-	D	-
HCM 95th %tile Q(veh)	-	1.5	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	80	0	0	0	5	70
Future Volume (vph)	80	0	0	0	5	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950					0.997
Satd. Flow (prot)	1770	0	0	0	0	1857
Flt Permitted	0.950					0.997
Satd. Flow (perm)	1770	0	0	0	0	1857
Link Speed (mph)	25		25			25
Link Distance (ft)	362		485			77
Travel Time (s)	9.9		13.2			2.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	0	0	0	5	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	0	0	0	81
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	0	0	0	5	70
Future Vol, veh/h	80	0	0	0	5	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	0	0	0	5	76

Major/Minor	Minor1			Major2	
Conflicting Flow All	86	-		0	0
Stage 1	0	-		-	-
Stage 2	86	-		-	-
Critical Hdwy	6.42	-		4.12	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	5.42	-		-	-
Follow-up Hdwy	3.518	-		2.218	-
Pot Cap-1 Maneuver	915	0		-	-
Stage 1	-	0		-	-
Stage 2	937	0		-	-
Platoon blocked, %					-
Mov Cap-1 Maneuver	915	-		-	-
Mov Cap-2 Maneuver	915	-		-	-
Stage 1	-	-		-	-
Stage 2	937	-		-	-

Approach	WB	SB
HCM Control Delay, s	9.3	
HCM LOS	A	

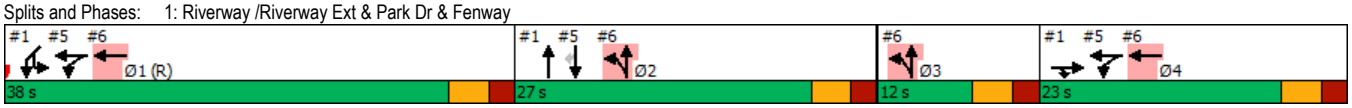
Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	915	-	-
HCM Lane V/C Ratio	0.095	-	-
HCM Control Delay (s)	9.3	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Lane Configurations						
Traffic Volume (vph)	450	410	420	225	430	
Future Volume (vph)	450	410	420	225	430	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	
Storage Length (ft)		120			0	
Storage Lanes		2			3	
Taper Length (ft)					25	
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97	
Ped Bike Factor	0.97			0.96	0.86	
Frt	0.965	0.850				
Flt Protected				0.950	0.950	
Satd. Flow (prot)	2800	1284	3217	1477	3060	
Flt Permitted				0.950	0.950	
Satd. Flow (perm)	2800	1284	3217	1421	2625	
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		25		25	
Link Distance (ft)	260		238		234	
Travel Time (s)	7.1		6.5		6.4	
Confl. Peds. (#/hr)		54		24	54	
Confl. Bikes (#/hr)		5				
Peak Hour Factor	0.88	0.88	0.73	0.83	0.83	
Heavy Vehicles (%)	5%	3%	1%	10%	3%	
Adj. Flow (vph)	511	466	575	271	518	
Shared Lane Traffic (%)		33%				
Lane Group Flow (vph)	665	312	575	271	518	
Enter Blocked Intersection	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	
Median Width(ft)	0		0		36	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.14	
Turning Speed (mph)		9		15	15	
Number of Detectors	1	1	1	1	1	
Detector Template						
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	50	50	50	50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Turn Type	NA	Prot	NA	Prot	Prot	
Protected Phases	4	4	2	1	1	3
Permitted Phases						
Detector Phase	4	4	2	1	1	
Switch Phase						
Minimum Initial (s)	8.0	8.0	8.0	15.0	15.0	5.0
Minimum Split (s)	22.0	22.0	27.0	24.0	24.0	10.0
Total Split (s)	23.0	23.0	27.0	38.0	38.0	12.0
Total Split (%)	23.0%	23.0%	27.0%	38.0%	38.0%	12%
Maximum Green (s)	18.0	18.0	22.0	33.0	33.0	7.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Ped	Ped	Ped	C-Max	C-Max	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	10.0	10.0	15.0	12.0	12.0	
Pedestrian Calls (#/hr)	23	23	37	6	6	
Act Effct Green (s)	19.0	19.0	23.0	34.0	34.0	
Actuated g/C Ratio	0.19	0.19	0.23	0.34	0.34	
v/c Ratio	1.25	1.28	0.78	0.54	0.50	
Control Delay	163.1	190.6	44.5	28.5	25.4	
Queue Delay	6.3	0.0	4.8	10.8	1.0	

Lane Group	EBT	EBR	NBT	SWL2	SWL	Ø3
Total Delay	169.4	190.6	49.3	39.3	26.5	
LOS	F	F	D	D	C	
Approach Delay	176.2		49.3		30.9	
Approach LOS	F		D		C	
Queue Length 50th (ft)	~292	~279	181	170	165	
Queue Length 95th (ft)	#398	#448	188	226	195	
Internal Link Dist (ft)	180		158		154	
Turn Bay Length (ft)		120				
Base Capacity (vph)	532	243	739	502	1040	
Starvation Cap Reductn	0	0	0	116	285	
Spillback Cap Reductn	248	0	107	199	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	2.34	1.28	0.91	0.89	0.69	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 96.1		Intersection LOS: F	
Intersection Capacity Utilization 56.4%		ICU Level of Service B	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Riverway /Riverway Ext & Park Dr & Fenway



Movement	EBT	EBR	NBT	SWL2	SWL
Lane Configurations					
Traffic Volume (vph)	450	410	420	225	430
Future Volume (vph)	450	410	420	225	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.91	0.95	1.00	0.97
Frpb, ped/bikes	0.97	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00
Frt	0.97	0.85	1.00	1.00	1.00
Flt Protected	1.00	1.00	1.00	0.95	0.95
Satd. Flow (prot)	2800	1284	3217	1477	3060
Flt Permitted	1.00	1.00	1.00	0.95	0.95
Satd. Flow (perm)	2800	1284	3217	1477	3060
Peak-hour factor, PHF	0.88	0.88	0.73	0.83	0.83
Adj. Flow (vph)	511	466	575	271	518
RTOR Reduction (vph)	0	0	0	0	0
Lane Group Flow (vph)	665	312	575	271	518
Confl. Peds. (#/hr)		54		24	54
Confl. Bikes (#/hr)		5			
Heavy Vehicles (%)	5%	3%	1%	10%	3%
Turn Type	NA	Prot	NA	Prot	Prot
Protected Phases	4	4	2	1	1
Permitted Phases					
Actuated Green, G (s)	18.0	18.0	22.0	33.0	33.0
Effective Green, g (s)	19.0	19.0	23.0	34.0	34.0
Actuated g/C Ratio	0.19	0.19	0.23	0.34	0.34
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	532	243	739	502	1040
v/s Ratio Prot	0.24	c0.24	c0.18	c0.18	0.17
v/s Ratio Perm					
v/c Ratio	1.25	1.28	0.78	0.54	0.50
Uniform Delay, d1	40.5	40.5	36.1	26.7	26.2
Progression Factor	1.00	1.00	1.00	0.90	0.90
Incremental Delay, d2	127.4	155.3	4.7	3.8	1.6
Delay (s)	167.9	195.8	40.8	27.8	25.1
Level of Service	F	F	D	C	C
Approach Delay (s)	176.8		40.8		26.1
Approach LOS	F		D		C

Intersection Summary			
HCM 2000 Control Delay	92.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	675	0	0	0	0	810
Future Volume (vph)	675	0	0	0	0	810
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	12	12	12	12
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3269	0	0	0	0	2508
Flt Permitted						
Satd. Flow (perm)	3269	0	0	0	0	2508
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	196			385	251	
Travel Time (s)	5.3			10.5	6.8	
Peak Hour Factor	0.88	0.92	0.92	0.92	0.92	0.87
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%
Adj. Flow (vph)	767	0	0	0	0	931
Shared Lane Traffic (%)						
Lane Group Flow (vph)	767	0	0	0	0	931
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	1.14	1.14	1.14	1.14
Turning Speed (mph)		9	15		15	9
Number of Detectors	1					1
Detector Template						
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Detector 1 Position(ft)	0					0
Detector 1 Size(ft)	50					50
Detector 1 Type	Cl+Ex					Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0					0.0
Detector 1 Queue (s)	0.0					0.0
Detector 1 Delay (s)	0.0					0.0
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Detector Phase	1					2
Switch Phase						
Minimum Initial (s)	10.0					6.0
Minimum Split (s)	25.0					29.0
Total Split (s)	65.0					35.0
Total Split (%)	65.0%					35.0%
Maximum Green (s)	60.0					30.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
Lost Time Adjust (s)	-1.0					-1.0
Total Lost Time (s)	4.0					4.0
Lead/Lag	Lead					Lag
Lead-Lag Optimize?	Yes					Yes
Vehicle Extension (s)	2.0					2.0
Recall Mode	C-Max					Max
Walk Time (s)	10.0					10.0
Flash Dont Walk (s)	10.0					14.0
Pedestrian Calls (#/hr)	0					0
Act Effct Green (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
v/c Ratio	0.38					1.20
Control Delay	22.3					134.0
Queue Delay	53.5					0.2
Total Delay	75.8					134.2
LOS	E					F
Approach Delay	75.8				134.2	
Approach LOS	E				F	
Queue Length 50th (ft)	273					~410

Lane Group	SET	SER	NWL	NWT	NEL	NER
Queue Length 95th (ft)	m232					#518
Internal Link Dist (ft)	116			305	171	
Turn Bay Length (ft)						
Base Capacity (vph)	1994					777
Starvation Cap Reductn	1422					0
Spillback Cap Reductn	0					30
Storage Cap Reductn	0					0
Reduced v/c Ratio	1.34					1.25

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 25 (25%), Referenced to phase 1:SET, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay: 107.8		Intersection LOS: F	
Intersection Capacity Utilization 58.9%		ICU Level of Service B	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverway & Fenway



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	675	0	0	0	0	810
Future Volume (vph)	675	0	0	0	0	810
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	14	14	12	12	12	12
Total Lost time (s)	4.0					4.0
Lane Util. Factor	0.95					0.88
Frt	1.00					0.85
Flt Protected	1.00					1.00
Satd. Flow (prot)	3269					2508
Flt Permitted	1.00					1.00
Satd. Flow (perm)	3269					2508
Peak-hour factor, PHF	0.88	0.92	0.92	0.92	0.92	0.87
Adj. Flow (vph)	767	0	0	0	0	931
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	767	0	0	0	0	931
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%
Turn Type	NA					Prot
Protected Phases	1					2
Permitted Phases						
Actuated Green, G (s)	60.0					30.0
Effective Green, g (s)	61.0					31.0
Actuated g/C Ratio	0.61					0.31
Clearance Time (s)	5.0					5.0
Vehicle Extension (s)	2.0					2.0
Lane Grp Cap (vph)	1994					777
v/s Ratio Prot	c0.23					c0.37
v/s Ratio Perm						
v/c Ratio	0.38					1.20
Uniform Delay, d1	9.9					34.5
Progression Factor	2.21					1.00
Incremental Delay, d2	0.1					101.5
Delay (s)	22.0					136.0
Level of Service	C					F
Approach Delay (s)	22.0			0.0	136.0	
Approach LOS	C			A	F	

Intersection Summary			
HCM 2000 Control Delay	84.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	630	665	190	0	0	0	0	740	60	0	1065	0
Future Volume (vph)	630	665	190	0	0	0	0	740	60	0	1065	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor								0.98				
Frt			0.850					0.989				
Flt Protected	0.950	0.987										
Satd. Flow (prot)	1387	2862	1301	0	0	0	0	2808	0	0	2963	0
Flt Permitted	0.950	0.987										
Satd. Flow (perm)	1387	2862	1301	0	0	0	0	2808	0	0	2963	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)			34									
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			672			160			269	
Travel Time (s)		10.5			18.3			4.4			7.3	
Confl. Peds. (#/hr)									274			
Confl. Bikes (#/hr)			9						5			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	3%	4%	8%	2%	2%	2%	2%	9%	7%	2%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	0
Adj. Flow (vph)	692	731	209	0	0	0	0	796	65	0	1158	0
Shared Lane Traffic (%)	36%											
Lane Group Flow (vph)	443	980	209	0	0	0	0	861	0	0	1158	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.19	1.19	1.19	1.14	1.14	1.14	1.19	1.19	1.19	1.19	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					1			1	
Detector Template												
Leading Detector (ft)	50	50	50					50			50	
Trailing Detector (ft)	0	0	0					0			0	
Detector 1 Position(ft)	0	0	0					0			0	
Detector 1 Size(ft)	50	50	50					50			50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0			0.0	
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Detector Phase	1	1	1					3			3	
Switch Phase												
Minimum Initial (s)	35.0	35.0	35.0					44.0			44.0	
Minimum Split (s)	40.0	40.0	40.0					49.0			49.0	
Total Split (s)	50.0	50.0	50.0					50.0			50.0	
Total Split (%)	50.0%	50.0%	50.0%					50.0%			50.0%	
Maximum Green (s)	45.0	45.0	45.0					45.0			45.0	
Yellow Time (s)	3.0	3.0	3.0					3.0			3.0	
All-Red Time (s)	2.0	2.0	2.0					2.0			2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	5.0	5.0	5.0					5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Recall Mode	C-Max	C-Max	C-Max					Max			Max	
Walk Time (s)	13.0	13.0	13.0					20.0			20.0	
Flash Dont Walk (s)	16.0	16.0	16.0					21.0			21.0	
Pedestrian Calls (#/hr)	0	0	0					98			98	
Act Effct Green (s)	45.0	45.0	45.0					45.0			45.0	
Actuated g/C Ratio	0.45	0.45	0.45					0.45			0.45	
v/c Ratio	0.71	0.76	0.35					0.68			0.87	
Control Delay	20.2	18.8	11.9					25.2			26.1	
Queue Delay	5.5	7.5	0.0					1.0			47.8	
Total Delay	25.7	26.2	11.9					26.2			73.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	C	B					C			E	
Approach Delay		24.3						26.2			73.9	
Approach LOS		C						C			E	
Queue Length 50th (ft)	119	147	27					222			285	
Queue Length 95th (ft)	m172	m181	m44					294			m#386	
Internal Link Dist (ft)		305			592			80			189	
Turn Bay Length (ft)												
Base Capacity (vph)	624	1287	604					1263			1333	
Starvation Cap Reductn	126	268	0					0			350	
Spillback Cap Reductn	17	35	0					180			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.89	0.96	0.35					0.80			1.18	

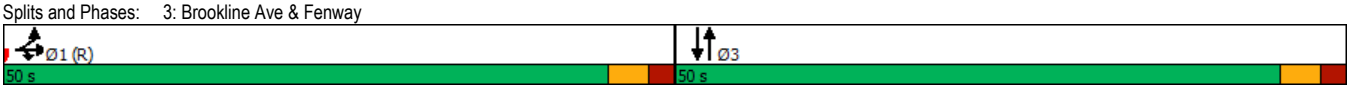
Intersection Summary

Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:EBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 40.5 Intersection LOS: D
Intersection Capacity Utilization 74.2% ICU Level of Service D
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Brookline Ave & Fenway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	630	665	190	0	0	0	0	740	60	0	1065	0
Future Volume (vph)	630	665	190	0	0	0	0	740	60	0	1065	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0					5.0			5.0	
Lane Util. Factor	0.91	0.91	1.00					0.95			0.95	
Frpb, ped/bikes	1.00	1.00	1.00					0.98			1.00	
Flpb, ped/bikes	1.00	1.00	1.00					1.00			1.00	
Frt	1.00	1.00	0.85					0.99			1.00	
Flt Protected	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (prot)	1387	2863	1301					2807			2963	
Flt Permitted	0.95	0.99	1.00					1.00			1.00	
Satd. Flow (perm)	1387	2863	1301					2807			2963	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	692	731	209	0	0	0	0	796	65	0	1158	0
RTOR Reduction (vph)	0	0	19	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	443	980	190	0	0	0	0	861	0	0	1158	0
Confl. Peds. (#/hr)									274			
Confl. Bikes (#/hr)			9						5			
Heavy Vehicles (%)	3%	4%	8%	2%	2%	2%	2%	9%	7%	2%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	0
Turn Type	Split	NA	Prot					NA			NA	
Protected Phases	1	1	1					3			3	
Permitted Phases												
Actuated Green, G (s)	45.0	45.0	45.0					45.0			45.0	
Effective Green, g (s)	45.0	45.0	45.0					45.0			45.0	
Actuated g/C Ratio	0.45	0.45	0.45					0.45			0.45	
Clearance Time (s)	5.0	5.0	5.0					5.0			5.0	
Vehicle Extension (s)	2.0	2.0	2.0					2.0			2.0	
Lane Grp Cap (vph)	624	1288	585					1263			1333	
v/s Ratio Prot	0.32	c0.34	0.15					0.31			c0.39	
v/s Ratio Perm												
v/c Ratio	0.71	0.76	0.33					0.68			0.87	
Uniform Delay, d1	22.2	23.0	17.7					21.8			24.8	
Progression Factor	0.71	0.70	0.73					1.00			0.82	
Incremental Delay, d2	3.6	2.3	0.8					3.0			4.9	
Delay (s)	19.5	18.4	13.7					24.8			25.3	
Level of Service	B	B	B					C			C	
Approach Delay (s)		18.1			0.0			24.8			25.3	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	22.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	315	620	85	100	70	355	945	300	140	450	120	5
Future Volume (vph)	315	620	85	100	70	355	945	300	140	450	120	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		150		0		0		165	0	280	
Storage Lanes	1		1		1		2		1	2	0	
Taper Length (ft)	25				25					25		
Lane Util. Factor	0.91	0.91	1.00	0.91	1.00	1.00	0.88	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor		1.00			0.91			0.94		0.87		
Frt			0.850				0.850	0.952		0.968		
Flt Protected		0.983			0.950					0.962		
Satd. Flow (prot)	0	4455	1368	0	1269	1449	2508	2531	0	2639	0	0
Flt Permitted		0.983			0.950					0.962		
Satd. Flow (perm)	0	4442	1368	0	1156	1449	2508	2531	0	2628	0	0
Right Turn on Red				Yes					Yes			Yes
Satd. Flow (RTOR)			158					73		169		
Link Speed (mph)		25				25		25		25		
Link Distance (ft)		563				269		1590		1367		
Travel Time (s)		15.4				7.3		43.4		37.3		
Confl. Peds. (#/hr)	7		149	160	109		271		109	7	109	149
Confl. Bikes (#/hr)							9		21			1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	9%	28%	18%	2%	14%	16%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	13	0	0	0
Adj. Flow (vph)	350	689	94	111	78	394	1050	323	151	474	126	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1039	205	0	78	394	1050	474	0	605	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Right	Left	Right	Left	Right	Right
Median Width(ft)		0				12		12		24		
Link Offset(ft)		0				0		0		0		
Crosswalk Width(ft)		16				16		16		16		
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	9	15		9		9	15	9	9
Number of Detectors	1	1	1		1	1	1	1		1		
Detector Template												
Leading Detector (ft)	50	50	50		50	50	50	50		50		
Trailing Detector (ft)	0	0	0		0	0	0	0		0		
Detector 1 Position(ft)	0	0	0		0	0	0	0		0		
Detector 1 Size(ft)	50	50	50		50	50	50	50		50		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0		
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Detector Phase	4	4	4		3	2 3	1 2 3	2		1		
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0		6.0			8.0		10.0		
Minimum Split (s)	30.5	30.5	30.5		12.0			24.5		24.0		
Total Split (s)	32.0	32.0	32.0		12.0			28.0		28.0		
Total Split (%)	32.0%	32.0%	32.0%		12.0%			28.0%		28.0%		
Maximum Green (s)	25.0	25.0	25.0		6.0			22.5		22.0		
Yellow Time (s)	3.5	3.5	3.5		3.5			3.5		3.5		
All-Red Time (s)	3.5	3.5	3.5		2.5			2.0		2.5		
Lost Time Adjust (s)		-2.0	-2.0		-2.0			-1.0		-2.0		
Total Lost Time (s)		5.0	5.0		4.0			4.5		4.0		
Lead/Lag	Lag	Lag	Lag		Lead			Lag		Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		Yes			Yes		Yes		
Vehicle Extension (s)	2.0	2.0	2.0		2.0			2.0		2.0		
Recall Mode	Ped	Ped	Ped		None			Ped		C-Max		
Walk Time (s)	7.0	7.0	7.0					7.0		7.0		
Flash Dont Walk (s)	16.5	16.5	16.5					12.0		9.0		
Pedestrian Calls (#/hr)	0	0	0					95		37		
Act Effct Green (s)		26.7	26.7		8.3	35.5	64.3	23.2		24.3		
Actuated g/C Ratio		0.27	0.27		0.08	0.36	0.64	0.23		0.24		
v/c Ratio		0.87	0.43		0.74	0.77	0.65	0.74		0.79		
Control Delay		44.5	11.4		75.4	36.8	12.7	37.7		33.8		

Lane Group	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Queue Delay		48.0	0.0		0.0	54.6	5.4	0.2		0.7		
Total Delay		92.5	11.4		75.4	91.5	18.1	37.9		34.6		
LOS		F	B		E	F	B	D		C		
Approach Delay		79.2				40.0		37.9		34.6		
Approach LOS		E				D		D		C		
Queue Length 50th (ft)		231	23		49	192	246	125		137		
Queue Length 95th (ft)		#292	84		m#81	m#364	345	184		#205		
Internal Link Dist (ft)		483				189		1510		1287		
Turn Bay Length (ft)			150									
Base Capacity (vph)		1202	484		105	505	1600	650		768		
Starvation Cap Reductn		0	0		0	160	481	0		0		
Spillback Cap Reductn		291	0		0	0	0	13		33		
Storage Cap Reductn		0	0		0	0	0	0		0		
Reduced v/c Ratio		1.14	0.42		0.74	1.14	0.94	0.74		0.82		

Intersection Summary

Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 67 (67%), Referenced to phase 1:SWL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 51.6 Intersection LOS: D
Intersection Capacity Utilization 76.3% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Brookline Ave & Park Dr & Boylston St



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	315	620	85	100	70	355	945	300	140	450	120	5
Future Volume (vph)	315	620	85	100	70	355	945	300	140	450	120	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		4.0	4.5	4.0	4.5		4.0		
Lane Util. Factor		0.91	1.00		1.00	1.00	0.88	0.95		0.97		
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	0.94		0.88		
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00		
Frt		1.00	0.85		1.00	1.00	0.85	0.95		0.97		
Flt Protected		0.98	1.00		0.95	1.00	1.00	1.00		0.96		
Satd. Flow (prot)		4457	1368		1269	1449	2508	2531		2638		
Flt Permitted		0.98	1.00		0.95	1.00	1.00	1.00		0.96		
Satd. Flow (perm)		4457	1368		1269	1449	2508	2531		2638		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.95	0.95	0.95
Adj. Flow (vph)	350	689	94	111	78	394	1050	323	151	474	126	5
RTOR Reduction (vph)	0	0	116	0	0	0	0	56	0	128	0	0
Lane Group Flow (vph)	0	1039	89	0	78	394	1050	418	0	477	0	0
Confl. Peds. (#/hr)	7		149	160	109		271		109	7	109	149
Confl. Bikes (#/hr)							9		21			1
Heavy Vehicles (%)	3%	3%	3%	9%	28%	18%	2%	14%	16%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	13	0	0	0
Turn Type	Split	NA	Prot		Prot	NA	pt+ov	NA		Prot		
Protected Phases	4	4	4		3	2 3	1 2 3	2		1		
Permitted Phases												
Actuated Green, G (s)		24.7	24.7		6.3	34.0	62.3	22.2		22.3		
Effective Green, g (s)		26.7	26.7		8.3	35.0	60.8	23.2		24.3		
Actuated g/C Ratio		0.27	0.27		0.08	0.35	0.61	0.23		0.24		
Clearance Time (s)		7.0	7.0		6.0			5.5		6.0		
Vehicle Extension (s)		2.0	2.0		2.0			2.0		2.0		
Lane Grp Cap (vph)		1190	365		105	507	1524	587		641		
v/s Ratio Prot		c0.23	0.07		0.06	c0.27	0.42	0.17		c0.18		
v/s Ratio Perm												
v/c Ratio		0.87	0.24		0.74	0.78	0.69	0.71		0.74		
Uniform Delay, d1		35.0	28.7		44.8	29.0	13.2	35.3		35.0		
Progression Factor		1.00	1.00		0.99	0.98	0.98	1.00		1.00		
Incremental Delay, d2		7.1	0.1		16.2	4.9	0.8	3.4		7.7		
Delay (s)		42.1	28.9		60.5	33.3	13.7	38.7		42.6		
Level of Service		D	C		E	C	B	D		D		
Approach Delay (s)		39.9				21.2		38.7		42.6		
Approach LOS		D				C		D		D		

Intersection Summary			
HCM 2000 Control Delay	32.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



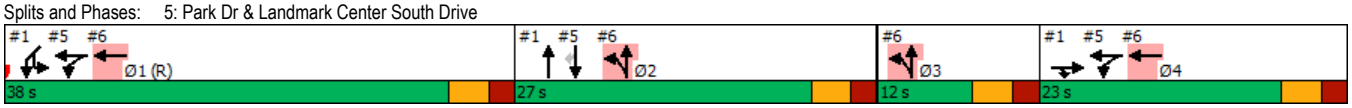
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Lane Configurations															
Traffic Volume (vph)	0	0	0	625	265	60	0	0	0	0	30	15			
Future Volume (vph)	0	0	0	625	265	60	0	0	0	0	30	15			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.95	1.00	1.00	1.00	1.00	1.00	1.00			
Ped Bike Factor					0.94										
Frt					0.974							0.850			
Flt Protected				0.950	0.996										
Satd. Flow (prot)	0	0	0	2687	2392	0	0	0	0	0	1103	1232			
Flt Permitted				0.950	0.996										
Satd. Flow (perm)	0	0	0	2687	2392	0	0	0	0	0	1103	1232			
Right Turn on Red			No	No		Yes			No			Yes			
Satd. Flow (RTOR)					35							131			
Link Speed (mph)		25			25			25			25				
Link Distance (ft)		187			355			234			168				
Travel Time (s)		5.1			9.7			6.4			4.6				
Confl. Peds. (#/hr)						125									
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92	0.84	0.39	0.39			
Heavy Vehicles (%)	2%	2%	2%	4%	9%	30%	2%	2%	2%	2%	55%	18%			
Adj. Flow (vph)	0	0	0	694	294	67	0	0	0	0	77	38			
Shared Lane Traffic (%)				4%											
Lane Group Flow (vph)	0	0	0	666	389	0	0	0	0	0	77	38			
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No			
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right			
Median Width(ft)		24			24			0			0				
Link Offset(ft)		0			0			0			0				
Crosswalk Width(ft)		16			16			16			16				
Two way Left Turn Lane															
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14			
Turning Speed (mph)	15		9	15		9	15		9	15		9			
Number of Detectors				1	1						1	1			
Detector Template															
Leading Detector (ft)				50	50						50	50			
Trailing Detector (ft)				0	0						0	0			
Detector 1 Position(ft)				0	0						0	0			
Detector 1 Size(ft)				50	50						50	50			
Detector 1 Type				Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex			
Detector 1 Channel															
Detector 1 Extend (s)				0.0	0.0						0.0	0.0			
Detector 1 Queue (s)				0.0	0.0						0.0	0.0			
Detector 1 Delay (s)				0.0	0.0						0.0	0.0			
Turn Type				Split	NA						NA	Perm			
Protected Phases				1 4	1 4						2		1	3	4
Permitted Phases												2			
Detector Phase				1 4	1 4						2	2			
Switch Phase															
Minimum Initial (s)											8.0	8.0	15.0	5.0	8.0
Minimum Split (s)											27.0	27.0	24.0	10.0	22.0
Total Split (s)											27.0	27.0	38.0	12.0	23.0
Total Split (%)											27.0%	27.0%	38%	12%	23%
Maximum Green (s)											22.0	22.0	33.0	7.0	18.0
Yellow Time (s)											3.0	3.0	3.0	3.0	3.0
All-Red Time (s)											2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)											-1.0	-1.0			
Total Lost Time (s)											4.0	4.0			
Lead/Lag											Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?											Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)											2.0	2.0	2.0	2.0	2.0
Recall Mode											Ped	Ped	C-Max	None	Ped
Walk Time (s)											7.0	7.0	7.0		7.0
Flash Dont Walk (s)											15.0	15.0	12.0		10.0
Pedestrian Calls (#/hr)											37	37	6		23
Act Effct Green (s)				57.0	57.0						23.0	23.0			
Actuated g/C Ratio				0.57	0.57						0.23	0.23			
v/c Ratio				0.44	0.28						0.30	0.10			
Control Delay				24.9	21.5						35.9	0.5			
Queue Delay				0.9	0.1						0.0	0.0			
Total Delay				25.8	21.6						35.9	0.5			
LOS				C	C						D	A			
Approach Delay					24.2						24.2				
Approach LOS					C						C				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø3	Ø4
Queue Length 50th (ft)				176	95						41	0			
Queue Length 95th (ft)				m217	m119						34	0			
Internal Link Dist (ft)		107			275			154			88				
Turn Bay Length (ft)															
Base Capacity (vph)				1531	1378						253	384			
Starvation Cap Reductn				554	0						0	0			
Spillback Cap Reductn				249	166						0	0			
Storage Cap Reductn				0	0						0	0			
Reduced v/c Ratio				0.68	0.32						0.30	0.10			

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 24.2		Intersection LOS: C	
Intersection Capacity Utilization 29.2%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 5: Park Dr & Landmark Center South Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	625	265	60	0	0	0	0	30	15
Future Volume (vph)	0	0	0	625	265	60	0	0	0	0	30	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						1.00	1.00
Frpb, ped/bikes				1.00	0.94						1.00	1.00
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	0.97						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				2687	2393						1103	1232
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				2687	2393						1103	1232
Peak-hour factor, PHF	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92	0.84	0.39	0.39
Adj. Flow (vph)	0	0	0	694	294	67	0	0	0	0	77	38
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	0	29
Lane Group Flow (vph)	0	0	0	666	374	0	0	0	0	0	77	9
Confl. Peds. (#/hr)						125						
Heavy Vehicles (%)	2%	2%	2%	4%	9%	30%	2%	2%	2%	2%	55%	18%
Turn Type				Split	NA						NA	Perm
Protected Phases				1 4	1 4						2	
Permitted Phases												2
Actuated Green, G (s)				56.0	56.0						22.0	22.0
Effective Green, g (s)				57.0	57.0						23.0	23.0
Actuated g/C Ratio				0.57	0.57						0.23	0.23
Clearance Time (s)											5.0	5.0
Vehicle Extension (s)											2.0	2.0
Lane Grp Cap (vph)				1531	1364						253	283
v/s Ratio Prot				c0.25	0.16						c0.07	
v/s Ratio Perm												0.01
v/c Ratio				0.44	0.27						0.30	0.03
Uniform Delay, d1				12.3	11.0						31.9	29.9
Progression Factor				1.95	2.11						1.00	1.00
Incremental Delay, d2				0.0	0.0						0.2	0.0
Delay (s)				24.0	23.1						32.1	29.9
Level of Service				C	C						C	C
Approach Delay (s)		0.0			23.7			0.0			31.4	
Approach LOS		A			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	29.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



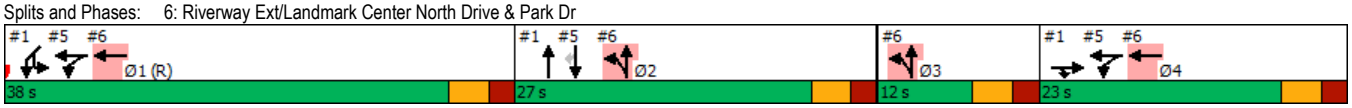
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Lane Configurations																
Traffic Volume (vph)	0	0	0	0	275	5	395	25	0	0	0	0				
Future Volume (vph)	0	0	0	0	275	5	395	25	0	0	0	0				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00				
Ped Bike Factor					1.00											
Frt					0.997											
Flt Protected							0.950	0.970								
Satd. Flow (prot)	0	0	0	0	3002	0	1528	1566	0	0	0	0				
Flt Permitted							0.950	0.970								
Satd. Flow (perm)	0	0	0	0	3002	0	1528	1566	0	0	0	0				
Right Turn on Red			No			Yes	No		Yes			Yes				
Satd. Flow (RTOR)					3											
Link Speed (mph)		25			25			25			25					
Link Distance (ft)		135			187			191			124					
Travel Time (s)		3.7			5.1			5.2			3.4					
Confl. Bikes (#/hr)						2										
Peak Hour Factor	0.92	0.92	0.92	0.92	0.80	0.80	0.77	0.77	0.92	0.92	0.92	0.92				
Heavy Vehicles (%)	2%	2%	2%	2%	8%	0%	1%	0%	2%	2%	2%	2%				
Adj. Flow (vph)	0	0	0	0	344	6	513	32	0	0	0	0				
Shared Lane Traffic (%)							10%									
Lane Group Flow (vph)	0	0	0	0	350	0	462	83	0	0	0	0				
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No				
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right				
Median Width(ft)		0			0			12			12					
Link Offset(ft)		0			0			0			0					
Crosswalk Width(ft)		16			16			16			16					
Two way Left Turn Lane																
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Turning Speed (mph)	15		9	15		9	15		9	15		9				
Number of Detectors					1		1	2								
Detector Template								Thru								
Leading Detector (ft)					50		50	100								
Trailing Detector (ft)					0		0	0								
Detector 1 Position(ft)					0		0	0								
Detector 1 Size(ft)					50		50	6								
Detector 1 Type					Cl+Ex		Cl+Ex	Cl+Ex								
Detector 1 Channel																
Detector 1 Extend (s)					0.0		0.0	0.0								
Detector 1 Queue (s)					0.0		0.0	0.0								
Detector 1 Delay (s)					0.0		0.0	0.0								
Detector 2 Position(ft)								94								
Detector 2 Size(ft)								6								
Detector 2 Type								Cl+Ex								
Detector 2 Channel																
Detector 2 Extend (s)								0.0								
Turn Type					NA		Split	NA								
Protected Phases					1 4		2 3	2 3					1	2	3	4
Permitted Phases																
Detector Phase					1 4		2 3	2 3								
Switch Phase																
Minimum Initial (s)													15.0	8.0	5.0	8.0
Minimum Split (s)													24.0	27.0	10.0	22.0
Total Split (s)													38.0	27.0	12.0	23.0
Total Split (%)													38%	27%	12%	23%
Maximum Green (s)													33.0	22.0	7.0	18.0
Yellow Time (s)													3.0	3.0	3.0	3.0
All-Red Time (s)													2.0	2.0	2.0	2.0
Lost Time Adjust (s)																
Total Lost Time (s)																
Lead/Lag													Lead	Lag	Lead	Lag
Lead-Lag Optimize?													Yes	Yes	Yes	Yes
Vehicle Extension (s)													2.0	2.0	2.0	2.0
Recall Mode													C-Max	Ped	None	Ped
Walk Time (s)													7.0	7.0		7.0
Flash Dont Walk (s)													12.0	15.0		10.0
Pedestrian Calls (#/hr)													6	37		23
Act Effct Green (s)					57.0		35.0	34.0								
Actuated g/C Ratio					0.57		0.35	0.34								
v/c Ratio					0.20		0.87	0.16								
Control Delay					6.6		23.5	0.4								

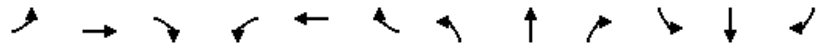
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø1	Ø2	Ø3	Ø4
Queue Delay					0.5		40.6	1.0								
Total Delay					7.1		64.1	1.3								
LOS					A		E	A								
Approach Delay					7.1			54.5								
Approach LOS					A			D								
Queue Length 50th (ft)					24		151	0								
Queue Length 95th (ft)					26		123	m0								
Internal Link Dist (ft)		55			107			111			44					
Turn Bay Length (ft)																
Base Capacity (vph)					1712		534	532								
Starvation Cap Reductn					917		104	288								
Spillback Cap Reductn					0		0	0								
Storage Cap Reductn					0		0	0								
Reduced v/c Ratio					0.44		1.07	0.34								

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 15 (15%), Referenced to phase 1:SWL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 36.0		Intersection LOS: D	
Intersection Capacity Utilization 32.9%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Riverway Ext/Landmark Center North Drive & Park Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	275	5	395	25	0	0	0	0
Future Volume (vph)	0	0	0	0	275	5	395	25	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	5.0				
Lane Util. Factor					0.95		0.95	0.95				
Frpb, ped/bikes					1.00		1.00	1.00				
Flpb, ped/bikes					1.00		1.00	1.00				
Frt					1.00		1.00	1.00				
Flt Protected					1.00		0.95	0.97				
Satd. Flow (prot)					3003		1528	1566				
Flt Permitted					1.00		0.95	0.97				
Satd. Flow (perm)					3003		1528	1566				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.80	0.80	0.77	0.77	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	344	6	513	32	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	349	0	462	83	0	0	0	0
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	2%	2%	2%	2%	8%	0%	1%	0%	2%	2%	2%	2%
Turn Type					NA		Split	NA				
Protected Phases					1 4		2 3	2 3				
Permitted Phases												
Actuated Green, G (s)					56.0		34.0	34.0				
Effective Green, g (s)					57.0		35.0	34.0				
Actuated g/C Ratio					0.57		0.35	0.34				
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)					1711		534	532				
v/s Ratio Prot					c0.12		c0.30	0.05				
v/s Ratio Perm												
v/c Ratio					0.20		0.87	0.16				
Uniform Delay, d1					10.5		30.3	23.0				
Progression Factor					0.61		0.34	0.00				
Incremental Delay, d2					0.0		8.6	0.0				
Delay (s)					6.4		18.9	0.0				
Level of Service					A		B	A				
Approach Delay (s)		0.0			6.4			16.1			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	800	1115	140
Future Volume (vph)	0	0	0	800	1115	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	11	11	11	16
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt					0.983	
Flt Protected						
Satd. Flow (prot)	0	0	0	2881	2903	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	2881	2903	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	540			446	160	
Travel Time (s)	14.7			12.2	4.4	
Confl. Peds. (#/hr)			115			115
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.92	0.92	0.93	0.93	0.88	0.88
Heavy Vehicles (%)	2%	2%	0%	9%	7%	1%
Adj. Flow (vph)	0	0	0	860	1267	159
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	860	1426	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.19	1.19	1.19	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	800	1115	140
Future Volume (Veh/h)	0	0	0	800	1115	140
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.93	0.93	0.88	0.88
Hourly flow rate (vph)	0	0	0	860	1267	159
Pedestrians	115					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				446	160	
pX, platoon unblocked	0.72	0.65	0.65			
vC, conflicting volume	1892	828	1541			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	582	0	765			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	321	708	559			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	430	430	845	581
Volume Left	0	0	0	0
Volume Right	0	0	0	159
cSH	1700	1700	1700	1700
Volume to Capacity	0.25	0.25	0.50	0.34
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary				
Average Delay			0.0	
Intersection Capacity Utilization			43.2%	ICU Level of Service A
Analysis Period (min)			15	



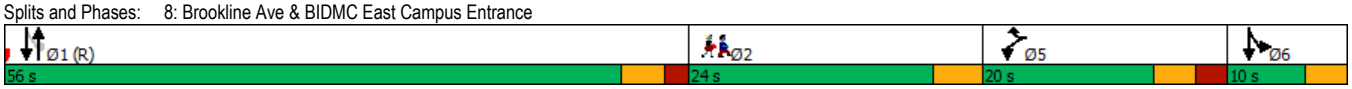
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	85	70	755	95	70	920	
Future Volume (vph)	85	70	755	95	70	920	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	10	10	10	10	10	
Storage Length (ft)	0	0		0	25		
Storage Lanes	1	1		0	1		
Taper Length (ft)	0				0		
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95	
Ped Bike Factor			1.00				
Frt		0.850	0.983				
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1516	1357	2725	0	1516	2721	
Flt Permitted	0.950				0.206		
Satd. Flow (perm)	1516	1357	2725	0	329	2721	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		101	16				
Link Speed (mph)	25		25			25	
Link Distance (ft)	171		594			598	
Travel Time (s)	4.7		16.2			16.3	
Confl. Bikes (#/hr)				16			
Peak Hour Factor	0.69	0.69	0.86	0.86	0.91	0.91	
Heavy Vehicles (%)	0%	0%	10%	1%	0%	7%	
Bus Blockages (#/hr)	0	0	0	0	0	20	
Adj. Flow (vph)	123	101	878	110	77	1011	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	123	101	988	0	77	1011	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	10		10			10	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.25	1.25	1.25	1.25	1.25	1.31	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	1		1	1	
Detector Template							
Leading Detector (ft)	50	50	50		50	50	
Trailing Detector (ft)	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0		0	0	
Detector 1 Size(ft)	50	50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0	
Turn Type	Prot	Prot	NA		D.P+P	NA	
Protected Phases	5	5	1		6	1 6	2
Permitted Phases					1		
Detector Phase	5	5	1		6	1 6	
Switch Phase							
Minimum Initial (s)	8.0	8.0	10.0		6.0		1.0
Minimum Split (s)	14.0	14.0	15.5		9.5		24.0
Total Split (s)	20.0	20.0	56.0		10.0		24.0
Total Split (%)	18.2%	18.2%	50.9%		9.1%		22%
Maximum Green (s)	14.0	14.0	50.5		6.5		20.0
Yellow Time (s)	3.5	3.5	3.5		3.5		4.0
All-Red Time (s)	2.5	2.5	2.0		0.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	6.0	6.0	5.5		3.5		
Lead/Lag	Lead	Lead	Lead		Lag		Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	2.0		2.0		2.0
Recall Mode	None	None	C-Max		Max		None
Walk Time (s)							7.0
Flash Dont Walk (s)							13.0
Pedestrian Calls (#/hr)							80
Act Effct Green (s)	12.1	12.1	57.2		65.7	67.2	
Actuated g/C Ratio	0.11	0.11	0.52		0.60	0.61	
v/c Ratio	0.74	0.42	0.69		0.29	0.61	
Control Delay	72.9	14.5	13.3		11.8	14.0	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	72.9	14.5	13.3		11.8	14.0	
LOS	E	B	B		B	B	
Approach Delay	46.6		13.3			13.8	
Approach LOS	D		B			B	
Queue Length 50th (ft)	84	0	152		17	126	
Queue Length 95th (ft)	109	22	m120		m31	179	
Internal Link Dist (ft)	91		514			518	
Turn Bay Length (ft)					25		
Base Capacity (vph)	192	260	1424		266	1662	
Starvation Cap Reductn	0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.64	0.39	0.69		0.29	0.61	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 16.8		Intersection LOS: B	
Intersection Capacity Utilization 51.1%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Brookline Ave & BIDMC East Campus Entrance





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	85	70	755	95	70	920
Future Volume (vph)	85	70	755	95	70	920
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0	5.5		3.5	5.5
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1516	1357	2726		1516	2721
Flt Permitted	0.95	1.00	1.00		0.21	1.00
Satd. Flow (perm)	1516	1357	2726		329	2721
Peak-hour factor, PHF	0.69	0.69	0.86	0.86	0.91	0.91
Adj. Flow (vph)	123	101	878	110	77	1011
RTOR Reduction (vph)	0	90	8	0	0	0
Lane Group Flow (vph)	123	11	980	0	77	1011
Confl. Bikes (#/hr)				16		
Heavy Vehicles (%)	0%	0%	10%	1%	0%	7%
Bus Blockages (#/hr)	0	0	0	0	0	20
Turn Type	Prot	Prot	NA		D.P+P	NA
Protected Phases	5	5	1		6	1 6
Permitted Phases					1	
Actuated Green, G (s)	12.1	12.1	56.4		62.9	66.4
Effective Green, g (s)	12.1	12.1	56.4		62.9	62.9
Actuated g/C Ratio	0.11	0.11	0.51		0.57	0.57
Clearance Time (s)	6.0	6.0	5.5		3.5	
Vehicle Extension (s)	2.0	2.0	2.0		2.0	
Lane Grp Cap (vph)	166	149	1397		258	1555
v/s Ratio Prot	c0.08	0.01	c0.36		0.02	c0.37
v/s Ratio Perm					0.15	
v/c Ratio	0.74	0.07	0.70		0.30	0.65
Uniform Delay, d1	47.4	43.9	20.4		12.1	16.1
Progression Factor	1.00	1.00	0.59		0.91	0.80
Incremental Delay, d2	14.4	0.1	0.3		2.4	1.7
Delay (s)	61.8	44.0	12.3		13.4	14.7
Level of Service	E	D	B		B	B
Approach Delay (s)	53.8		12.3			14.6
Approach LOS	D		B			B

Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	85	230	35	125	215	285	45	610	90	200	525	215	
Future Volume (vph)	85	230	35	125	215	285	45	610	90	200	525	215	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	10	10	10	10	10	10	10	10	
Storage Length (ft)	170		0	155		0	110		0	0		0	
Storage Lanes	1		0	1		1	0		0	1		0	
Taper Length (ft)	25			70			100			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor		1.00				0.99		1.00			0.99		
Frt		0.980				0.850		0.982			0.956		
Flt Protected	0.950			0.950				0.997		0.950			
Satd. Flow (prot)	1555	1573	0	1318	1550	1233	0	2682	0	1404	2701	0	
Flt Permitted	0.433			0.329				0.696		0.180			
Satd. Flow (perm)	709	1573	0	457	1550	1217	0	1873	0	266	2701	0	
Right Turn on Red			No			No			No			No	
Satd. Flow (RTOR)													
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		617			195			447			594		
Travel Time (s)		16.8			5.3			12.2			16.2		
Confl. Bikes (#/hr)			15			2			1			5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.95	0.95	0.95	0.84	0.84	0.84	
Heavy Vehicles (%)	1%	3%	0%	15%	3%	10%	5%	11%	9%	8%	8%	3%	
Adj. Flow (vph)	96	258	39	140	242	320	47	642	95	238	625	256	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	96	297	0	140	242	320	0	784	0	238	881	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1	1	1	1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50	50	50	50		50	50		
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0		
Detector 1 Size(ft)	50	50		50	50	50	50	50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA		
Protected Phases		5			5	6		1		6	1 6		2
Permitted Phases	5			5		5	1			1			
Detector Phase	5	5		5	5	6	1	1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0	6.0	10.0	10.0		6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	11.5	15.5	15.5		11.5			27.0
Total Split (s)	31.0	31.0		31.0	31.0	12.0	40.0	40.0		12.0			27.0
Total Split (%)	28.2%	28.2%		28.2%	28.2%	10.9%	36.4%	36.4%		10.9%			25%
Maximum Green (s)	25.0	25.0		25.0	25.0	8.5	34.5	34.5		8.5			23.0
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5	0.0	2.0	2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0			
Total Lost Time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5			
Lead/Lag	Lead	Lead		Lead	Lead	Lag	Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0			2.0
Recall Mode	None	None		None	None	None	C-Max	C-Max		None			None
Walk Time (s)													7.0
Flash Dont Walk (s)													16.0
Pedestrian Calls (#/hr)													249
Act Effct Green (s)	25.0	25.0		25.0	25.0	36.0		34.5		45.0	46.5		
Actuated g/C Ratio	0.23	0.23		0.23	0.23	0.33		0.31		0.41	0.42		
v/c Ratio	0.60	0.83		1.36	0.69	0.80		1.34		1.21	0.77		
Control Delay	55.1	61.3		247.3	50.3	47.9		182.1		158.4	35.3		
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay	55.1	61.3		247.3	50.3	47.9		182.1		158.4	35.3		
LOS	E	E		F	D	D		F		F	D		
Approach Delay		59.8			88.5			182.1			61.5		
Approach LOS		E			F			F			E		
Queue Length 50th (ft)	61	201		~130	157	194		~372		~145	253		
Queue Length 95th (ft)	#127	#339		#252	244	#345		#493		#274	258		
Internal Link Dist (ft)		537			115			367			514		
Turn Bay Length (ft)	170			155									
Base Capacity (vph)	161	357		103	352	399		587		196	1141		
Starvation Cap Reductn	0	0		0	0	0		0		0	0		
Spillback Cap Reductn	0	0		0	0	0		0		0	0		
Storage Cap Reductn	0	0		0	0	0		0		0	0		
Reduced v/c Ratio	0.60	0.83		1.36	0.69	0.80		1.34		1.21	0.77		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 100 (91%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.36			
Intersection Signal Delay: 99.1		Intersection LOS: F	
Intersection Capacity Utilization 89.8%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 9: Brookline Ave & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	230	35	125	215	285	45	610	90	200	525	215
Future Volume (vph)	85	230	35	125	215	285	45	610	90	200	525	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10	10
Total Lost time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99		1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1555	1574		1318	1550	1221		2682		1404	2702	
Flt Permitted	0.43	1.00		0.33	1.00	1.00		0.70		0.18	1.00	
Satd. Flow (perm)	709	1574		456	1550	1221		1873		267	2702	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.95	0.95	0.95	0.84	0.84	0.84
Adj. Flow (vph)	96	258	39	140	242	320	47	642	95	238	625	256
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	96	297	0	140	242	320	0	784	0	238	881	0
Confl. Bikes (#/hr)			15			2			1			5
Heavy Vehicles (%)	1%	3%	0%	15%	3%	10%	5%	11%	9%	8%	8%	3%
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA	
Protected Phases		5			5	6		1		6	1 6	
Permitted Phases	5			5		5	1			1		
Actuated Green, G (s)	25.0	25.0		25.0	25.0	33.5		34.5		43.0	46.5	
Effective Green, g (s)	25.0	25.0		25.0	25.0	33.5		34.5		43.0	43.0	
Actuated g/C Ratio	0.23	0.23		0.23	0.23	0.30		0.31		0.39	0.39	
Clearance Time (s)	6.0	6.0		6.0	6.0	3.5		5.5		3.5		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0		2.0		2.0		
Lane Grp Cap (vph)	161	357		103	352	371		587		192	1056	
v/s Ratio Prot		0.19			0.16	0.07				c0.10	0.33	
v/s Ratio Perm	0.14			c0.31		0.20		c0.42		0.39		
v/c Ratio	0.60	0.83		1.36	0.69	0.86		1.34		1.24	0.83	
Uniform Delay, d1	38.0	40.5		42.5	38.9	36.1		37.8		29.3	30.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.54		1.39	1.13	
Incremental Delay, d2	3.9	14.5		212.1	4.4	17.7		159.3		137.9	4.5	
Delay (s)	41.9	55.0		254.6	43.3	53.8		179.8		178.7	38.5	
Level of Service	D	E		F	D	D		F		F	D	
Approach Delay (s)		51.8			90.2			179.8			68.3	
Approach LOS		D			F			F			E	

Intersection Summary			
HCM 2000 Control Delay	100.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



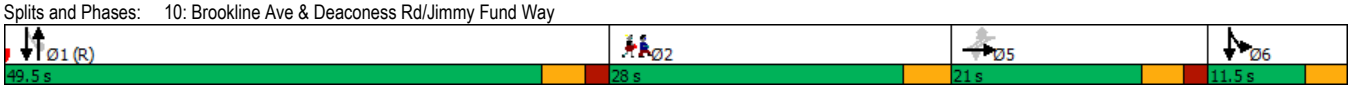
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	60	15	90	85	0	100	0	700	75	85	690	0	
Future Volume (vph)	60	15	90	85	0	100	0	700	75	85	690	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	10	10	10	10	10	10	11	11	11	
Storage Length (ft)	130		0	90		0	0		0	0		0	
Storage Lanes	1		0	1		1	0		0	0		0	
Taper Length (ft)	25			60			0			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	
Ped Bike Factor								1.00					
Frt		0.872				0.850		0.986					
Flt Protected	0.950			0.950							0.995		
Satd. Flow (prot)	1433	1283	0	1458	0	1130	0	2825	0	0	2914	0	
Flt Permitted	0.950			0.522							0.657		
Satd. Flow (perm)	1433	1283	0	801	0	1130	0	2825	0	0	1924	0	
Right Turn on Red			Yes			No			Yes			Yes	
Satd. Flow (RTOR)		125						12					
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		331			357			455			447		
Travel Time (s)		9.0			9.7			12.4			12.2		
Confl. Bikes (#/hr)									12			8	
Peak Hour Factor	0.72	0.72	0.72	0.95	0.95	0.95	0.91	0.91	0.91	0.97	0.97	0.97	
Heavy Vehicles (%)	2%	8%	0%	4%	0%	20%	0%	6%	1%	1%	8%	0%	
Parking (#/hr)	0	6	6										
Adj. Flow (vph)	83	21	125	89	0	105	0	769	82	88	711	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	83	146	0	89	0	105	0	851	0	0	799	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		12			15			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.30	1.36	1.14	1.25	1.25	1.25	1.25	1.25	1.25	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1		1		1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50		50		50		50	50		
Trailing Detector (ft)	0	0		0		0		0		0	0		
Detector 1 Position(ft)	0	0		0		0		0		0	0		
Detector 1 Size(ft)	50	50		50		50		50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0		0.0		0.0		0.0	0.0		
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA		
Protected Phases		5						1		6	1 6		2
Permitted Phases	5			5		5				1			
Detector Phase	5	5		5		5		1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0		8.0		10.0		6.0			1.0
Minimum Split (s)	13.5	13.5		13.5		13.5		29.5		11.5			28.0
Total Split (s)	21.0	21.0		21.0		21.0		49.5		11.5			28.0
Total Split (%)	19.1%	19.1%		19.1%		19.1%		45.0%		10.5%			25%
Maximum Green (s)	15.5	15.5		15.5		15.5		44.0		8.0			24.0
Yellow Time (s)	3.5	3.5		3.5		3.5		3.5		3.5			4.0
All-Red Time (s)	2.0	2.0		2.0		2.0		2.0		0.0			0.0
Lost Time Adjust (s)	0.0	0.0		0.0		0.0		0.0					
Total Lost Time (s)	5.5	5.5		5.5		5.5		5.5					
Lead/Lag	Lead	Lead		Lead		Lead		Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0		2.0			2.0
Recall Mode	None	None		None		None		C-Max		Max			None
Walk Time (s)								7.0					7.0
Flash Dont Walk (s)								6.0					17.0
Pedestrian Calls (#/hr)								45					102
Act Effct Green (s)	13.9	13.9		13.9		13.9		45.6			51.6		
Actuated g/C Ratio	0.13	0.13		0.13		0.13		0.41			0.47		
v/c Ratio	0.46	0.54		0.88		0.73		0.72			0.84		
Control Delay	52.5	18.8		110.4		75.0		31.3			11.1		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Queue Delay	0.0	0.0		0.0		0.0		0.7			0.0		
Total Delay	52.5	18.8		110.4		75.0		32.0			11.1		
LOS	D	B		F		E		C			B		
Approach Delay		31.0			91.3			32.0			11.1		
Approach LOS		C			F			C			B		
Queue Length 50th (ft)	54	13		62		71		263			55		
Queue Length 95th (ft)	82	40		#153		#149		342			m101		
Internal Link Dist (ft)		251			277			375			367		
Turn Bay Length (ft)	130			90									
Base Capacity (vph)	201	288		112		159		1177			956		
Starvation Cap Reductn	0	0		0		0		100			0		
Spillback Cap Reductn	0	0		0		0		0			0		
Storage Cap Reductn	0	0		0		0		0			0		
Reduced v/c Ratio	0.41	0.51		0.79		0.66		0.79			0.84		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 93 (85%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 29.4		Intersection LOS: C	
Intersection Capacity Utilization 72.5%		ICU Level of Service C	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Brookline Ave & Deaconess Rd/Jimmy Fund Way





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	15	90	85	0	100	0	700	75	85	690	0
Future Volume (vph)	60	15	90	85	0	100	0	700	75	85	690	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	10	10	10	10	10	11	11	11
Total Lost time (s)	5.5	5.5		5.5		5.5		5.5			5.5	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00			1.00	
Frt	1.00	0.87		1.00		0.85		0.99			1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00			0.99	
Satd. Flow (prot)	1433	1282		1458		1130		2824			2913	
Flt Permitted	0.95	1.00		0.52		1.00		1.00			0.66	
Satd. Flow (perm)	1433	1282		800		1130		2824			1924	
Peak-hour factor, PHF	0.72	0.72	0.72	0.95	0.95	0.95	0.91	0.91	0.91	0.97	0.97	0.97
Adj. Flow (vph)	83	21	125	89	0	105	0	769	82	88	711	0
RTOR Reduction (vph)	0	109	0	0	0	0	0	7	0	0	0	0
Lane Group Flow (vph)	83	37	0	89	0	105	0	844	0	0	799	0
Confl. Bikes (#/hr)									12			8
Heavy Vehicles (%)	2%	8%	0%	4%	0%	20%	0%	6%	1%	1%	8%	0%
Parking (#/hr)	0	6	6									
Turn Type	Perm	NA		D.Pm		Perm		NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5			5		5				1		
Actuated Green, G (s)	13.9	13.9		13.9		13.9		45.6			53.6	
Effective Green, g (s)	13.9	13.9		13.9		13.9		45.6			53.6	
Actuated g/C Ratio	0.13	0.13		0.13		0.13		0.41			0.49	
Clearance Time (s)	5.5	5.5		5.5		5.5		5.5				
Vehicle Extension (s)	2.0	2.0		2.0		2.0		2.0				
Lane Grp Cap (vph)	181	161		101		142		1170			1009	
v/s Ratio Prot		0.03						0.30			c0.06	
v/s Ratio Perm	0.06			c0.11		0.09					c0.33	
v/c Ratio	0.46	0.23		0.88		0.74		0.72			0.79	
Uniform Delay, d1	44.6	43.2		47.2		46.3		26.9			23.5	
Progression Factor	1.00	1.00		1.00		1.00		1.00			0.25	
Incremental Delay, d2	0.7	0.3		52.4		15.8		3.9			3.0	
Delay (s)	45.2	43.5		99.6		62.1		30.8			8.8	
Level of Service	D	D		F		E		C			A	
Approach Delay (s)		44.1			79.3			30.8			8.8	
Approach LOS		D			E			C			A	

Intersection Summary				
HCM 2000 Control Delay	28.3	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.60			
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5	
Intersection Capacity Utilization	72.5%	ICU Level of Service	C	
Analysis Period (min)	15			

c Critical Lane Group

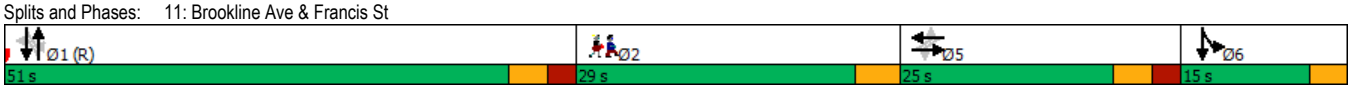


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	10	110	15	145	80	80	45	685	135	200	635	30	
Future Volume (vph)	10	110	15	145	80	80	45	685	135	200	635	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	15	15	15	11	11	11	11	11	11	10	10	10	
Storage Length (ft)	0		0	0		0	0		0	240		0	
Storage Lanes	0		0	1		0	0		1	1		0	
Taper Length (ft)	0			0			0			45			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95	
Ped Bike Factor		1.00							0.97		1.00		
Frt		0.985			0.925				0.850		0.993		
Flt Protected		0.996		0.950				0.997		0.950			
Satd. Flow (prot)	0	1798	0	1481	1409	0	0	3014	1338	1330	2919	0	
Flt Permitted		0.969		0.455				0.835		0.214			
Satd. Flow (perm)	0	1750	0	710	1409	0	0	2525	1296	300	2919	0	
Right Turn on Red			No			Yes			No			No	
Satd. Flow (RTOR)					36								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		176			309			203			455		
Travel Time (s)		4.8			8.4			5.5			12.4		
Confl. Bikes (#/hr)			3						12			7	
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.85	0.85	0.85	0.96	0.96	0.96	
Heavy Vehicles (%)	0%	2%	7%	6%	3%	14%	2%	4%	5%	14%	3%	4%	
Adj. Flow (vph)	12	136	19	159	88	88	53	806	159	208	661	31	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	167	0	159	176	0	0	859	159	208	692	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.01	1.01	1.01	1.19	1.19	1.19	1.19	1.19	1.19	1.25	1.25	1.25	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1		1	1	1	1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50		50	50	50	50	50		
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0		
Detector 1 Size(ft)	50	50		50	50		50	50	50	50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases	5			5			1		1	1			
Detector Phase	5	5		5	5		1	1	1	6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		10.0	10.0	10.0	6.0			7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		16.0	16.0	16.0	12.0			29.0
Total Split (s)	25.0	25.0		25.0	25.0		51.0	51.0	51.0	15.0			29.0
Total Split (%)	20.8%	20.8%		20.8%	20.8%		42.5%	42.5%	42.5%	12.5%			24%
Maximum Green (s)	19.0	19.0		19.0	19.0		45.0	45.0	45.0	11.5			25.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5			4.0
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5	2.5	0.0			0.0
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0	0.0			
Total Lost Time (s)		6.0		6.0	6.0			6.0	6.0	3.5			
Lead/Lag	Lead	Lead		Lead	Lead		Lead	Lead	Lead	Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0			3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													57
Act Effct Green (s)		19.0		19.0	19.0			50.8	50.8	64.8	65.8		
Actuated g/C Ratio		0.16		0.16	0.16			0.42	0.42	0.54	0.55		
v/c Ratio		0.60		1.42	0.70			0.80	0.29	0.80	0.43		
Control Delay		57.1		270.6	53.3			18.2	12.8	41.1	18.8		
Queue Delay		0.0		0.0	0.0			33.0	0.7	0.0	0.4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		57.1		270.6	53.3			51.3	13.5	41.1	19.2		
LOS		E		F	D			D	B	D	B		
Approach Delay		57.1			156.4			45.4			24.3		
Approach LOS		E			F			D			C		
Queue Length 50th (ft)		122		~166	104			157	55	88	178		
Queue Length 95th (ft)		174		#306	#200			m111	m39	#194	231		
Internal Link Dist (ft)		96			229			123			375		
Turn Bay Length (ft)										240			
Base Capacity (vph)		277		112	253			1068	549	260	1600		
Starvation Cap Reductn		0		0	0			256	183	0	415		
Spillback Cap Reductn		0		0	0			0	0	0	18		
Storage Cap Reductn		0		0	0			0	0	0	0		
Reduced v/c Ratio		0.60		1.42	0.70			1.06	0.43	0.80	0.58		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 111 (93%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.42			
Intersection Signal Delay: 53.7		Intersection LOS: D	
Intersection Capacity Utilization 81.2%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

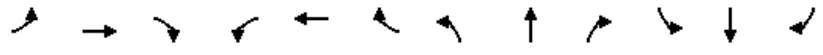
Splits and Phases: 11: Brookline Ave & Francis St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	110	15	145	80	80	45	685	135	200	635	30
Future Volume (vph)	10	110	15	145	80	80	45	685	135	200	635	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	11	11	11	11	11	11	10	10	10
Total Lost time (s)		6.0		6.0	6.0			6.0	6.0	3.5	6.0	
Lane Util. Factor		1.00		1.00	1.00			0.95	1.00	1.00	0.95	
Frpb, ped/bikes		1.00		1.00	1.00			1.00	0.97	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frt		0.98		1.00	0.93			1.00	0.85	1.00	0.99	
Flt Protected		1.00		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1798		1481	1409			3014	1297	1330	2920	
Flt Permitted		0.97		0.45	1.00			0.83	1.00	0.21	1.00	
Satd. Flow (perm)		1748		709	1409			2524	1297	300	2920	
Peak-hour factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91	0.85	0.85	0.85	0.96	0.96	0.96
Adj. Flow (vph)	12	136	19	159	88	88	53	806	159	208	661	31
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	167	0	159	146	0	0	859	159	208	692	0
Confl. Bikes (#/hr)			3						12			7
Heavy Vehicles (%)	0%	2%	7%	6%	3%	14%	2%	4%	5%	14%	3%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases	5			5			1		1	1		
Actuated Green, G (s)		19.0		19.0	19.0			50.0	50.0	61.5	65.0	
Effective Green, g (s)		19.0		19.0	19.0			50.0	50.0	61.5	61.5	
Actuated g/C Ratio		0.16		0.16	0.16			0.42	0.42	0.51	0.51	
Clearance Time (s)		6.0		6.0	6.0			6.0	6.0	3.5		
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0	3.0		
Lane Grp Cap (vph)		276		112	223			1051	540	252	1496	
v/s Ratio Prot					0.10					c0.08	0.24	
v/s Ratio Perm		0.10		c0.22				0.34	0.12	c0.34		
v/c Ratio		0.61		1.42	0.65			0.82	0.29	0.83	0.46	
Uniform Delay, d1		47.0		50.5	47.4			31.0	23.3	19.2	18.7	
Progression Factor		1.00		1.00	1.00			0.51	0.49	1.00	1.00	
Incremental Delay, d2		3.7		232.9	6.7			0.7	0.1	25.5	1.0	
Delay (s)		50.7		283.4	54.1			16.4	11.5	44.7	19.7	
Level of Service		D		F	D			B	B	D	B	
Approach Delay (s)		50.7			163.0			15.6			25.5	
Approach LOS		D			F			B			C	

Intersection Summary			
HCM 2000 Control Delay	42.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	0	710	90	0	1015	405	200	460	35	335	450	10	
Future Volume (vph)	0	710	90	0	1015	405	200	460	35	335	450	10	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11	
Storage Length (ft)	0		0	0		0	280		0	0		0	
Storage Lanes	0		0	0		0	1		0	1		0	
Taper Length (ft)	0			0			25			0			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	
Ped Bike Factor		1.00						1.00			1.00		
Frt		0.983			0.957			0.989			0.997		
Flt Protected							0.950			0.950			
Satd. Flow (prot)	0	3022	0	0	2976	0	1555	2939	0	1540	2930	0	
Flt Permitted							0.267			0.267			
Satd. Flow (perm)	0	3022	0	0	2976	0	437	2939	0	433	2930	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		14			61			5			2		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		497			489			442			108		
Travel Time (s)		13.6			13.3			12.1			2.9		
Confl. Bikes (#/hr)			1						1			3	
Peak Hour Factor	0.86	0.86	0.86	0.96	0.96	0.96	0.78	0.78	0.78	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	2%	2%	0%	1%	1%	1%	6%	0%	2%	7%	0%	
Adj. Flow (vph)	0	826	105	0	1057	422	256	590	45	364	489	11	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	931	0	0	1479	0	256	635	0	364	500	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		0			0			11			11		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors		1			1		1	1		1	1		
Detector Template													
Leading Detector (ft)		50			50		50	50		50	50		
Trailing Detector (ft)		0			0		0	0		0	0		
Detector 1 Position(ft)		0			0		0	0		0	0		
Detector 1 Size(ft)		50			50		50	50		50	50		
Detector 1 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)		0.0			0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)		0.0			0.0		0.0	0.0		0.0	0.0		
Turn Type		NA			NA		Perm	NA		D.P+P	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases							1			1			
Detector Phase		5			5		1	1		6	1 6		
Switch Phase													
Minimum Initial (s)		8.0			8.0		10.0	10.0		6.0			7.0
Minimum Split (s)		14.0			14.0		16.0	16.0		12.0			27.0
Total Split (s)		56.0			56.0		21.0	21.0		16.0			27.0
Total Split (%)		46.7%			46.7%		17.5%	17.5%		13.3%			23%
Maximum Green (s)		50.0			50.0		15.0	15.0		13.0			25.0
Yellow Time (s)		3.0			3.0		3.0	3.0		3.0			2.0
All-Red Time (s)		3.0			3.0		3.0	3.0		0.0			0.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0			
Total Lost Time (s)		6.0			6.0		6.0	6.0		3.0			
Lead/Lag		Lead			Lead		Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0			2.0
Recall Mode		Max			Max		C-Max	C-Max		Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													91
Act Effct Green (s)		50.0			50.0		15.0	15.0		31.0	31.0		
Actuated g/C Ratio		0.42			0.42		0.12	0.12		0.26	0.26		
v/c Ratio		0.73			1.16		4.74	1.71		1.58	0.66		
Control Delay		29.8			113.0		1736.9	363.7		299.1	28.0		
Queue Delay		1.3			0.7		0.0	0.8		0.0	1.2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Total Delay		31.1			113.6		1736.9	364.5		299.1	29.2		
LOS		C			F		F	F		F	C		
Approach Delay		31.1			113.6			758.8			142.9		
Approach LOS		C			F			F			F		
Queue Length 50th (ft)		202			~701		~369	~383		~329	128		
Queue Length 95th (ft)		310			#842		#459	#414		m#459	m152		
Internal Link Dist (ft)		417			409			362			28		
Turn Bay Length (ft)							280						
Base Capacity (vph)		1267			1275		54	371		231	758		
Starvation Cap Reductn		157			0		0	0		0	100		
Spillback Cap Reductn		0			185		0	27		0	0		
Storage Cap Reductn		0			0		0	0		0	0		
Reduced v/c Ratio		0.84			1.36		4.74	1.85		1.58	0.76		

Intersection Summary	
Area Type:	CBD
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 1 (1%), Referenced to phase 1:NBSB, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.74	
Intersection Signal Delay: 239.3	Intersection LOS: F
Intersection Capacity Utilization 94.9%	ICU Level of Service F
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 12: Brookline Ave & Riverway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	710	90	0	1015	405	200	460	35	335	450	10
Future Volume (vph)	0	710	90	0	1015	405	200	460	35	335	450	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		6.0			6.0		6.0	6.0		3.0	6.0	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.98			0.96		1.00	0.99		1.00	1.00	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3023			2977		1555	2940		1540	2929	
Flt Permitted		1.00			1.00		0.27	1.00		0.27	1.00	
Satd. Flow (perm)		3023			2977		436	2940		432	2929	
Peak-hour factor, PHF	0.86	0.86	0.86	0.96	0.96	0.96	0.78	0.78	0.78	0.92	0.92	0.92
Adj. Flow (vph)	0	826	105	0	1057	422	256	590	45	364	489	11
RTOR Reduction (vph)	0	8	0	0	36	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	923	0	0	1443	0	256	631	0	364	498	0
Confl. Bikes (#/hr)			1						1			3
Heavy Vehicles (%)	0%	2%	2%	0%	1%	1%	1%	6%	0%	2%	7%	0%
Turn Type		NA			NA		Perm	NA		D.P+P	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases							1			1		
Actuated Green, G (s)		50.0			50.0		15.0	15.0		28.0	31.0	
Effective Green, g (s)		50.0			50.0		15.0	15.0		28.0	28.0	
Actuated g/C Ratio		0.42			0.42		0.12	0.12		0.23	0.23	
Clearance Time (s)		6.0			6.0		6.0	6.0		3.0		
Vehicle Extension (s)		2.0			2.0		2.0	2.0		2.0		
Lane Grp Cap (vph)		1259			1240		54	367		220	683	
v/s Ratio Prot		0.31			c0.48			0.21		c0.18	0.17	
v/s Ratio Perm							c0.59			0.21		
v/c Ratio		0.73			1.16		4.74	1.72		1.65	0.73	
Uniform Delay, d1		29.4			35.0		52.5	52.5		43.2	42.5	
Progression Factor		0.95			1.00		1.00	1.00		0.66	0.61	
Incremental Delay, d2		2.0			83.0		1724.6	334.6		310.2	5.4	
Delay (s)		29.8			118.0		1777.1	387.1		338.9	31.4	
Level of Service		C			F		F	F		F	C	
Approach Delay (s)		29.8			118.0			786.4			160.9	
Approach LOS		C			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	250.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	94.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Lane Configurations													
Traffic Volume (vph)	95	20	0	5	5	105	0	1190	35	110	795	50	
Future Volume (vph)	95	20	0	5	5	105	0	1190	35	110	795	50	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	14	14	14	14	14	11	11	11	11	11	11	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	
Ped Bike Factor								1.00			1.00		
Frt					0.877			0.996			0.992		
Flt Protected		0.960			0.998						0.994		
Satd. Flow (prot)	0	1723	0	0	1540	0	0	3091	0	0	3040	0	
Flt Permitted		0.539			0.987						0.560		
Satd. Flow (perm)	0	967	0	0	1523	0	0	3091	0	0	1712	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					124			3			6		
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		418			141			497			1033		
Travel Time (s)		11.4			3.8			13.6			28.2		
Confl. Peds. (#/hr)									16	16		16	
Confl. Bikes (#/hr)			3									2	
Peak Hour Factor	0.60	0.60	0.60	0.85	0.85	0.85	0.98	0.98	0.98	0.91	0.91	0.91	
Heavy Vehicles (%)	2%	0%	0%	0%	0%	4%	0%	1%	4%	0%	2%	0%	
Adj. Flow (vph)	158	33	0	6	6	124	0	1214	36	121	874	55	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	191	0	0	136	0	0	1250	0	0	1050	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		0			0			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.05	1.05	1.05	1.05	1.05	1.05	1.19	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1		1	1		1	1		1	1		
Detector Template													
Leading Detector (ft)	50	50		50	50		50	50		50	50		
Trailing Detector (ft)	0	0		0	0		0	0		0	0		
Detector 1 Position(ft)	0	0		0	0		0	0		0	0		
Detector 1 Size(ft)	50	50		50	50		50	50		50	50		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Turn Type	Perm	NA		Perm	NA			NA		pm+pt	NA		
Protected Phases		5			5			1		6	1 6		2
Permitted Phases	5			5			1			1 6			
Detector Phase	5	5		5	5		1	1		6	1 6		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		6.0			8.0
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	14.0		11.0			27.0
Total Split (s)	24.0	24.0		24.0	24.0		58.0	58.0		11.0			27.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		48.3%	48.3%		9.2%			23%
Maximum Green (s)	18.0	18.0		18.0	18.0		52.0	52.0		8.0			25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0			2.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		0.0			0.0
Lost Time Adjust (s)		0.0			0.0			0.0					
Total Lost Time (s)		6.0			6.0			6.0					
Lead/Lag	Lead	Lead		Lead	Lead		Lead	Lead		Lag			Lag
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0			3.0
Recall Mode	None	None		None	None		C-Max	C-Max		Max			None
Walk Time (s)													7.0
Flash Dont Walk (s)													18.0
Pedestrian Calls (#/hr)													7
Act Effct Green (s)		18.0			18.0			73.6			78.6		
Actuated g/C Ratio		0.15			0.15			0.61			0.66		
v/c Ratio		1.32			0.41			0.66			0.89		
Control Delay		223.5			13.9			12.4			35.0		
Queue Delay		0.0			0.0			3.3			0.0		
Total Delay		223.5			13.9			15.6			35.0		
LOS		F			B			B			D		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø2
Approach Delay		223.5			13.9			15.6			35.0		
Approach LOS		F			B			B			D		
Queue Length 50th (ft)		~191			8			116			382		
Queue Length 95th (ft)		#189			57			m291			m#663		
Internal Link Dist (ft)		338			61			417			953		
Turn Bay Length (ft)													
Base Capacity (vph)		145			333			1896			1178		
Starvation Cap Reductn		0			0			528			0		
Spillback Cap Reductn		0			0			0			0		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		1.32			0.41			0.91			0.89		

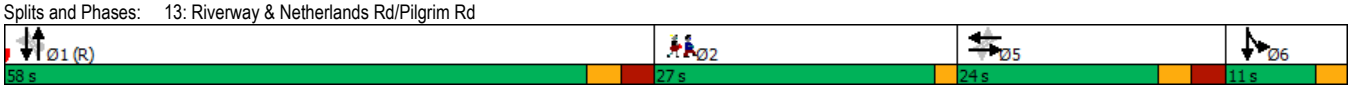
Intersection Summary	
Area Type:	CBD
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 75 (63%), Referenced to phase 1:NBSB, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.32	
Intersection Signal Delay: 38.4	Intersection LOS: D
Intersection Capacity Utilization 96.3%	ICU Level of Service F
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 13: Riverway & Netherlands Rd/Pilgrim Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	20	0	5	5	105	0	1190	35	110	795	50
Future Volume (vph)	95	20	0	5	5	105	0	1190	35	110	795	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	11	11	11	11	11	11
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.88			1.00			0.99	
Flt Protected		0.96			1.00			1.00			0.99	
Satd. Flow (prot)		1723			1540			3091			3042	
Flt Permitted		0.54			0.99			1.00			0.56	
Satd. Flow (perm)		967			1523			3091			1714	
Peak-hour factor, PHF	0.60	0.60	0.60	0.85	0.85	0.85	0.98	0.98	0.98	0.91	0.91	0.91
Adj. Flow (vph)	158	33	0	6	6	124	0	1214	36	121	874	55
RTOR Reduction (vph)	0	0	0	0	105	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	191	0	0	31	0	0	1249	0	0	1048	0
Confl. Peds. (#/hr)									16	16		16
Confl. Bikes (#/hr)			3									2
Heavy Vehicles (%)	2%	0%	0%	0%	0%	4%	0%	1%	4%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA			NA		pm+pt	NA	
Protected Phases		5			5			1		6	1 6	
Permitted Phases	5			5			1			1 6		
Actuated Green, G (s)		18.0			18.0			72.0			80.0	
Effective Green, g (s)		18.0			18.0			72.0			80.0	
Actuated g/C Ratio		0.15			0.15			0.60			0.67	
Clearance Time (s)		6.0			6.0			6.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		145			228			1854			1231	
v/s Ratio Prot								0.40			c0.06	
v/s Ratio Perm		c0.20			0.02						c0.51	
v/c Ratio		1.32			0.13			0.67			0.85	
Uniform Delay, d1		51.0			44.2			16.1			15.4	
Progression Factor		1.00			1.00			0.67			1.93	
Incremental Delay, d2		183.0			0.3			0.2			4.5	
Delay (s)		234.0			44.5			10.9			34.4	
Level of Service		F			D			B			C	
Approach Delay (s)		234.0			44.5			10.9			34.4	
Approach LOS		F			D			B			C	

Intersection Summary				
HCM 2000 Control Delay	38.3	HCM 2000 Level of Service	D	
HCM 2000 Volume to Capacity ratio	0.89			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0	
Intersection Capacity Utilization	96.3%	ICU Level of Service	F	
Analysis Period (min)	15			

c Critical Lane Group

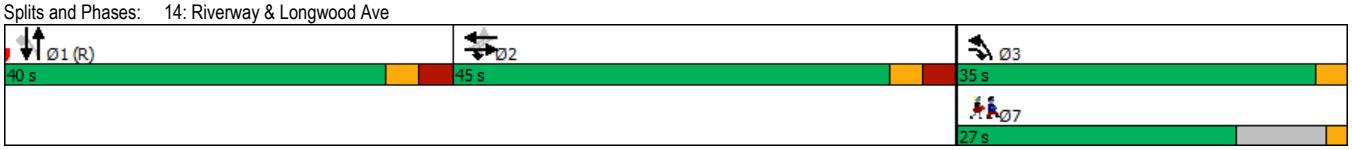


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Lane Configurations													
Traffic Volume (vph)	90	325	80	60	305	45	260	955	105	0	845	75	
Future Volume (vph)	90	325	80	60	305	45	260	955	105	0	845	75	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	10	11	11	10	11	11	11	11	11	
Storage Length (ft)	25		120	40		0	300		0	0		0	
Storage Lanes	1		1	1		0	1		0	0		1	
Taper Length (ft)	0			25			25			0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	
Ped Bike Factor					1.00								
Frt			0.850		0.981			0.985				0.850	
Flt Protected	0.950			0.950			0.950						
Satd. Flow (prot)	1496	1589	1378	1516	1565	0	1472	3094	0	0	3079	1391	
Flt Permitted	0.252			0.321			0.121						
Satd. Flow (perm)	397	1589	1378	512	1565	0	187	3094	0	0	3079	1391	
Right Turn on Red			Yes			Yes			No			No	
Satd. Flow (RTOR)			27		7								
Link Speed (mph)		25			25			25			25		
Link Distance (ft)		327			278			1033			510		
Travel Time (s)		8.9			7.6			28.2			13.9		
Confl. Bikes (#/hr)			85			3							
Peak Hour Factor	0.95	0.95	0.95	0.89	0.89	0.89	0.92	0.92	0.92	0.83	0.83	0.83	
Heavy Vehicles (%)	5%	4%	2%	0%	2%	13%	3%	0%	0%	0%	2%	1%	
Adj. Flow (vph)	95	342	84	67	343	51	283	1038	114	0	1018	90	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	95	342	84	67	394	0	283	1152	0	0	1018	90	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		11			11			10			10		
Link Offset(ft)		0			0			0			0		
Crosswalk Width(ft)		16			16			16			16		
Two way Left Turn Lane													
Headway Factor	1.19	1.19	1.19	1.25	1.19	1.19	1.25	1.19	1.19	1.19	1.19	1.19	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Number of Detectors	1	1	1	1	1		1	1			1	1	
Detector Template													
Leading Detector (ft)	50	50	50	50	50		50	50			50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0			0	0	
Detector 1 Size(ft)	50	50	50	50	50		50	50			50	50	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm	
Protected Phases		2	2 3		2		3	1			1		7
Permitted Phases	2			2			1					1	
Detector Phase	2	2	2 3	2	2		3	1			1	1	
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	18.0			18.0	18.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	26.0			26.0	26.0	27.0
Total Split (s)	45.0	45.0		45.0	45.0		35.0	40.0			40.0	40.0	27.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		29.2%	33.3%			33.3%	33.3%	23%
Maximum Green (s)	39.0	39.0		39.0	39.0		32.0	34.0			34.0	34.0	25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)	3.0	3.0		3.0	3.0		0.0	3.0			3.0	3.0	0.0
Lost Time Adjust (s)	-1.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0	
Total Lost Time (s)	5.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0	
Lead/Lag	Lag	Lag		Lag	Lag			Lead			Lead	Lead	
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0	2.0
Recall Mode	None	None		None	None		None	C-Max			C-Max	C-Max	None
Walk Time (s)								7.0			7.0	7.0	7.0
Flash Dont Walk (s)								13.0			13.0	13.0	18.0
Pedestrian Calls (#/hr)								2			2	2	137
Act Effct Green (s)	34.7	33.7	62.9	33.7	33.7		74.3	45.1			45.1	45.1	
Actuated g/C Ratio	0.29	0.28	0.52	0.28	0.28		0.62	0.38			0.38	0.38	
v/c Ratio	0.83	0.77	0.11	0.47	0.89		0.71	0.99			0.88	0.17	
Control Delay	87.6	50.9	8.6	45.5	62.1		28.8	55.5			46.4	29.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø7
Total Delay	87.6	50.9	8.6	45.5	62.1		28.8	55.5			46.4	29.4	
LOS	F	D	A	D	E		C	E			D	C	
Approach Delay		50.7			59.7			50.2			45.0		
Approach LOS		D			E			D			D		
Queue Length 50th (ft)	67	238	21	42	282		115	488			379	46	
Queue Length 95th (ft)	#159	335	38	86	388		m145	m#725			#548	90	
Internal Link Dist (ft)		247			198			953			430		
Turn Bay Length (ft)	25		120	40			300						
Base Capacity (vph)	132	516	795	166	513		462	1162			1156	522	
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0	
Storage Cap Reductn	0	0	0	0	0		0	0			0	0	
Reduced v/c Ratio	0.72	0.66	0.11	0.40	0.77		0.61	0.99			0.88	0.17	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 11 (9%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 49.9		Intersection LOS: D	
Intersection Capacity Utilization 87.0%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 14: Riverway & Longwood Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	325	80	60	305	45	260	955	105	0	845	75
Future Volume (vph)	90	325	80	60	305	45	260	955	105	0	845	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	11	11	10	11	11	11	11	11
Total Lost time (s)	5.0	6.0	6.0	6.0	6.0		3.0	6.0			6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1496	1589	1378	1516	1564		1472	3094			3079	1391
Flt Permitted	0.25	1.00	1.00	0.32	1.00		0.12	1.00			1.00	1.00
Satd. Flow (perm)	397	1589	1378	512	1564		187	3094			3079	1391
Peak-hour factor, PHF	0.95	0.95	0.95	0.89	0.89	0.89	0.92	0.92	0.92	0.83	0.83	0.83
Adj. Flow (vph)	95	342	84	67	343	51	283	1038	114	0	1018	90
RTOR Reduction (vph)	0	0	12	0	5	0	0	0	0	0	0	0
Lane Group Flow (vph)	95	342	72	67	389	0	283	1152	0	0	1018	90
Confl. Bikes (#/hr)			85			3						
Heavy Vehicles (%)	5%	4%	2%	0%	2%	13%	3%	0%	0%	0%	2%	1%
Turn Type	Perm	NA	pt+ov	Perm	NA		pm+pt	NA			NA	Perm
Protected Phases		2	2 3		2		3	1			1	
Permitted Phases	2			2			1					1
Actuated Green, G (s)	33.7	33.7	65.9	33.7	33.7		71.3	45.1			45.1	45.1
Effective Green, g (s)	34.7	33.7	65.9	33.7	33.7		71.3	45.1			45.1	45.1
Actuated g/C Ratio	0.29	0.28	0.55	0.28	0.28		0.59	0.38			0.38	0.38
Clearance Time (s)	6.0	6.0		6.0	6.0		3.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	114	446	756	143	439		391	1162			1157	522
v/s Ratio Prot		0.22	0.05		c0.25		c0.16	c0.37			0.33	
v/s Ratio Perm	0.24			0.13			0.27					0.06
v/c Ratio	0.83	0.77	0.10	0.47	0.89		0.72	0.99			0.88	0.17
Uniform Delay, d1	39.9	39.5	12.9	35.7	41.3		26.2	37.3			34.9	25.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.90	0.91			1.00	1.00
Incremental Delay, d2	36.8	7.0	0.0	0.9	18.4		3.9	20.0			9.7	0.7
Delay (s)	76.7	46.5	12.9	36.6	59.7		27.6	53.9			44.6	25.7
Level of Service	E	D	B	D	E		C	D			D	C
Approach Delay (s)		46.6			56.3			48.7			43.1	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	47.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	87.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	80	115	1105	0	0	830	
Future Volume (vph)	80	115	1105	0	0	830	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	10	10	10	10	
Storage Length (ft)	30	0		0	0		
Storage Lanes	1	1		0	0		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1490	1454	4272	0	0	4230	
Flt Permitted	0.950						
Satd. Flow (perm)	1490	1454	4272	0	0	4230	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		245					
Link Speed (mph)	25		25			25	
Link Distance (ft)	246		343			858	
Travel Time (s)	6.7		9.4			23.4	
Peak Hour Factor	0.47	0.47	0.87	0.89	0.92	0.89	
Heavy Vehicles (%)	9%	0%	2%	2%	2%	3%	
Adj. Flow (vph)	170	245	1270	0	0	933	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	170	245	1270	0	0	933	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.14	1.14	1.25	1.25	1.25	1.25	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	2			2	
Detector Template	Left	Right	Thru			Thru	
Leading Detector (ft)	20	20	100			100	
Trailing Detector (ft)	0	0	0			0	
Detector 1 Position(ft)	0	0	0			0	
Detector 1 Size(ft)	20	20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)			94			94	
Detector 2 Size(ft)			6			6	
Detector 2 Type			Cl+Ex			Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)			0.0			0.0	
Turn Type	Prot	Perm	NA			NA	
Protected Phases	5		1			1	2
Permitted Phases		5					
Detector Phase	5	5	1			1	
Switch Phase							
Minimum Initial (s)	8.0	8.0	15.0			15.0	7.0
Minimum Split (s)	14.0	14.0	20.0			20.0	25.0
Total Split (s)	17.0	17.0	48.0			48.0	25.0
Total Split (%)	18.9%	18.9%	53.3%			53.3%	28%
Maximum Green (s)	11.0	11.0	43.0			43.0	21.0
Yellow Time (s)	3.0	3.0	3.0			3.0	2.0
All-Red Time (s)	3.0	3.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	
Total Lost Time (s)	6.0	6.0	5.0			5.0	
Lead/Lag			Lead			Lead	Lag
Lead-Lag Optimize?			Yes			Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0			3.0	3.0
Recall Mode	None	None	C-Max			C-Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							14.0
Pedestrian Calls (#/hr)							0
Act Effct Green (s)	16.5	16.5	62.5			62.5	
Actuated g/C Ratio	0.18	0.18	0.69			0.69	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
v/c Ratio	0.62	0.53	0.43			0.32	
Control Delay	43.9	8.6	6.8			6.0	
Queue Delay	0.0	0.0	0.0			0.0	
Total Delay	43.9	8.6	6.8			6.0	
LOS	D	A	A			A	
Approach Delay	23.1		6.8			6.0	
Approach LOS	C		A			A	
Queue Length 50th (ft)	89	0	101			66	
Queue Length 95th (ft)	71	0	138			97	
Internal Link Dist (ft)	166		263			778	
Turn Bay Length (ft)	30						
Base Capacity (vph)	272	466	2967			2938	
Starvation Cap Reductn	0	0	0			0	
Spillback Cap Reductn	0	0	0			0	
Storage Cap Reductn	0	0	0			0	
Reduced v/c Ratio	0.63	0.53	0.43			0.32	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 82 (91%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 9.1		Intersection LOS: A	
Intersection Capacity Utilization 40.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 15: Riverway & Short St Ext





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	80	115	1105	0	0	830
Future Volume (vph)	80	115	1105	0	0	830
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	10	10	10
Total Lost time (s)	6.0	6.0	5.0			5.0
Lane Util. Factor	1.00	1.00	0.91			0.91
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1490	1454	4272			4230
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1490	1454	4272			4230
Peak-hour factor, PHF	0.47	0.47	0.87	0.89	0.92	0.89
Adj. Flow (vph)	170	245	1270	0	0	933
RTOR Reduction (vph)	0	200	0	0	0	0
Lane Group Flow (vph)	170	45	1270	0	0	933
Heavy Vehicles (%)	9%	0%	2%	2%	2%	3%
Turn Type	Prot	Perm	NA			NA
Protected Phases	5		1			1
Permitted Phases		5				
Actuated Green, G (s)	16.5	16.5	62.5			62.5
Effective Green, g (s)	16.5	16.5	62.5			62.5
Actuated g/C Ratio	0.18	0.18	0.69			0.69
Clearance Time (s)	6.0	6.0	5.0			5.0
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Lane Grp Cap (vph)	273	266	2966			2937
v/s Ratio Prot	c0.11		c0.30			0.22
v/s Ratio Perm		0.03				
v/c Ratio	0.62	0.17	0.43			0.32
Uniform Delay, d1	33.9	31.0	6.0			5.4
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	3.2	0.1	0.5			0.3
Delay (s)	37.0	31.1	6.4			5.7
Level of Service	D	C	A			A
Approach Delay (s)	33.5		6.4			5.7
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø2
Lane Configurations							
Traffic Volume (vph)	15	10	30	795	960	140	
Future Volume (vph)	15	10	30	795	960	140	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95	
Frt		0.850			0.981		
Flt Protected	0.950			0.998			
Satd. Flow (prot)	1770	1583	0	3532	3472	0	
Flt Permitted	0.950			0.859			
Satd. Flow (perm)	1770	1583	0	3040	3472	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		11			24		
Link Speed (mph)	25			25	25		
Link Distance (ft)	362			598	446		
Travel Time (s)	9.9			16.3	12.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	16	11	33	864	1043	152	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	16	11	0	897	1195	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12			10	10		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	60	60	60			60	
Turn Type	Prot	Perm	Perm	NA	NA		
Protected Phases	5			1	1		2
Permitted Phases		5	1				
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0
Total Split (s)	21.0	21.0	67.0	67.0	67.0		22.0
Total Split (%)	19.1%	19.1%	60.9%	60.9%	60.9%		20%
Maximum Green (s)	16.0	16.0	62.0	62.0	62.0		17.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		
Lead/Lag			Lead	Lead	Lead		Lag
Lead-Lag Optimize?			Yes	Yes	Yes		Yes
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0	0	0		0
Act Effct Green (s)	16.0	16.0		62.0	62.0		
Actuated g/C Ratio	0.15	0.15		0.56	0.56		
v/c Ratio	0.06	0.05		0.52	0.61		
Control Delay	41.4	20.7		3.0	17.2		
Queue Delay	0.0	0.0		0.0	0.6		
Total Delay	41.4	20.7		3.0	17.8		
LOS	D	C		A	B		
Approach Delay	33.0			3.0	17.8		
Approach LOS	C			A	B		
Queue Length 50th (ft)	10	0		15	273		
Queue Length 95th (ft)	31	17		30	339		
Internal Link Dist (ft)	282			518	366		
Turn Bay Length (ft)							
Base Capacity (vph)	257	239		1713	1967		
Starvation Cap Reductn	0	0		0	368		
Spillback Cap Reductn	0	0		0	0		
Storage Cap Reductn	0	0		0	0		
Reduced v/c Ratio	0.06	0.05		0.52	0.75		

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 5 (5%), Referenced to phase 6:, Start of Green	
Natural Cycle: 75	
Control Type: Pretimed	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 11.7	Intersection LOS: B

Intersection Capacity Utilization 55.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 16: Brookline Ave & Mid-Block Rd





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	10	30	795	960	140
Future Volume (vph)	15	10	30	795	960	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00		0.95	0.95	
Frt	1.00	0.85		1.00	0.98	
Flt Protected	0.95	1.00		1.00	1.00	
Satd. Flow (prot)	1770	1583		3533	3472	
Flt Permitted	0.95	1.00		0.86	1.00	
Satd. Flow (perm)	1770	1583		3039	3472	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	11	33	864	1043	152
RTOR Reduction (vph)	0	9	0	0	10	0
Lane Group Flow (vph)	16	2	0	897	1185	0
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	5			1	1	
Permitted Phases		5	1			
Actuated Green, G (s)	16.0	16.0		62.0	62.0	
Effective Green, g (s)	16.0	16.0		62.0	62.0	
Actuated g/C Ratio	0.15	0.15		0.56	0.56	
Clearance Time (s)	5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	257	230		1712	1956	
v/s Ratio Prot	c0.01				c0.34	
v/s Ratio Perm		0.00		0.30		
v/c Ratio	0.06	0.01		0.52	0.61	
Uniform Delay, d1	40.5	40.2		14.9	15.9	
Progression Factor	1.00	1.00		0.14	1.00	
Incremental Delay, d2	0.5	0.1		0.9	1.4	
Delay (s)	41.0	40.3		3.0	17.3	
Level of Service	D	D		A	B	
Approach Delay (s)	40.7			3.0	17.3	
Approach LOS	D			A	B	

Intersection Summary			
HCM 2000 Control Delay	11.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	195
Future Volume (vph)	0	0	0	0	0	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	0	0	0	1676	1266	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1676	1266	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	246			134	485	
Travel Time (s)	6.7			3.7	13.2	
Confl. Peds. (#/hr)			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.47
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%
Parking (#/hr)					2	2
Adj. Flow (vph)	0	0	0	0	0	415
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	415	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.32	1.14
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	10.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	195
Future Vol, veh/h	0	0	0	0	0	195
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	47
Heavy Vehicles, %	2	2	2	2	2	4
Mvmt Flow	0	0	0	0	0	415

Major/Minor	Major1		Minor2	
Conflicting Flow All	5	0	5	10
Stage 1	-	-	5	-
Stage 2	-	-	0	-
Critical Hdwy	4.12	-	6.52	6.24
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.52	-
Follow-up Hdwy	2.218	-	4.018	3.336
Pot Cap-1 Maneuver	1616	-	890	1066
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %		-		
Mov Cap-1 Maneuver	1609	-	0	1057
Mov Cap-2 Maneuver	-	-	0	-
Stage 1	-	-	0	-
Stage 2	-	-	0	-

Approach	NB	SB
HCM Control Delay, s	0	10.6
HCM LOS		B

Minor Lane/Major Mvmt	NBL	NBT	SBLn1
Capacity (veh/h)	1609	-	1057
HCM Lane V/C Ratio	-	-	0.393
HCM Control Delay (s)	0	-	10.6
HCM Lane LOS	A	-	B
HCM 95th %tile Q(veh)	0	-	1.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	420	0	0	355	10	55	5	35	0	0	0
Future Volume (vph)	10	420	0	0	355	10	55	5	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	16	12	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.996			0.950				
Flt Protected		0.999						0.972				
Satd. Flow (prot)	0	1844	0	0	1846	0	0	1686	0	0	0	0
Flt Permitted		0.999						0.972				
Satd. Flow (perm)	0	1844	0	0	1846	0	0	1686	0	0	0	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			617			174			541	
Travel Time (s)		7.6			16.8			4.7			14.8	
Confl. Peds. (#/hr)	213		285	285		213	2		10	10		2
Confl. Bikes (#/hr)			114			5						
Peak Hour Factor	0.78	0.78	0.92	0.92	0.80	0.80	0.72	0.72	0.72	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	2%	2%	2%	20%	0%	0%	11%	2%	2%	2%
Adj. Flow (vph)	13	538	0	0	444	13	76	7	49	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	551	0	0	457	0	0	132	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.00	0.85
Turning Speed (mph)	60		9	15		60	15		9	60		9
Sign Control		Free			Free			Stop			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	420	0	0	355	10	55	5	35	0	0	0
Future Vol, veh/h	10	420	0	0	355	10	55	5	35	0	0	0
Conflicting Peds, #/hr	213	0	285	285	0	213	2	0	10	10	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	92	92	80	80	72	72	72	92	92	92
Heavy Vehicles, %	0	3	2	2	2	20	0	0	11	2	2	2
Mvmt Flow	13	538	0	0	444	13	76	7	49	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	670	0	-	-	-	0	1017	1234	548
Stage 1	-	-	-	-	-	-	564	564	-
Stage 2	-	-	-	-	-	-	453	670	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.399
Pot Cap-1 Maneuver	930	-	0	0	-	-	266	178	519
Stage 1	-	-	0	0	-	-	573	512	-
Stage 2	-	-	0	0	-	-	645	459	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	930	-	-	-	-	-	260	0	515
Mov Cap-2 Maneuver	-	-	-	-	-	-	260	0	-
Stage 1	-	-	-	-	-	-	562	0	-
Stage 2	-	-	-	-	-	-	644	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.2	0	23.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	322	930	-	-	-
HCM Lane V/C Ratio	0.41	0.014	-	-	-
HCM Control Delay (s)	23.7	8.9	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	1.9	0	-	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	15	1090	0	0	910
Future Volume (vph)	10	15	1090	0	0	910
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91
Ped Bike Factor						
Frt	0.919					
Flt Protected	0.980					
Satd. Flow (prot)	1836	0	5187	0	0	5136
Flt Permitted	0.980					
Satd. Flow (perm)	1836	0	5187	0	0	5136
Link Speed (mph)	25		25			25
Link Distance (ft)	541		510			343
Travel Time (s)	14.8		13.9			9.4
Confl. Peds. (#/hr)				9	9	
Peak Hour Factor	0.45	0.45	0.93	0.92	0.92	0.98
Heavy Vehicles (%)	14%	0%	0%	2%	2%	1%
Adj. Flow (vph)	22	33	1172	0	0	929
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	0	1172	0	0	929
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	15	1090	0	0	910
Future Vol, veh/h	10	15	1090	0	0	910
Conflicting Peds, #/hr	0	0	0	9	9	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	45	45	93	92	92	98
Heavy Vehicles, %	14	0	0	2	2	1
Mvmt Flow	22	33	1172	0	0	929

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1544	586	0	-	-	-
Stage 1	1172	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Critical Hdwy	5.98	7.1	-	-	-	-
Critical Hdwy Stg 1	6.88	-	-	-	-	-
Critical Hdwy Stg 2	6.28	-	-	-	-	-
Follow-up Hdwy	3.94	3.9	-	-	-	-
Pot Cap-1 Maneuver	146	393	-	0	0	-
Stage 1	173	-	-	0	0	-
Stage 2	581	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	146	393	-	-	-	-
Mov Cap-2 Maneuver	146	-	-	-	-	-
Stage 1	173	-	-	-	-	-
Stage 2	581	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.1	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	234	-
HCM Lane V/C Ratio	-	0.237	-
HCM Control Delay (s)	-	25.1	-
HCM Lane LOS	-	D	-
HCM 95th %tile Q(veh)	-	0.9	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	0	0	0	10	135
Future Volume (vph)	15	0	0	0	10	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950					0.997
Satd. Flow (prot)	1770	0	0	0	0	1857
Flt Permitted	0.950					0.997
Satd. Flow (perm)	1770	0	0	0	0	1857
Link Speed (mph)	25		25			25
Link Distance (ft)	362		485			77
Travel Time (s)	9.9		13.2			2.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	0	0	0	11	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	0	0	158
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	0	0	0	10	135
Future Vol, veh/h	15	0	0	0	10	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	0	0	0	11	147

Major/Minor	Minor1			Major2	
Conflicting Flow All	169	-		0	0
Stage 1	0	-		-	-
Stage 2	169	-		-	-
Critical Hdwy	6.42	-		4.12	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	5.42	-		-	-
Follow-up Hdwy	3.518	-		2.218	-
Pot Cap-1 Maneuver	821	0		-	-
Stage 1	-	0		-	-
Stage 2	861	0		-	-
Platoon blocked, %					-
Mov Cap-1 Maneuver	821	-		-	-
Mov Cap-2 Maneuver	821	-		-	-
Stage 1	-	-		-	-
Stage 2	861	-		-	-

Approach	WB	SB
HCM Control Delay, s	9.5	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	821	-	-
HCM Lane V/C Ratio	0.02	-	-
HCM Control Delay (s)	9.5	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

BTD Transportation Demand Management (TDM) Point System Tool

BTD TRANSPORTATION DEMAND MANAGEMENT POINT SYSTEM TOOL

FOR LARGE PROJECT DEVELOPMENT REVIEW

For more information visit:
www.boston.gov/tdmpointsystem

City of Boston Transportation

This spreadsheet is locked. Selections can be made in the highlighted yellow cells.

PROJECT NAME	Longwood Place Development
PROJECT ADDRESS	305 Brookline Avenue
DEVELOPER	Skanska USA
MOBILITY SCORE	71-90

TARGET POINTS	90
RESIDENTIAL ONLY?	No

Points for platinum-level bike share membership and at least 50% transit subsidy	0
Total Points Selected	**92**
Point Requirement Achieved	Yes
Impact Strategy Selected	Yes
Bicycle Strategy Selected	Yes
Vehicle Strategy Selected	Yes

CATEGORY	SECONDARY STRATEGY TYPE	STRATEGY	POINTS	DESCRIPTION	SELECT STRATEGY	SELECT FOR MORE OPTIONS	POINTS	REQUEST OR PROVIDE ADDITIONAL INFO FOR BASELINE STRATEGIES
Baseline Strategies are required for all large developments subject to a Transportation Access Plan Agreement (TAPA). If Baseline Strategy is unachievable, please provide more information under "Additional Information."								
BASELINE REQUIREMENTS FOR ALL DEVELOPMENTS	Programming	TMA Membership	5 points awarded total	Property owner joins and participates in the local Transportation Management Association (TMA), if available, or if one is formed during the life of the TAPA	☑	*No additional options apply*	5	
		On-Site TDM Coordinator		Property owner provides part- or full-time dedicated staff to coordinate TDM services	☑	*No additional options apply*		
		Marketing		Property owner distributes annual marketing materials promoting multimodal travel options and benefits	☑	*No additional options apply*		
		Annual Events		Property owner conducts at least two annual events promoting multimodal travel	☑	*No additional options apply*		
		Real-Time Transit Information		Developer provides real-time transit information in building lobbies per BTD review	☑	*No additional options apply*		
		Emergency Ride Home		Property owner provides ride services, such as reimbursement of taxi or rideshare trips, outside of peak travel periods for tenants/employees who use sustainable transportation options	☑	*No additional options apply*		
	Transit	Participation in MBTA Perq Program	15	Property owner or employers facilitate transit pass purchases (with pre-tax benefits, if applicable) through participation in MBTA's Perq Program	☑	*No additional options apply*	**15**	
	Vehicle	Unbundled, Market-Rate Parking	15	Property owner provides tenants the option to lease or purchase building space without inclusion of a market rate price for on-site parking. Parking may be leased or purchased by tenants separately at a market rate.	☑	*No additional options apply*	**15**	
	Bicycling	Bicycle Parking/Bike Share Provision	5	Developer complies with BTD Bike Parking Guidelines, including provision of short- and long-term parking spaces, showers and changing facilities, monetary contribution to Boston's bike share system, and space for a bike share station, as well as provide on-site repair station	☑	*No additional options apply*	**5**	
IMPACT	**At least one Impact Strategy must be selected.**							
	Transit	Transit Subsidy	15-30	Property owner or employer provides a subsidy for monthly MBTA transit passes.	☐	**Transit subsidy of at least 50%**	**0**	
	Vehicle	Parking Reduction	15-30	Developer provides on-site parking at a rate below the maximum allowed by BTD's Parking Ratio Guidelines	☑	**Parking provided at no more than 75% of maximum**	**15**	
		Parking Pricing	5-30	Property owner charges market-rate pricing for use of on-site parking at an hourly, daily, weekly, or monthly rate	☐	**Parking provided at no more than 75% of maximum**	**0**	
					☐	**Neither weekly or daily-only charging**	**0**	

ELECTIVE	Bicycling	Bike Share Membership Subsidy	5-8	Property owner or employer provides discounted bike share memberships as part of the Bluebikes Corporate Program	☑	**Bike share memberships are bronze-level**	**5**
		E-Bike/E-Cargo Bike Program	5	Property owner provides on-site e-bikes and/or e-cargo bikes for use by project tenants. This strategy is more appropriate for use at project sites with challenging topography.	☑	*No additional options apply*	**5**
		Additional Bike Parking Spaces	2-5	Developer provides additional short- or long-term bike parking spaces above the minimum rates in BTD's Bike Parking Guidelines	☐	**Parking provided at no less than 125% of maximum**	**0**
		Multimodal Transportation Subsidy	10	Property owner provides a monthly subsidy for multimodal travel expenses, such as bicycle maintenance	☐	*No additional options apply*	**0**
	Vehicle	Parking Cashout	10	Property owner or employer provides monthly payment for users to forgo on-site parking when parking is made available for free or at a subsidized rate. Payment is equivalent to the monthly market cost of the space.	☐	*No additional options apply*	**0**
		Carpool Program w/ Preferential Spaces	5-10	Property owner or tenant provides carpool matching services with preferential and (if parking pricing exists) discounted parking close to building entrances	☑	**Project is an institution, medical campus, or other development of more than 200,000 square feet**	**10**
		Car Share Membership/Subsidy	2-4	Property owner or tenant provides a subsidized membership to a car share service for users	☐	**Subsidy of 100% of car share membership cost**	**0**
		Car Share Parking	3-6	Developer provides a minimum of one car share vehicle(s) that is accessible 24 hours a day, seven days a week	☑	**Car share parking is neither EV or publicly-accessible**	**3**
	Transit	Shuttle Service	5-10	Property owner provides a shuttle service to connect project users with nearby transit stations or activity centers	☐	**Peak period operations only**	**0**
		Bus Stop Improvements	2-4	Developer provides improvements, including accessibility upgrades and installation or upgrade of shelters, for bus stops which serve the project	☑	**Provision of a shelter**	**4**
	Development	Mixed-Use Development	5-20	Developer constructs secondary land uses which can offset trips elsewhere or incorporates a centralized parcel drop-off/receiving stations into any residential component of the project	☑	**Fitness center component (select one, points descend in order listed)**	**5**
					☑	**Centralized parcel drop-off/receiving station**	**5**
		Bundled Transportation Options (GoHubs!)	4	Developer identifies publicly-accessible space around the development to collocate transportation options such as car share, bike share, bike parking, electric vehicle charging, passenger pick-up/drop, bike parking, and e-bike/e-scooter charging stations. This space may be adjacent to a public street that allows for transportation options to be located curbside.	☐	*No additional options apply*	**0**

Appendix D: Shadow Analysis Conducted for the City of the Boston Supplemental Information Document Filing

- Shadow Analysis – 15 Minutes Intervals
- Shadow Analysis – Reduced Equipment Screen Study
- Shadow Analysis – Alternative Massing Study

Shadow Analysis – 15 Minutes Intervals

Shadow Analysis:
4.2a – Reduced Equipment Screen Study

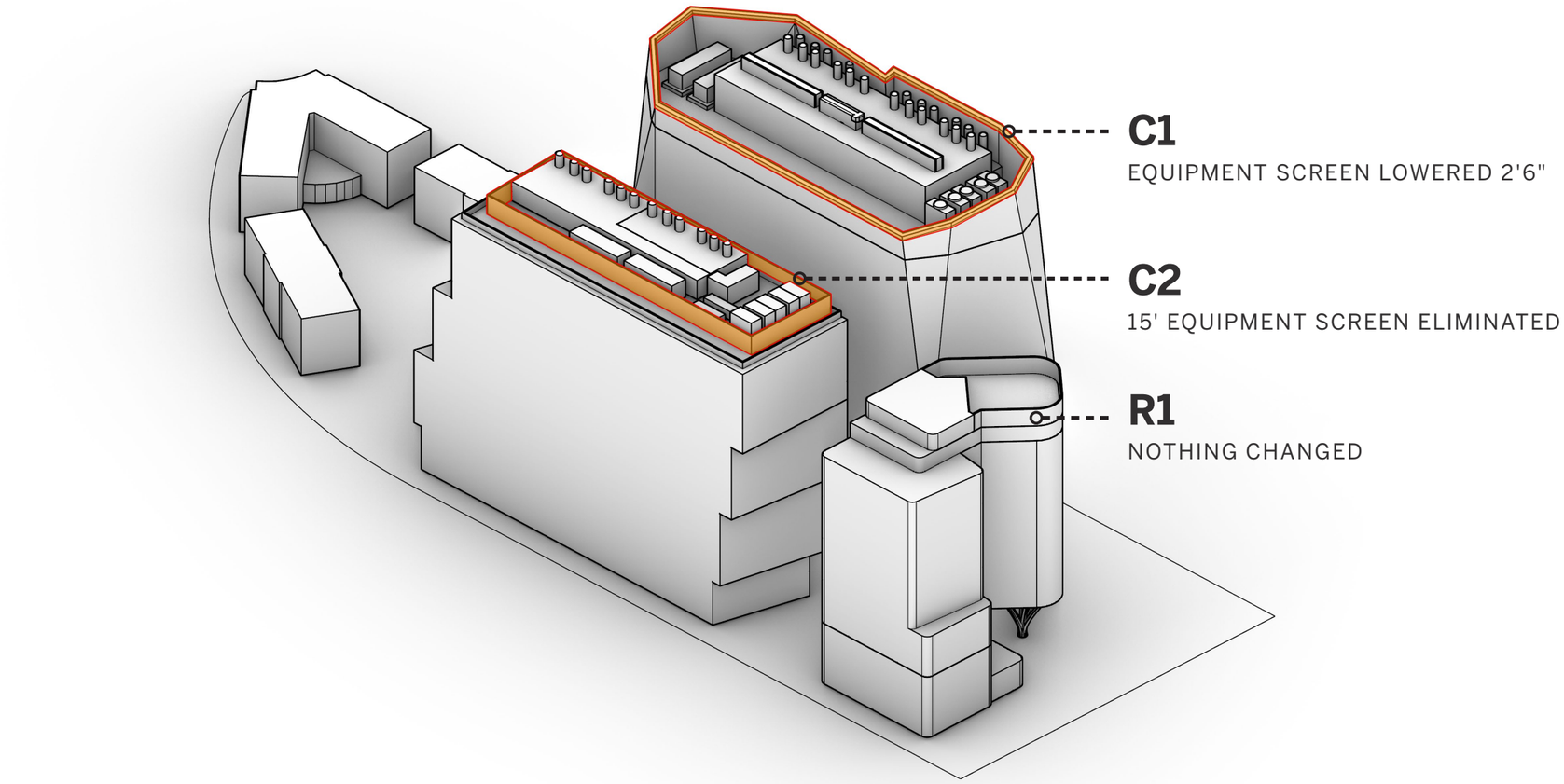
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Figure 4.2a-1: Shadow Analysis

Longwood Place | Boston, MA

Reduced Equipment Screen Study

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



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Figure 4.2a-2: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Spring Equinox (March 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



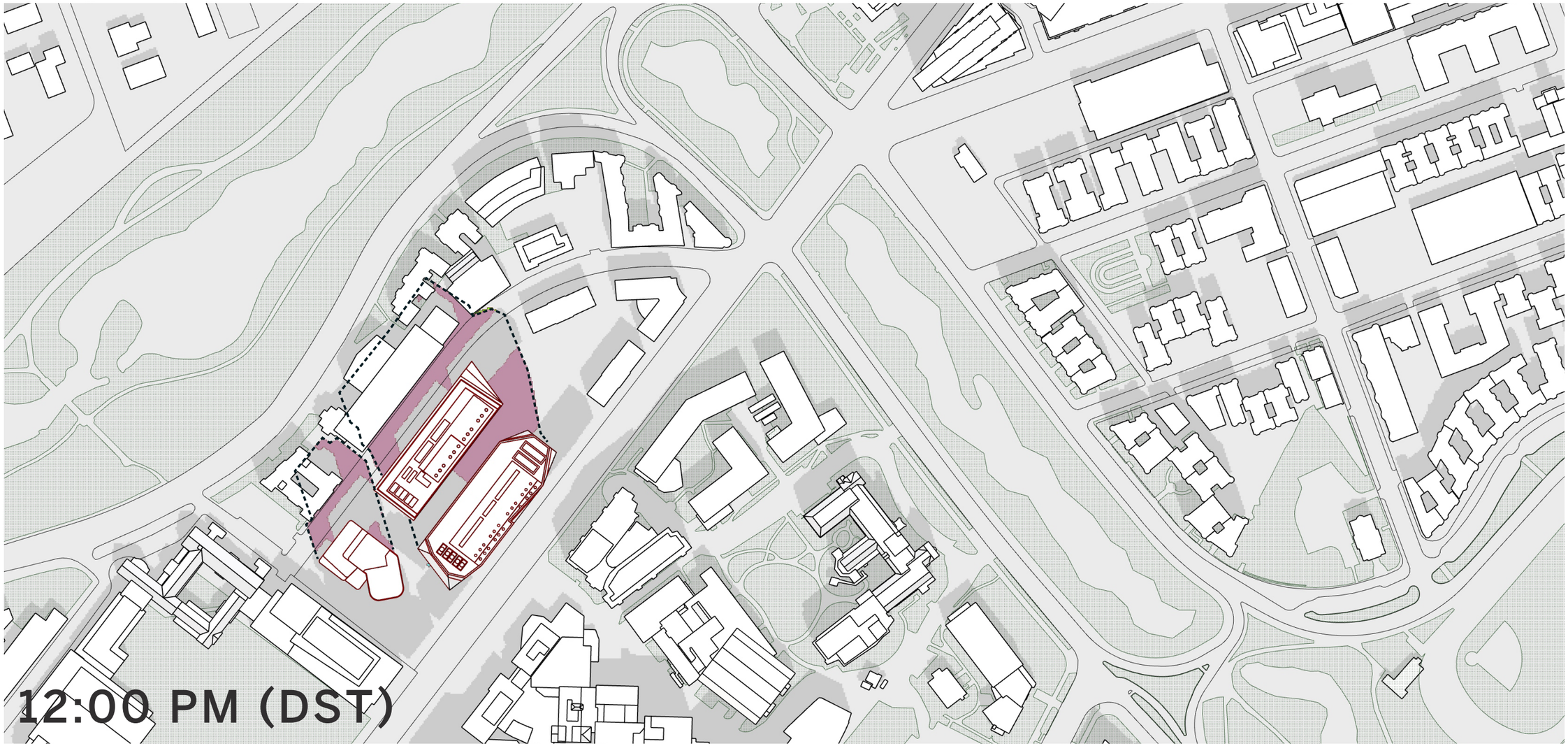
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Figure 4.2a-3: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Spring Equinox (March 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



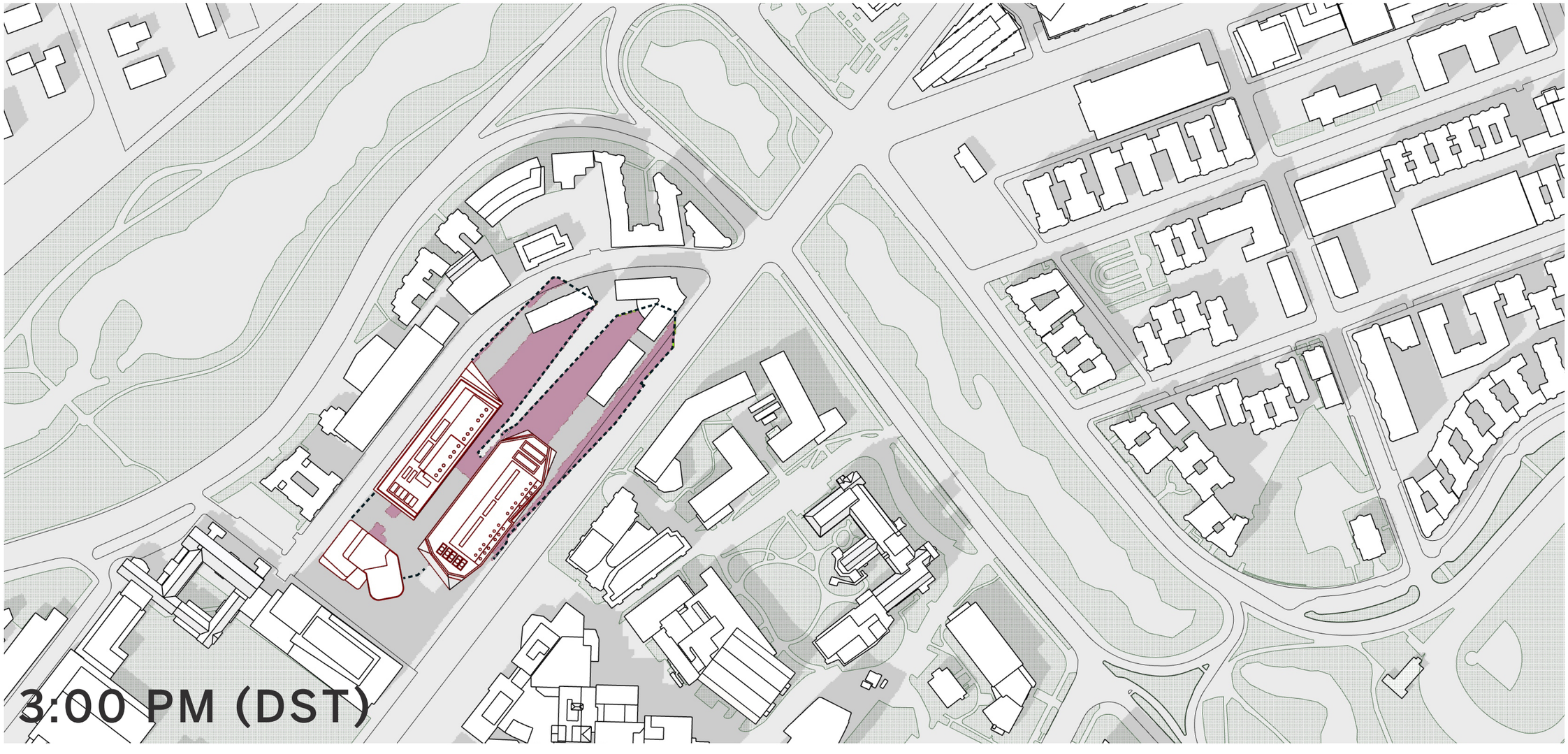
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Figure 4.2a-4: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Spring Equinox (March 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



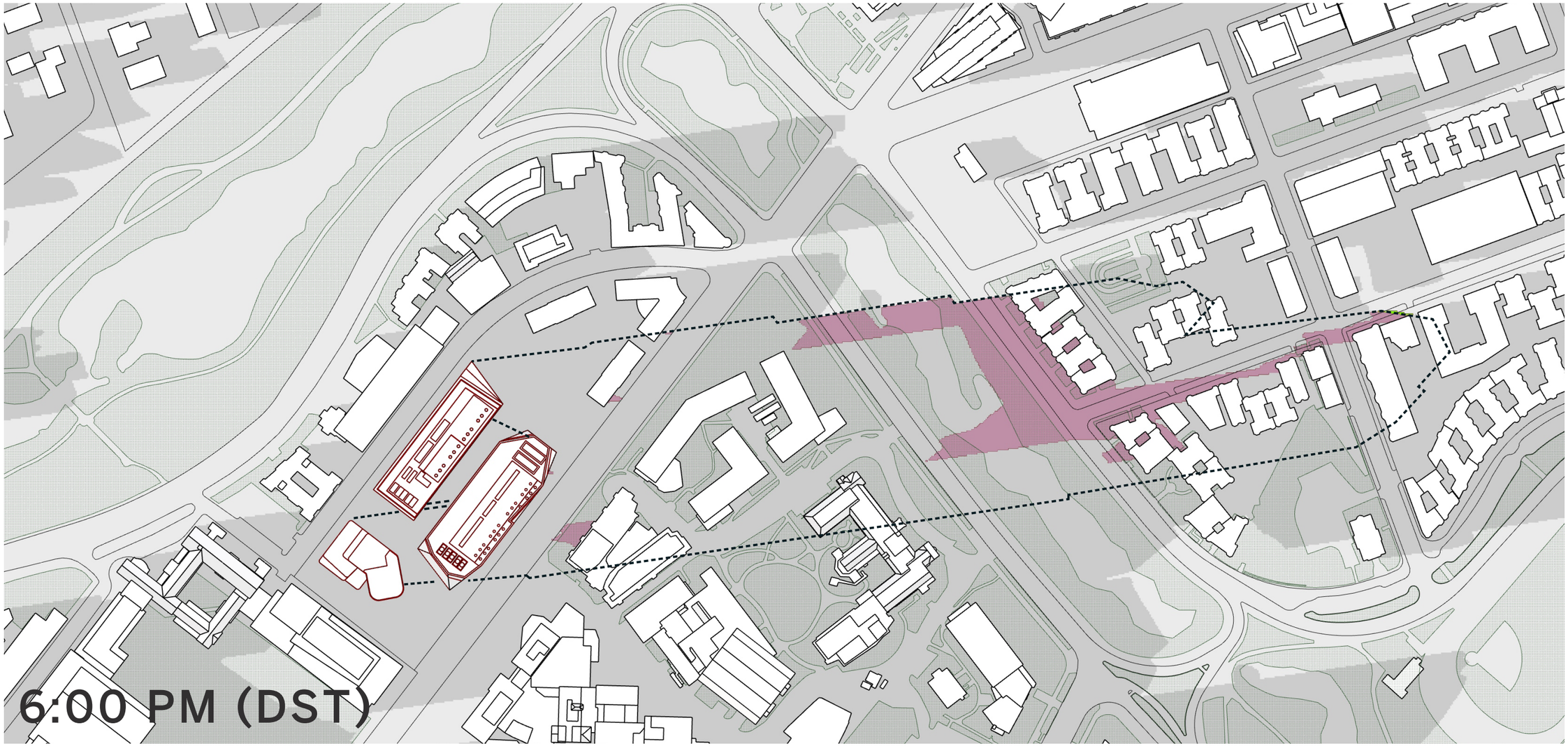
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Figure 4.2a-5: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Spring Equinox (March 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



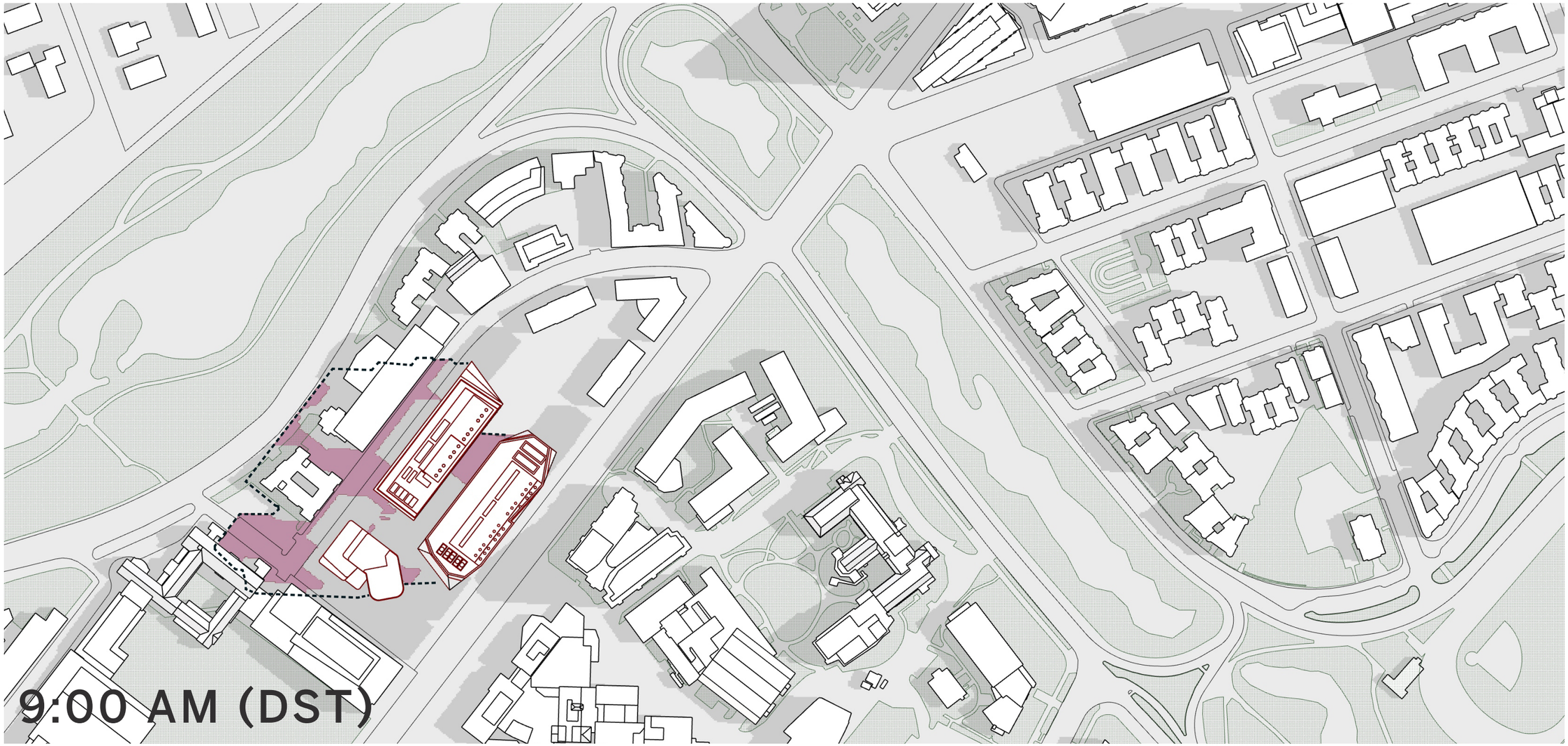
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Figure 4.2a-6: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Summer Solstice (June 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



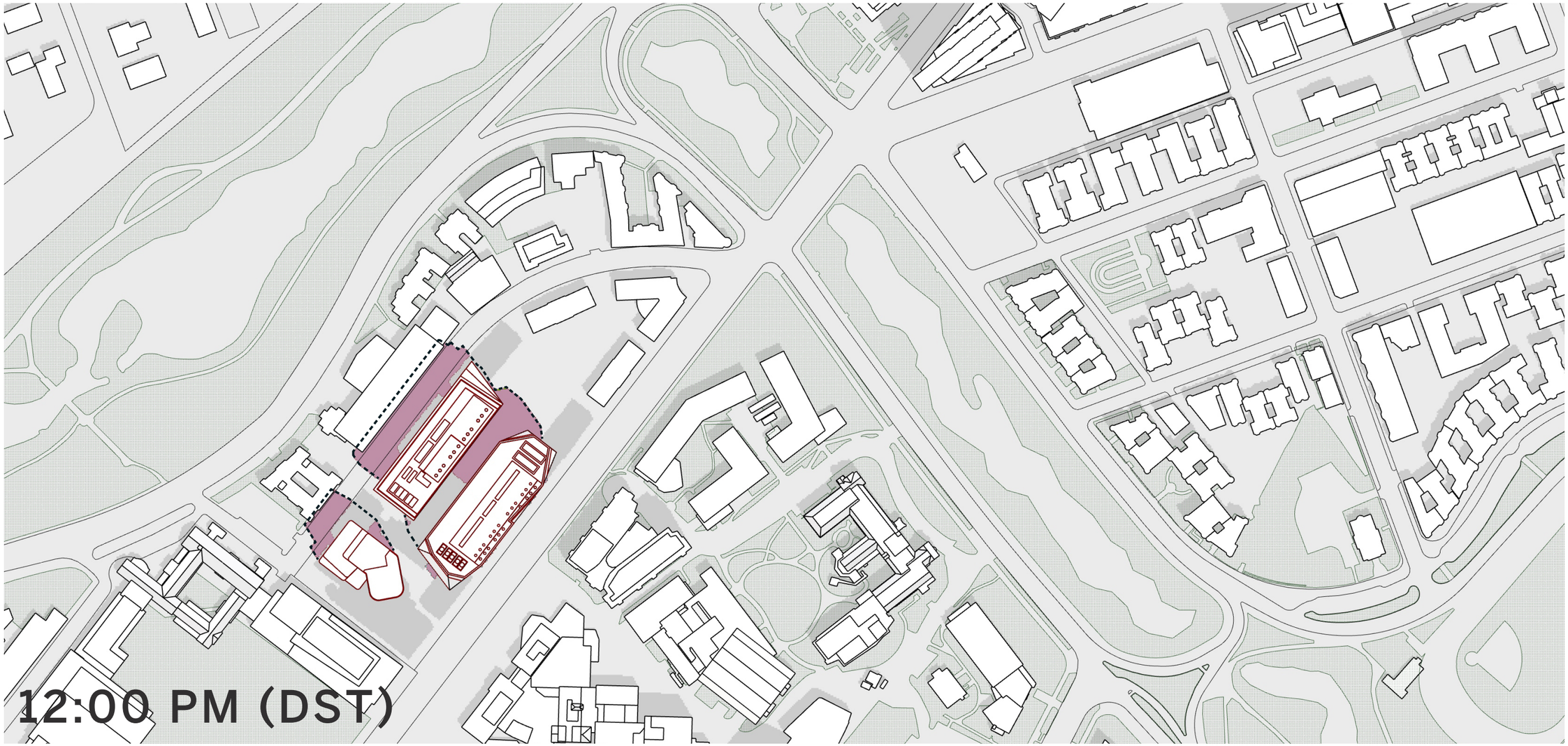
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Figure 4.2a-7: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Summer Solstice (June 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



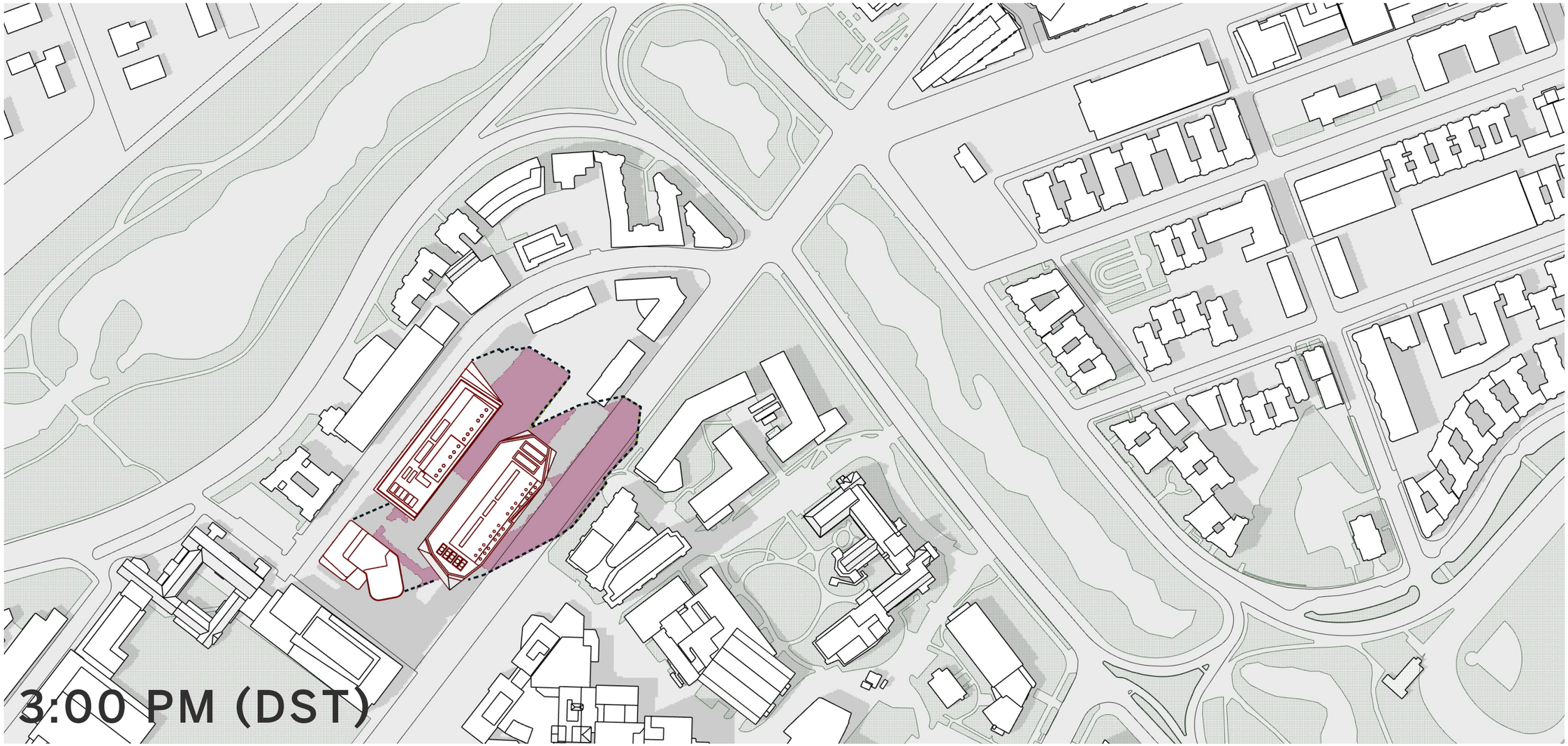
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Figure 4.2a-8: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Summer Solstice (June 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



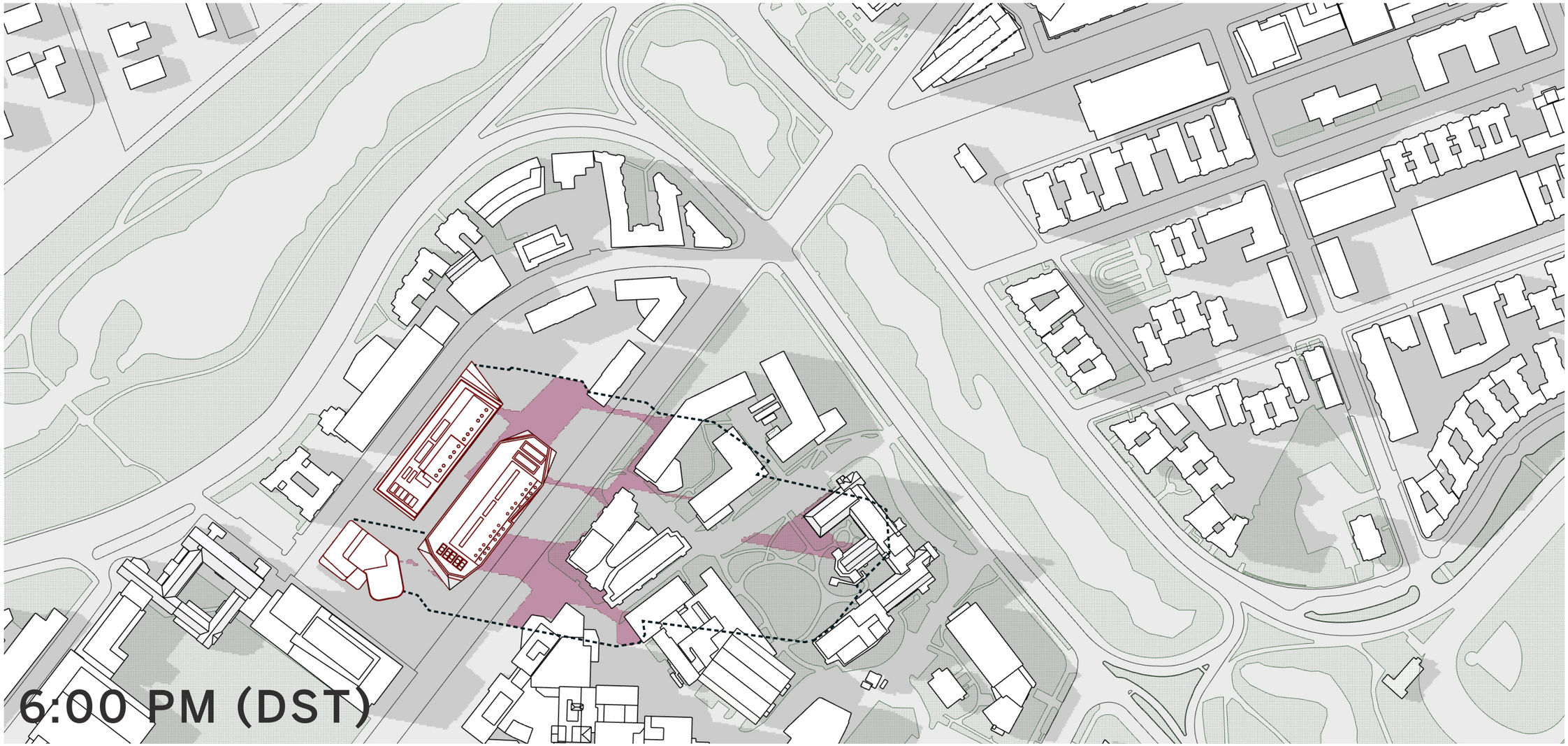
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Figure 4.2a-9: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Summer Solstice (June 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



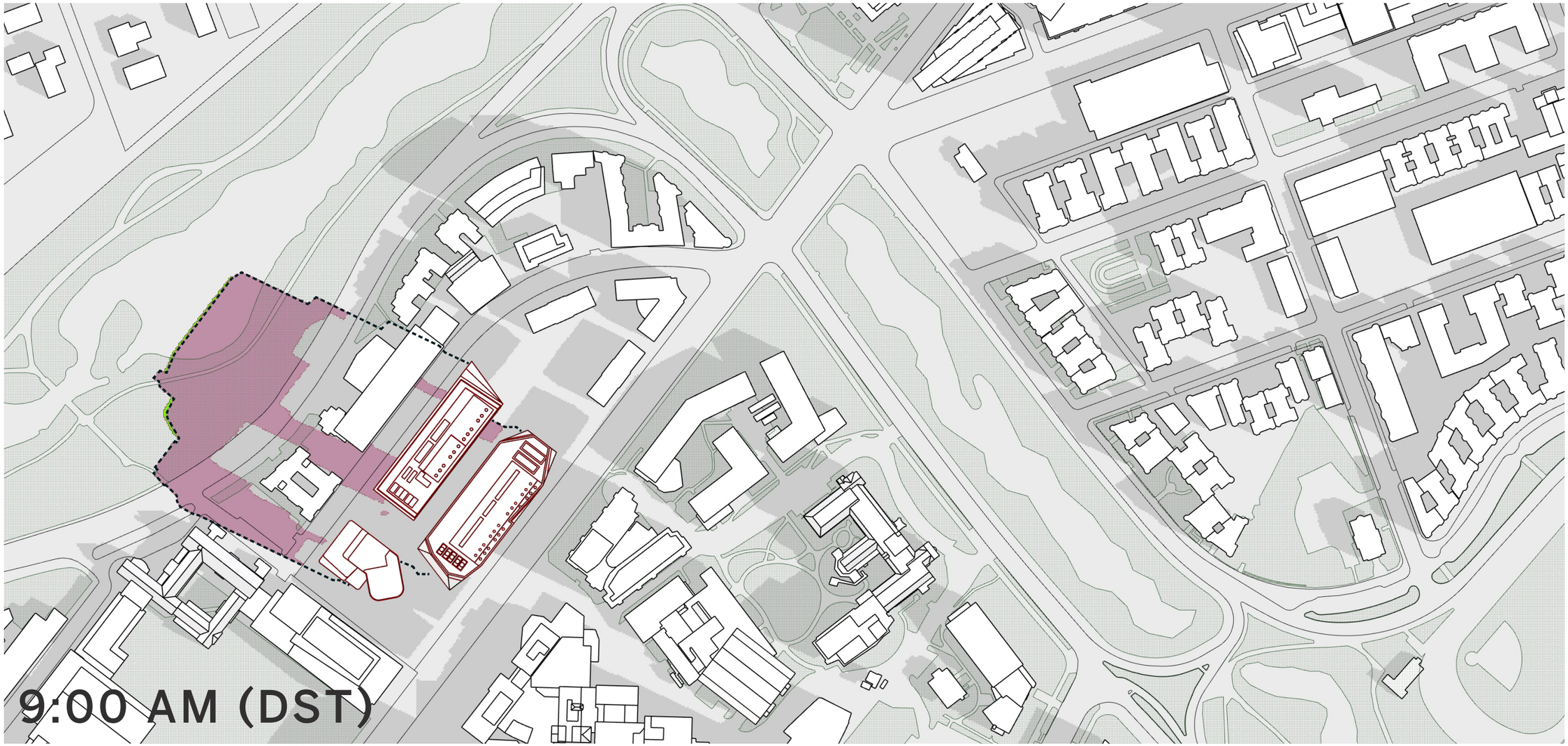
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Figure 4.2a-10: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Autumnal Equinox (September 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



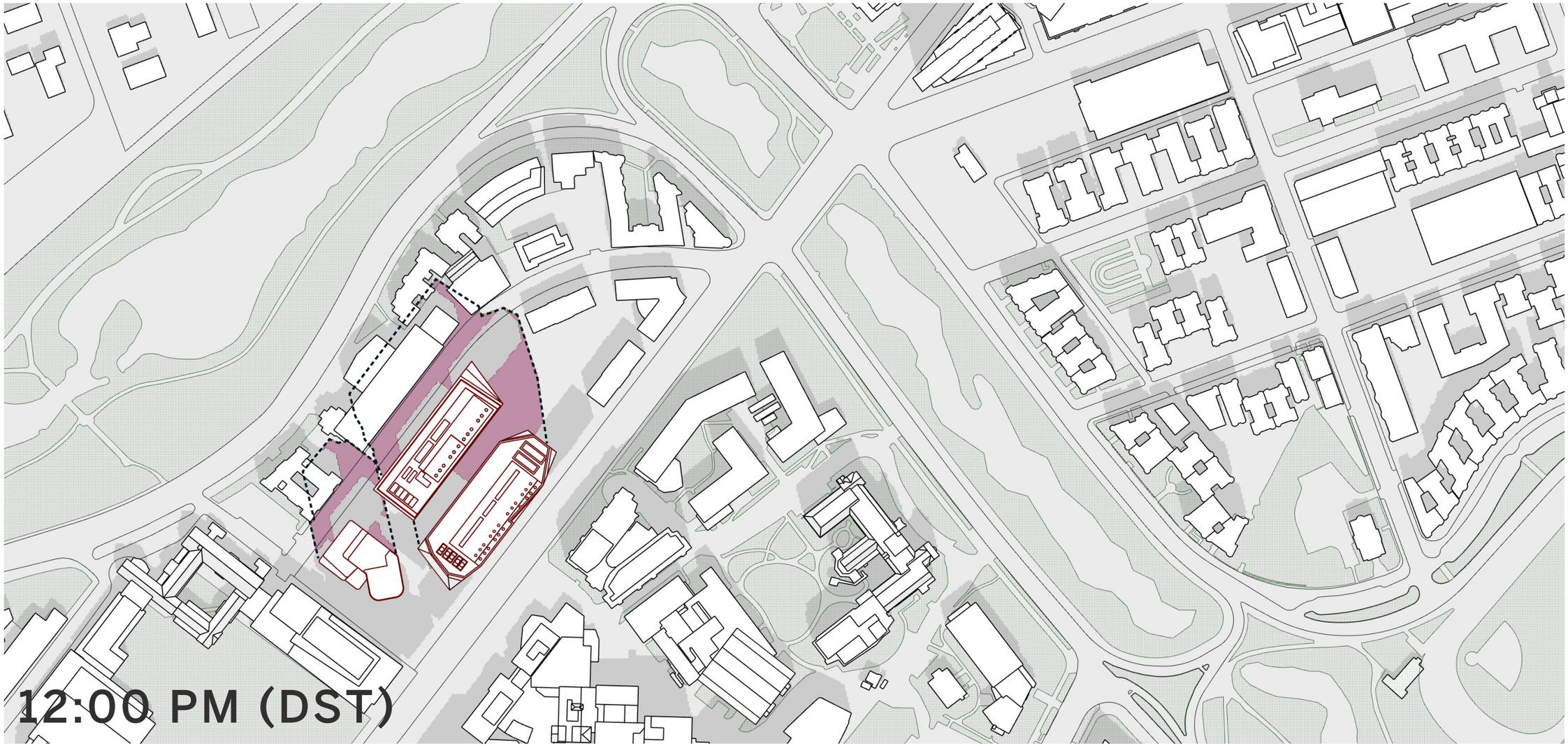
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Figure 4.2a-11: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Autumnal Equinox (September 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



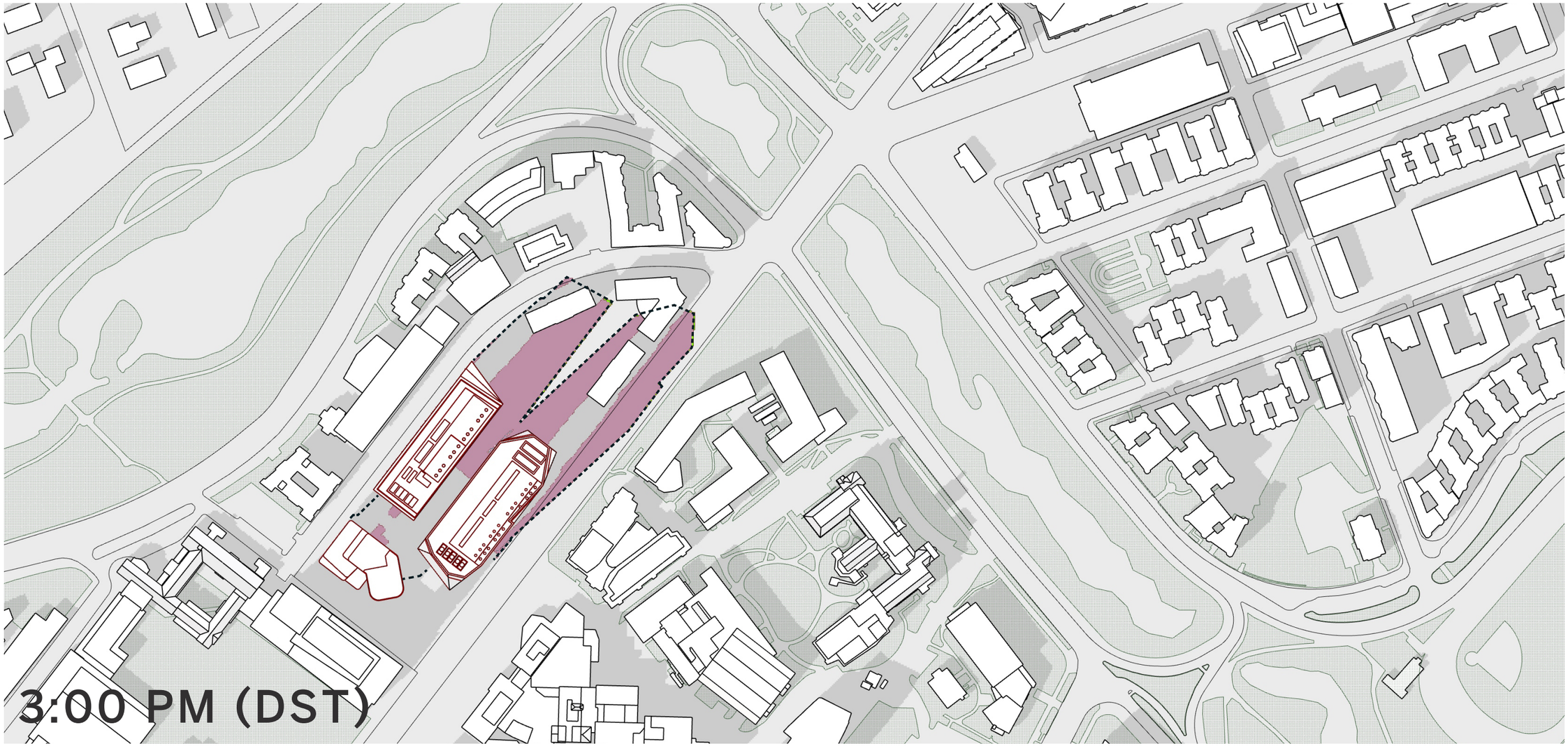
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Figure 4.2a-12: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Autumnal Equinox (September 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



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Figure 4.2a-13: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Autumnal Equinox (September 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



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Figure 4.2a-14: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Winter Solstice (December 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



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Figure 4.2a-15: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Winter Solstice (December 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



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Figure 4.2a-16: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Winter Solstice (December 21)

This study compares the proposed building massing to an alternative version with reduced equipment screen heights.



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Shadow Analysis – Reduced Equipment Screen Study

Shadow Analysis:
4.2b – Alternative Massing Study

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Figure 4.2b-1: Shadow Analysis
Longwood Place | Boston, MA

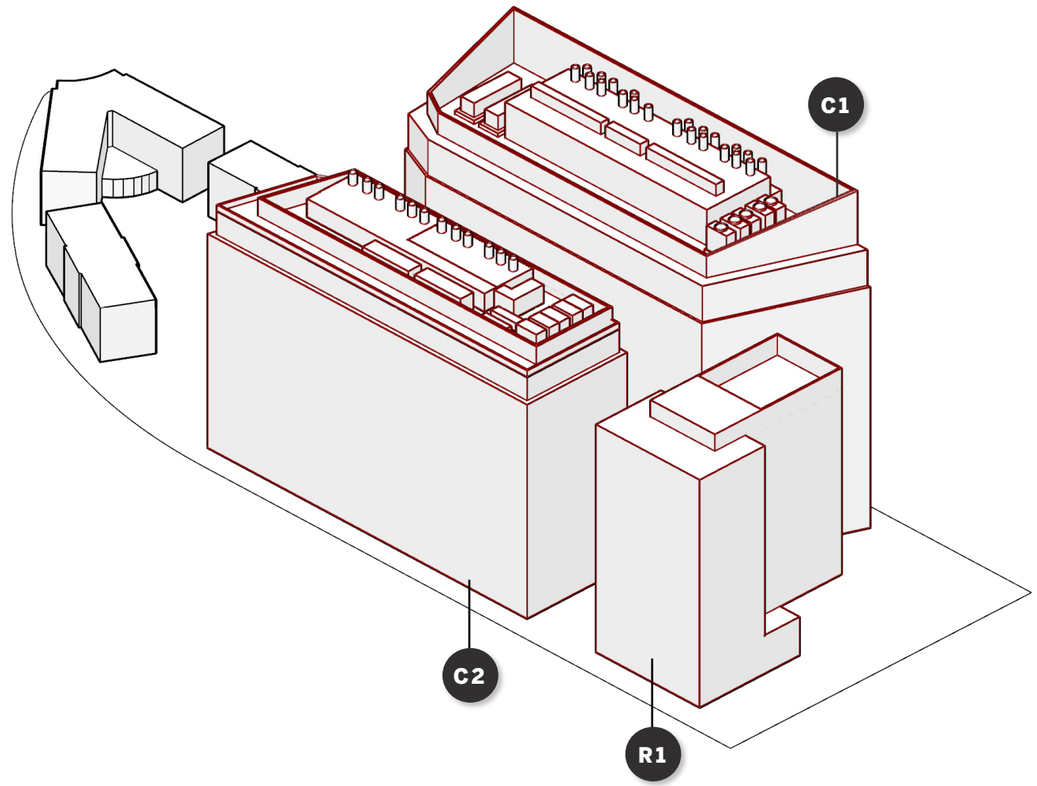
Alternative Massing Study

Goal

1. Determine if building heights can be reduced by maximizing building footprints.

Constraints

1. Maintain PDA-required building setbacks.
2. Do not exceed PDA-maximum floor plates.
3. Maintain PDA-required open space.
4. Maintain the Proposed Project (PNF) building area (GFA).

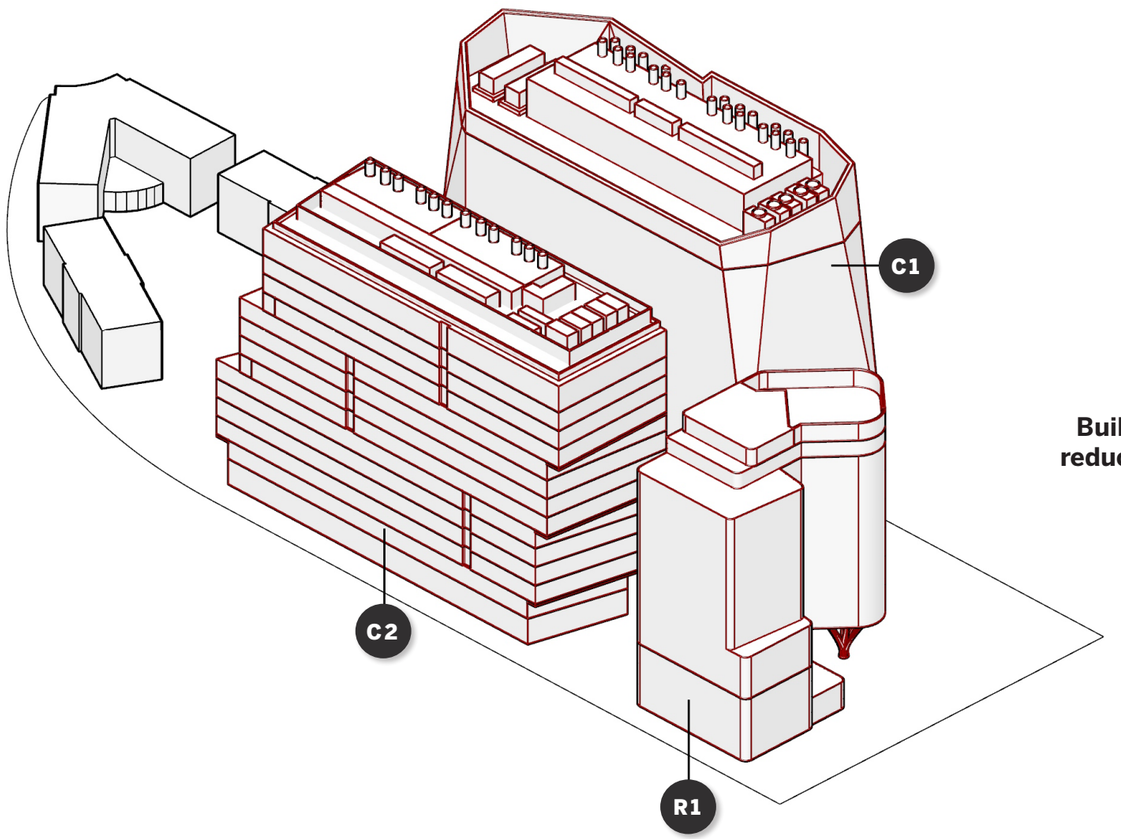


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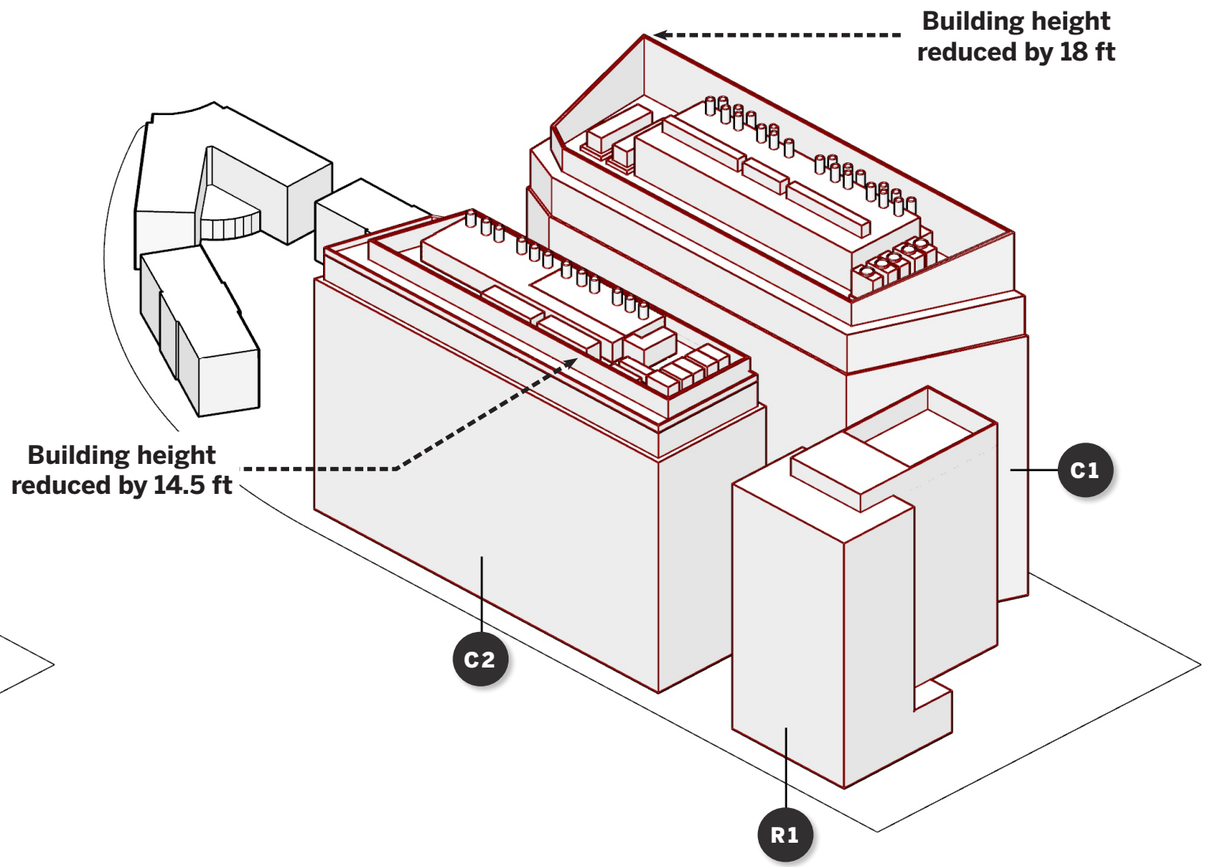
Figure 4.2b-2: Shadow Analysis
Longwood Place | Boston, MA

Project Buildings Diagram

PROPOSED PROJECT MASSING



ALTERNATIVE MASSING



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Figure 4.2b-3: Shadow Analysis

Longwood Place | Boston, MA

Shadow Area on Emerald Necklace Quantitative Analysis

Date/ Time	Proposed Project Massing	Alternative Massing	Delta from Proposed Project	% Reduction
Vernal Equinox - March 21				
9:00 am	93,950sf	91,711 sf	**-2,239 sf**	**-2.38%**
12:00 pm	0 sf	0 sf	**0 sf**	**0%**
3:00 pm	0 sf	0 sf	**0 sf**	**0%**
6:00 pm	42,878 sf	46,757 sf	**+3,879 sf**	**+9.04%**
Summer Solstice - June 21				
9:00 am	0 sf	0 sf	**0 sf**	**0%**
12:00 pm	0 sf	0 sf	**0 sf**	**0%**
3:00 pm	0 sf	0 sf	**0 sf**	**0%**
6:00 pm	0sf	0 sf	**0 sf**	**0%**
Autumnal Equinox - September 21				
9:00 am	72,553 sf	69,443sf	**-3,110 sf**	**-4.28%**
12:00 pm	0 sf	0 sf	**0 sf**	**0%**
3:00 pm	0 sf	0 sf	**0 sf**	**0%**
6:00 pm	13,992 sf	15,322 sf	**+1,330 sf**	**+9.50%**
Winter Solstice - December 21				
9:00 am	137,472 sf	152,854 sf	**+15,382 sf**	**+11.19%**
12:00 pm	0 sf	0 sf	**0 sf**	**0%**
3:00 pm	5,103 sf	7,826 sf	**+2,723 sf**	**+53.36%**

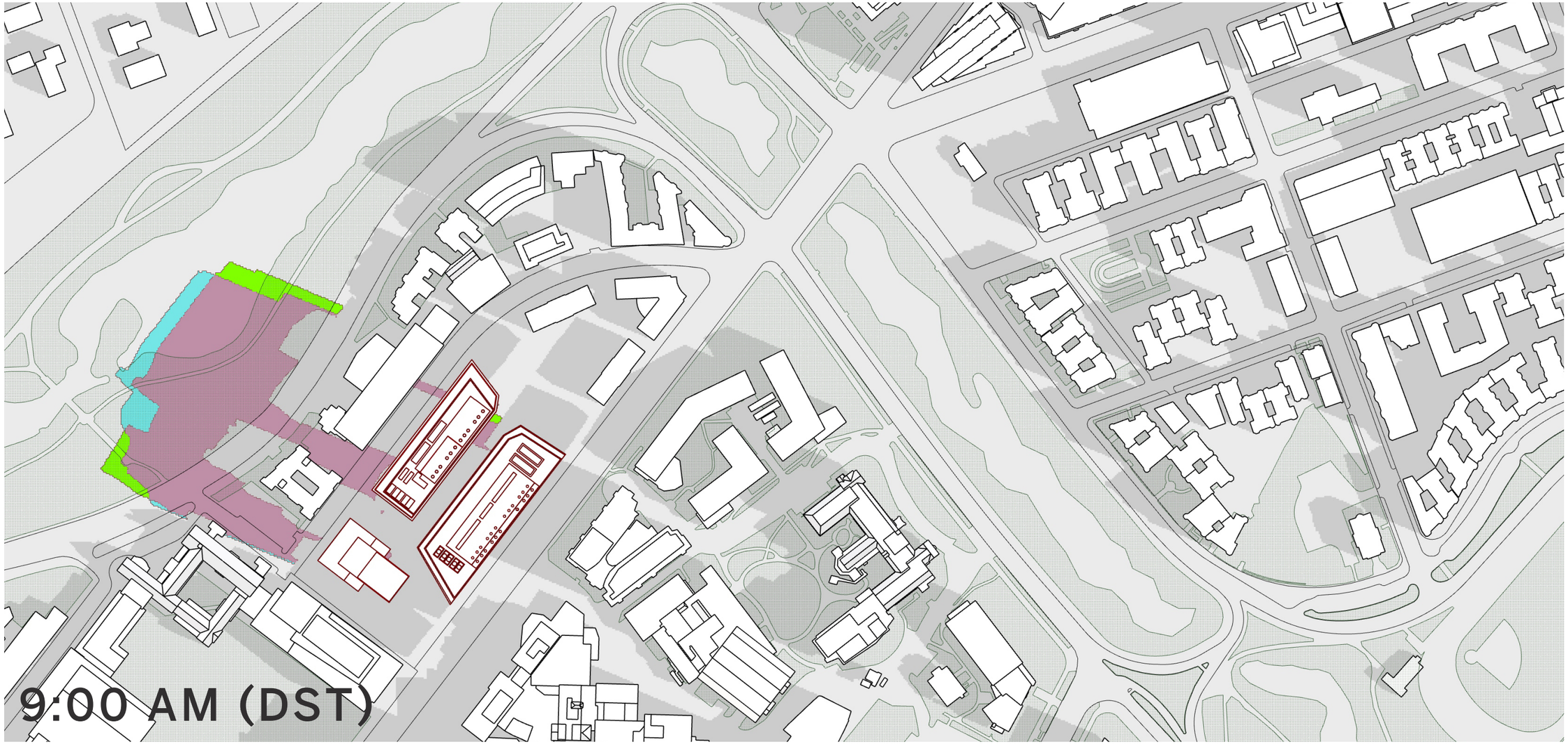
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Figure 4.2b-4: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Spring Equinox (March 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



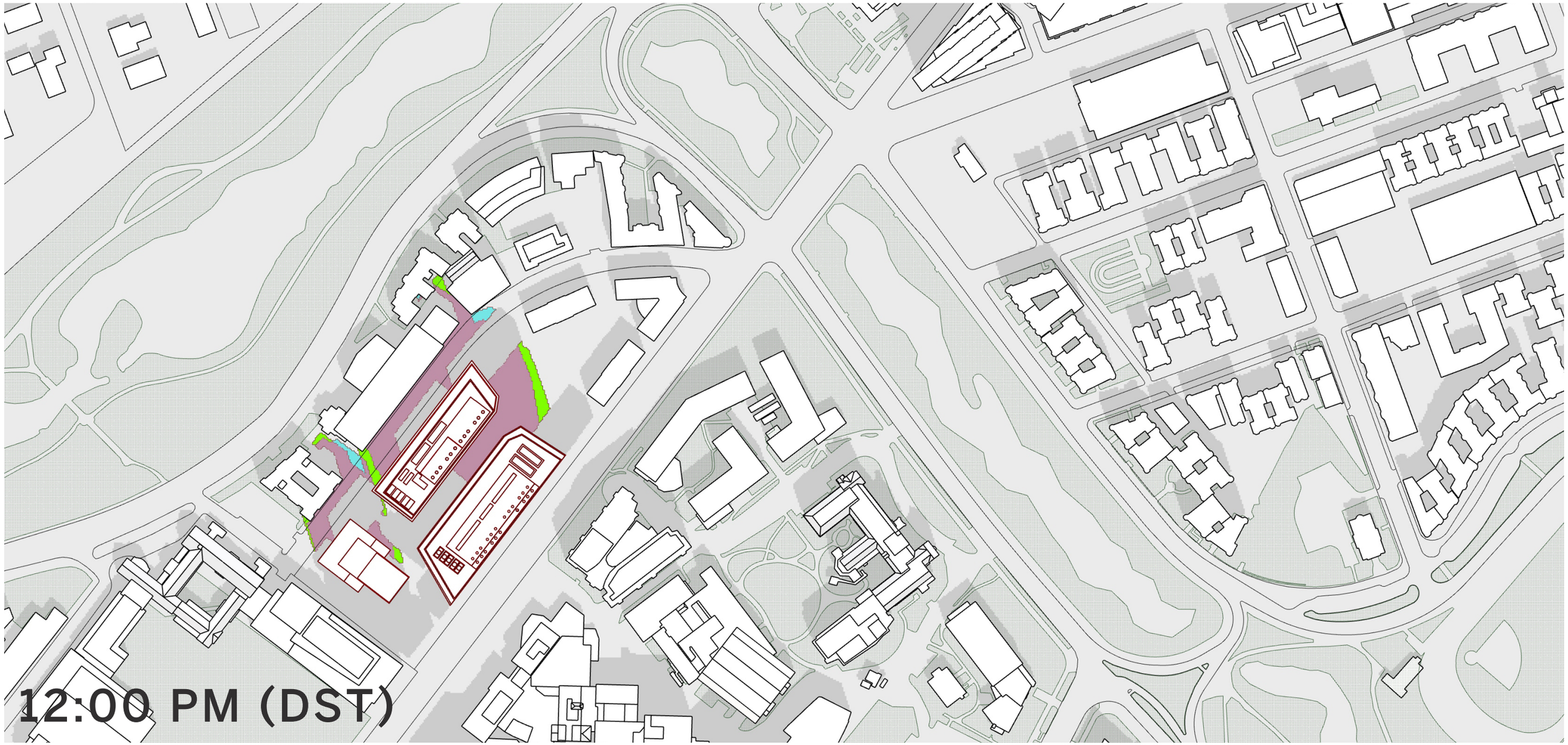
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Figure 4.2b-5: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Spring Equinox (March 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



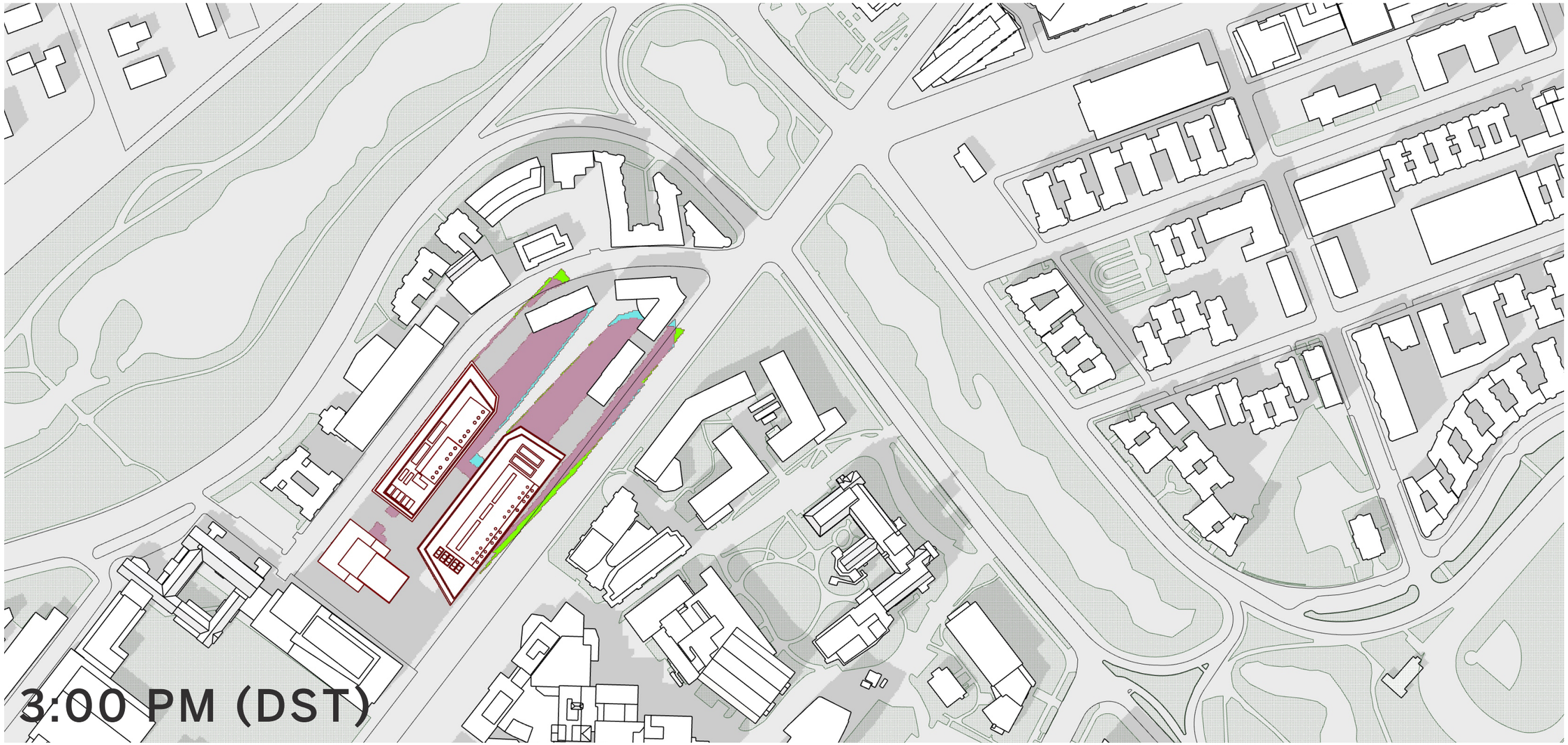
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Figure 4.2b-6: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Spring Equinox (March 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



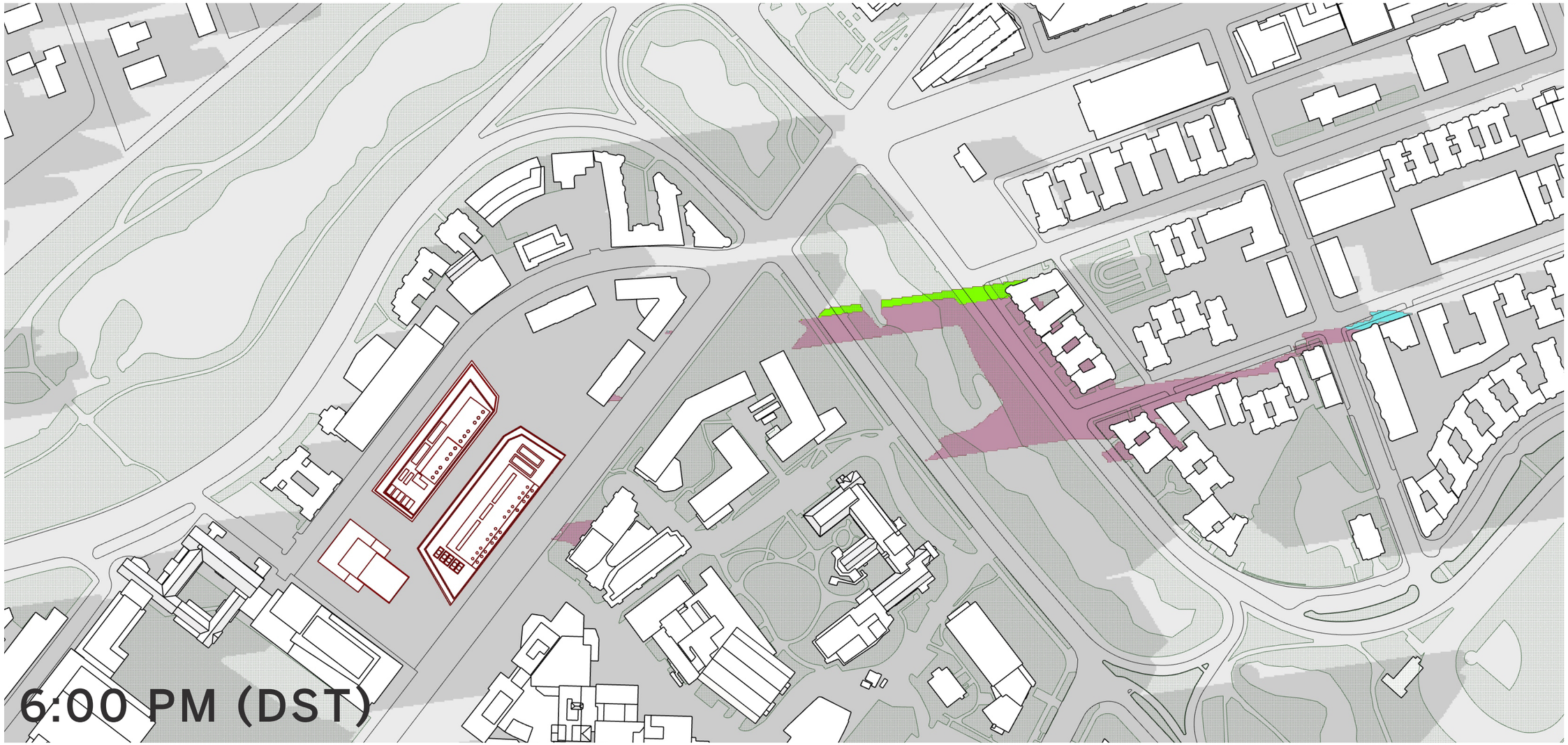
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Figure 4.2b-7: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Spring Equinox (March 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



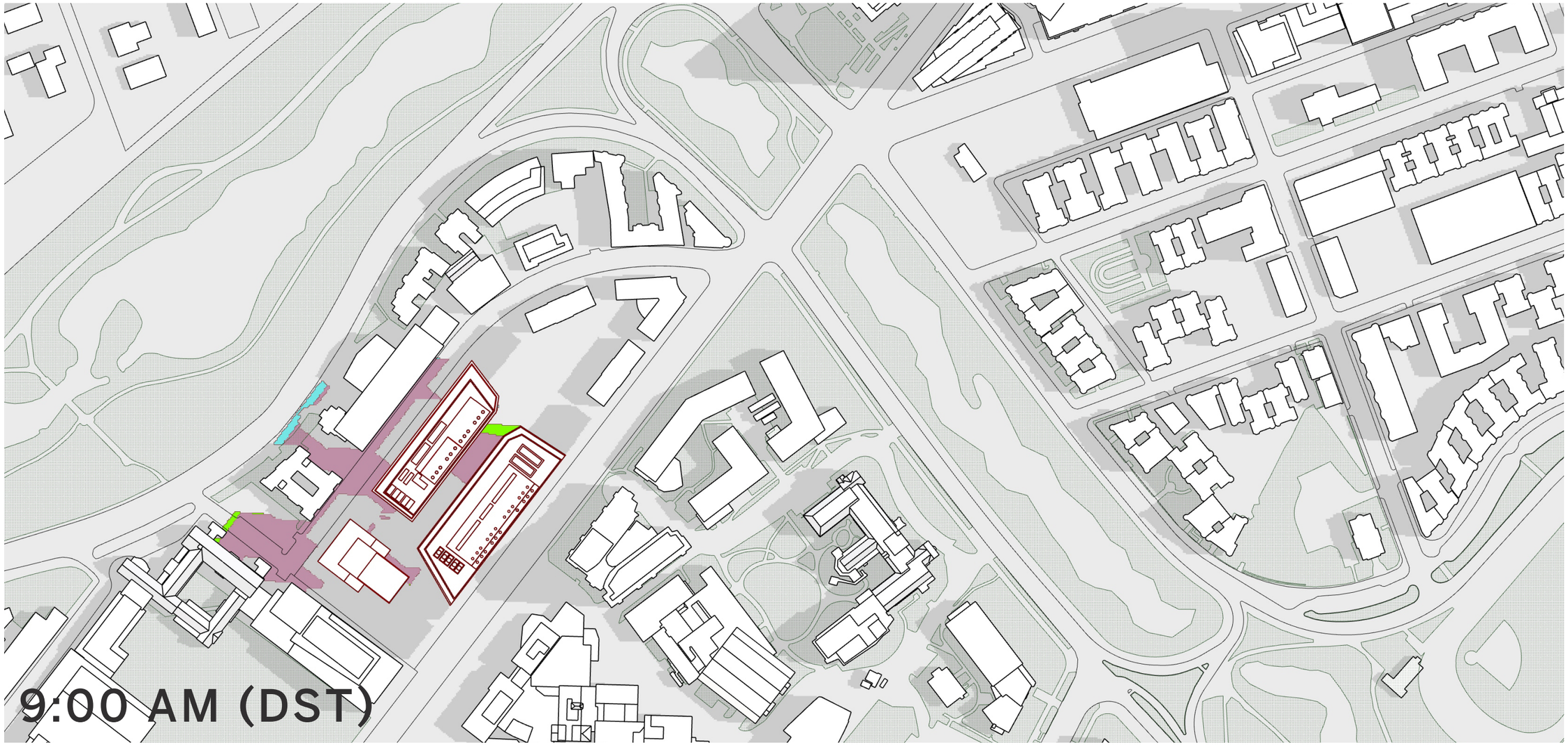
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Figure 4.2b-8: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Summer Solstice (June 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



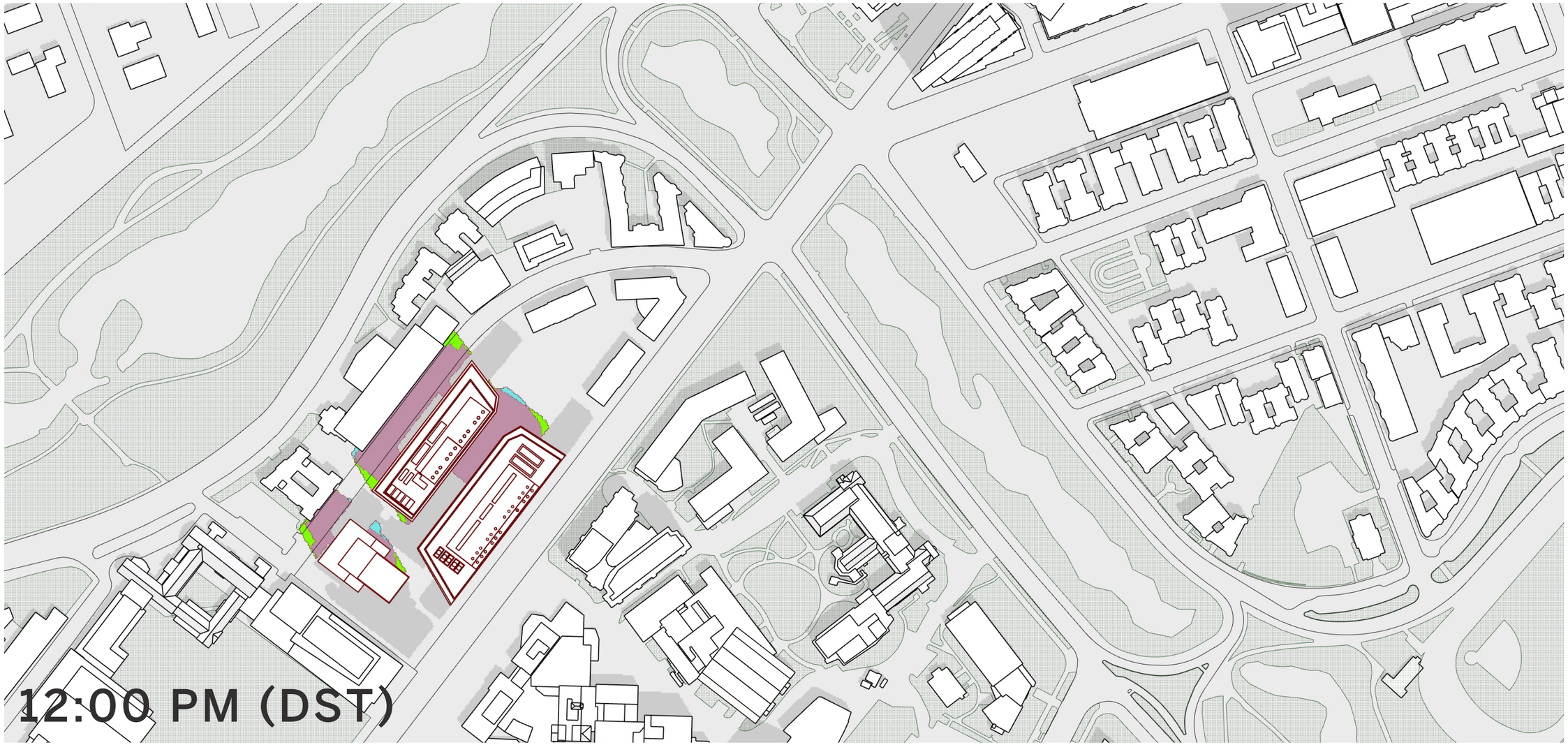
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Figure 4.2b-9: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Summer Solstice (June 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



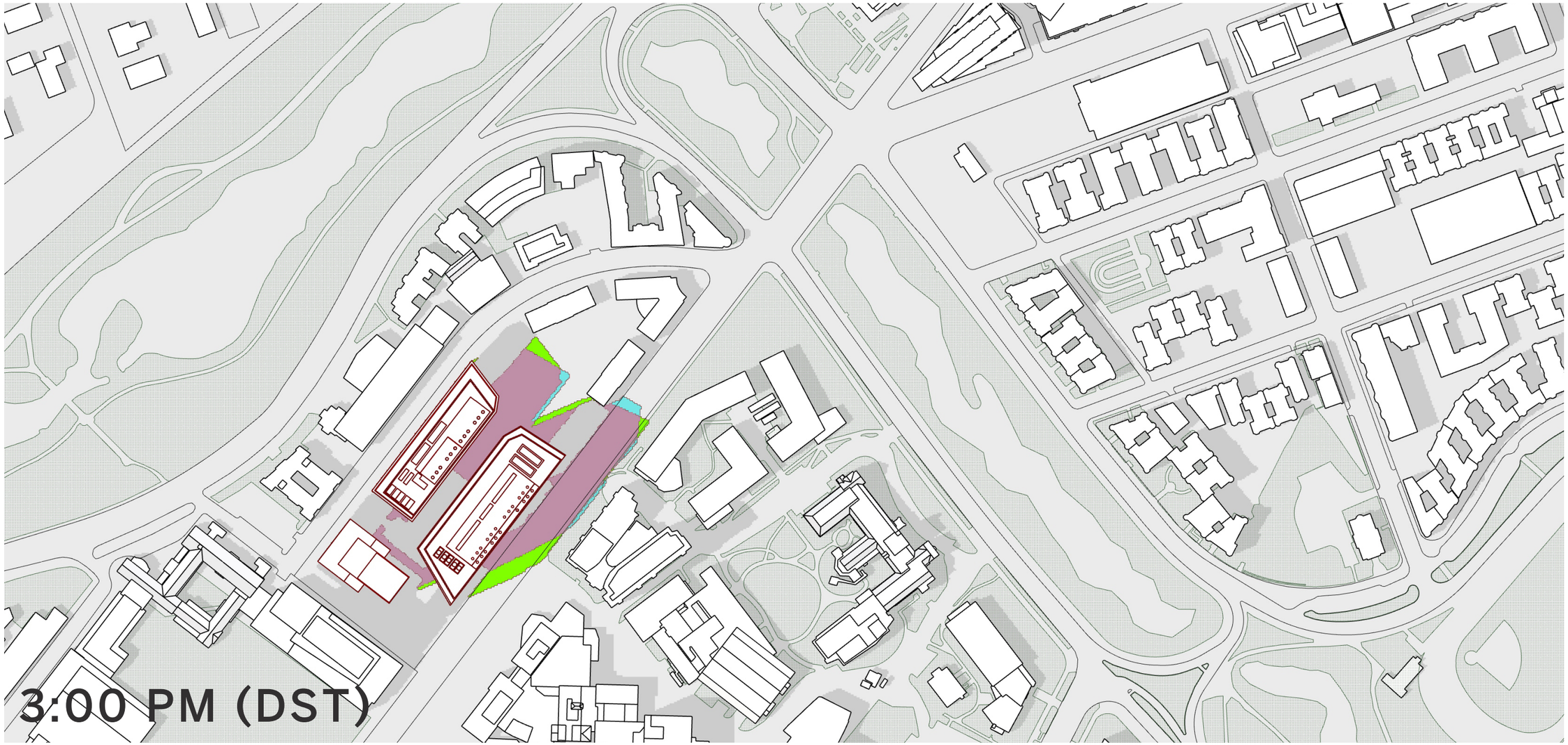
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Figure 4.2b-10: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Summer Solstice (June 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



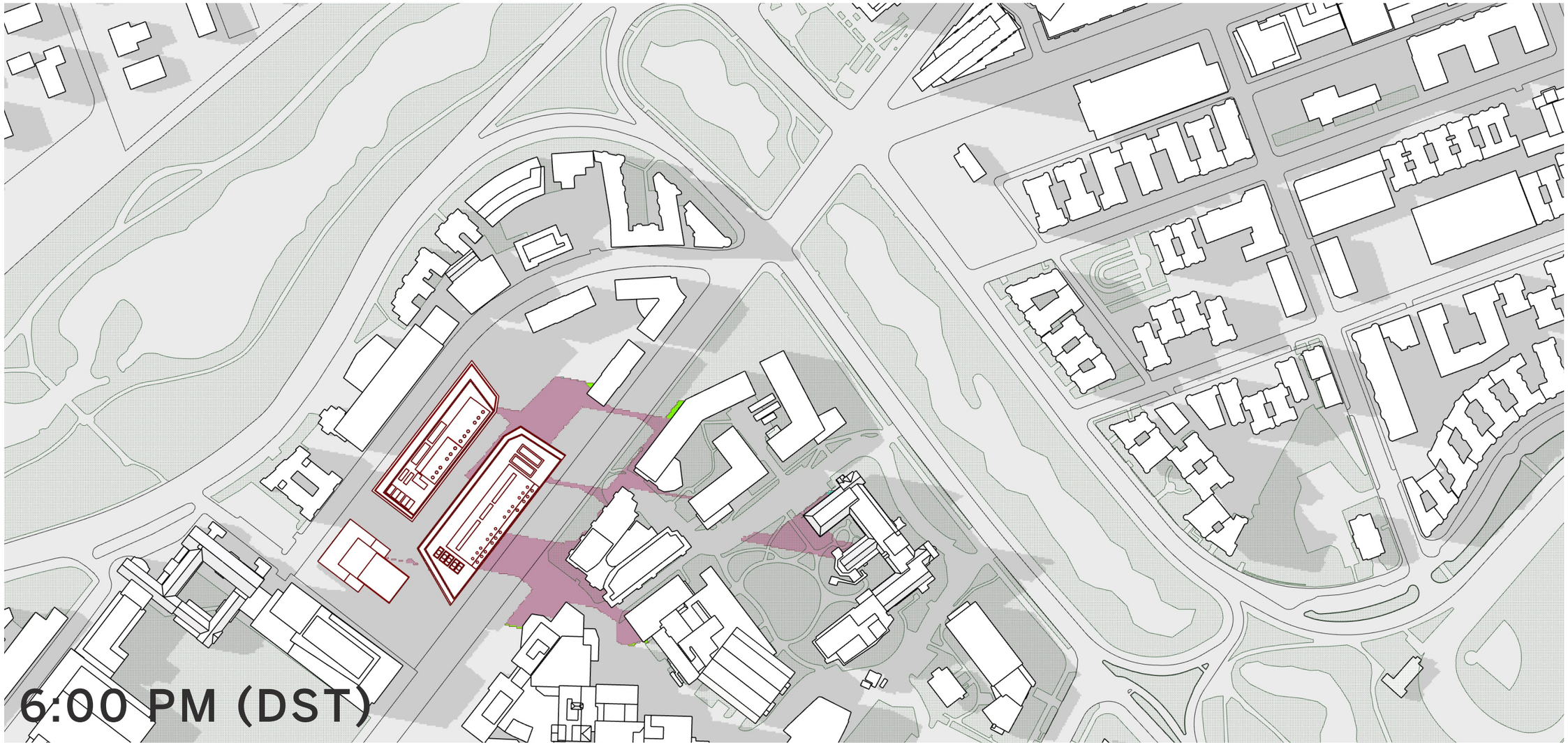
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Figure 4.2b-11: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Summer Solstice (June 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING

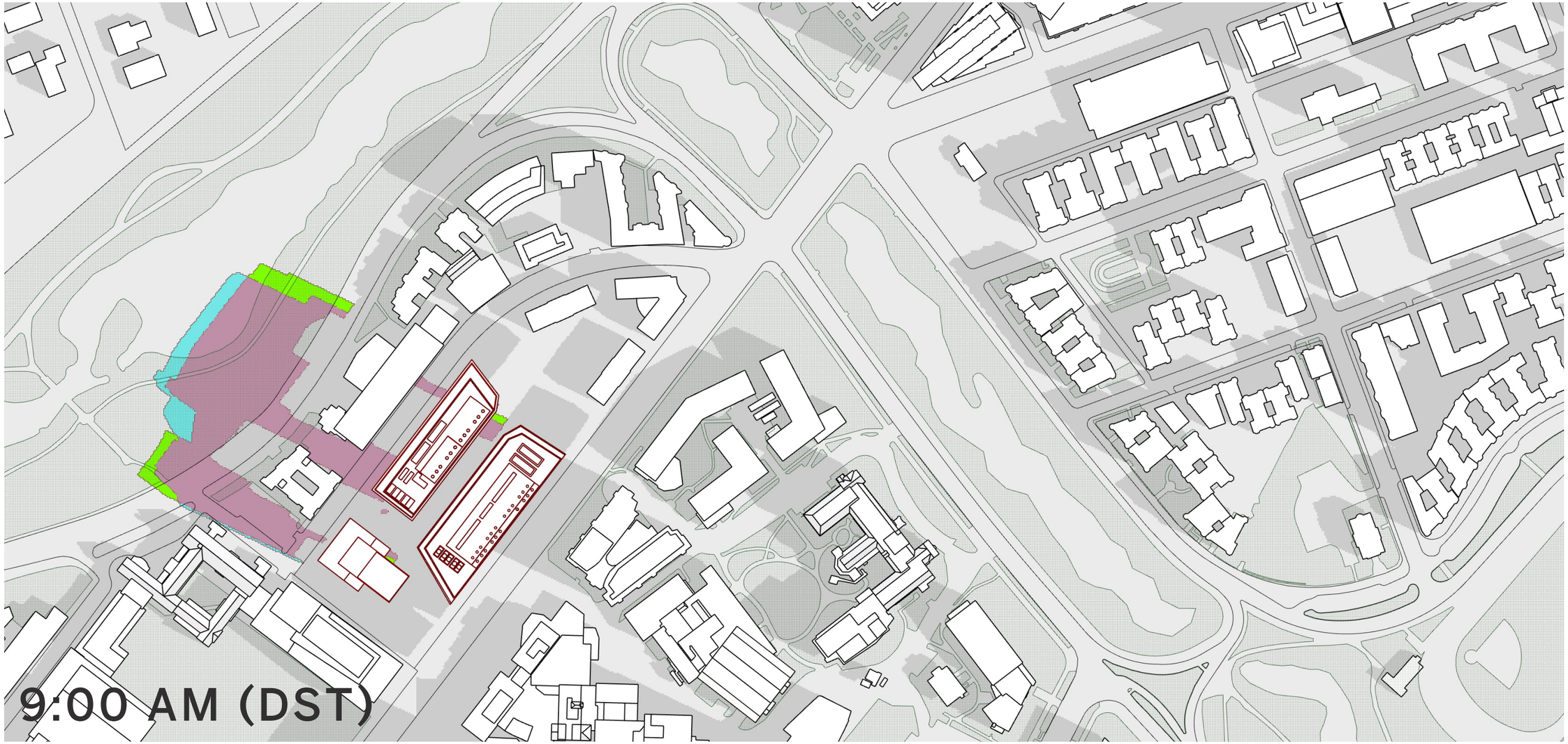


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Figure 4.2b-12: Shadow Analysis
Longwood Place | Boston, MA

Shadow Study: Autumnal Equinox (September 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



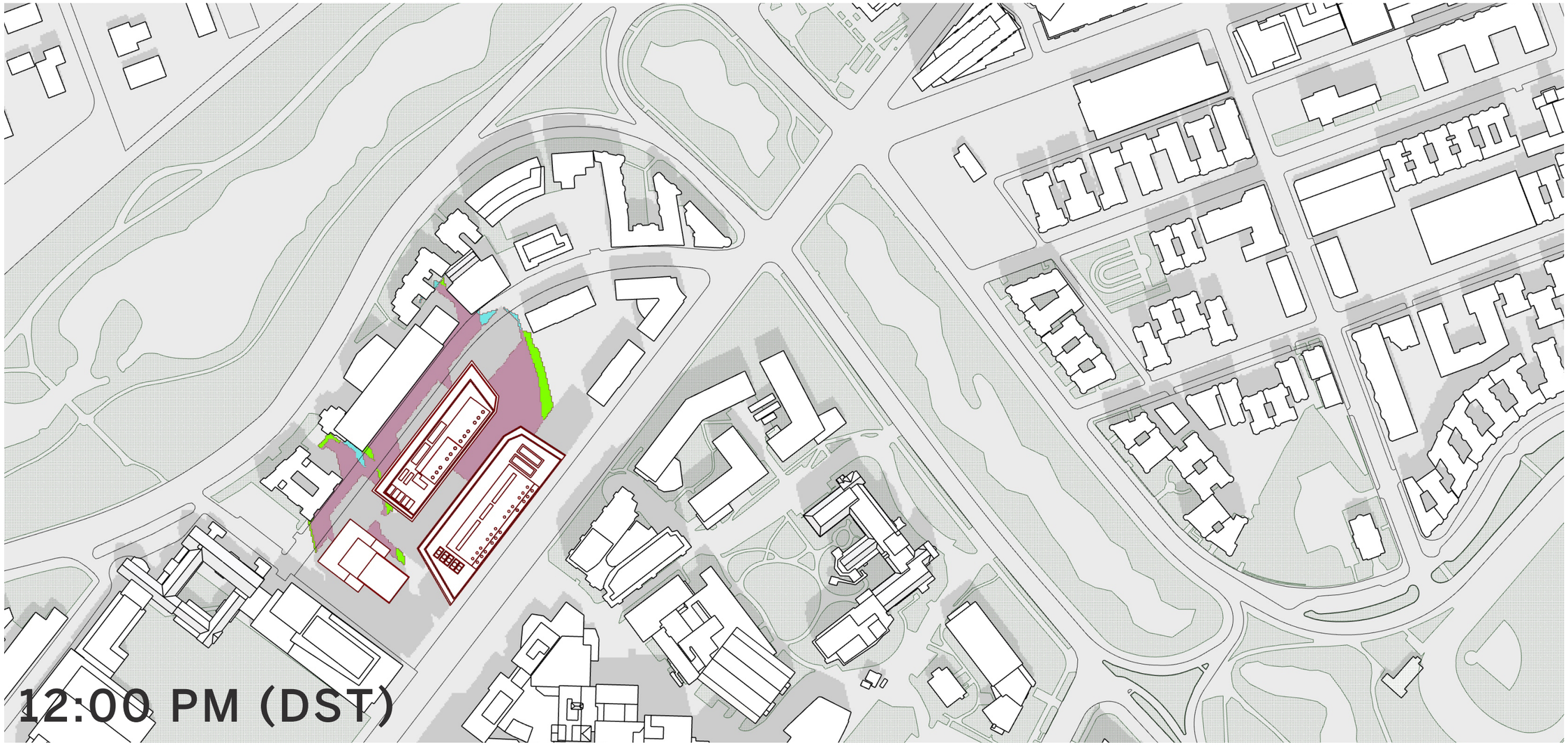
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Figure 4.2b-13: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Autumnal Equinox (September 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



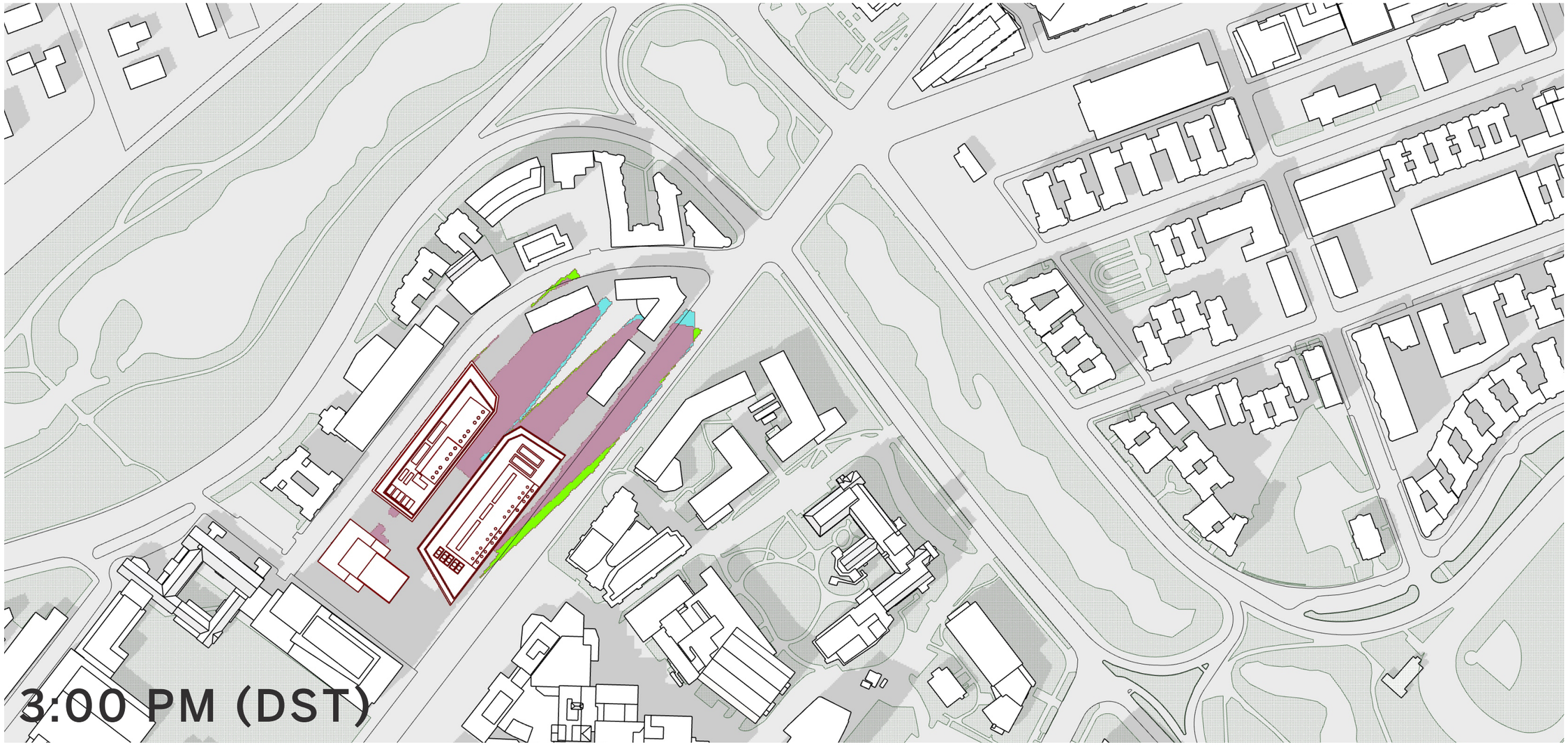
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Figure 4.2b-14: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Autumnal Equinox (September 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



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Figure 4.2b-15: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Autumnal Equinox (September 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



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Figure 4.2b-16: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Winter Solstice (December 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



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Figure 4.2b-17: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Winter Solstice (December 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



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Figure 4.2b-18: Shadow Analysis

Longwood Place | Boston, MA

Shadow Study: Winter Solstice (December 21)

THIS STUDY COMPARES THE PROPOSED PROJECT MASSING AND ALTERNATIVE MASSING



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Shadow Analysis – Alternative Massing Study

Shadow Analysis:
4.2c – Data Collected Every 15 Minutes

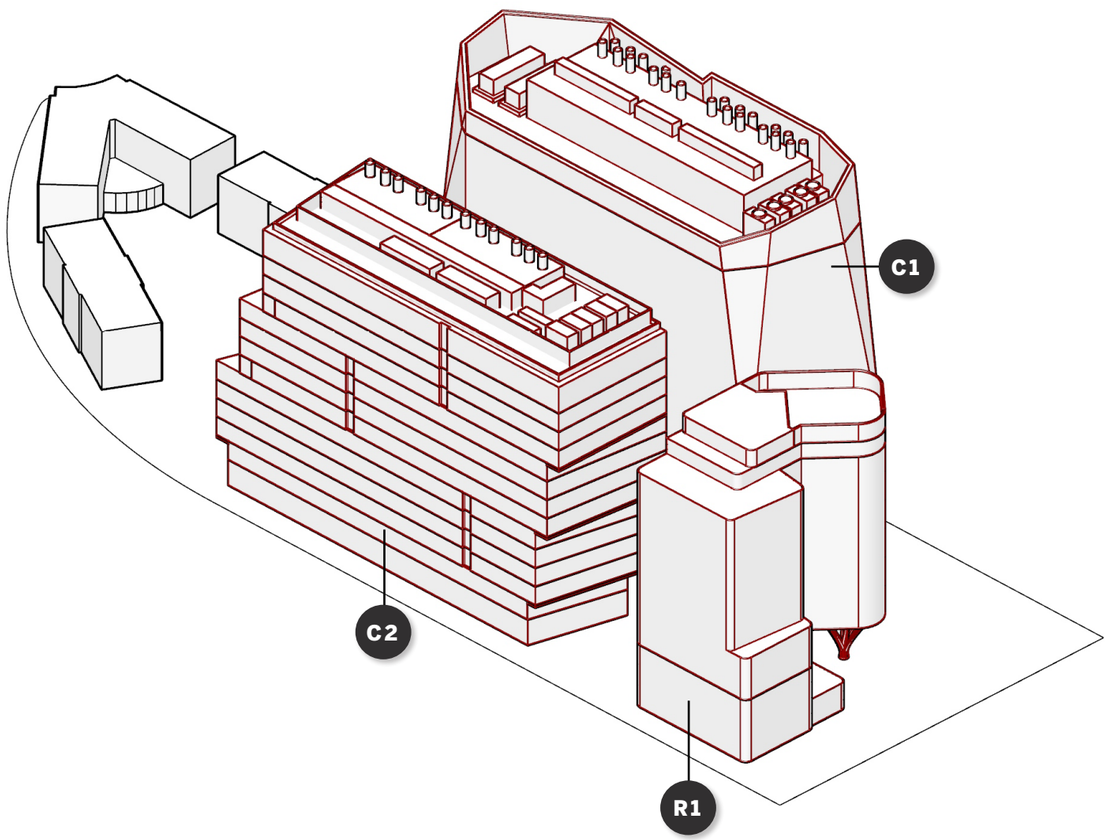
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Figure 4.2c-i: Shadow Analysis

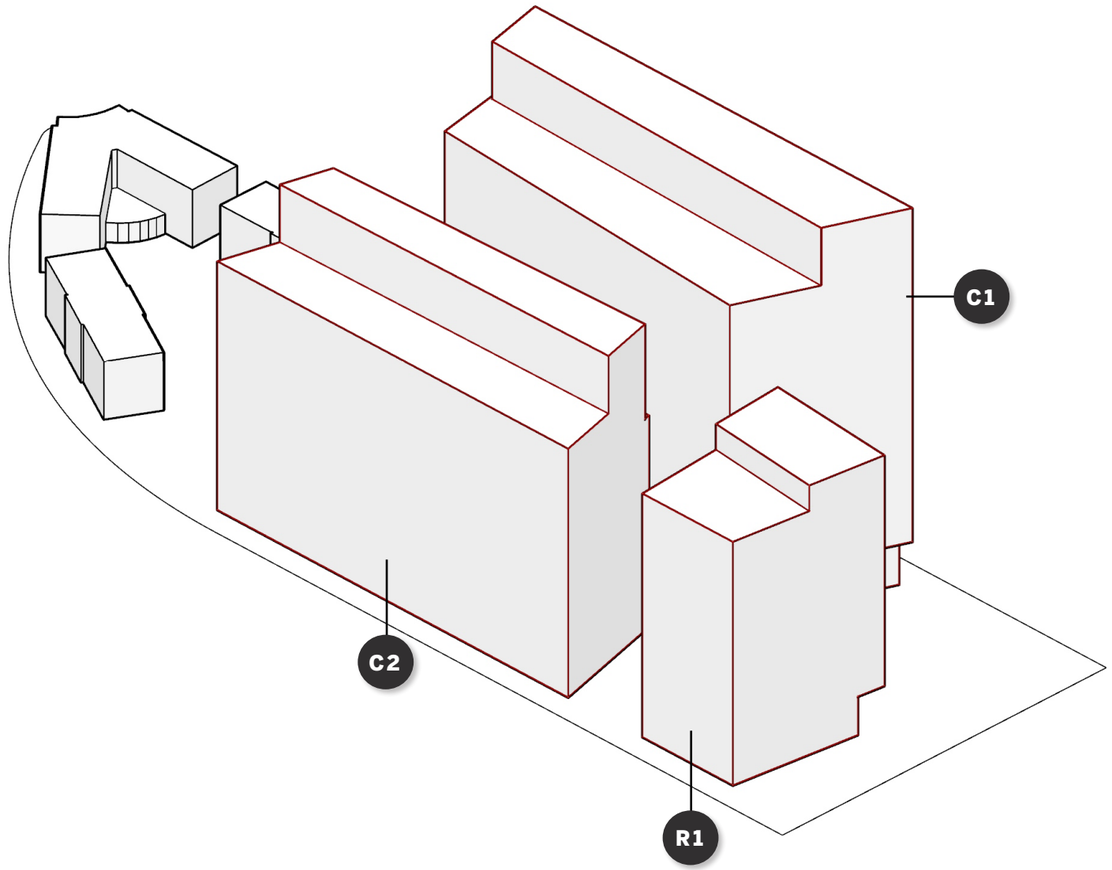
Longwood Place | Boston, MA

Proposed Project Massing & PDA Shadow Massing

PROPOSED PROJECT MASSING



PDA SHADOW MASSING

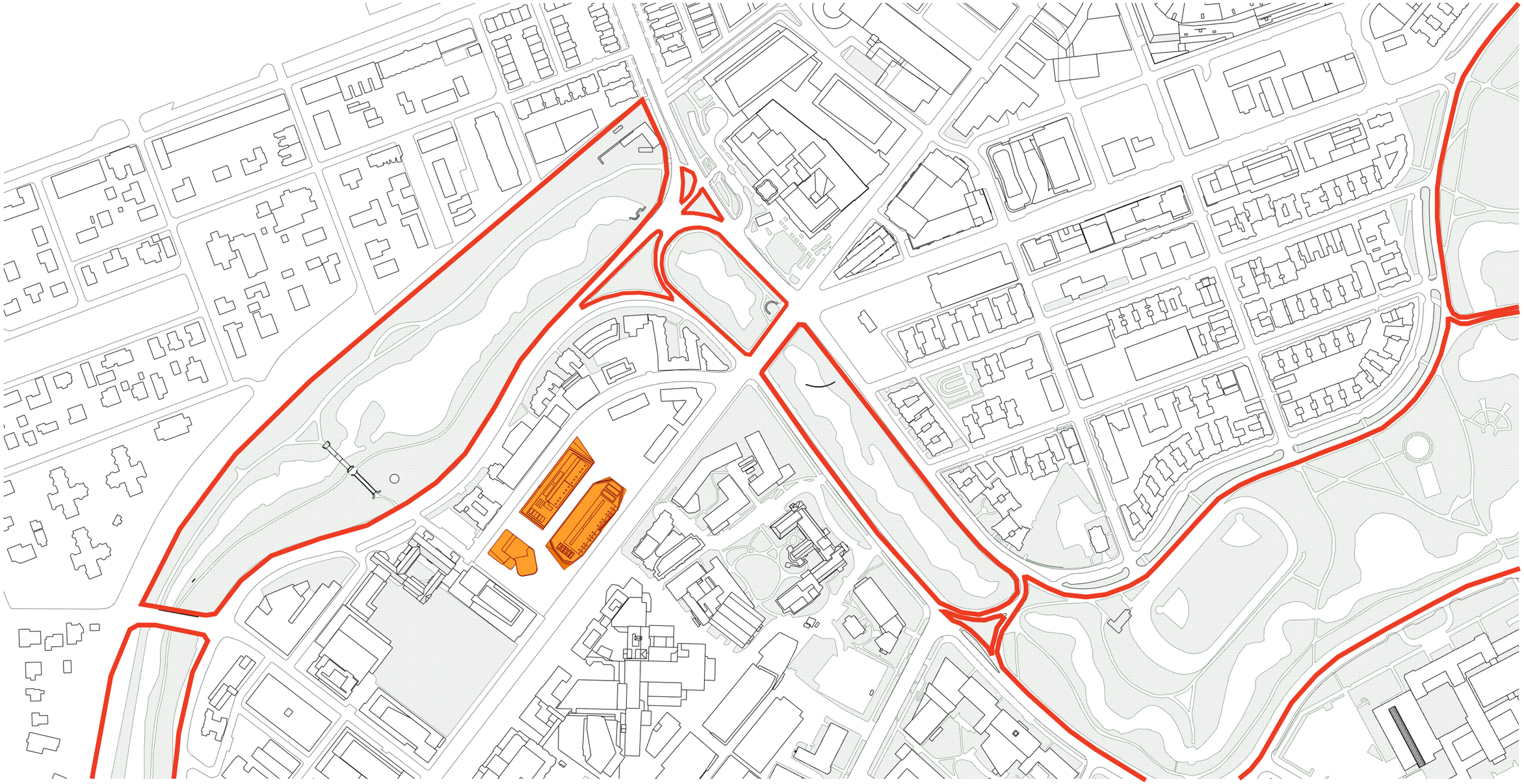


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Figure 4.2c-ii: Shadow Analysis

Longwood Place | Boston, MA

Shadow Methodology: Calculation Area - Emerald Necklace



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Figure 4.2c-iii: Shadow Analysis

Longwood Place | Boston, MA

Net New Shadow on Emerald Necklace

SPRING EQUINOX - DATA COLLECTED EVERY 15 MINUTE

Spring Equinox (March 21) Daylight Saving Time	PDA Shadow Massing Net New Shadow on Emerald Necklace (sqft)	Project Net New Shadow on EN (sqft)	Project Delta Net New Shadow Area Cast on the Emerald Necklace (sqft)	Note
6:00	0.00	0.00	0.00	
6:15	0.00	0.00	0.00	
6:30	0.00	0.00	0.00	
6:45	0.00	0.00	0.00	Sunrise (6:46)
7:00	0.00	0.00	0.00	
7:15	18,484.18	18,409.10	-75.08	
7:30	81,946.92	78,241.06	-3,705.86	
7:45	183,671.09	173,830.00	-9,841.09	
8:00	246,605.16	229,482.92	-17,122.24	
8:15	223,827.32	200,275.84	-23,551.48	
8:30	174,866.67	156,246.58	-18,620.09	
8:45	135,677.36	120,174.50	-15,502.86	
9:00	104,307.14	93,950.64	-10,356.51	
9:15	78,064.31	71,812.01	-6,252.30	
9:30	57,047.90	53,497.39	-3,550.52	
9:45	35,630.99	36,165.21	534.23	
10:00	20,537.36	23,534.19	2,996.83	
10:15	7,158.68	13,875.75	6,717.07	
10:30	0.00	3,777.95	3,777.95	
10:45	0.00	0.00	0.00	
11:00	0.00	0.00	0.00	
11:15	0.00	0.00	0.00	
11:30	0.00	0.00	0.00	
11:45	0.00	0.00	0.00	
12:00	0.00	0.00	0.00	
12:15	0.00	0.00	0.00	
12:30	0.00	0.00	0.00	
12:45	0.00	0.00	0.00	
13:00	0.00	0.00	0.00	
13:15	0.00	0.00	0.00	
13:30	0.00	0.00	0.00	
13:45	0.00	0.00	0.00	

Spring Equinox (March 21) Daylight Saving Time	PDA Shadow Massing Net New Shadow on Emerald Necklace (sqft)	Project Net New Shadow on EN (sqft)	Project Delta Net New Shadow Area Cast on the Emerald Necklace (sqft)	Note
14:00	0.00	0.00	0.00	
14:15	0.00	0.00	0.00	
14:30	0.00	0.00	0.00	
14:45	0.00	0.00	0.00	
15:00	0.00	0.00	0.00	
15:15	0.00	0.00	0.00	
15:30	0.00	0.00	0.00	
15:45	0.00	0.00	0.00	
16:00	0.00	0.00	0.00	
16:15	0.00	0.00	0.00	
16:30	1,013.85	0.00	-1,013.85	
16:45	7,631.87	6,222.32	-1,409.55	
17:00	21,346.59	21,006.76	-339.83	
17:15	50,486.03	45,421.85	-5,064.19	
17:30	77,700.82	71,801.58	-5,899.24	
17:45	70,436.64	64,027.88	-6,408.76	
18:00	47,084.02	42,878.16	-4,205.85	
18:15	17,755.41	15,039.33	-2,716.08	
18:30	211,921.59	197,008.86	-14,912.73	
18:45	0.00	0.00	0.00	
19:00	0.00	0.00	0.00	Sunset (18:58)
19:15	0.00	0.00	0.00	
19:30	0.00	0.00	0.00	
19:45	0.00	0.00	0.00	
20:00	0.00	0.00	0.00	
20:15	0.00	0.00	0.00	
20:30	0.00	0.00	0.00	
20:45	0.00	0.00	0.00	
21:00	0.00	0.00	0.00	
Total (sqft)	1,873,201.90	1,736,679.87	-136,522.03	

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Figure 4.2c-iv: Shadow Analysis

Longwood Place | Boston, MA

Net New Shadow on Emerald Necklace

SUMMER SOLSTICE - DATA COLLECTED EVERY 15 MINUTE

Summer Solstice (June 21) Daylight Saving Time	PDA Shadow Massing Net New Shadow on Emerald Necklace (sqft)	Project Net New Shadow on EN (sqft)	Project Delta Net New Shadow Area Cast on the Emerald Necklace (sqft)	Note
5:00	0.00	0.00	0.00	
5:15	0.00	0.00	0.00	Sunrise (5:07)
5:30	0.00	0.00	0.00	
5:45	9,626.96	8,671.94	-955.02	
6:00	28,659.09	28,900.02	240.93	
6:15	6,744.31	6,424.11	-320.20	
6:30	7,500.25	1,576.49	-5,923.76	
6:45	10,479.95	8,123.12	-2,356.83	
7:00	9,791.28	8,269.53	-1,521.75	
7:15	7,549.02	6,906.22	-642.80	
7:30	4,782.25	5,078.93	296.68	
7:45	1,879.41	3,165.55	1,286.15	
8:00	58.58	1,561.38	1,502.80	
8:15	0.00	17.37	17.37	
8:30	0.00	0.00	0.00	
8:45	0.00	0.00	0.00	
9:00	0.00	0.00	0.00	
9:15	0.00	0.00	0.00	
9:30	0.00	0.00	0.00	
9:45	0.00	0.00	0.00	
10:00	0.00	0.00	0.00	
10:15	0.00	0.00	0.00	
10:30	0.00	0.00	0.00	
10:45	0.00	0.00	0.00	
11:00	0.00	0.00	0.00	
11:15	0.00	0.00	0.00	
11:30	0.00	0.00	0.00	
11:45	0.00	0.00	0.00	
12:00	0.00	0.00	0.00	
12:15	0.00	0.00	0.00	
12:30	0.00	0.00	0.00	
12:45	0.00	0.00	0.00	
13:00	0.00	0.00	0.00	
13:15	0.00	0.00	0.00	
13:30	0.00	0.00	0.00	
13:45	0.00	0.00	0.00	

Summer Solstice (June 21) Daylight Saving Time	PDA Shadow Massing Net New Shadow on Emerald Necklace (sqft)	Project Net New Shadow on EN (sqft)	Project Delta Net New Shadow Area Cast on the Emerald Necklace (sqft)	Note
14:00	0.00	0.00	0.00	
14:15	0.00	0.00	0.00	
14:30	0.00	0.00	0.00	
14:45	0.00	0.00	0.00	
15:00	0.00	0.00	0.00	
15:15	0.00	0.00	0.00	
15:30	0.00	0.00	0.00	
15:45	0.00	0.00	0.00	
16:00	0.00	0.00	0.00	
16:15	0.00	0.00	0.00	
16:30	0.00	0.00	0.00	
16:45	0.00	0.00	0.00	
17:00	0.00	0.00	0.00	
17:15	0.00	0.00	0.00	
17:30	0.00	0.00	0.00	
17:45	0.00	0.00	0.00	
18:00	0.00	0.00	0.00	
18:15	0.00	0.00	0.00	
18:30	0.00	0.00	0.00	
18:45	605.97	0.00	-605.97	
19:00	6,186.39	5,036.61	-1,149.78	
19:15	30,477.16	29,185.93	-1,291.23	
19:30	82,227.25	70,699.04	-11,528.21	
19:45	63,654.62	40,612.43	-23,042.19	
20:00	2,131.05	1,779.20	-351.85	
20:15	0.00	0.00	0.00	
20:30	0.00	0.00	0.00	Sunset (20:25)
20:45	0.00	0.00	0.00	
21:00	0.00	0.00	0.00	
Total (sqft)	272,353.53	226,007.86	-46,345.66	

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Figure 4.2c-v: Shadow Analysis

Longwood Place | Boston, MA

Net New Shadow on Emerald Necklace

FALL EQUINOX - DATA COLLECTED EVERY 15 MINUTE

Fall Equinox (September 21) Daylight Saving Time	PDA Shadow Massing Net New Shadow on Emerald Necklace (sqft)	Project Net New Shadow on EN (sqft)	Project Delta Net New Shadow Area Cast on the Emerald Necklace (sqft)	Note
6:00	0.00	0.00	0.00	
6:15	0.00	0.00	0.00	
6:30	0.00	0.00	0.00	Sunrise (6:30)
6:45	0.00	0.00	0.00	
7:00	16,672.98	16,622.49	-50.49	
7:15	79,729.52	76,040.88	-3,688.64	
7:30	181,043.32	171,417.68	-9,625.64	
7:45	245,919.94	229,065.35	-16,854.59	
8:00	225,583.43	201,806.36	-23,777.07	
8:15	176,366.86	157,482.82	-18,884.04	
8:30	137,178.30	121,519.81	-15,658.49	
8:45	105,311.28	94,867.47	-10,443.81	
9:00	78,988.15	72,553.66	-6,434.49	
9:15	57,828.27	54,186.56	-3,641.71	
9:30	36,416.82	36,832.88	416.06	
9:45	21,200.88	24,051.91	2,851.03	
10:00	7,913.05	14,416.92	6,503.86	
10:15	0.00	4,264.70	4,264.70	
10:30	0.00	0.00	0.00	
10:45	0.00	0.00	0.00	
11:00	0.00	0.00	0.00	
11:15	0.00	0.00	0.00	
11:30	0.00	0.00	0.00	
11:45	0.00	0.00	0.00	
12:00	0.00	0.00	0.00	
12:15	0.00	0.00	0.00	
12:30	0.00	0.00	0.00	
12:45	0.00	0.00	0.00	
13:00	0.00	0.00	0.00	
13:15	0.00	0.00	0.00	
13:30	0.00	0.00	0.00	
13:45	0.00	0.00	0.00	

Fall Equinox (September 21) Daylight Saving Time	PDA Shadow Massing Net New Shadow on Emerald Necklace (sqft)	Project Net New Shadow on EN (sqft)	Project Delta Net New Shadow Area Cast on the Emerald Necklace (sqft)	Note
14:00	0.00	0.00	0.00	
14:15	0.00	0.00	0.00	
14:30	0.00	0.00	0.00	
14:45	0.00	0.00	0.00	
15:00	0.00	0.00	0.00	
15:15	0.00	0.00	0.00	
15:30	0.00	0.00	0.00	
15:45	0.00	0.00	0.00	
16:00	0.00	0.00	0.00	
16:15	998.51	0.00	-998.51	
16:30	7,676.49	6,220.70	-1,455.79	
16:45	21,322.17	21,008.52	-313.65	
17:00	50,153.36	45,228.72	-4,924.64	
17:15	78,255.13	72,224.29	-6,030.84	
17:30	71,083.51	64,647.79	-6,435.71	
17:45	47,652.55	43,507.30	-4,145.25	
18:00	16,204.39	14,348.66	-1,855.73	
18:15	208,063.17	195,433.92	-12,629.25	
18:30	0.00	0.00	0.00	
18:45	0.00	0.00	0.00	Sunset (18:43)
19:00	0.00	0.00	0.00	
19:15	0.00	0.00	0.00	
19:30	0.00	0.00	0.00	
19:45	0.00	0.00	0.00	
20:00	0.00	0.00	0.00	
20:15	0.00	0.00	0.00	
20:30	0.00	0.00	0.00	
20:45	0.00	0.00	0.00	
21:00	0.00	0.00	0.00	
Total (sqft)	1,871,562.08	1,737,749.42	-133,812.66	

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Figure 4.2c-vi: Shadow Analysis

Longwood Place | Boston, MA

Net New Shadow on Emerald Necklace

WINTER SOLSTICE - DATA COLLECTED EVERY 15 MINUTE

Winter Solstice (December 21) Standard Time	PDA Shadow Massing Net New Shadow on Emerald Necklace (sqft)	Project Net New Shadow on EN (sqft)	Project Delta Net New Shadow Area Cast on the Emerald Necklace (sqft)	Note
5:00	0.00	0.00	0.00	
5:15	0.00	0.00	0.00	
5:30	0.00	0.00	0.00	
5:45	0.00	0.00	0.00	
6:00	0.00	0.00	0.00	
6:15	0.00	0.00	0.00	
6:30	0.00	0.00	0.00	
6:45	0.00	0.00	0.00	
7:00	0.00	0.00	0.00	
7:15	0.00	0.00	0.00	Sunrise (7:10)
7:30	0.00	0.00	0.00	
7:45	0.00	0.00	0.00	
8:00	2,151.17	1,762.04	-389.13	
8:15	48,334.78	46,554.93	-1,779.85	
8:30	87,889.50	83,716.90	-4,172.60	
8:45	124,316.42	117,659.43	-6,656.99	
9:00	148,229.29	137,472.93	-10,756.36	
9:15	164,178.25	152,584.52	-11,593.73	
9:30	167,739.51	152,466.08	-15,273.44	
9:45	148,736.90	137,975.57	-10,761.33	
10:00	134,181.86	126,631.16	-7,550.70	
10:15	118,334.04	112,917.68	-5,416.36	
10:30	92,494.66	91,912.86	-581.81	
10:45	65,049.65	66,492.27	1,442.62	
11:00	40,525.25	43,342.35	2,817.10	
11:15	19,272.07	22,727.38	3,455.31	
11:30	2,996.77	8,278.56	5,281.79	
11:45	479.49	969.57	490.07	
12:00	0.00	16.76	16.76	
12:15	0.00	0.00	0.00	
12:30	113.33	0.00	-113.33	
12:45	2,316.79	173.82	-2,142.98	
13:00	5,137.46	3,198.79	-1,938.67	
13:15	6,457.43	6,138.72	-318.71	
13:30	10,167.24	10,400.97	233.72	
13:45	12,281.32	14,969.14	2,687.82	
14:00	16,872.55	18,652.61	1,780.05	
14:15	16,853.92	21,464.85	4,610.93	
14:30	17,136.10	17,061.62	-74.48	
14:45	5,898.07	5,741.83	-156.24	
15:00	7,370.44	5,103.26	-2,267.17	
15:15	18,708.04	15,468.86	-3,239.18	
15:30	21,795.43	21,251.84	-543.59	
15:45	0.00	0.00	0.00	
16:00	0.00	0.00	0.00	
16:15	0.00	0.00	0.00	Sunset (16:15)
16:30	0.00	0.00	0.00	
16:45	0.00	0.00	0.00	
17:00	0.00	0.00	0.00	
17:15	0.00	0.00	0.00	
17:30	0.00	0.00	0.00	
17:45	0.00	0.00	0.00	
18:00	0.00	0.00	0.00	
18:15	0.00	0.00	0.00	
18:30	0.00	0.00	0.00	
18:45	0.00	0.00	0.00	
19:00	0.00	0.00	0.00	
19:15	0.00	0.00	0.00	
19:30	0.00	0.00	0.00	
19:45	0.00	0.00	0.00	
20:00	0.00	0.00	0.00	
Total (sqft)	1,506,017.74	1,443,107.28	-62,910.46	

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Figure 4.2c-1: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - SUNRISE 6:46AM (DST)



Figure 4.2c-2: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 7:00AM (DST)



Figure 4.2c-3: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 7:15AM (DST)



Figure 4.2c-4: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 7:30AM (DST)



Figure 4.2c-5: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 7:45AM (DST)

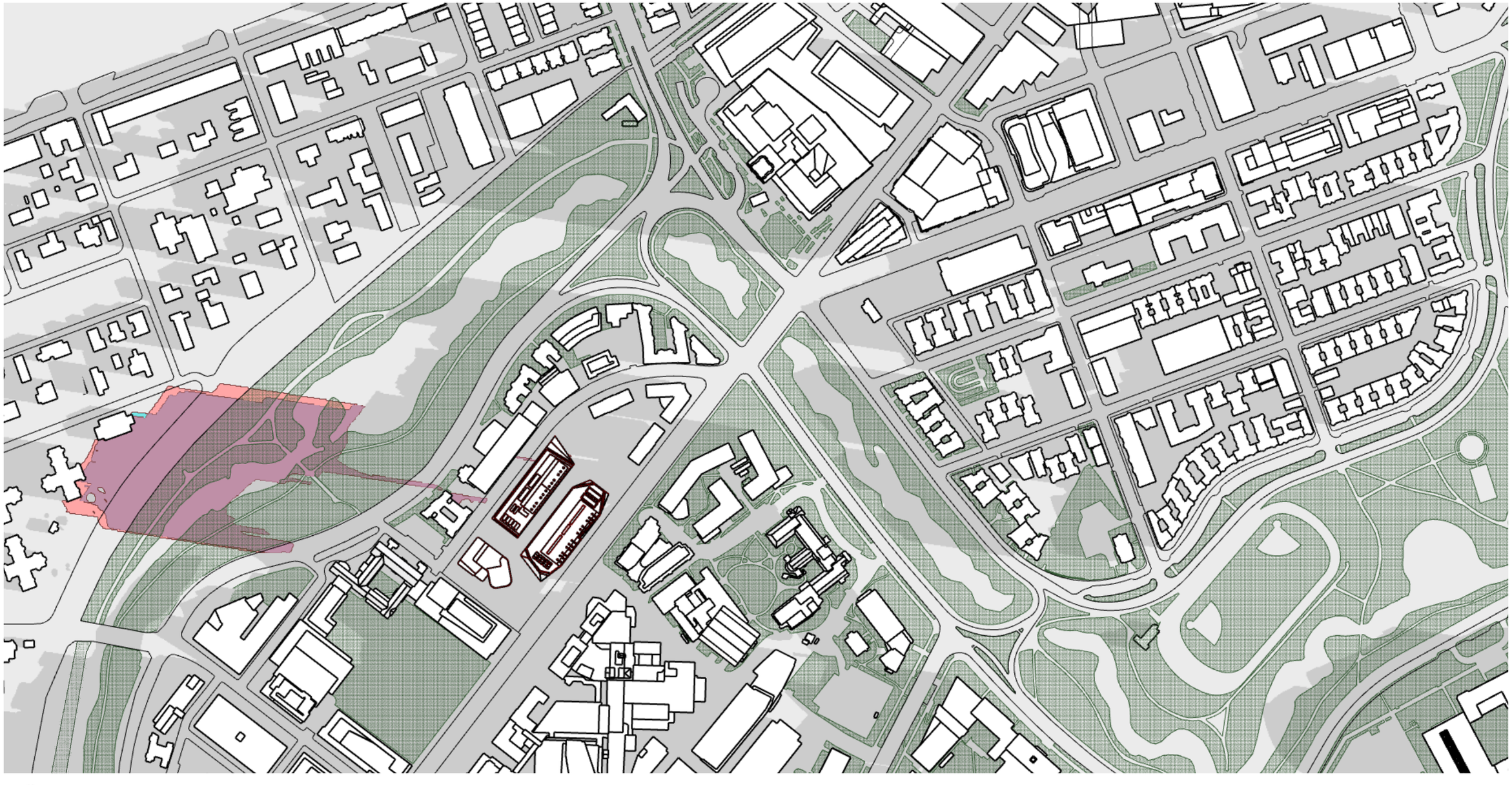


Figure 4.2c-6: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 8:00AM (DST)

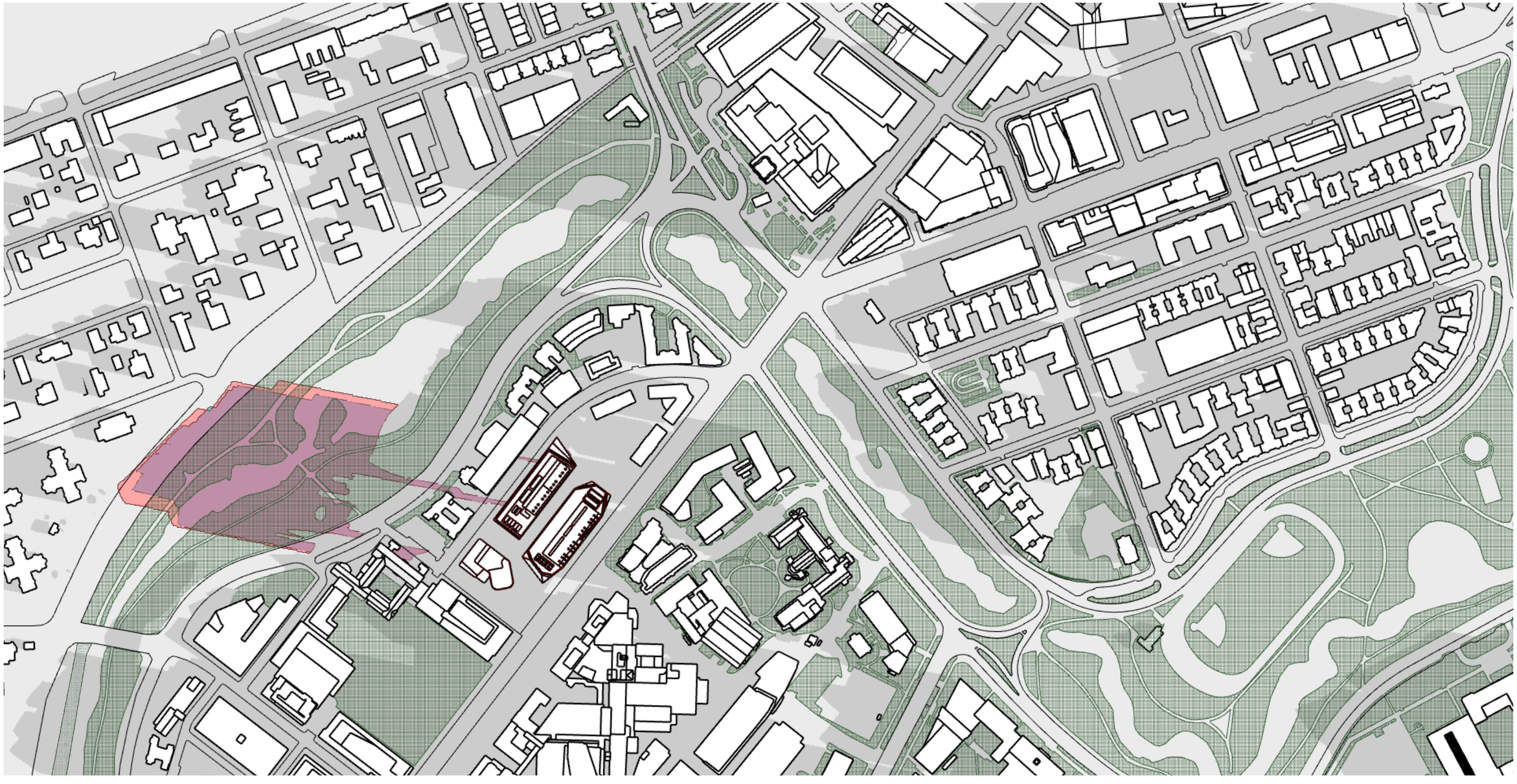


Figure 4.2c-7: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 8:15AM (DST)

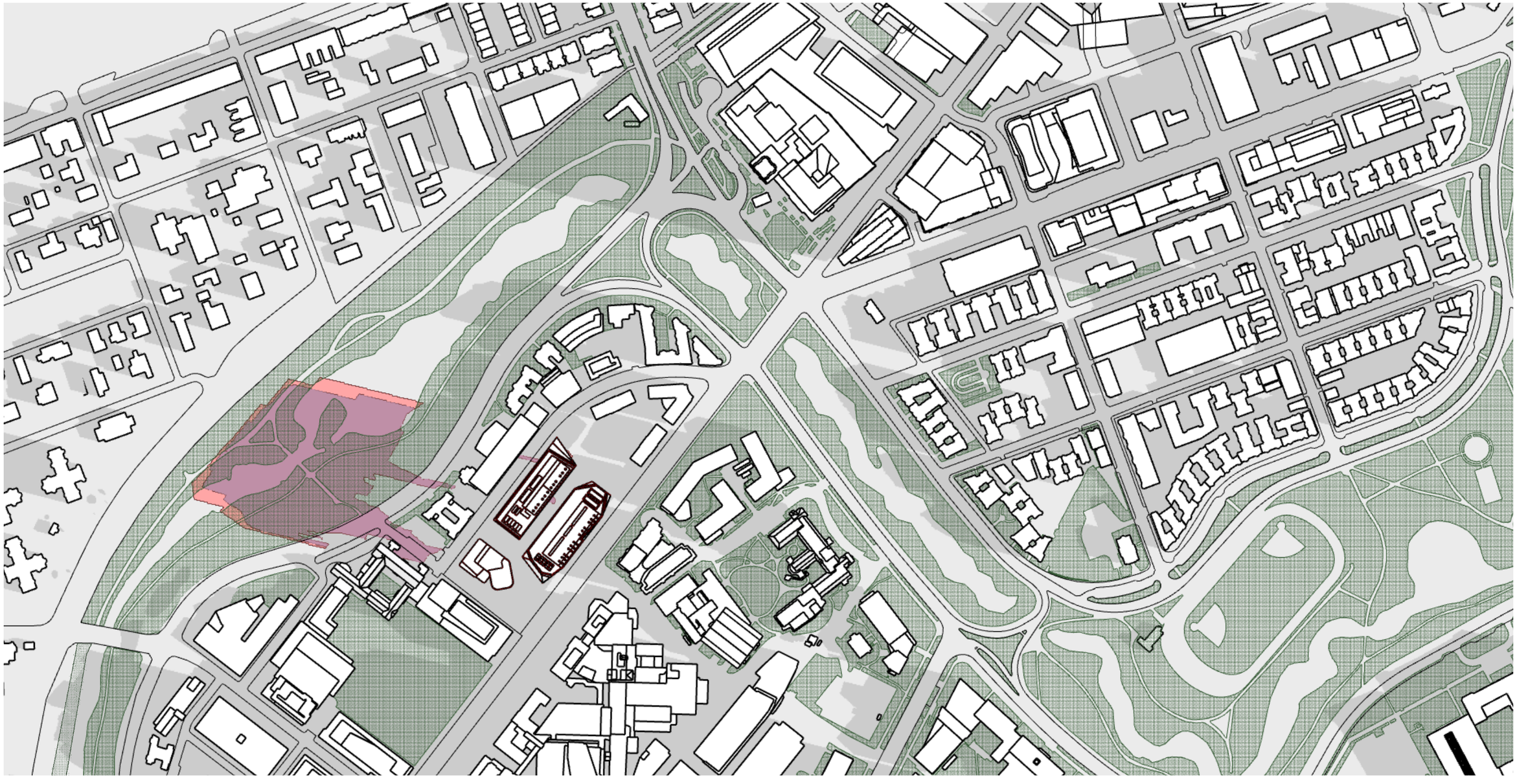


Figure 4.2c-8: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 8:30AM (DST)

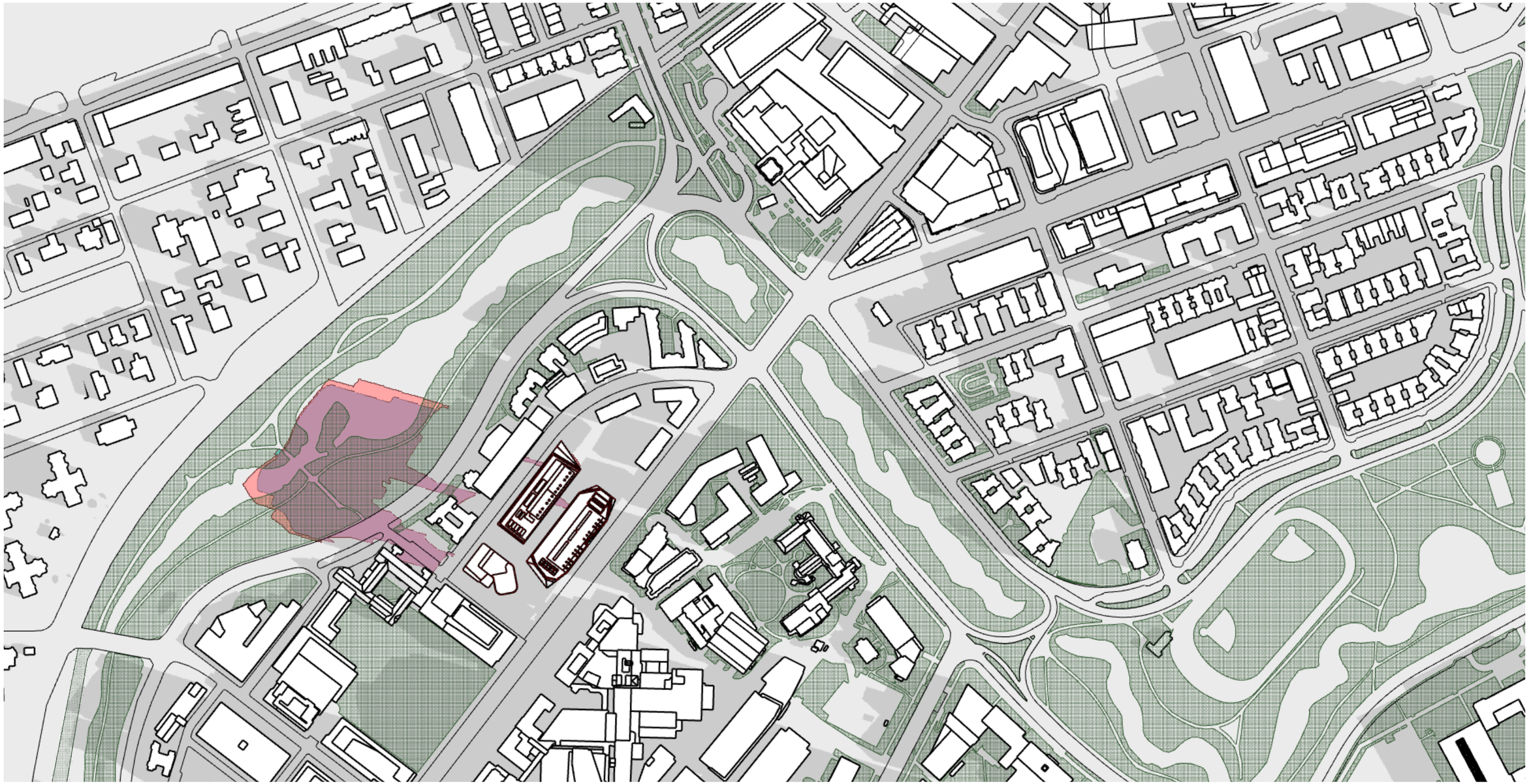


Figure 4.2c-9: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 8:45AM (DST)

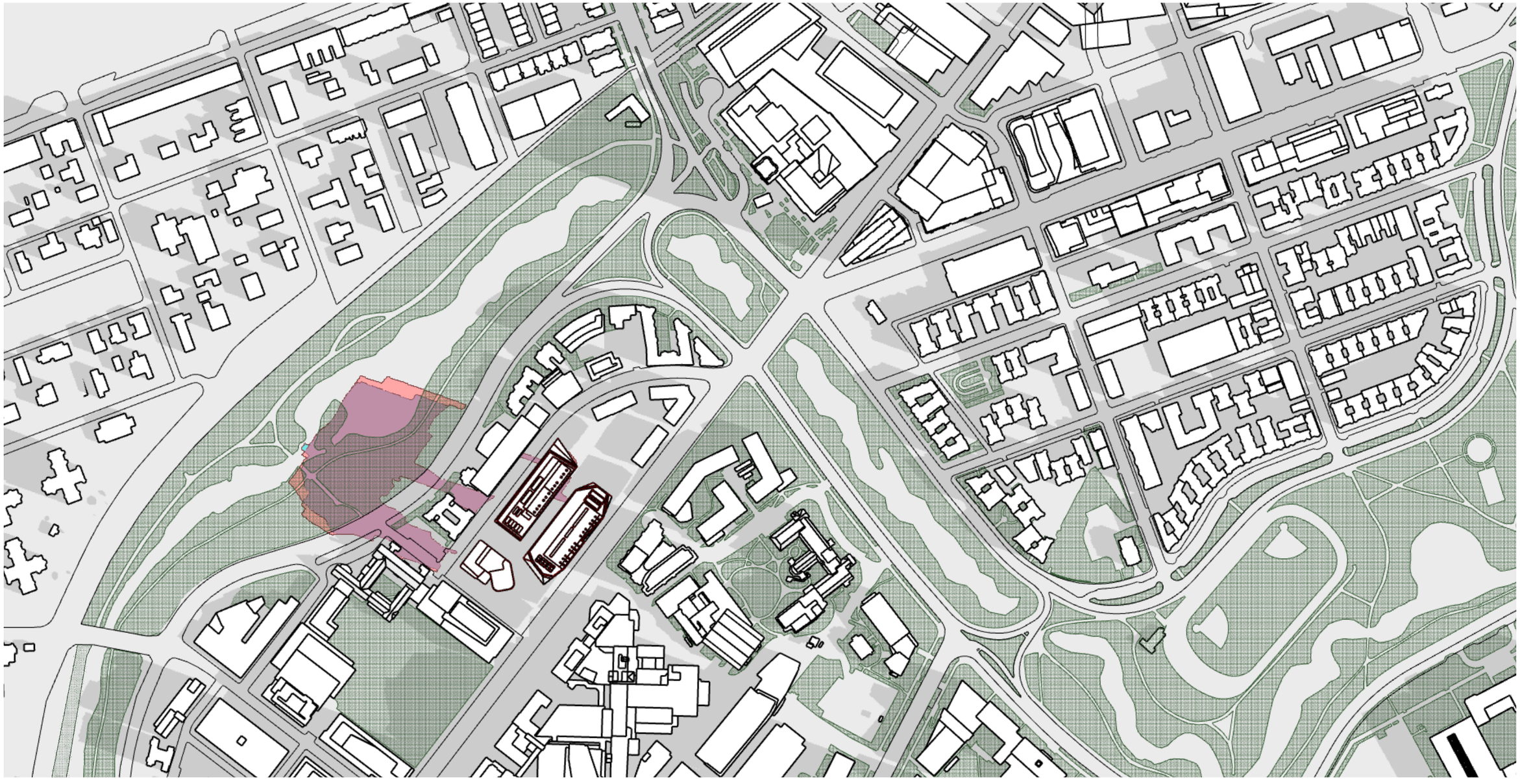
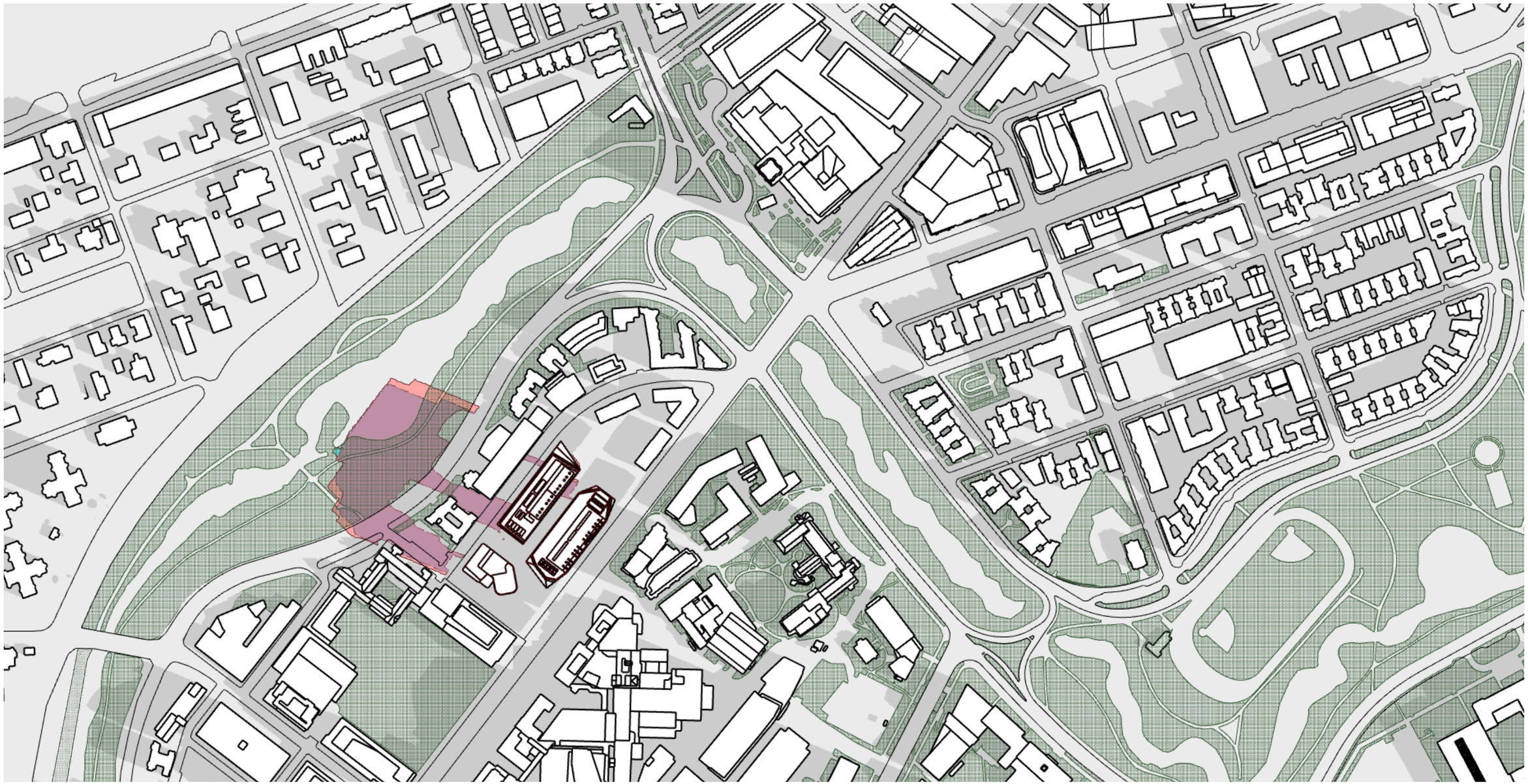


Figure 4.2c-10: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 9:00AM (DST)



0 250 500 Feet

EXISTING SHADOW

PDA SHADOW

PROPOSED PROJECT SHADOW

PDA & PROPOSED PROJECT SHADOW OVERLAP

Figure 4.2c-11: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 9:15AM (DST)

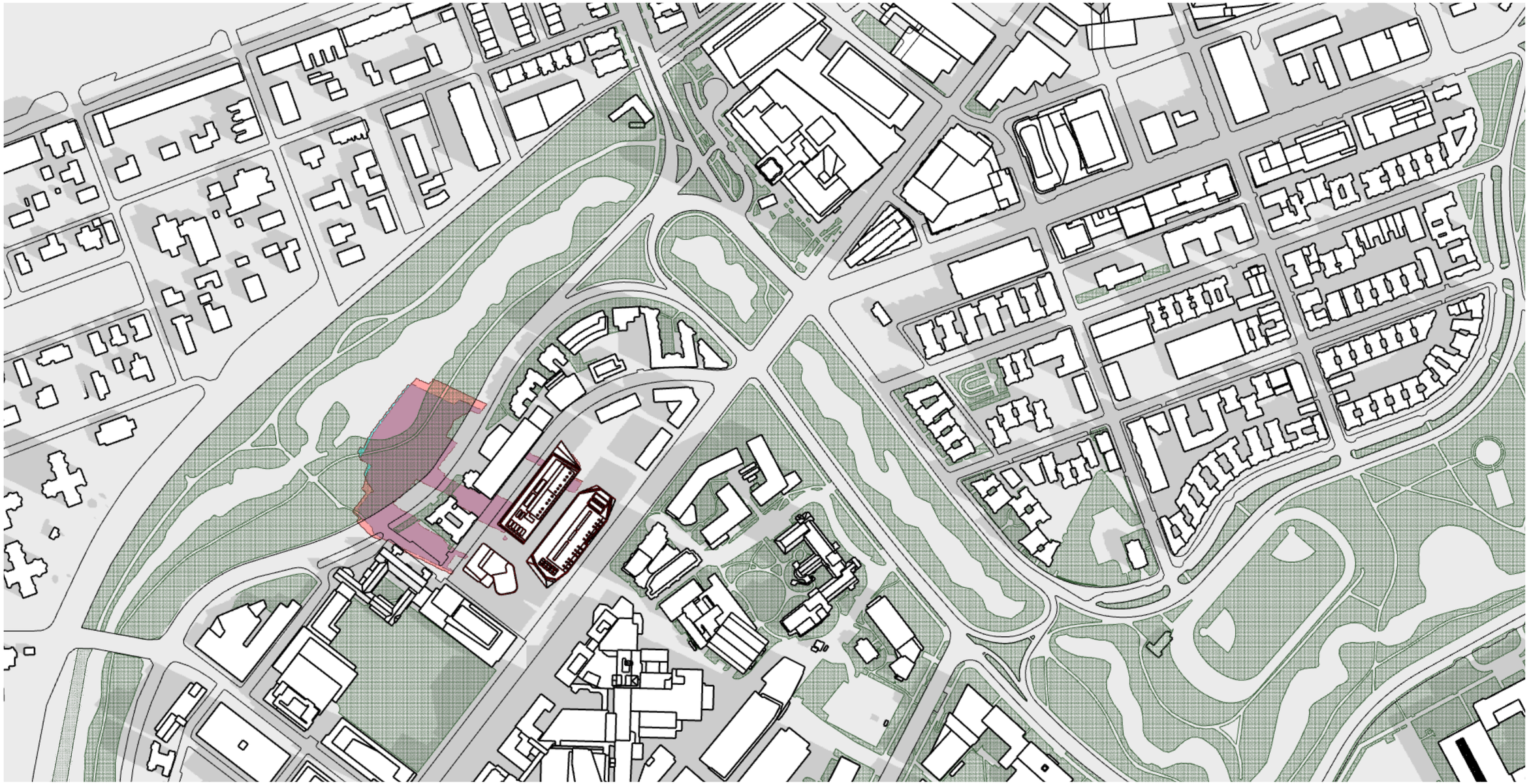


Figure 4.2c-12: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 9:30AM (DST)

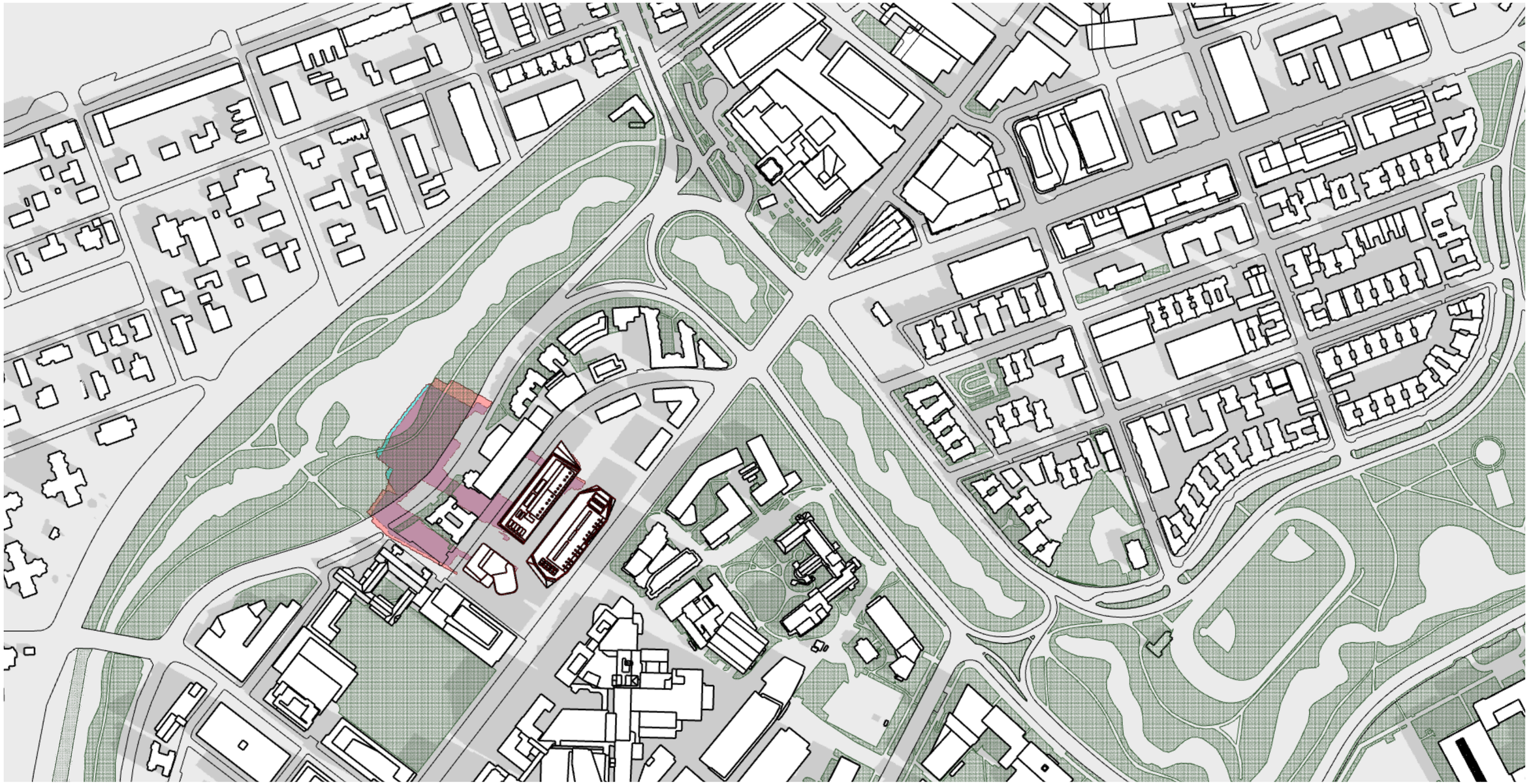


Figure 4.2c-13: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 9:45AM (DST)

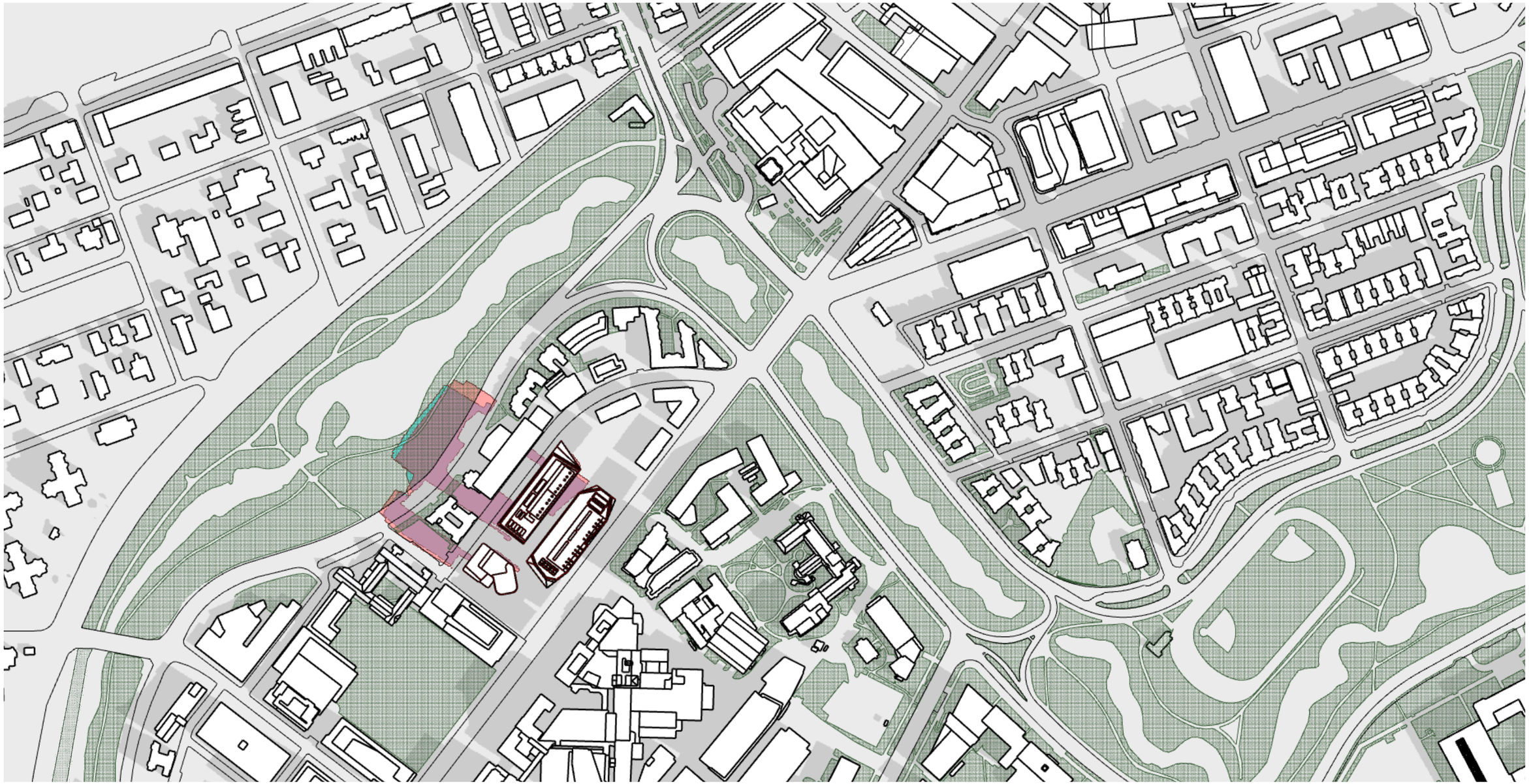


Figure 4.2c-14: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 10:00AM (DST)

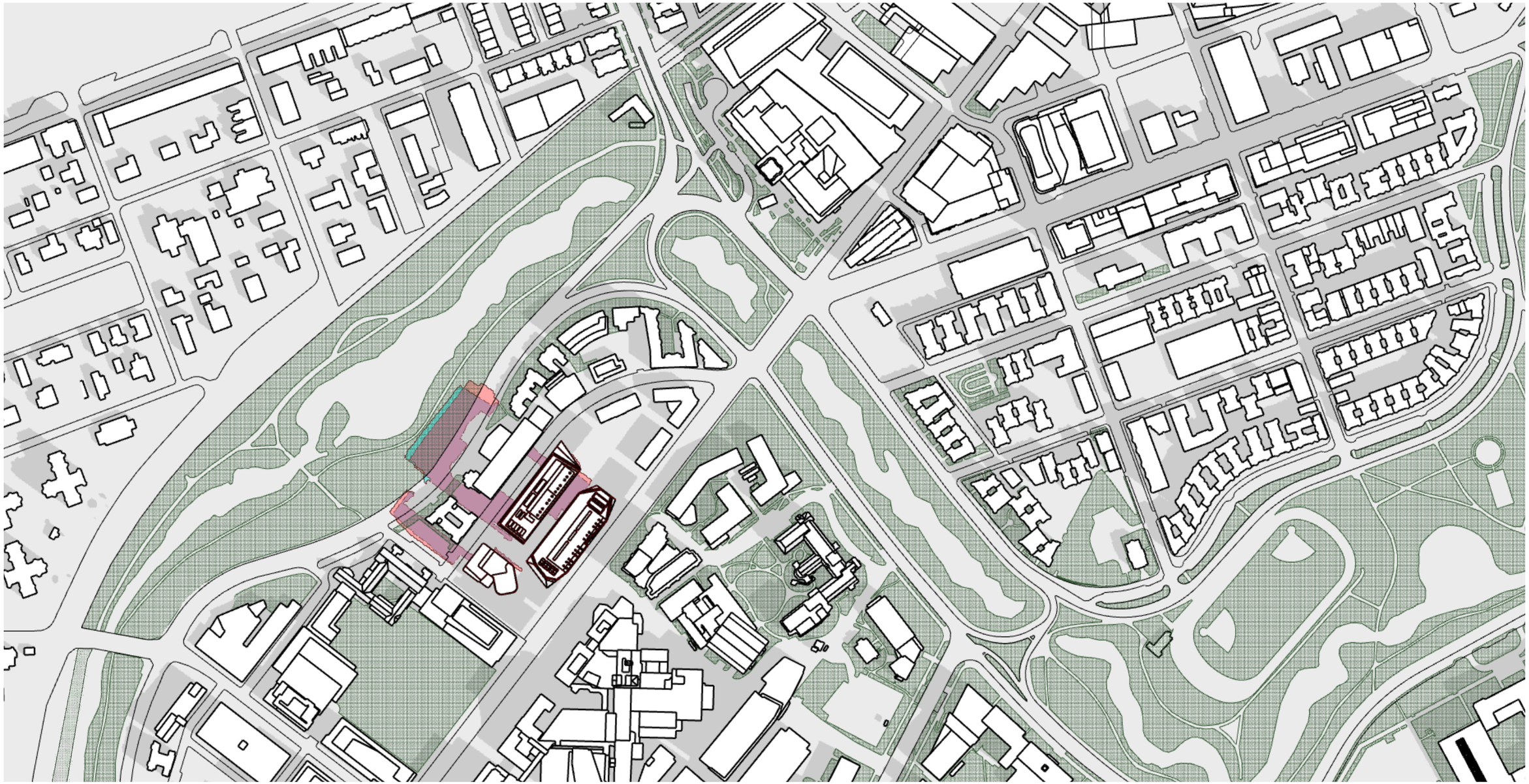


Figure 4.2c-15: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 10:15AM (DST)

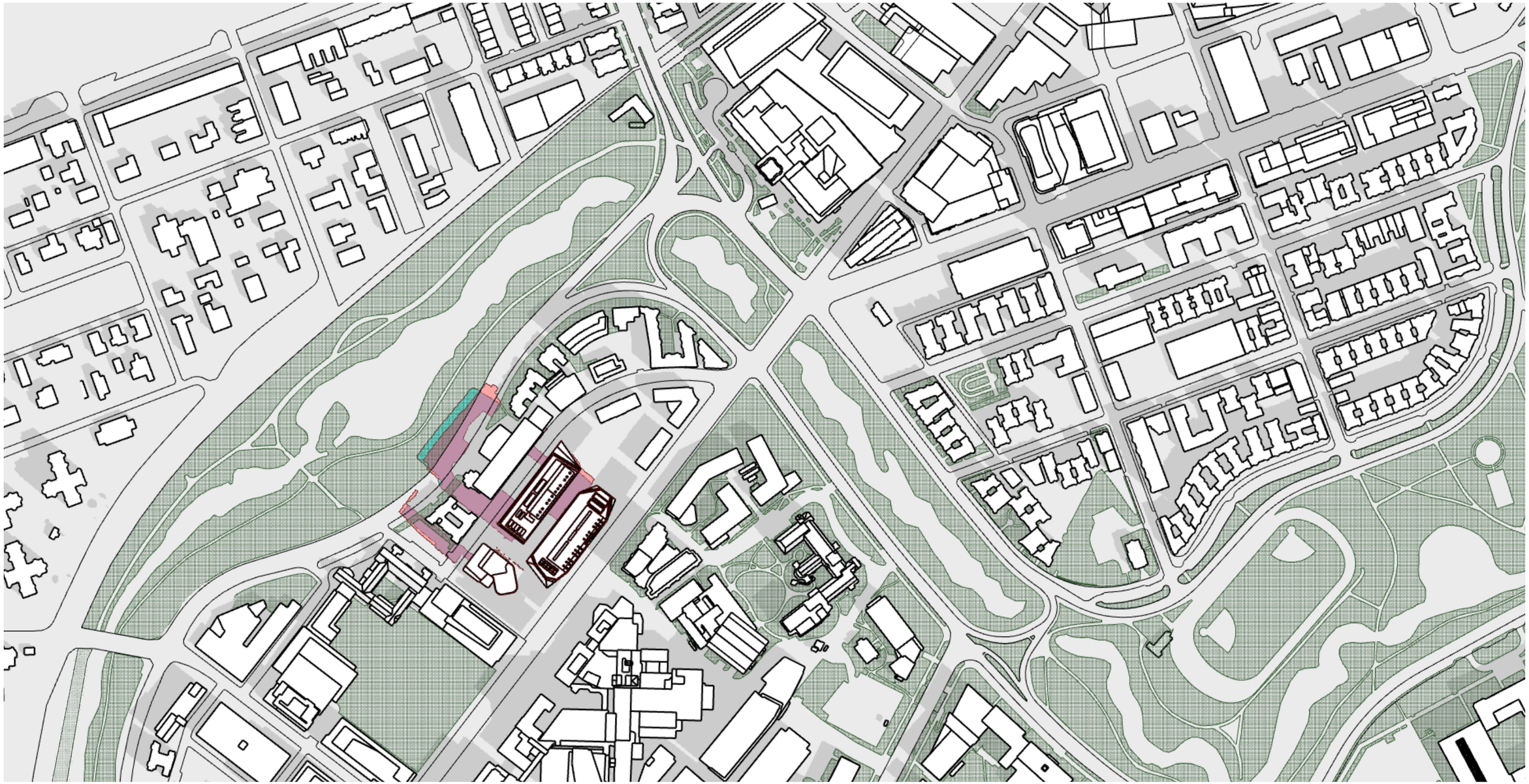


Figure 4.2c-16: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 10:30AM (DST)

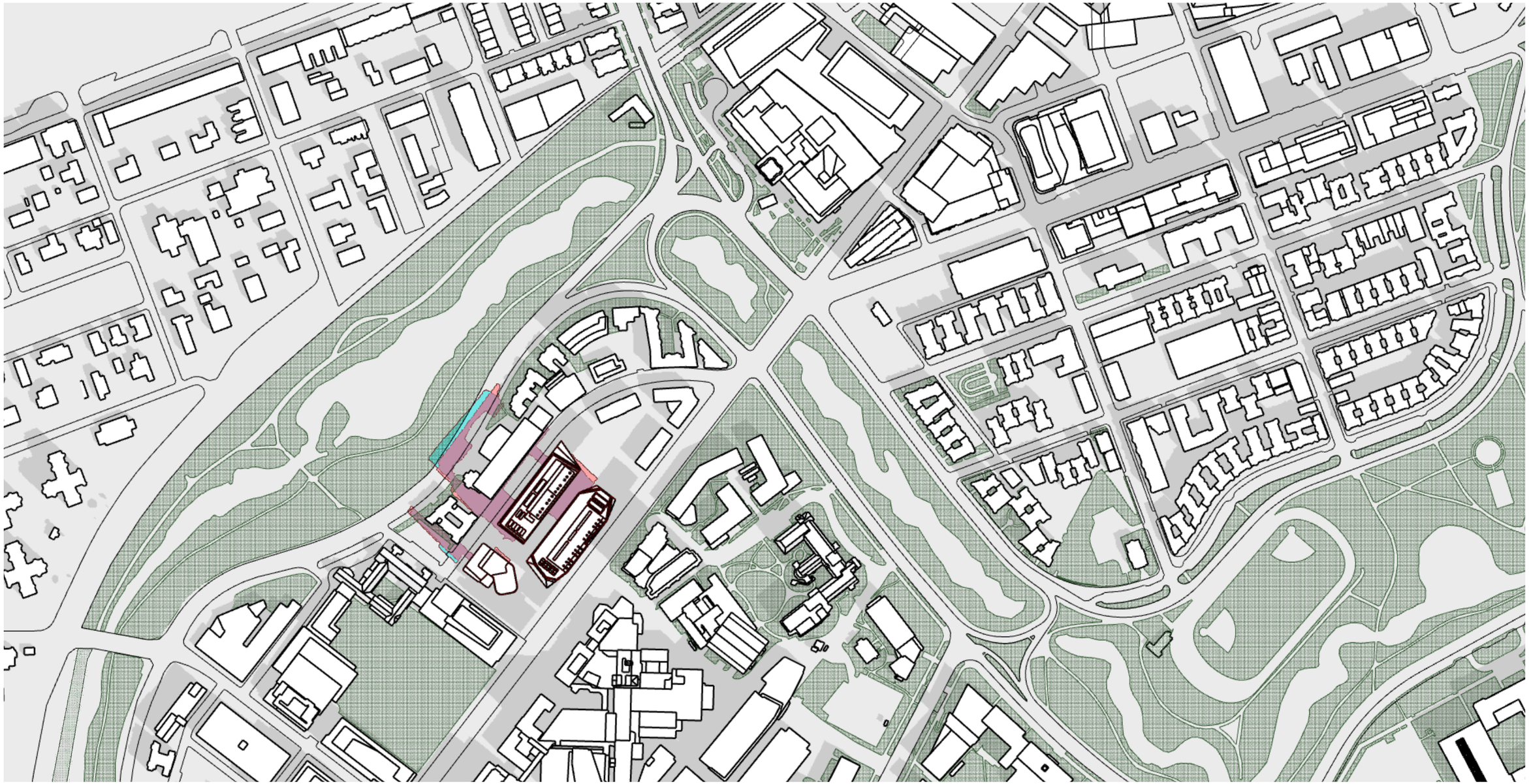


Figure 4.2c-17: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 10:45AM (DST)

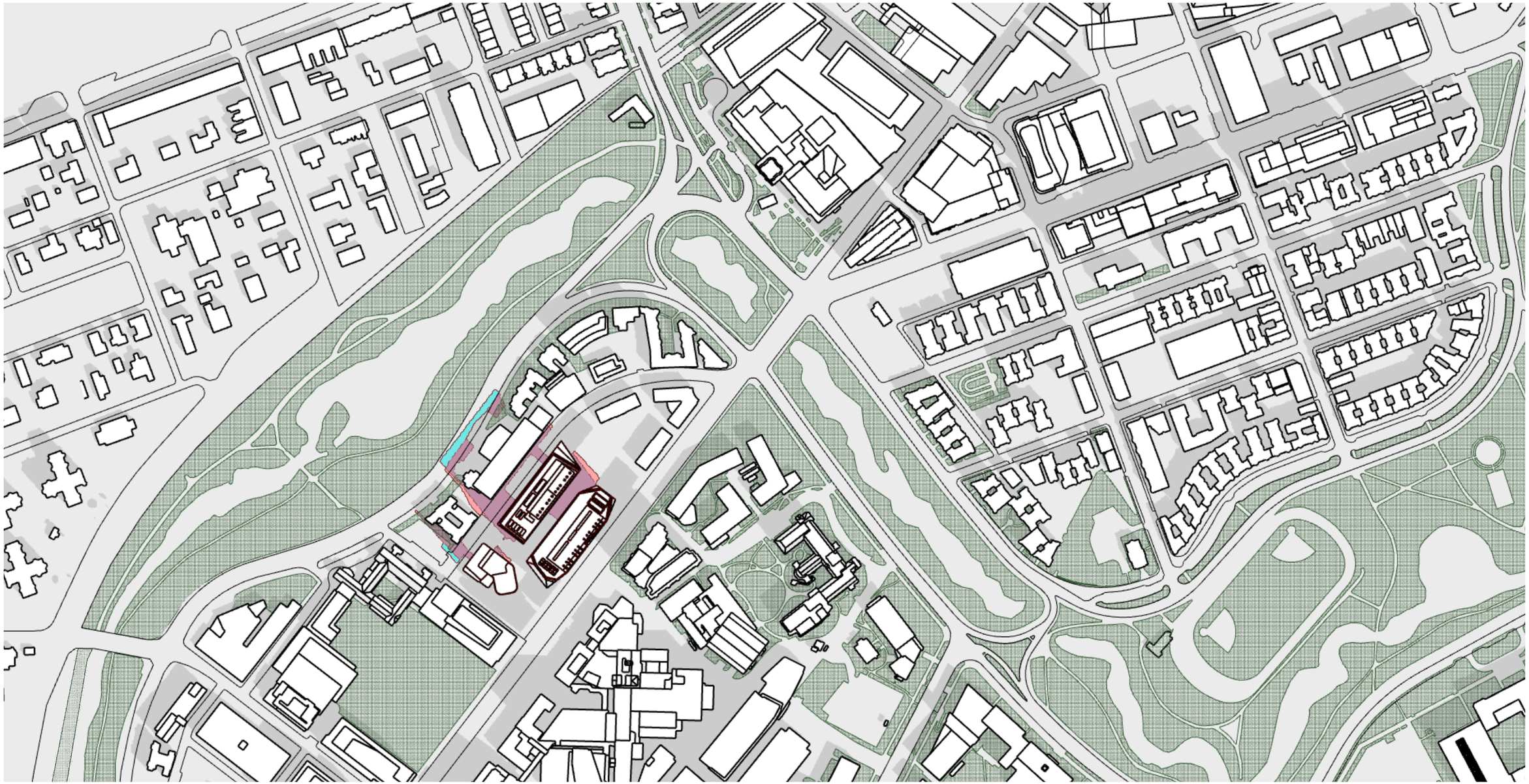


Figure 4.2c-18: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 11:00AM (DST)

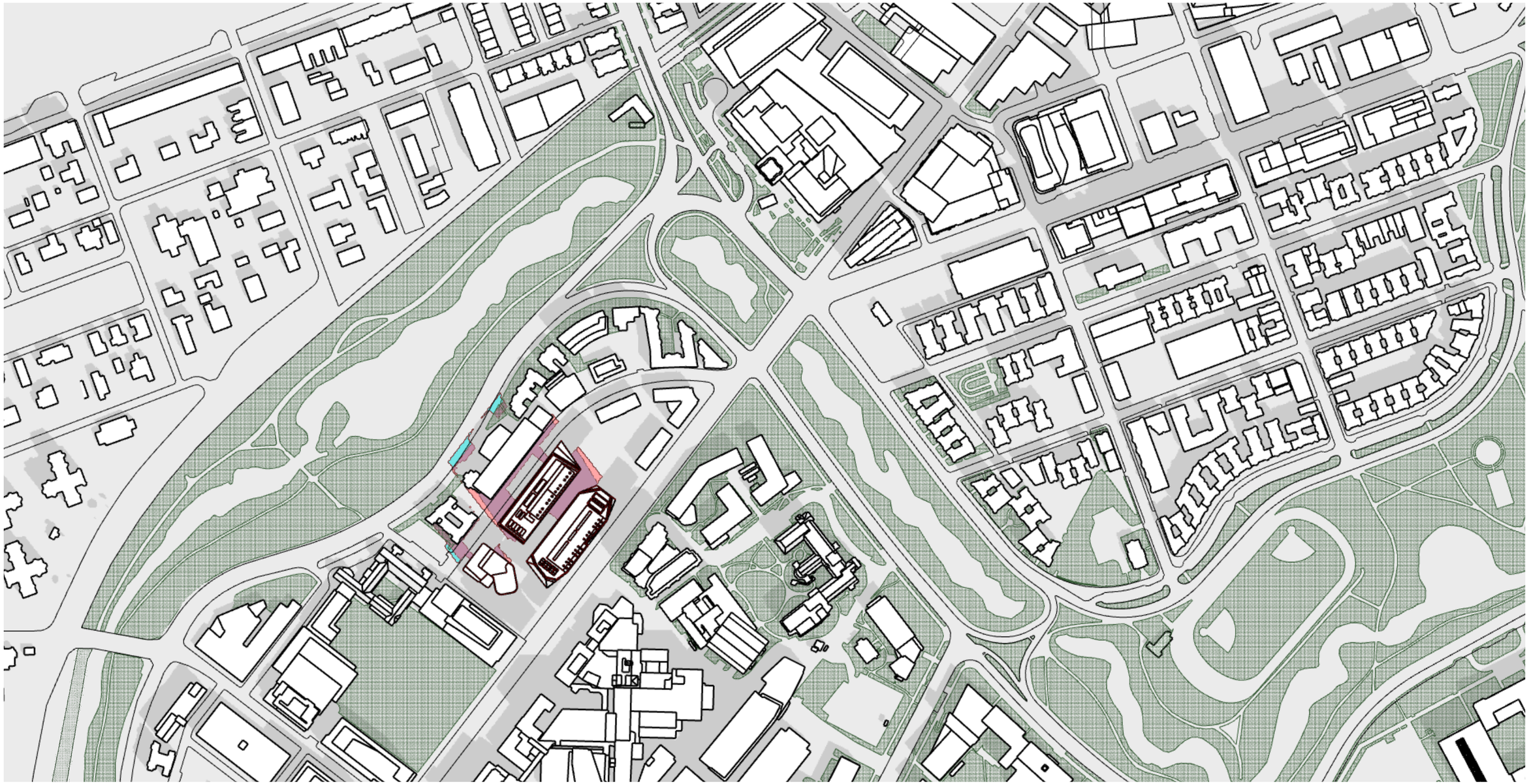


Figure 4.2c-19: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 11:15AM (DST)

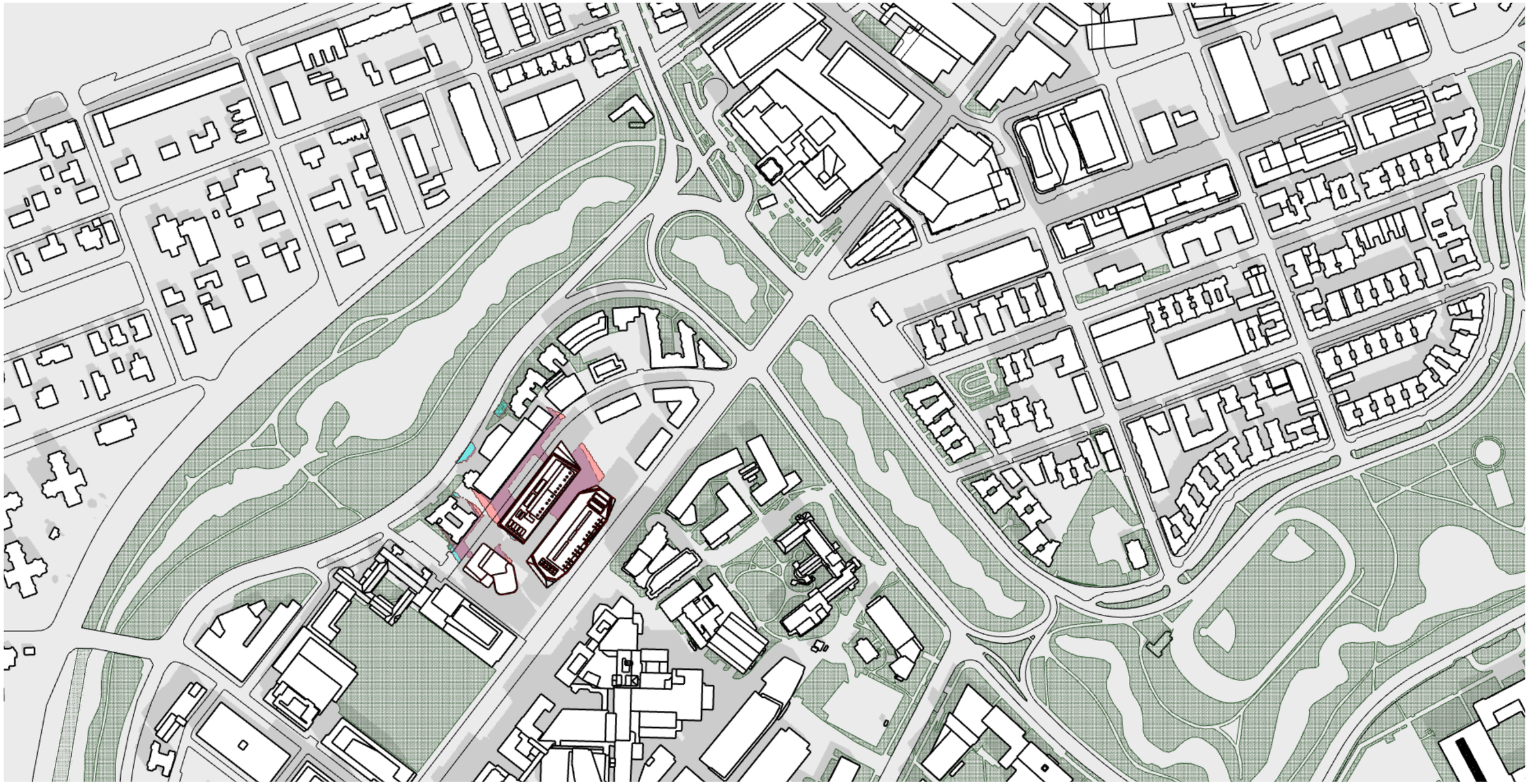


Figure 4.2c-20: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 11:30AM (DST)

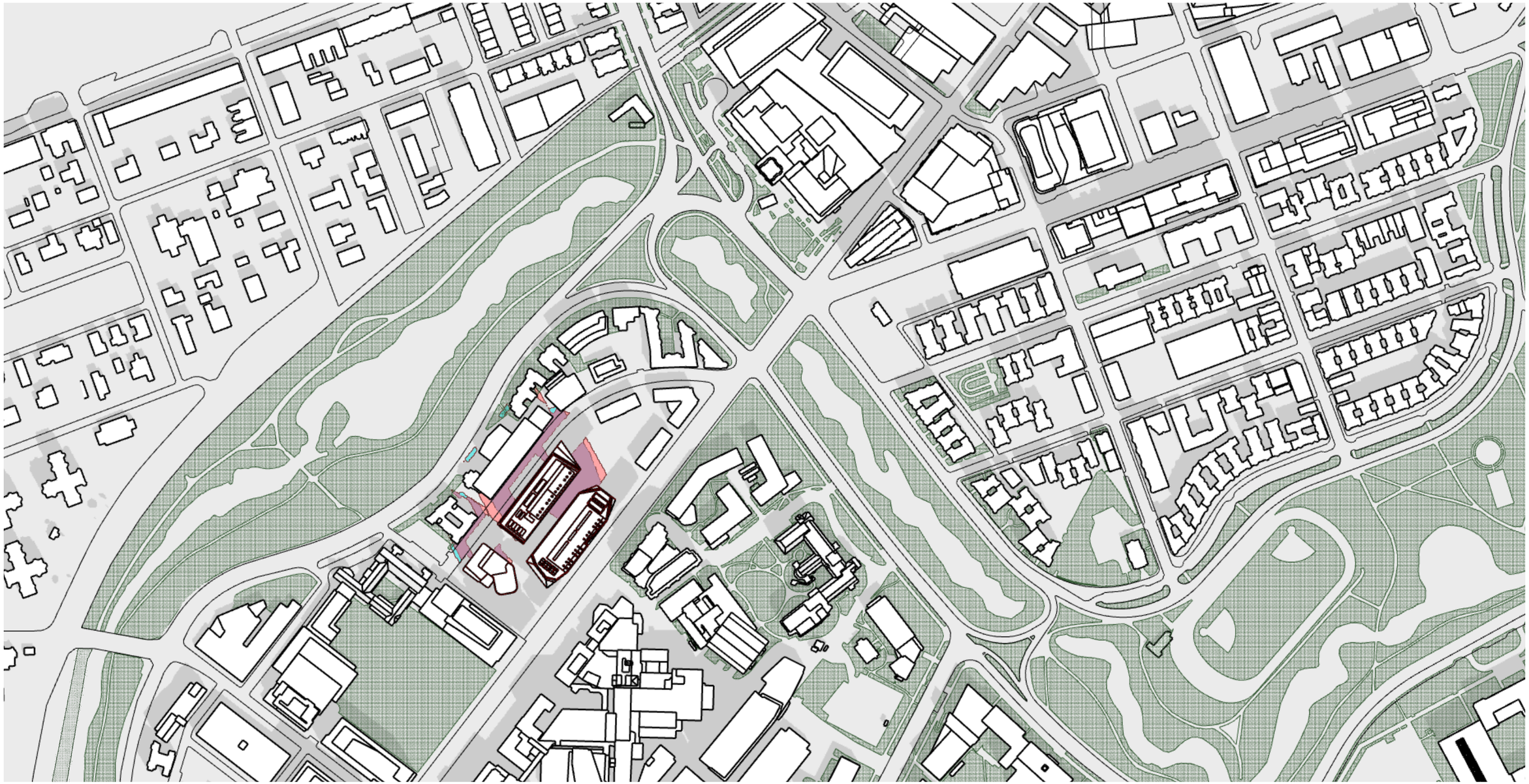


Figure 4.2c-21: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 11:45AM (DST)

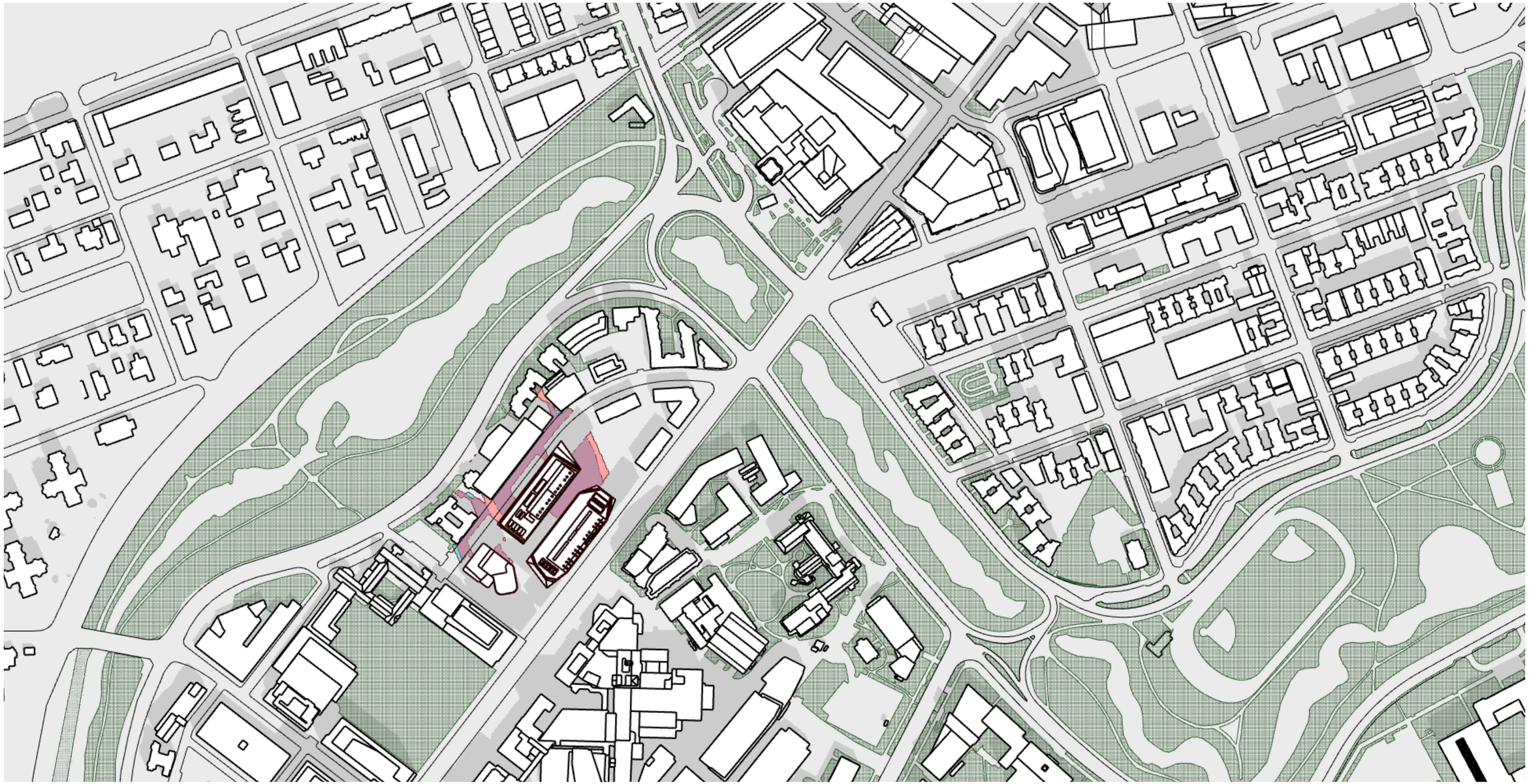


Figure 4.2c-22: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 12:00PM (DST)

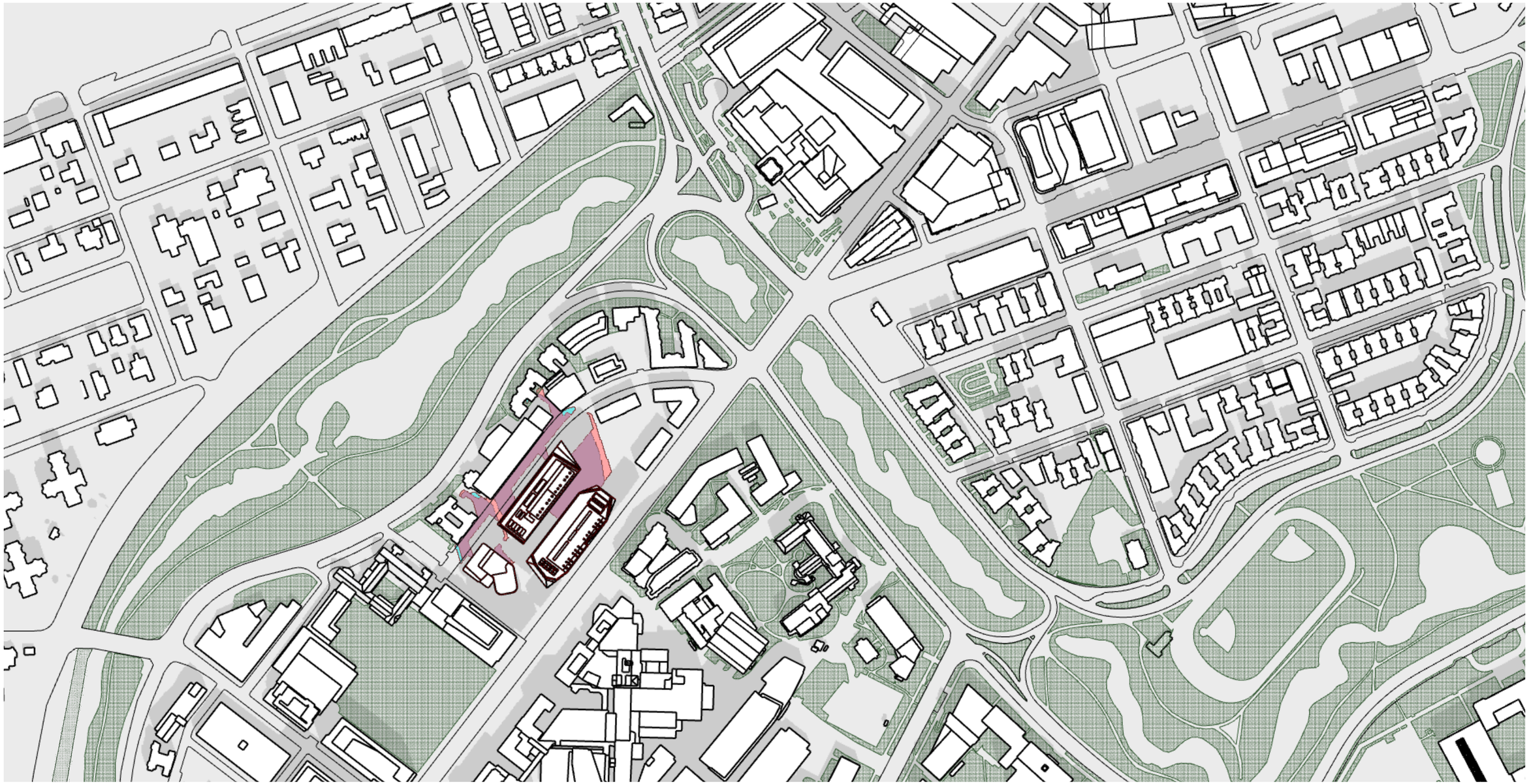


Figure 4.2c-23: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 12:15PM (DST)

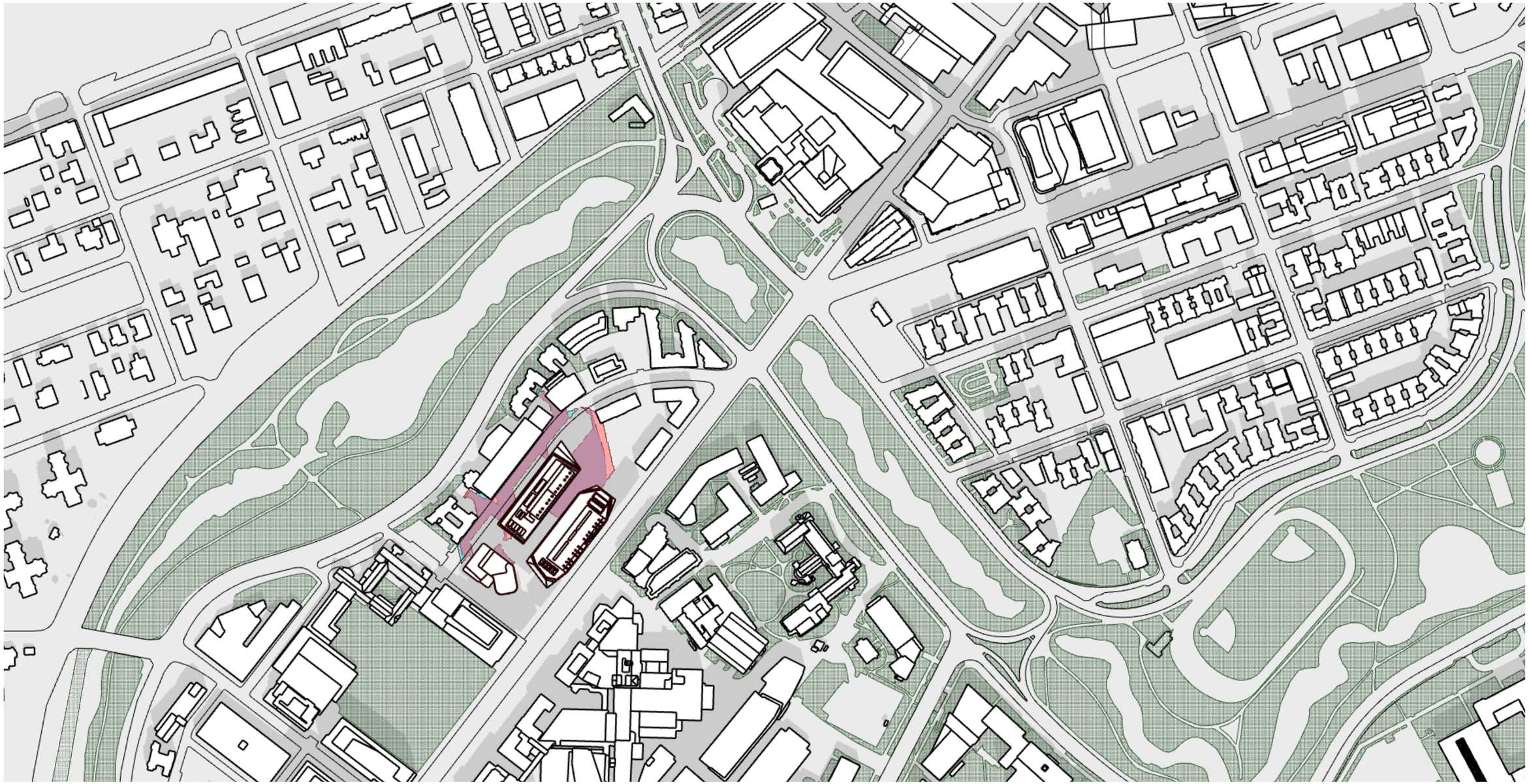


Figure 4.2c-24: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 12:30PM (DST)

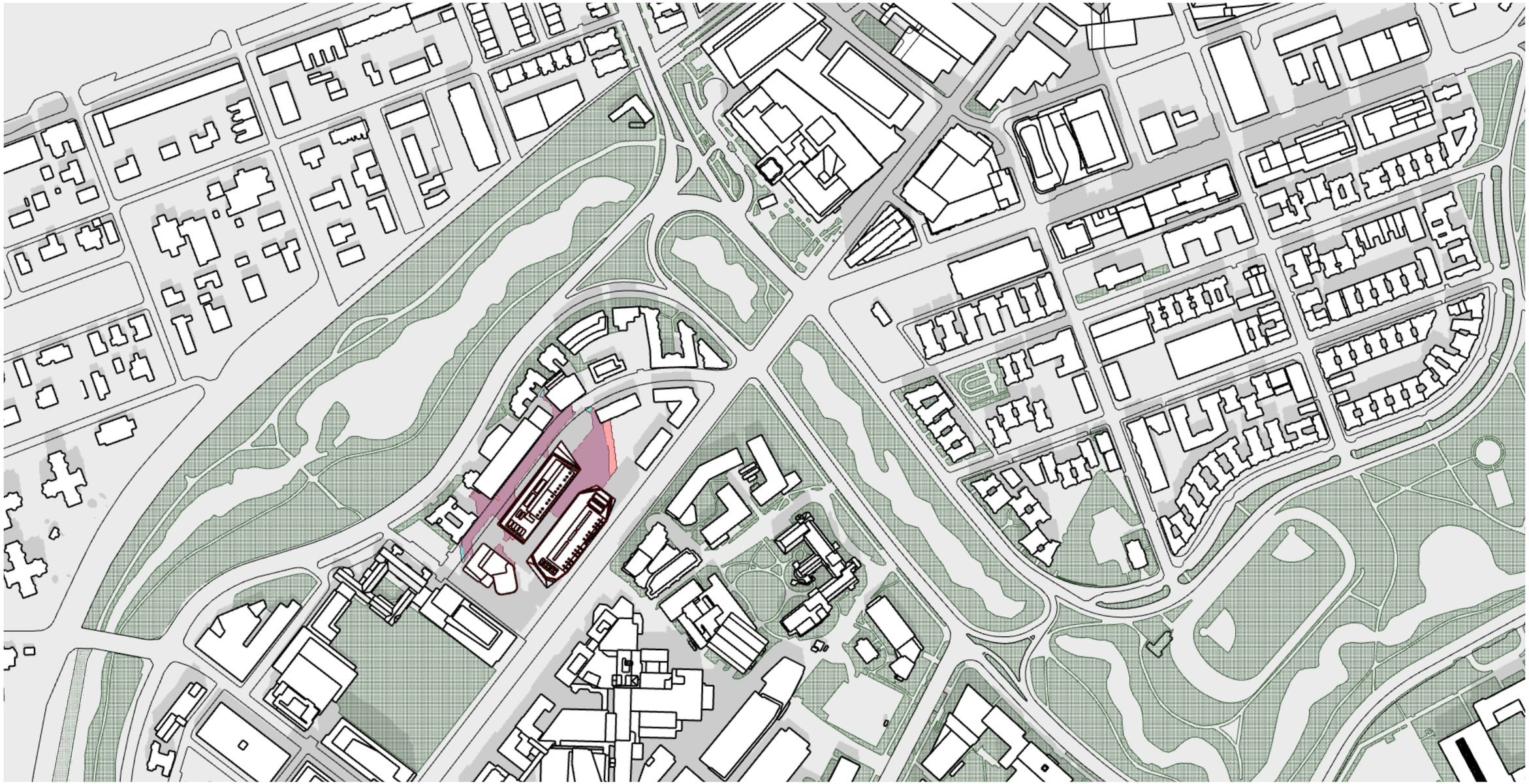


Figure 4.2c-25: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 12:45PM (DST)

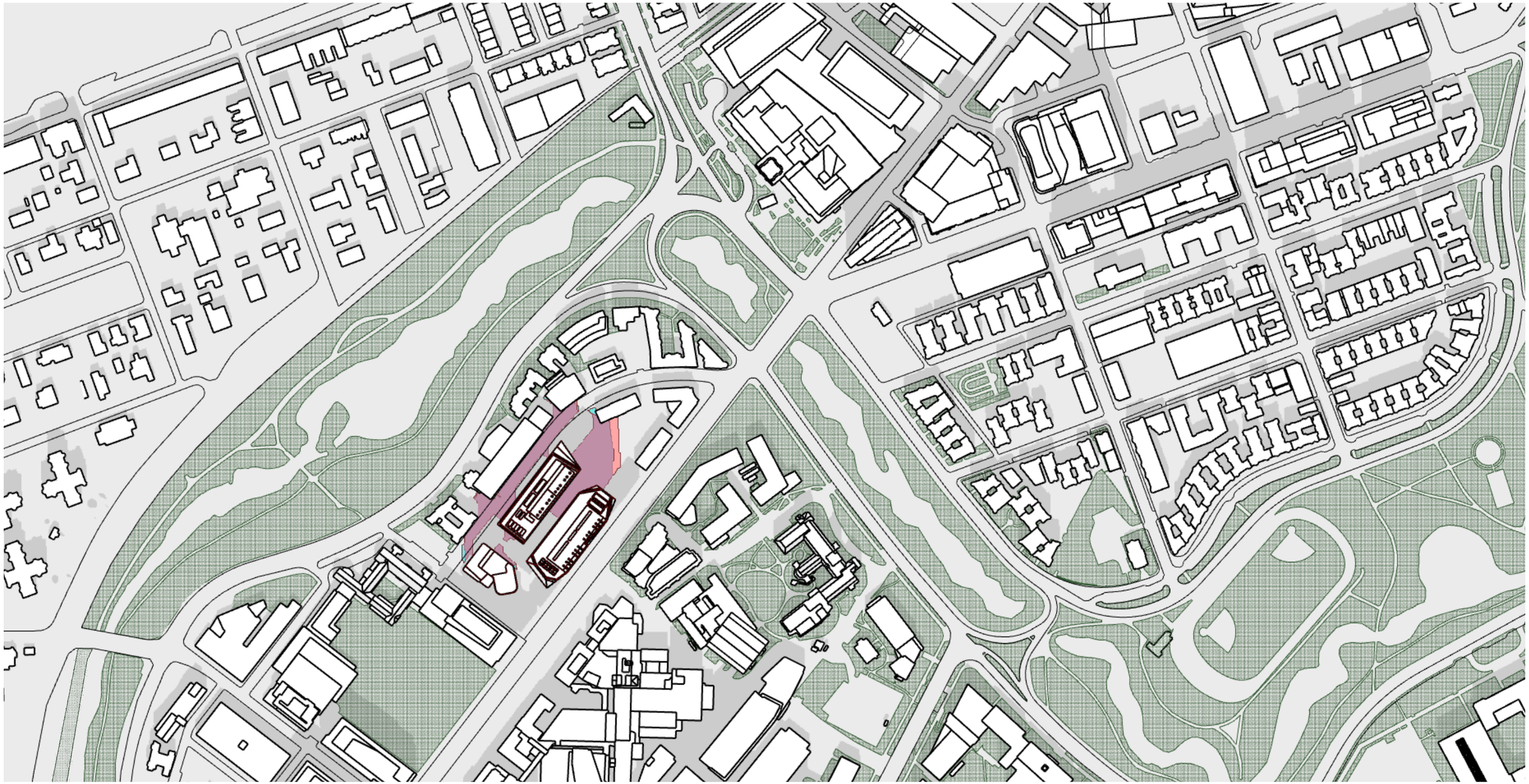


Figure 4.2c-26: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 1:00PM (DST)

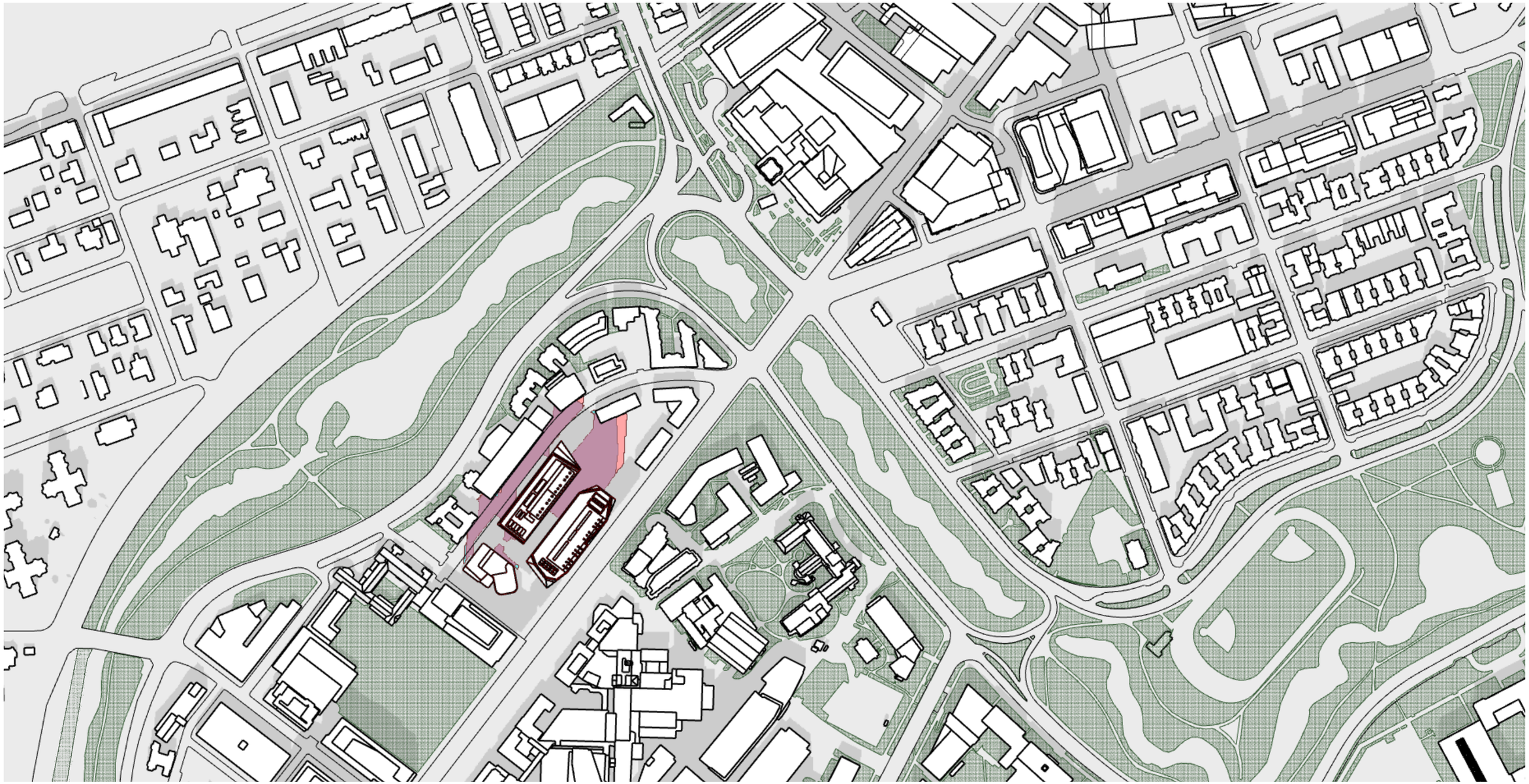


Figure 4.2c-27: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 1:15PM (DST)

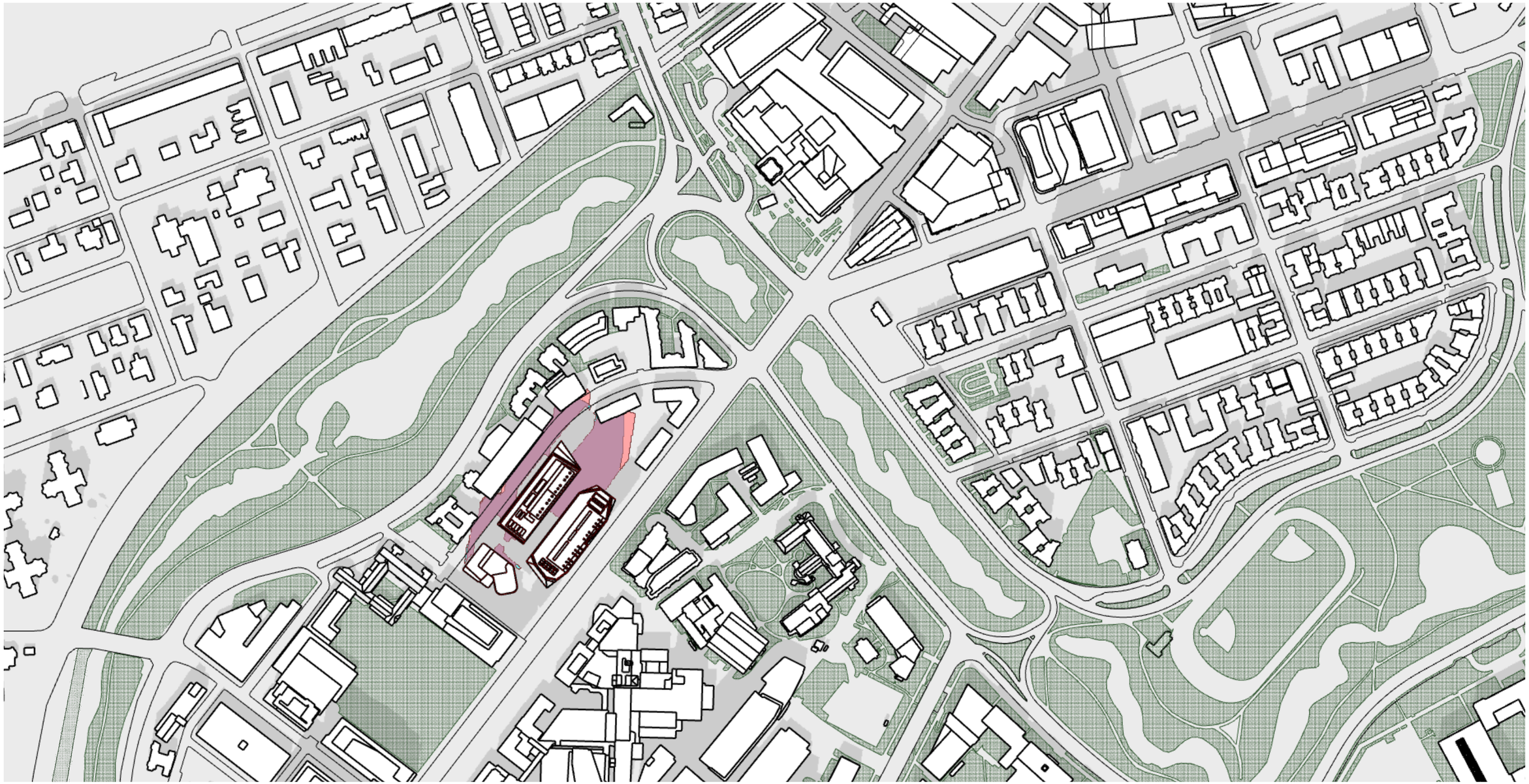


Figure 4.2c-28: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 1:30PM (DST)

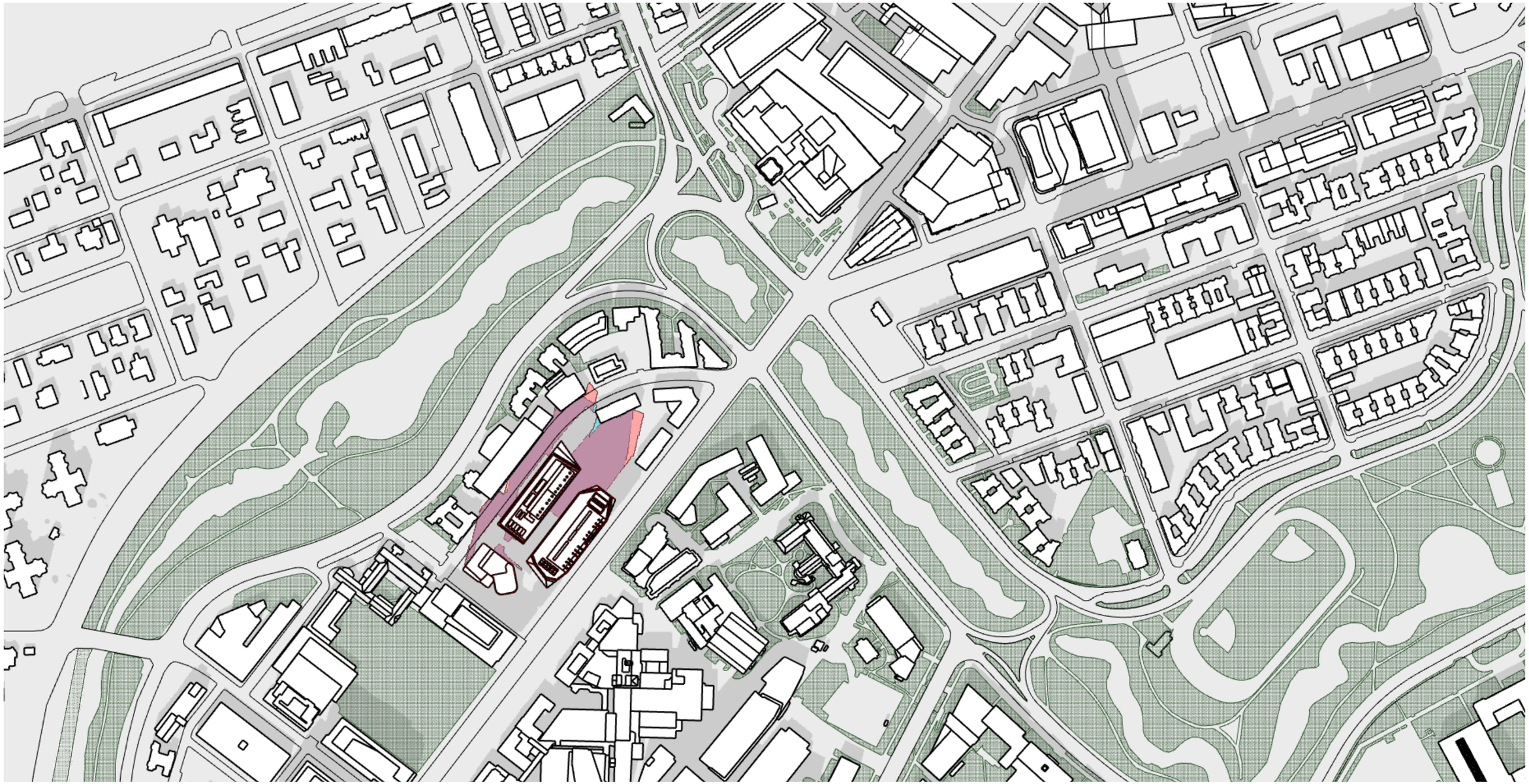


Figure 4.2c-29: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 1:45PM (DST)

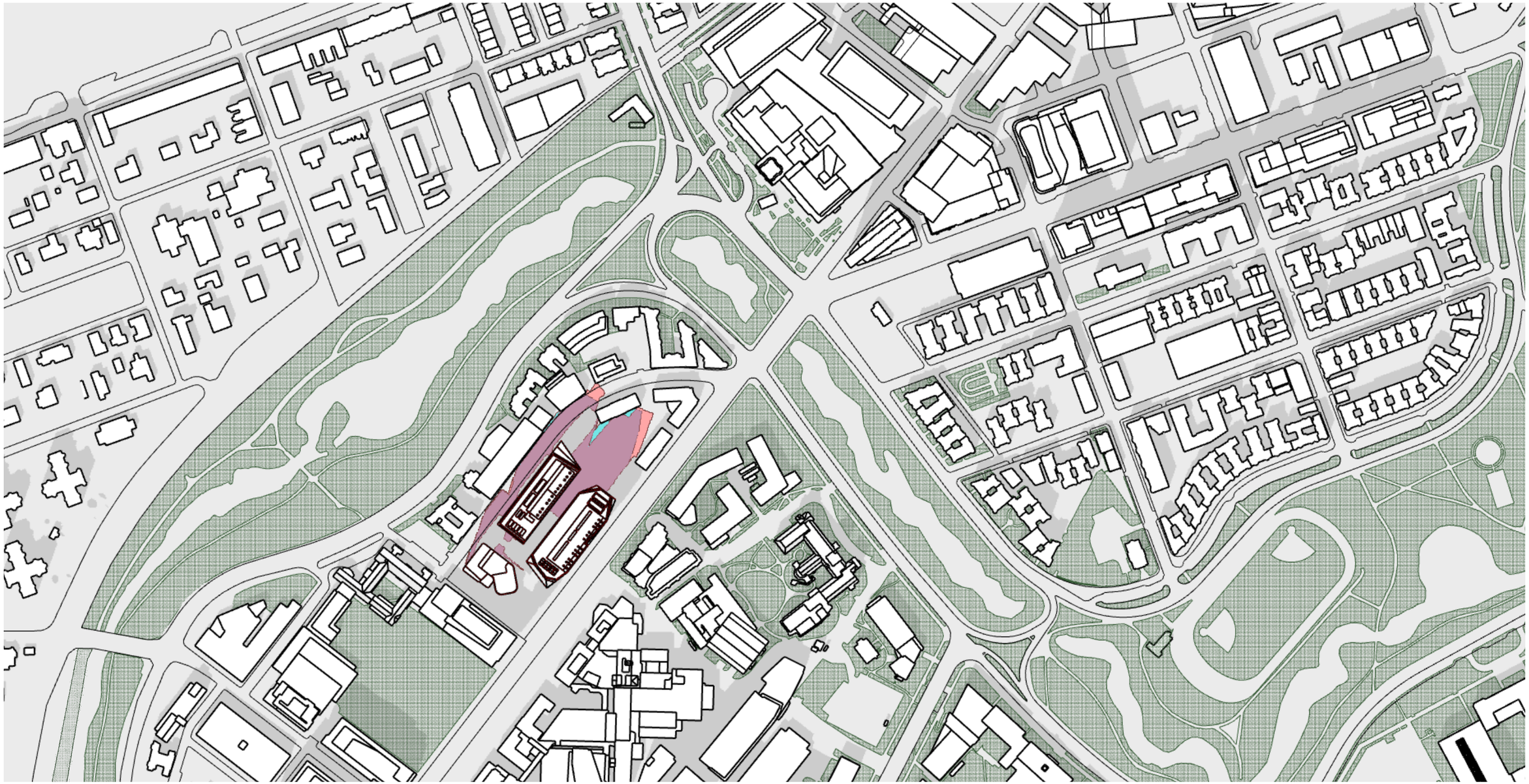


Figure 4.2c-30: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 2:00PM (DST)

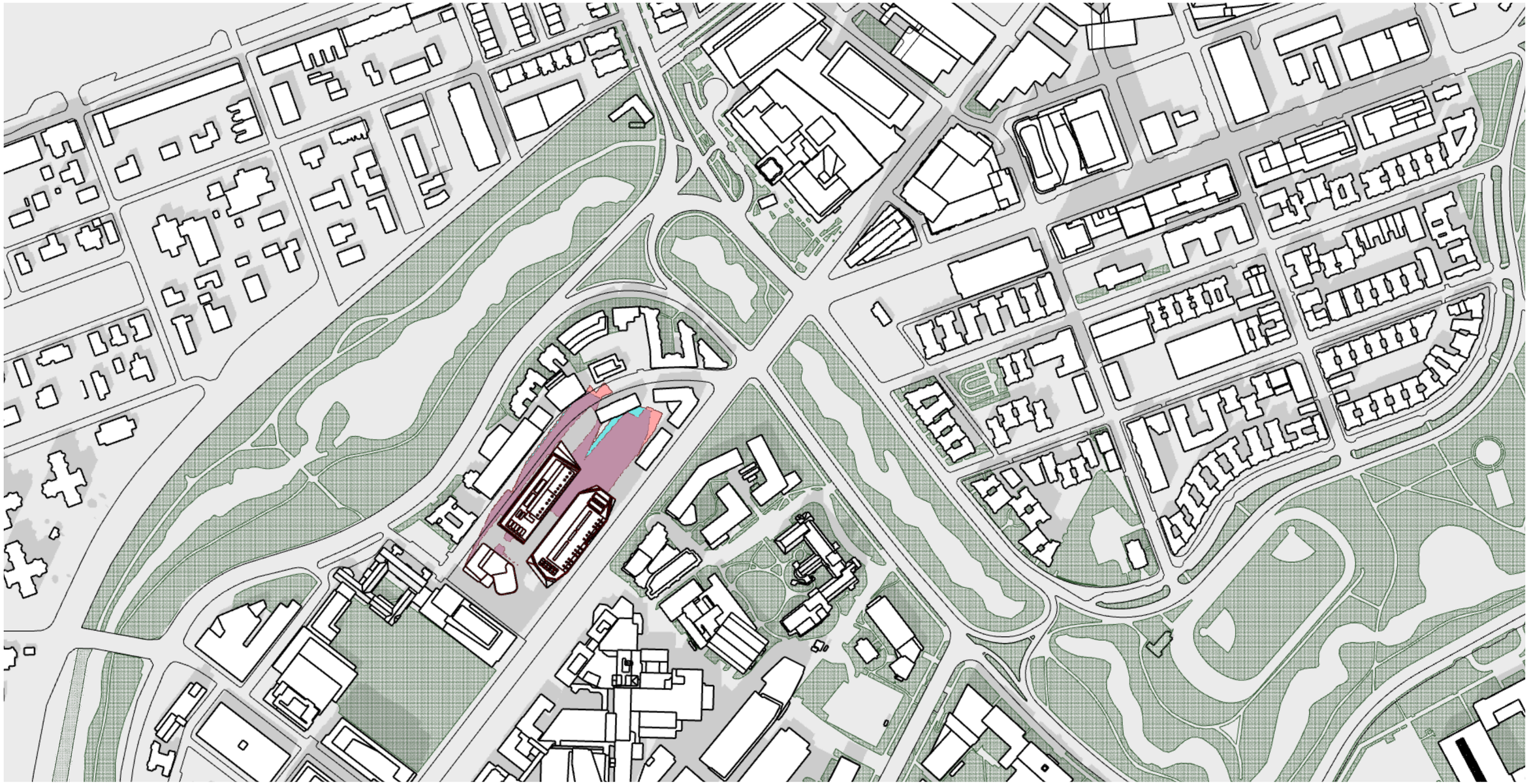


Figure 4.2c-31: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 2:15PM (DST)

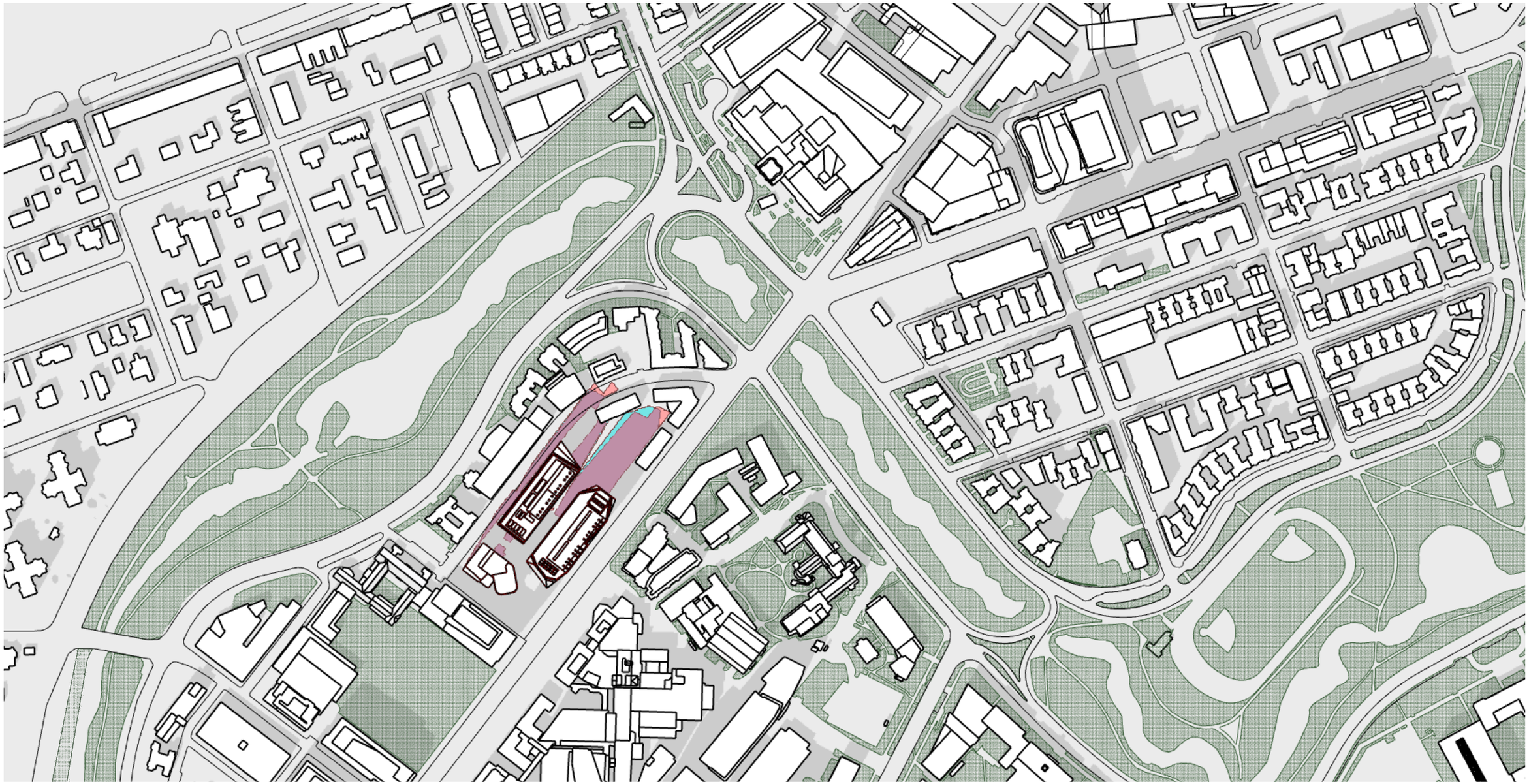


Figure 4.2c-32: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 2:30PM (DST)

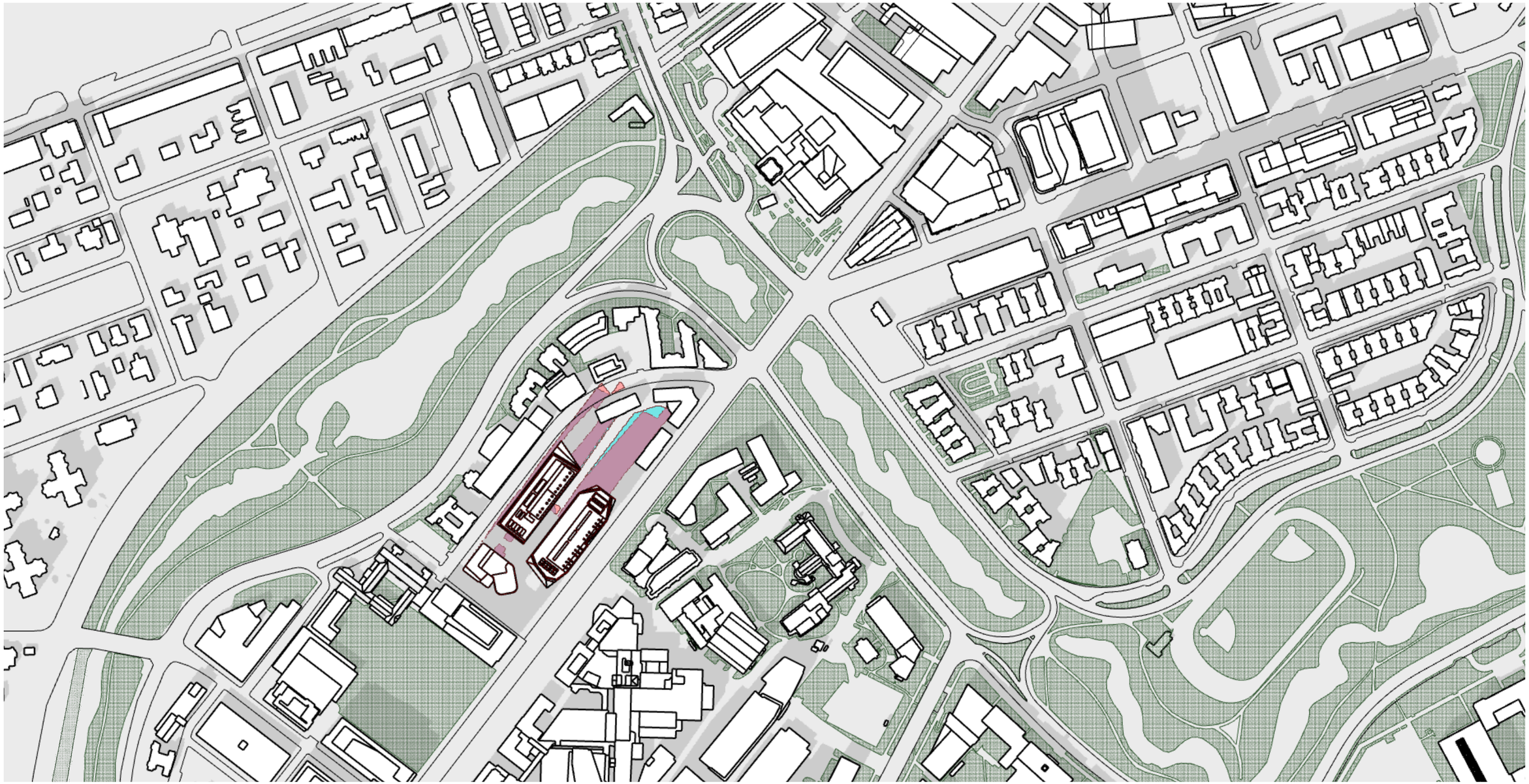


Figure 4.2c-33: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 2:45PM (DST)

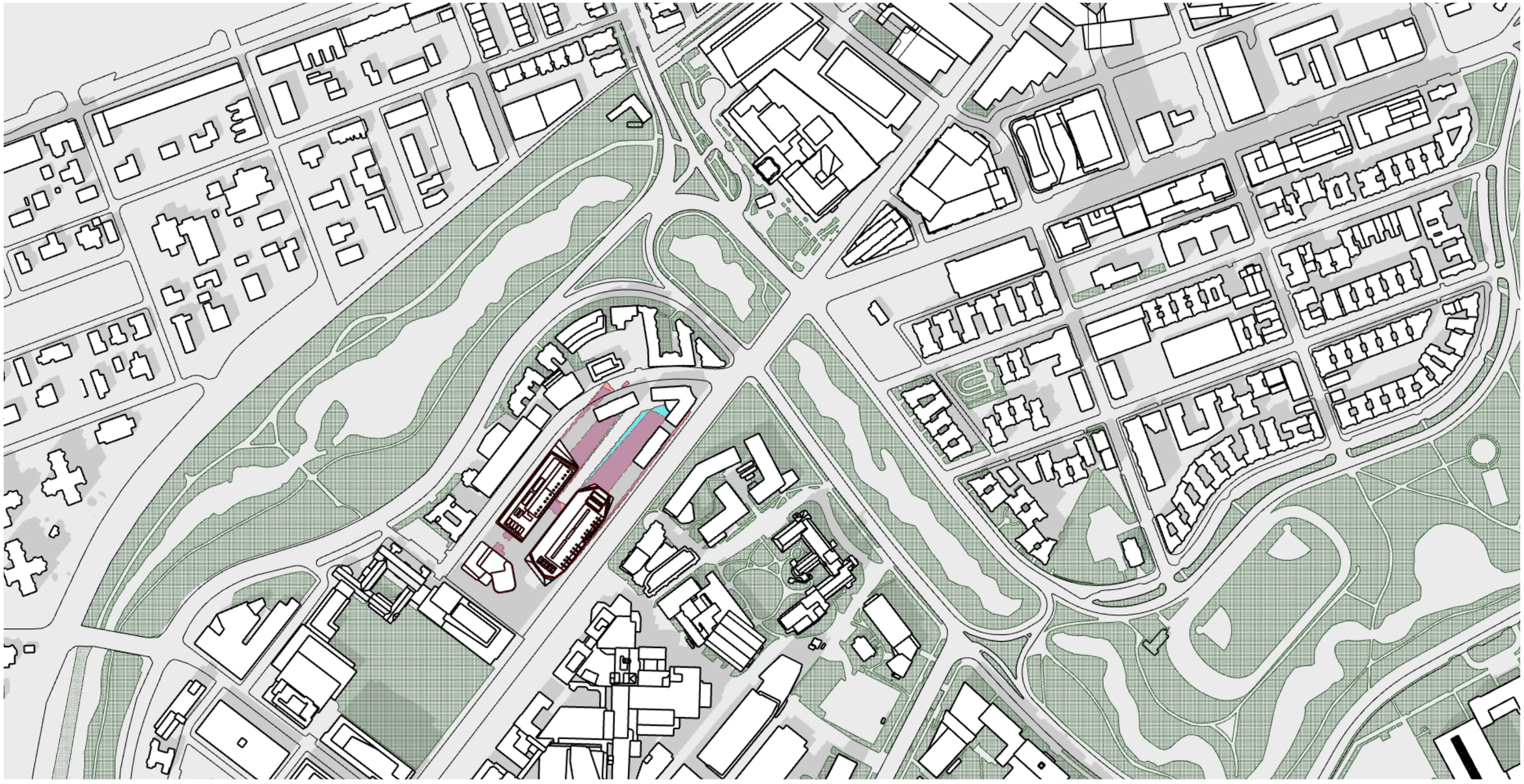


Figure 4.2c-34: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 3:00PM (DST)

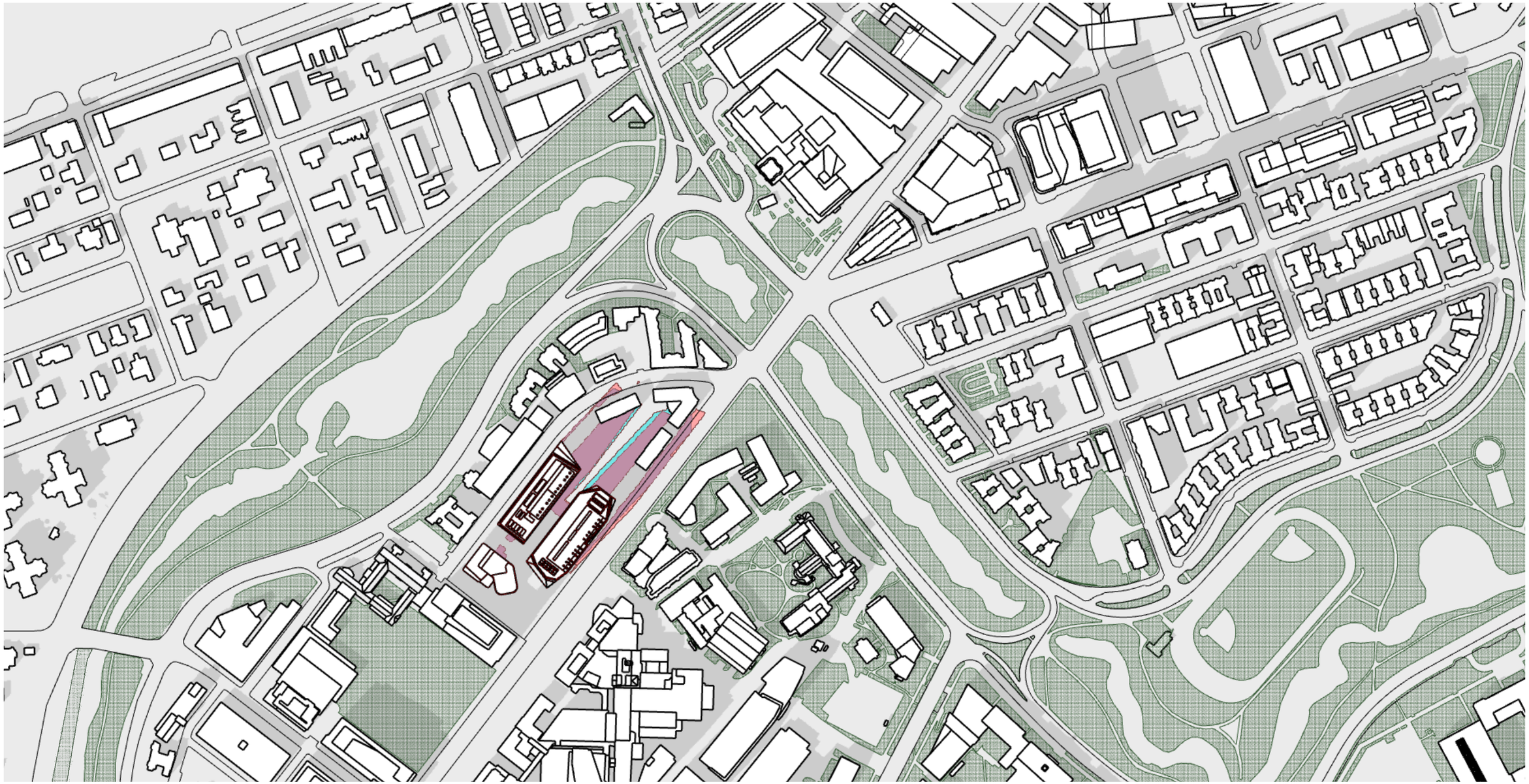


Figure 4.2c-35: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 3:15PM (DST)

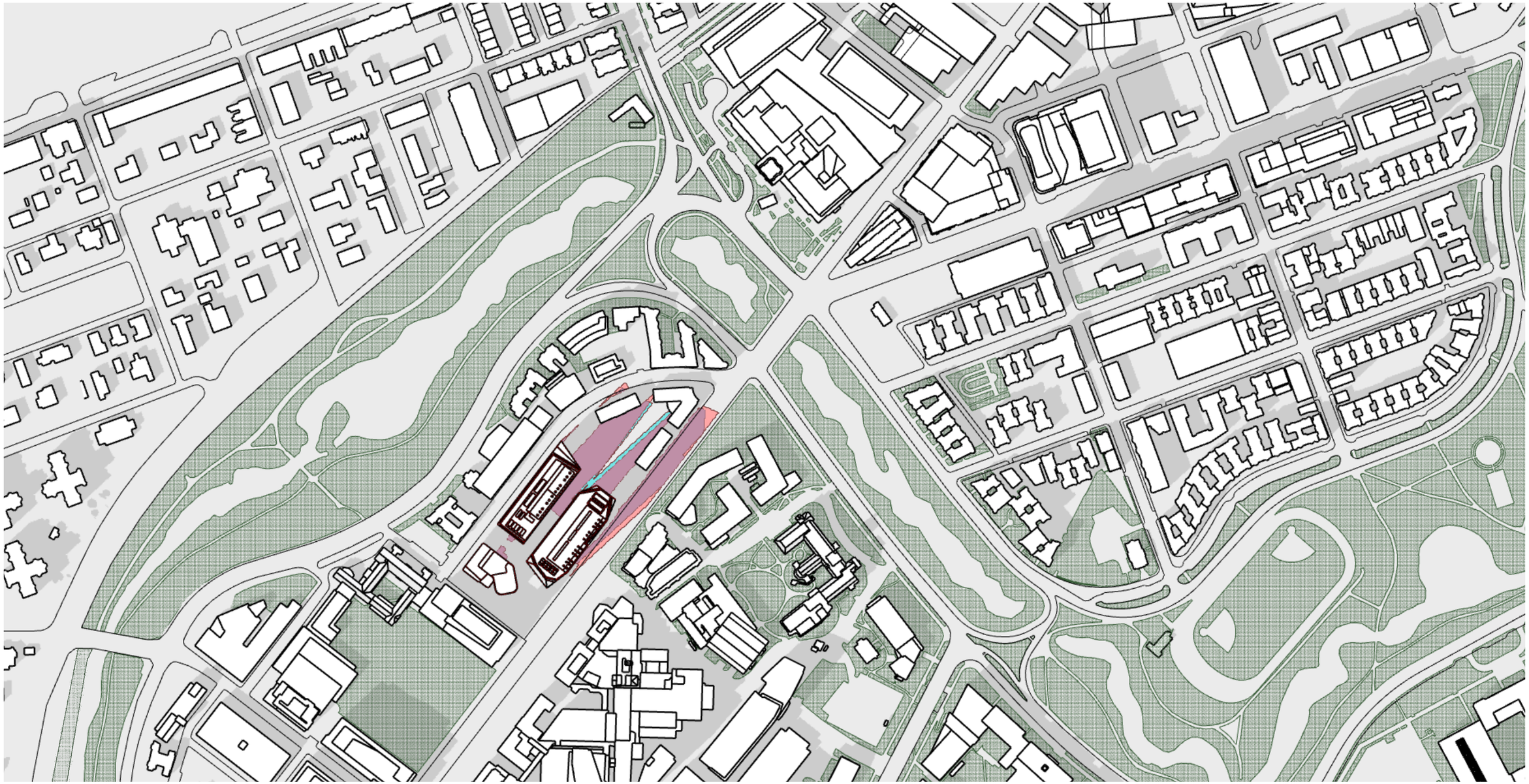


Figure 4.2c-36: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 3:30PM (DST)

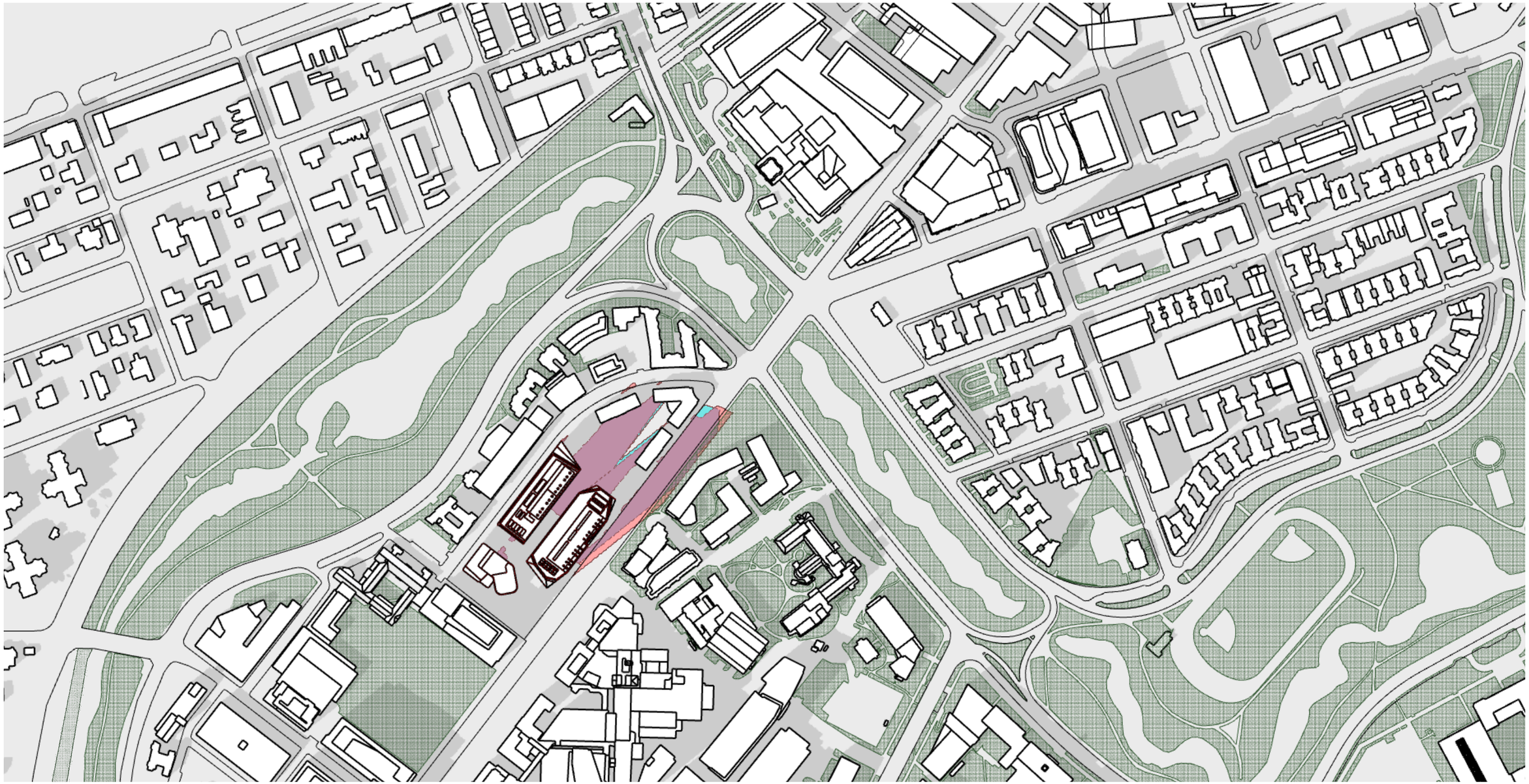


Figure 4.2c-37: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 3:45PM (DST)

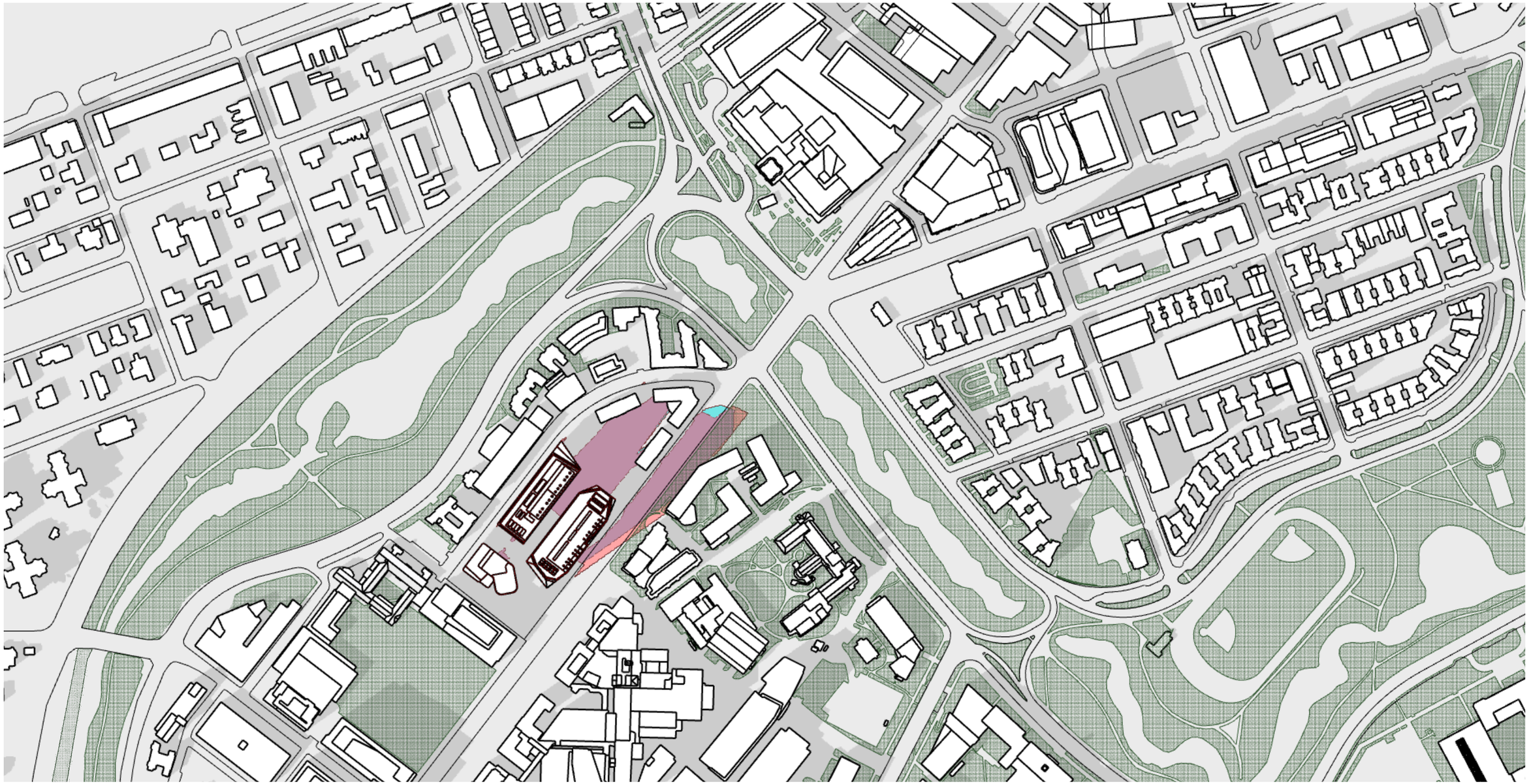


Figure 4.2c-38: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 4:00PM (DST)

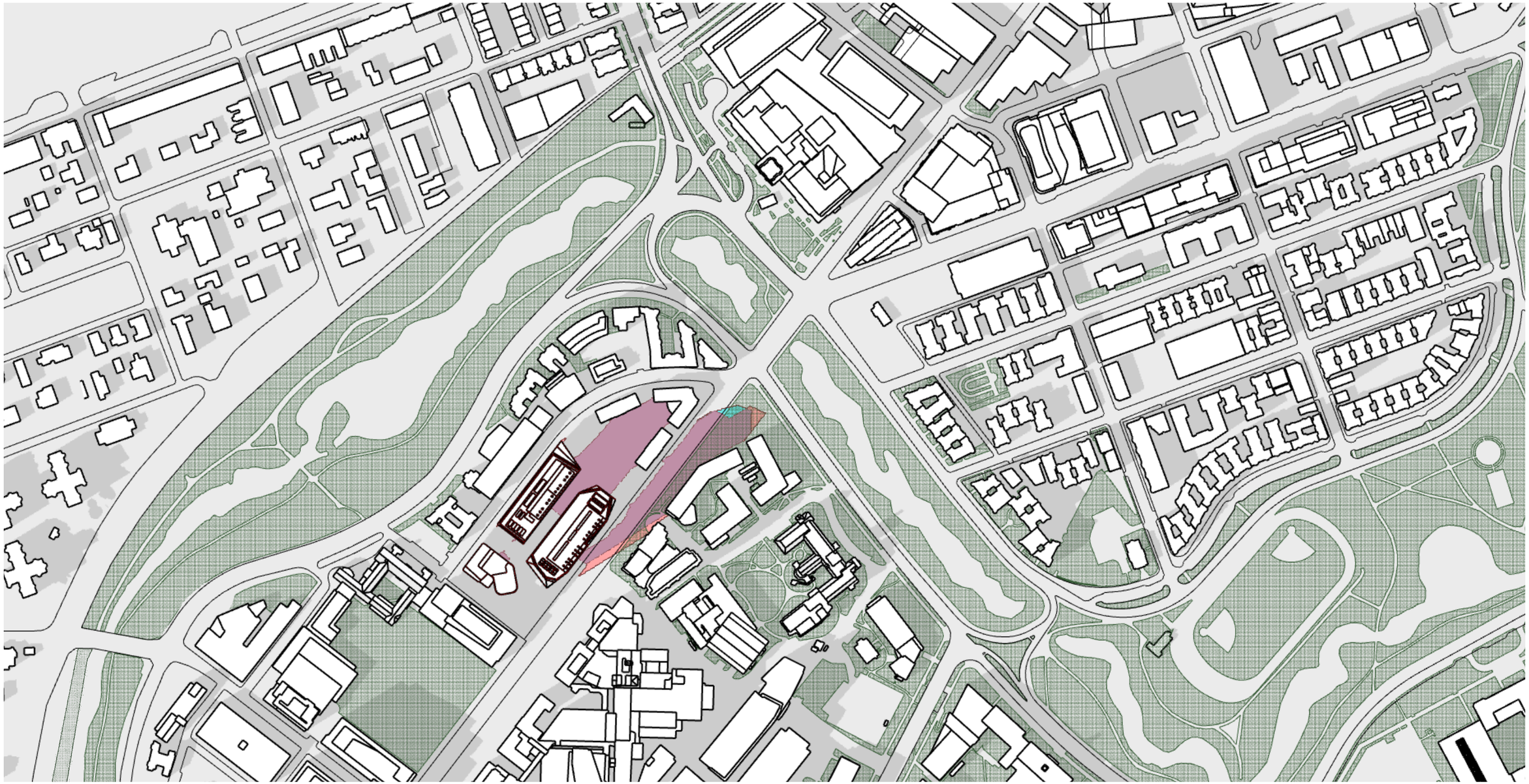


Figure 4.2c-39: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 4:15PM (DST)

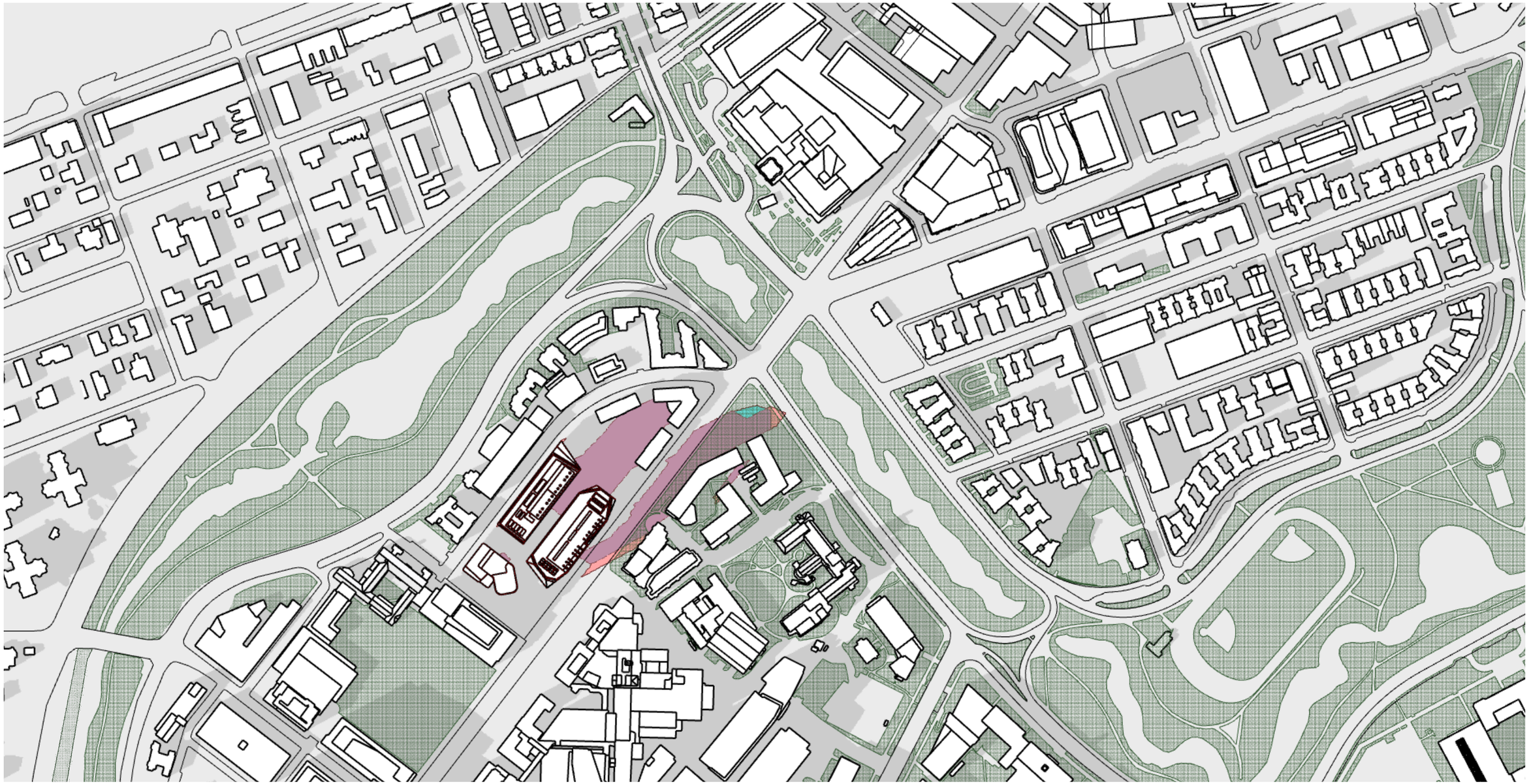


Figure 4.2c-40: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 4:30PM (DST)

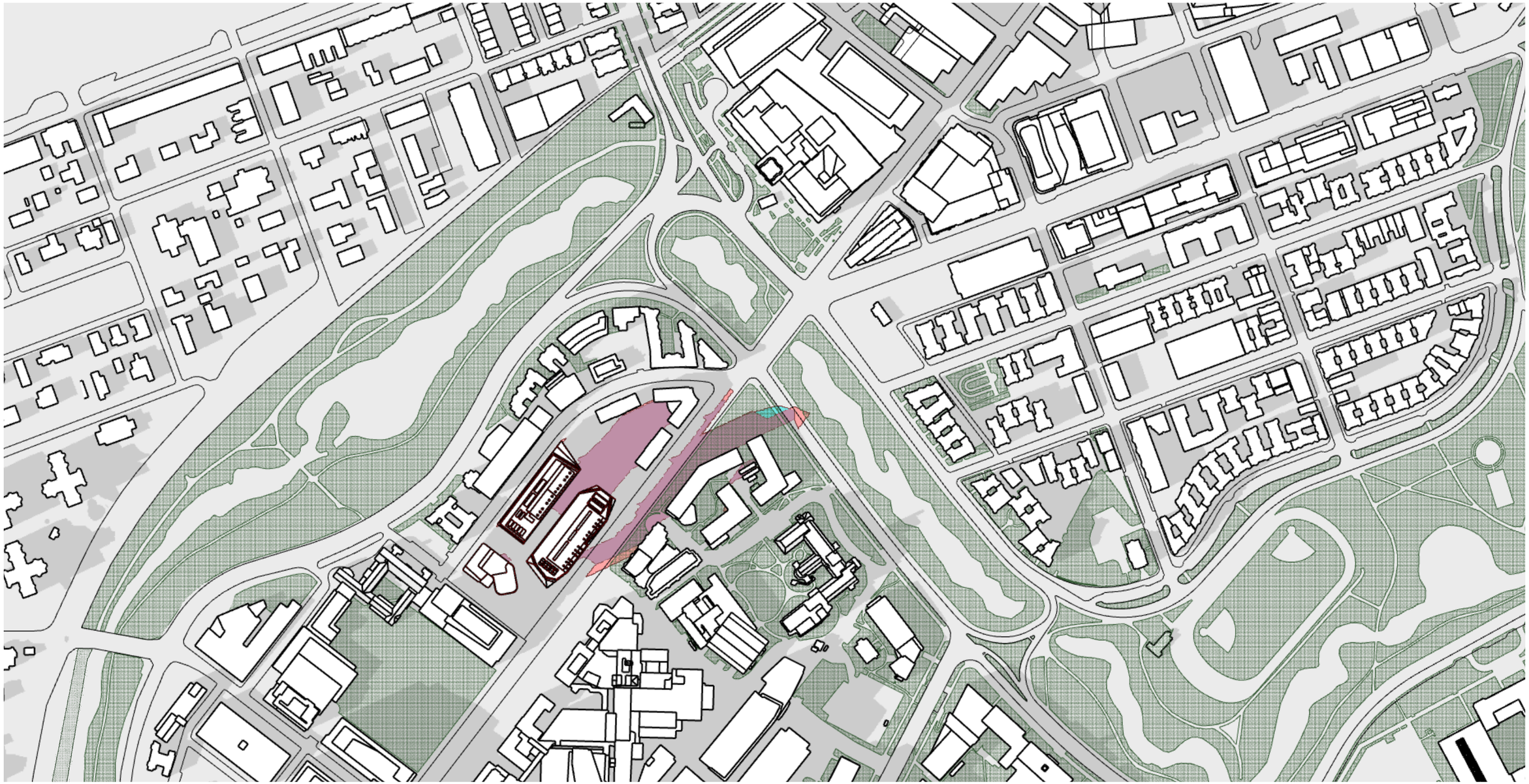


Figure 4.2c-41: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 4:45PM (DST)

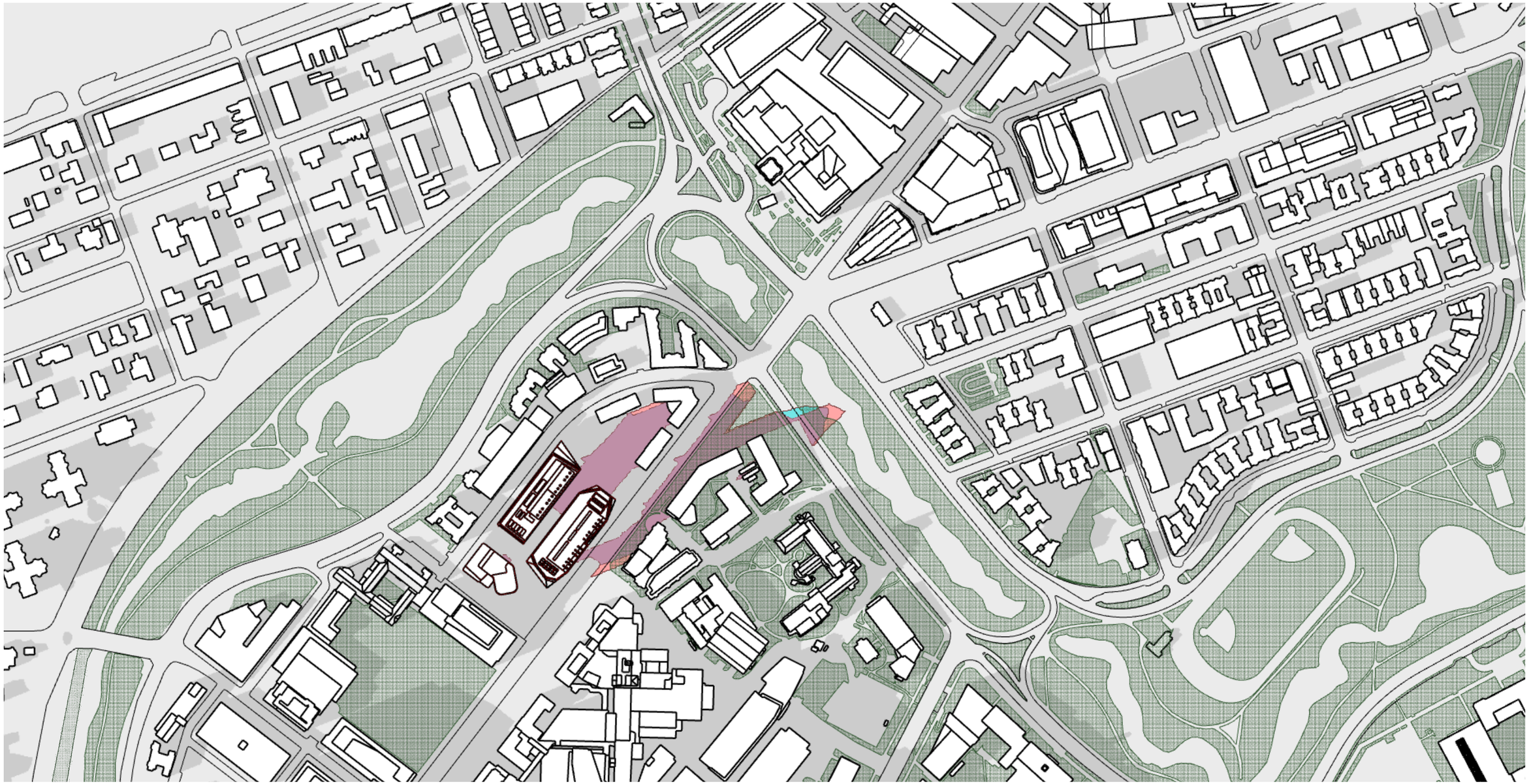


Figure 4.2c-42: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 5:00PM (DST)

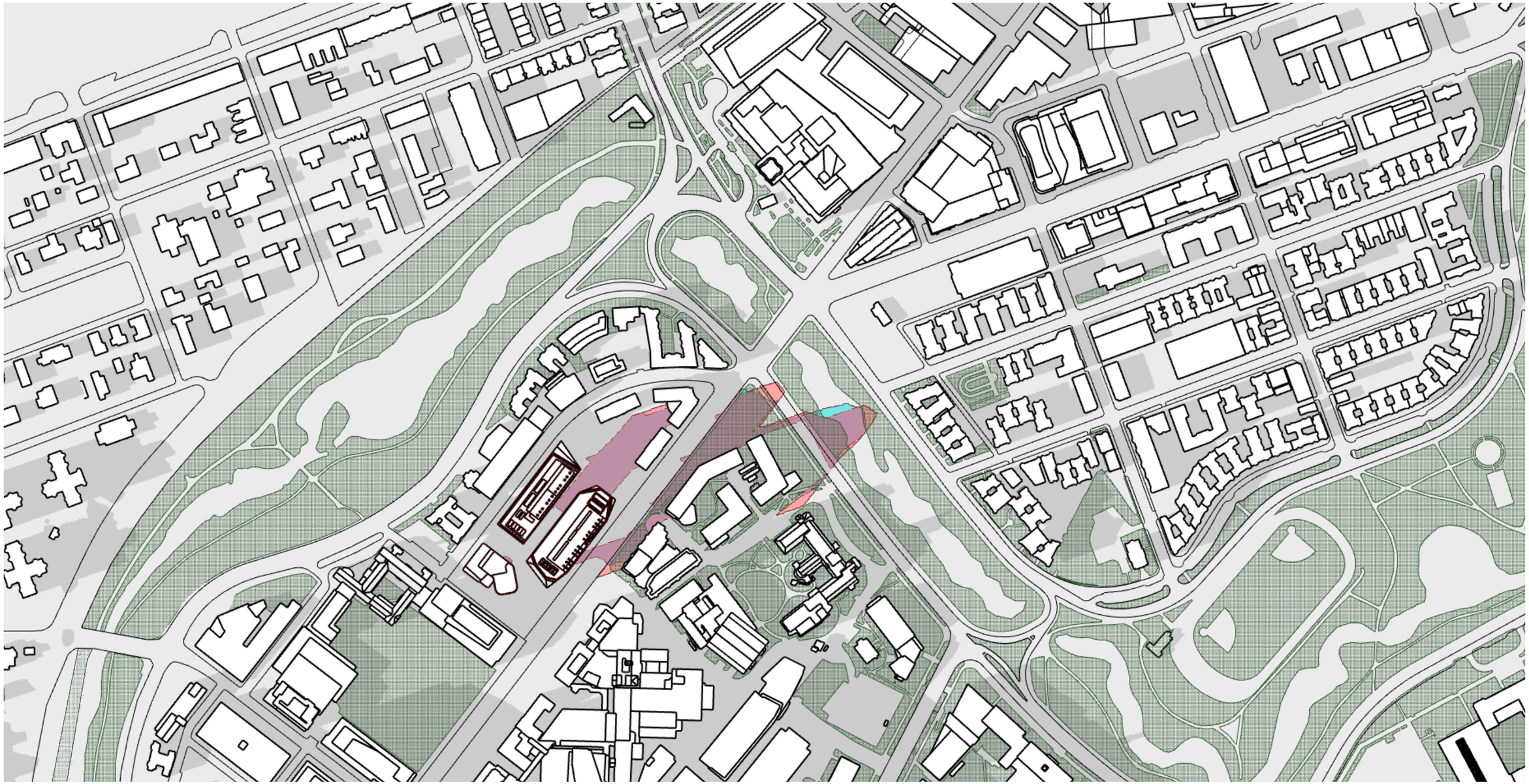


Figure 4.2c-43: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 5:15PM (DST)

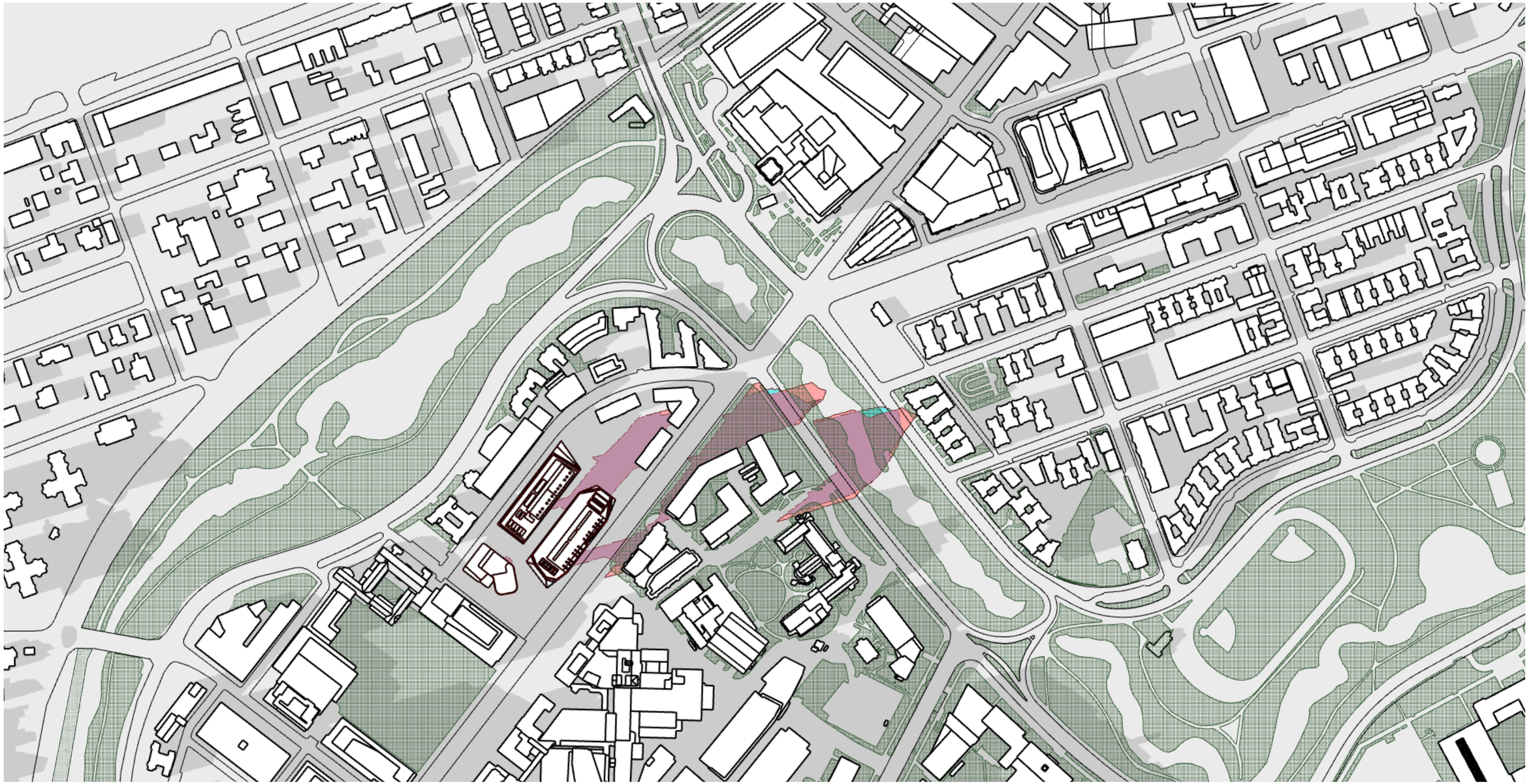


Figure 4.2c-44: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 5:30PM (DST)

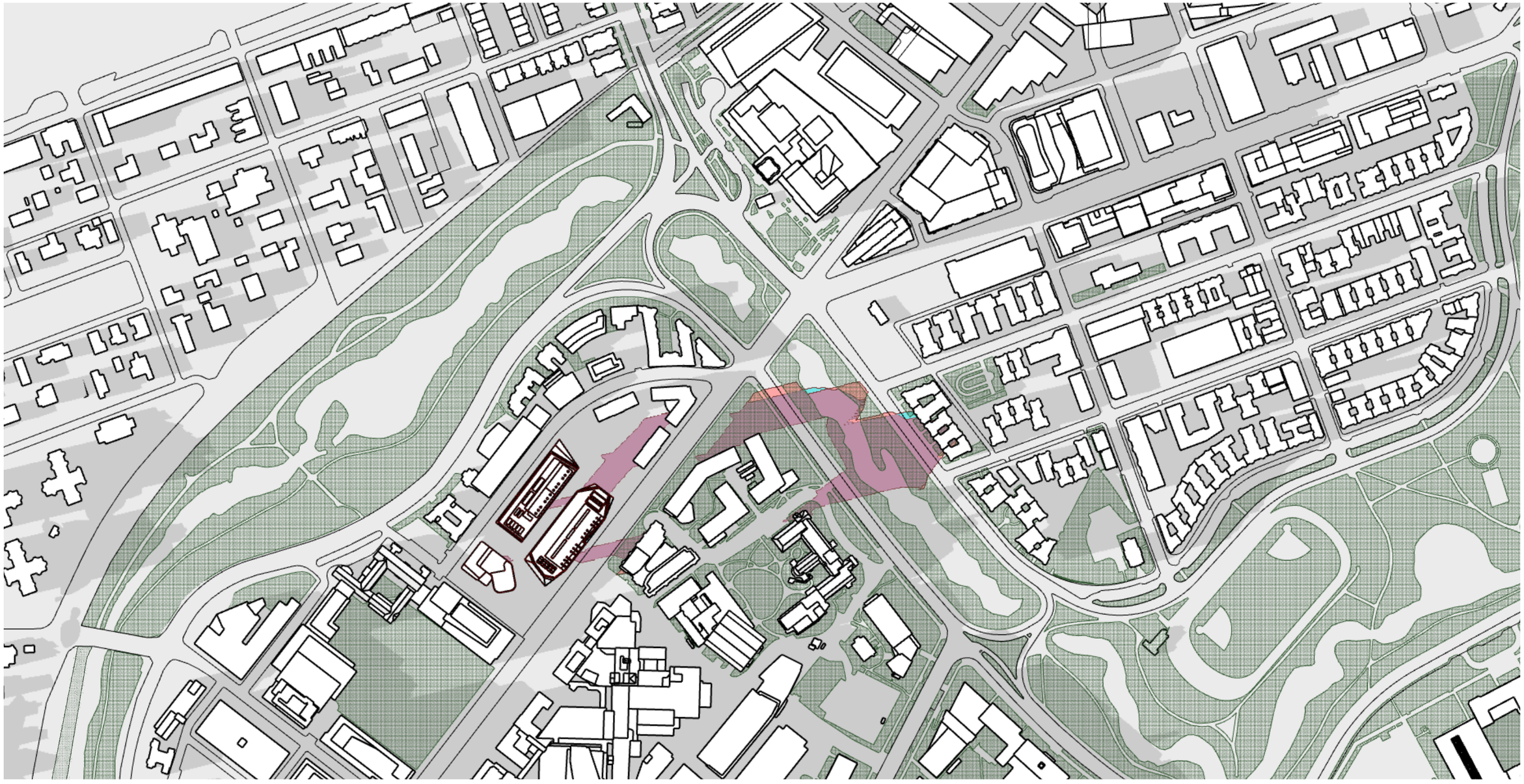


Figure 4.2c-45: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 5:45PM (DST)

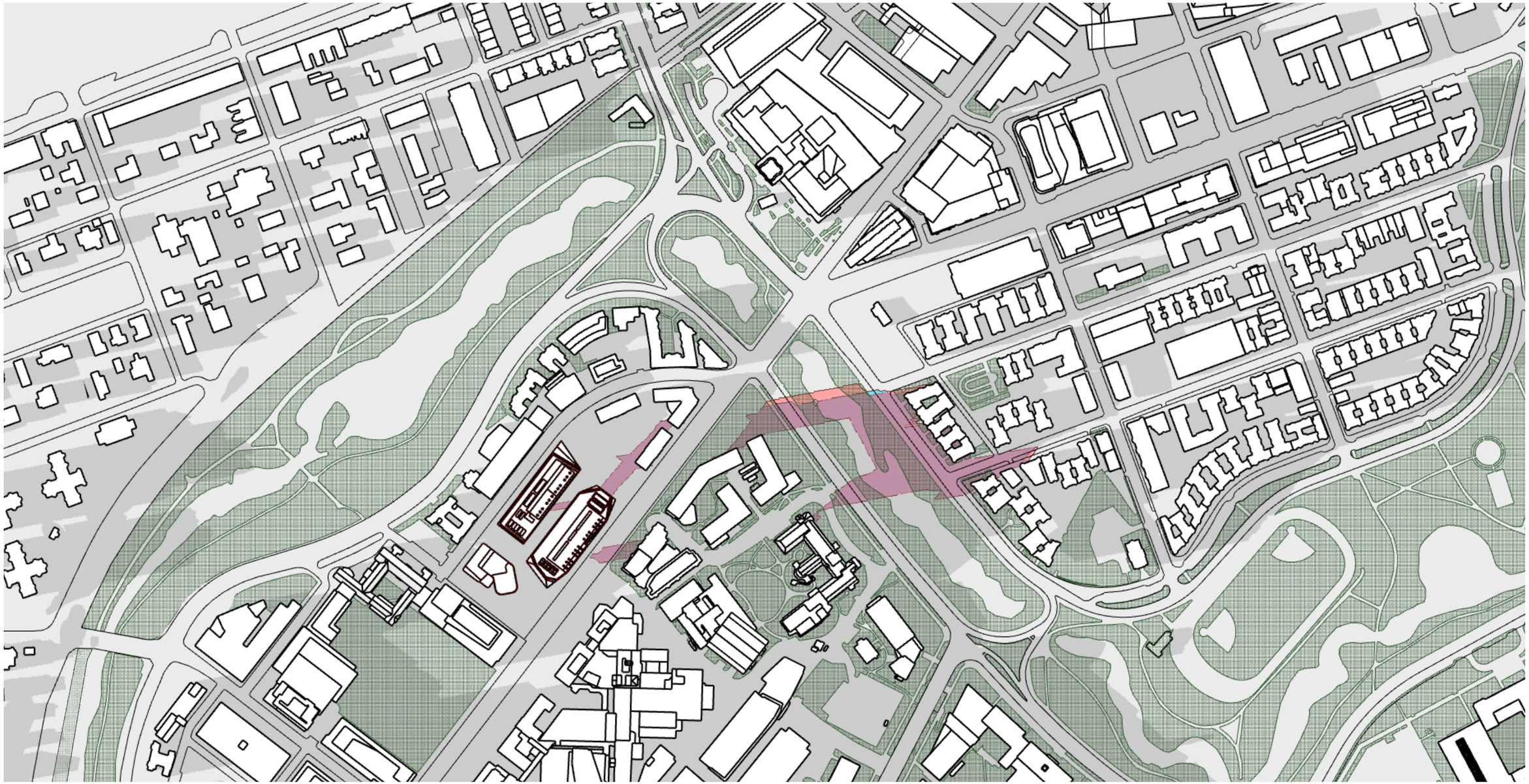


Figure 4.2c-46: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 6:00PM (DST)

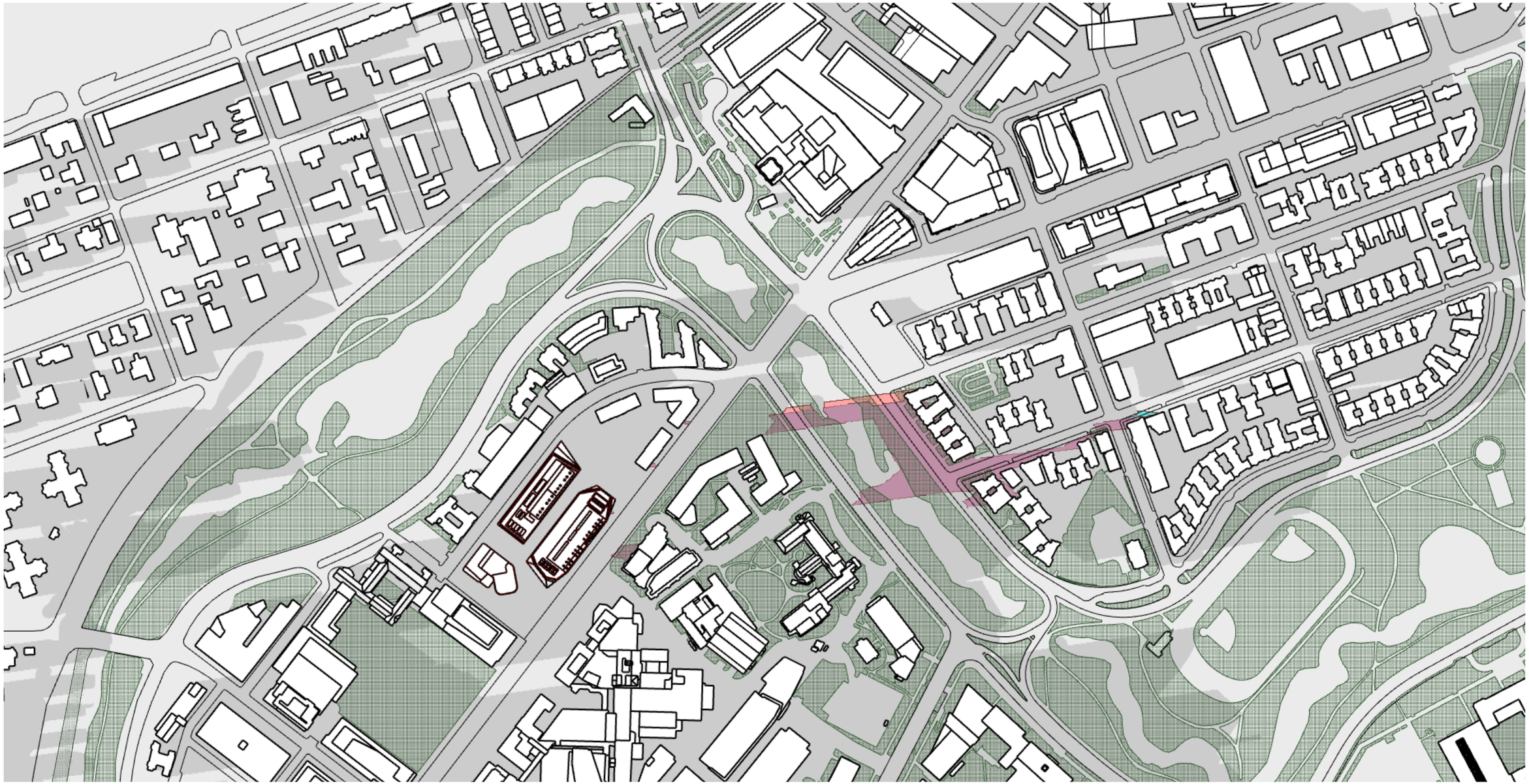


Figure 4.2c-47: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 6:15PM (DST)

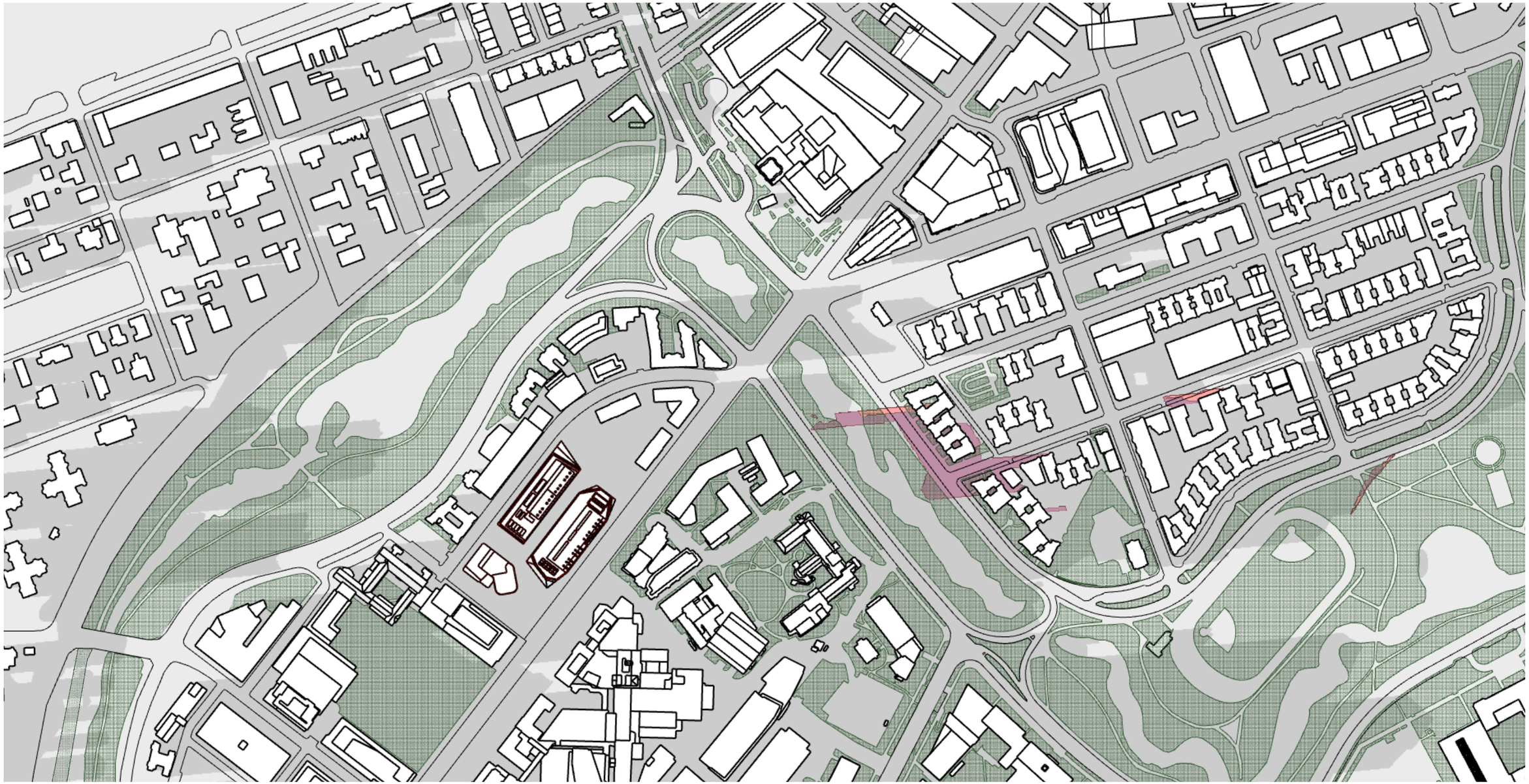


Figure 4.2c-48: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 6:30PM (DST)



Figure 4.2c-49: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - 6:45PM (DST)



Figure 4.2c-50: Shadow Analysis

Longwood Place | Boston, MA

MARCH 21 (SPRING EQUINOX) - SUNSET 6:58PM (DST)

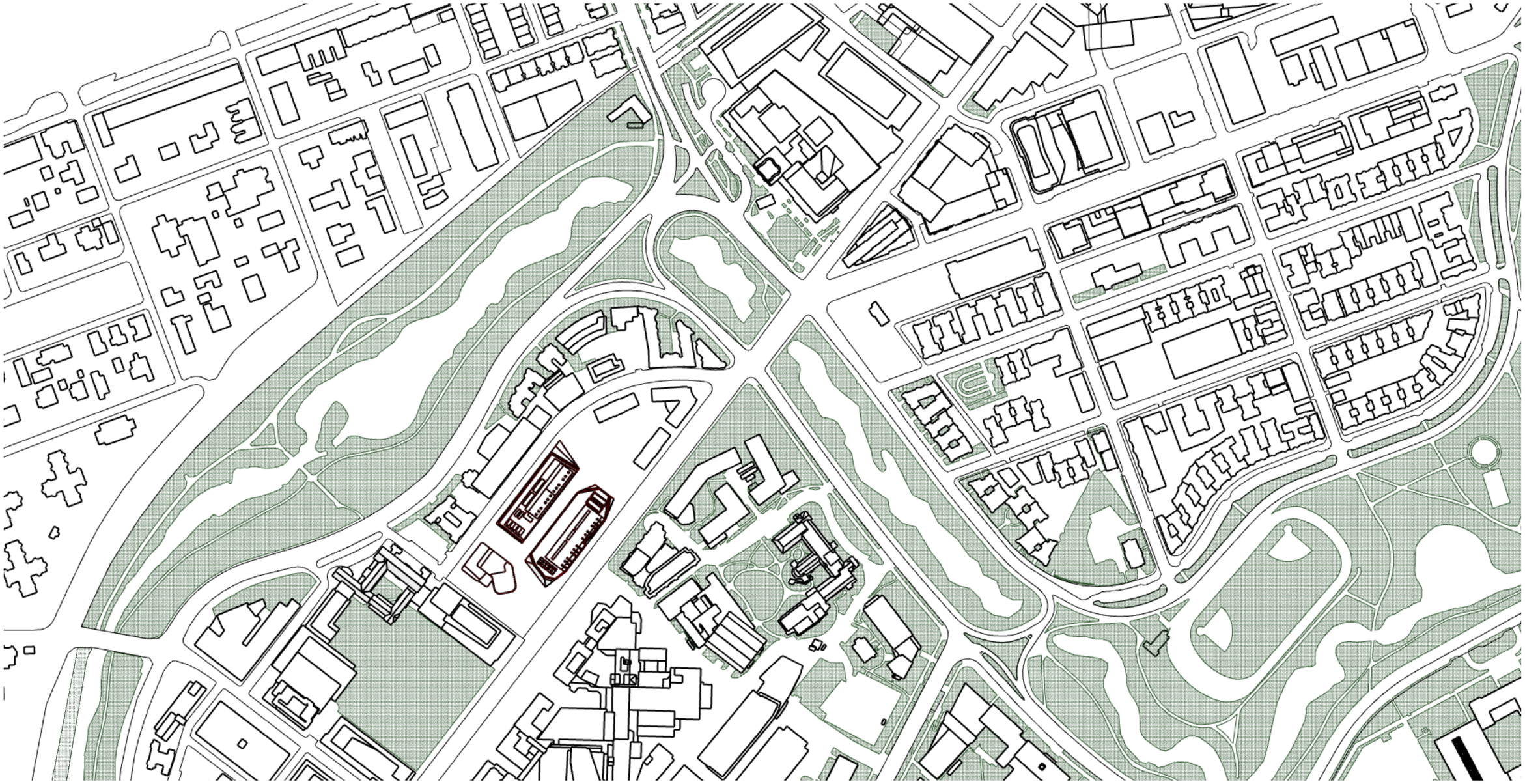


Figure 4.2c-51: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - SUNRISE 5:07AM (DST)



Figure 4.2c-52: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 5:15AM (DST)

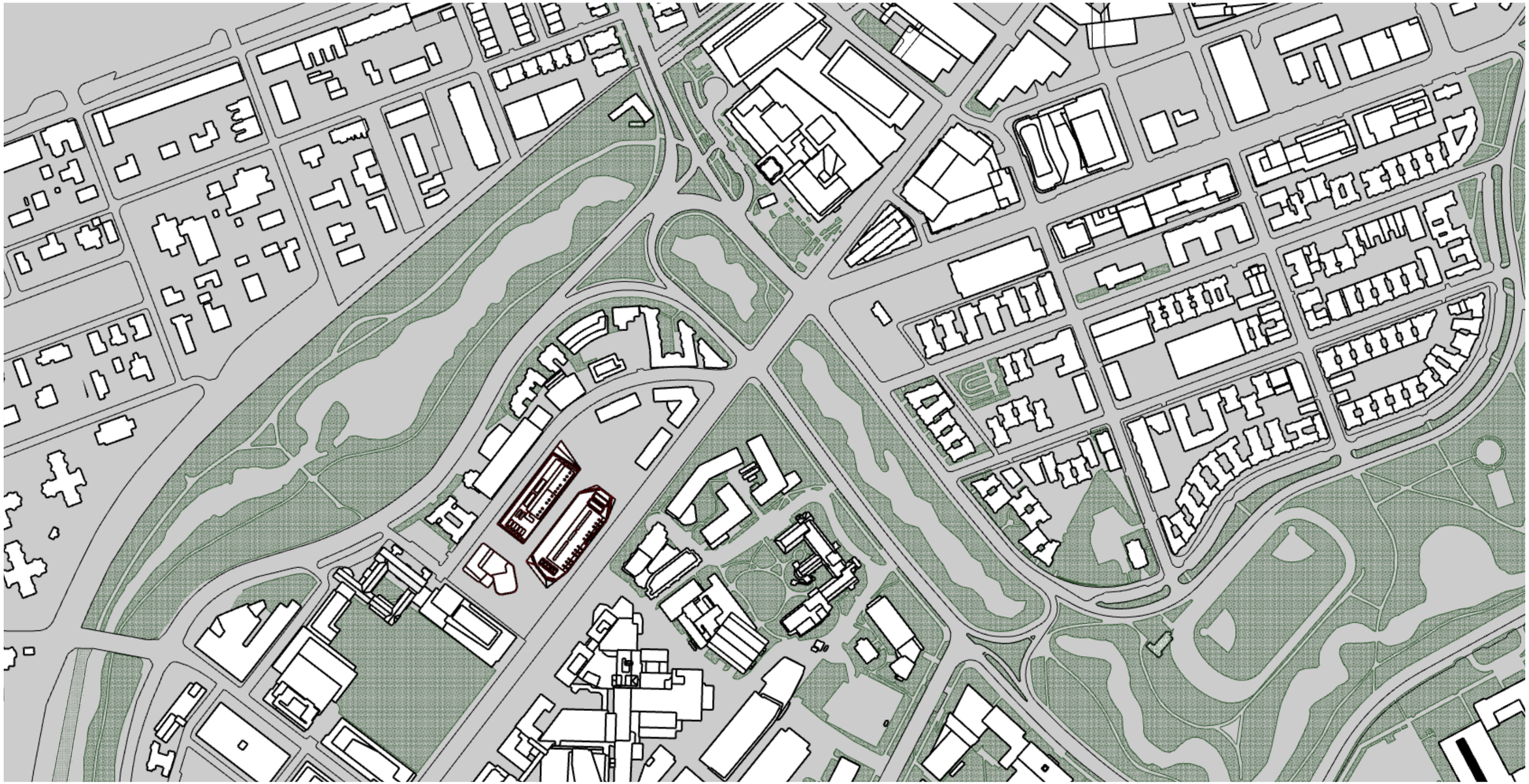


Figure 4.2c-53: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 5:30AM (DST)

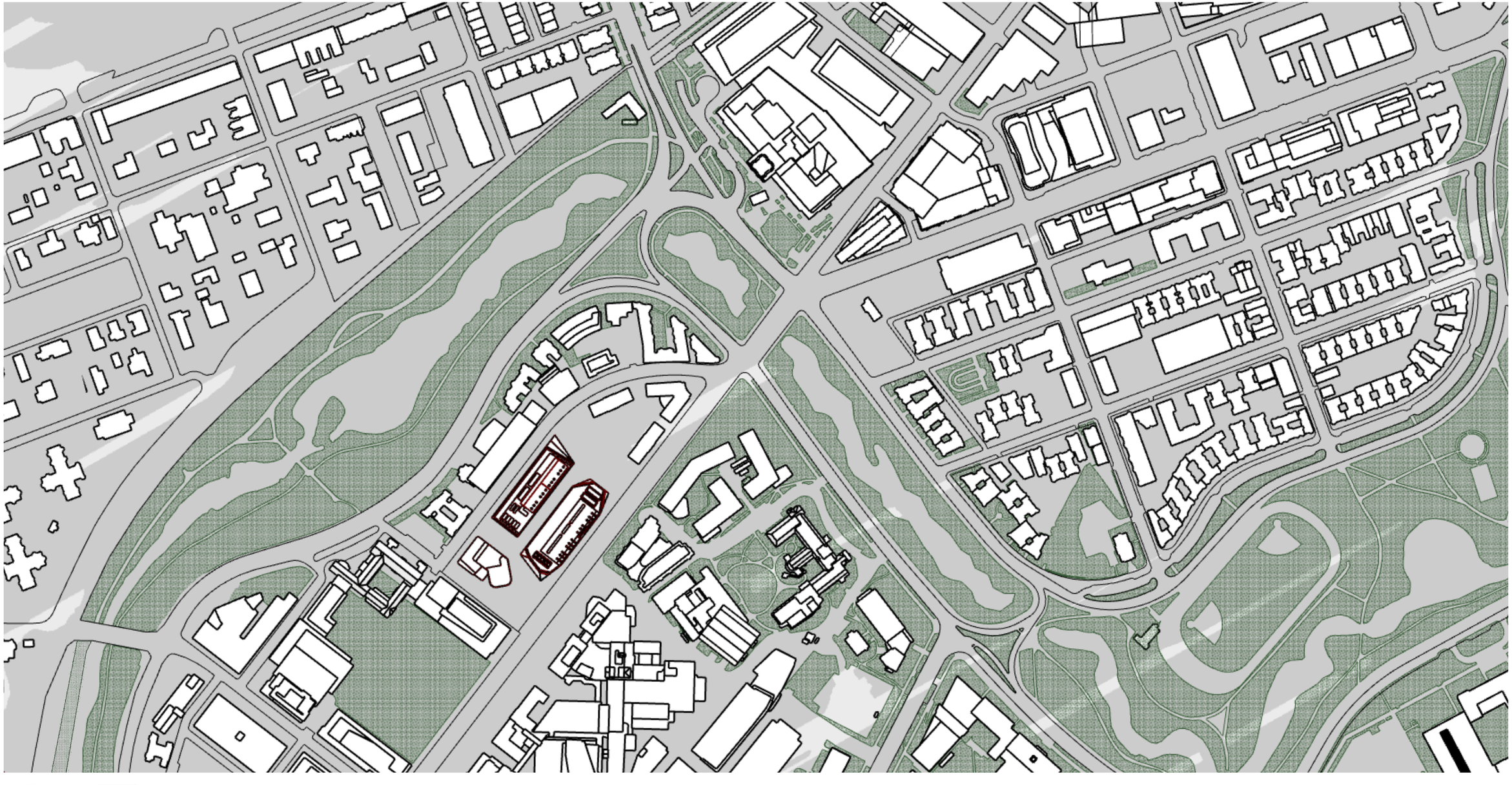


Figure 4.2c-54: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 5:45AM (DST)

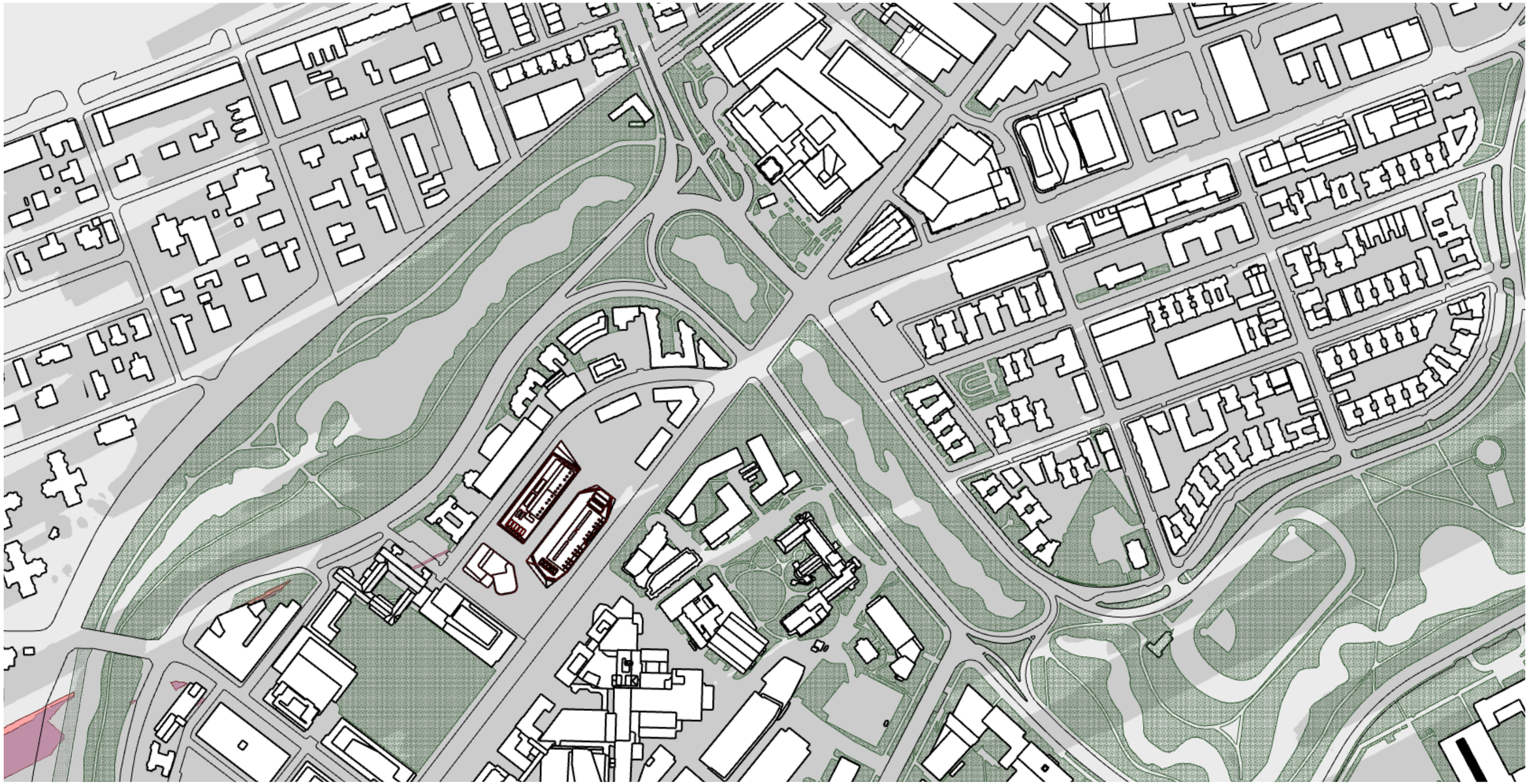


Figure 4.2c-55: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 6:00AM (DST)

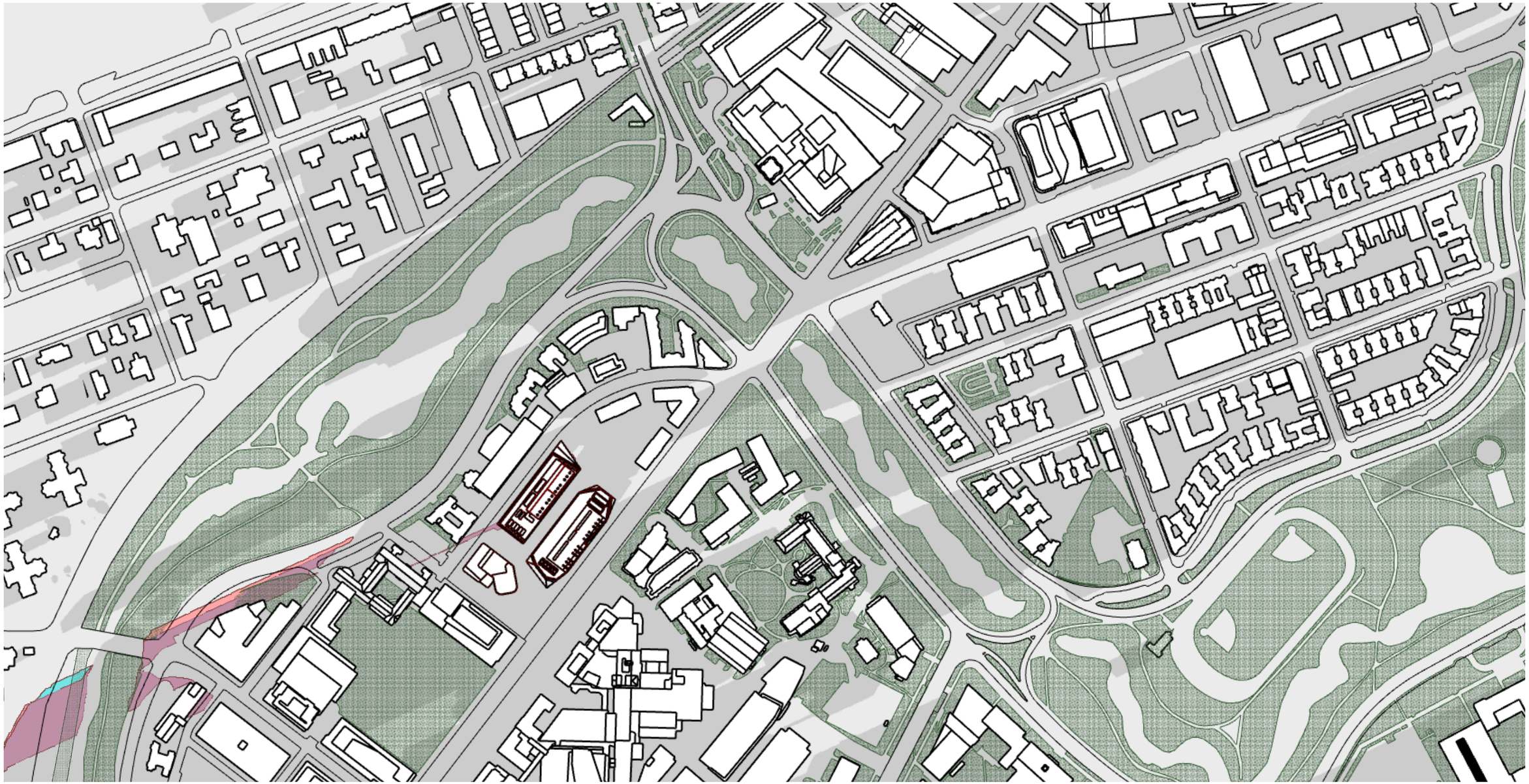


Figure 4.2c-56: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 6:15AM (DST)

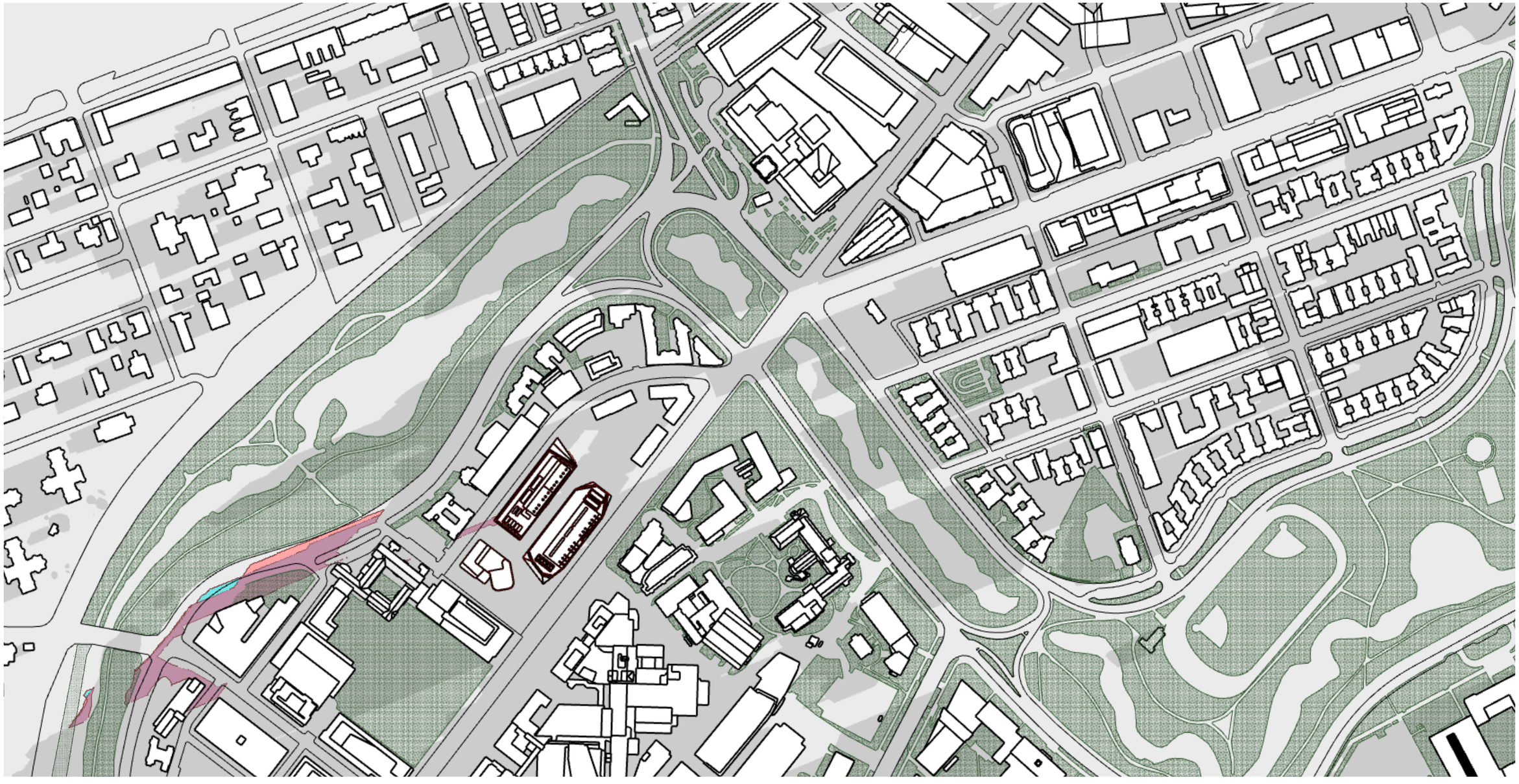


Figure 4.2c-57: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 6:30AM (DST)

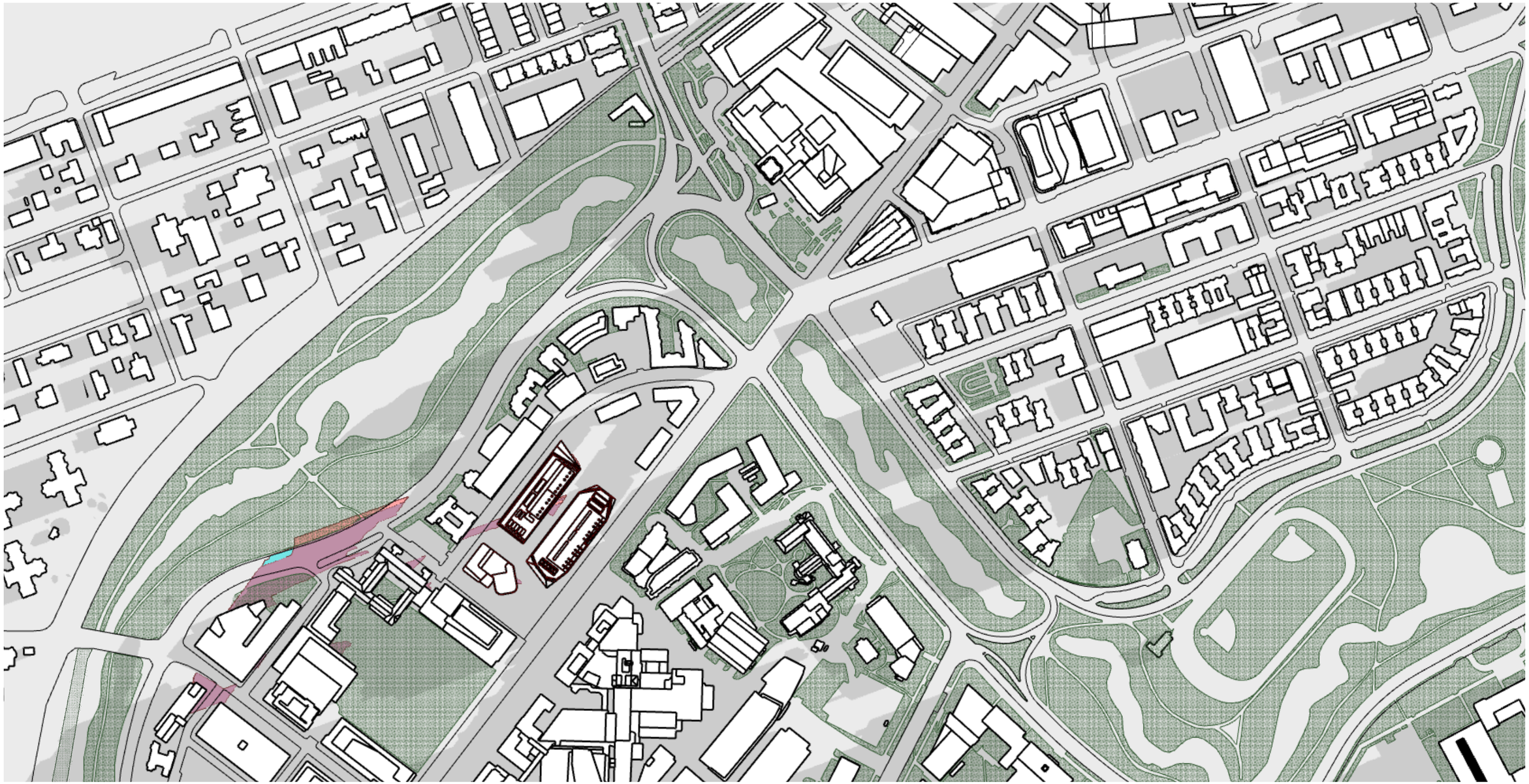


Figure 4.2c-58: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 6:45AM (DST)

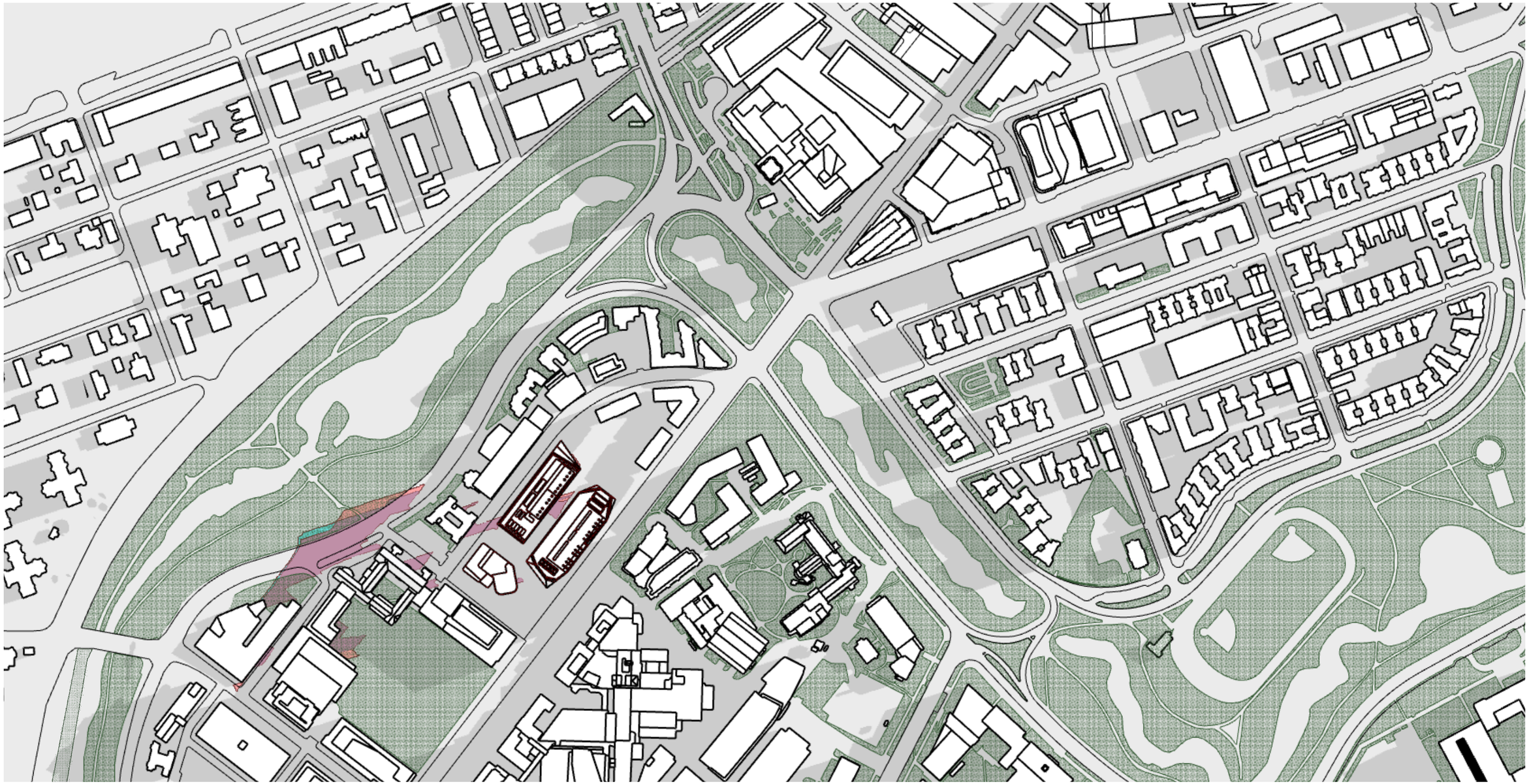


Figure 4.2c-59: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 7:00AM (DST)

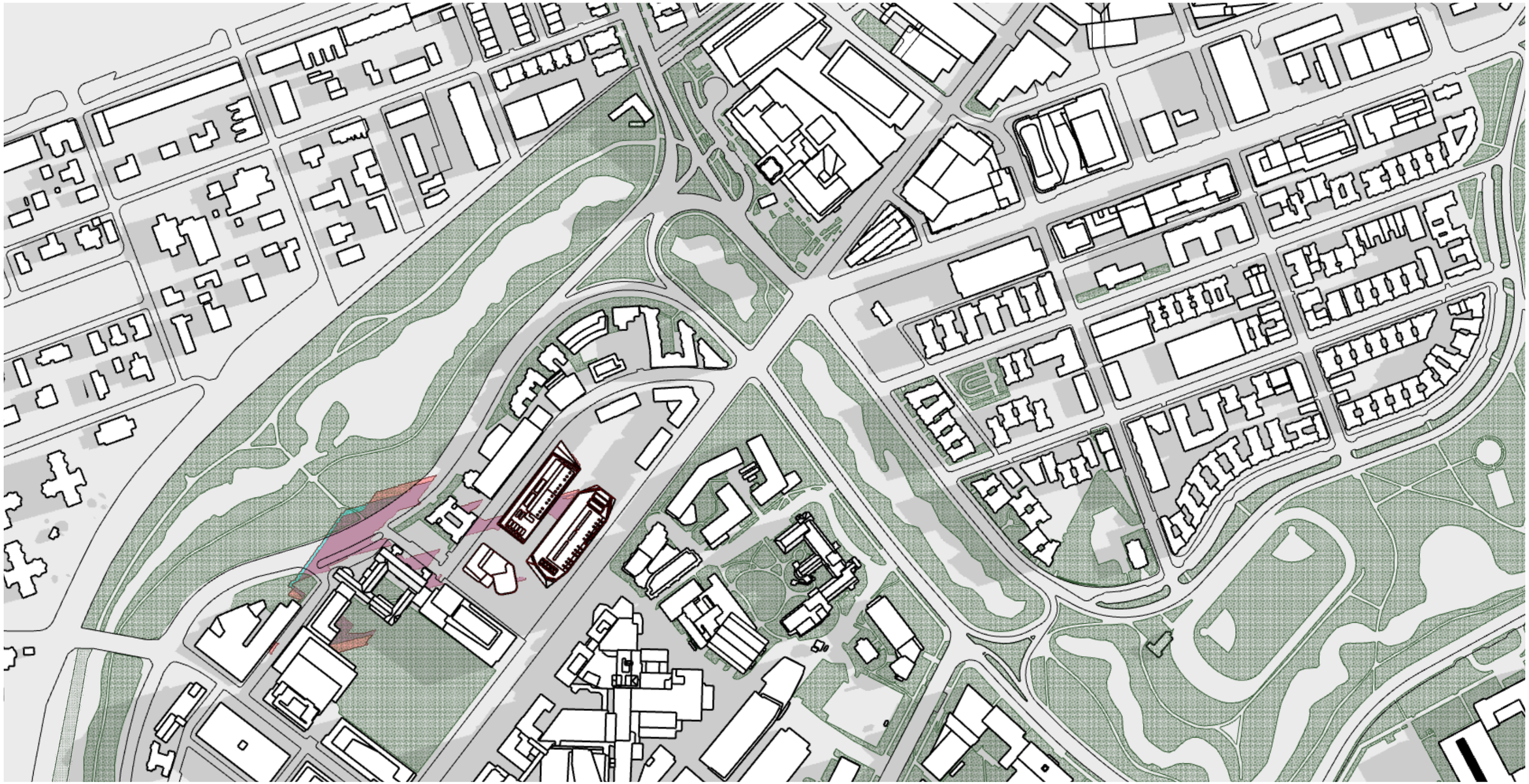


Figure 4.2c-60: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 7:15AM (DST)

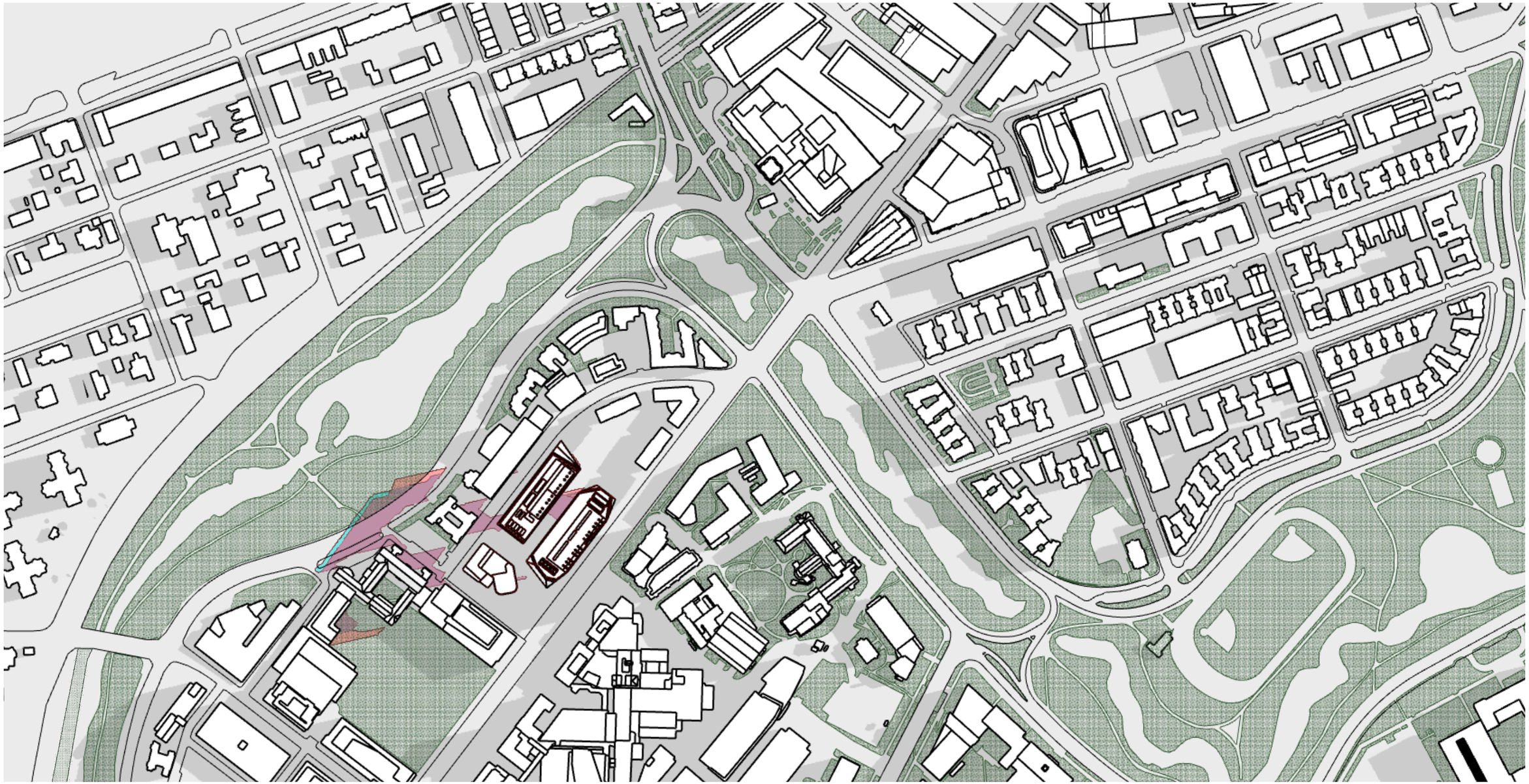


Figure 4.2c-61: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 7:30AM (DST)

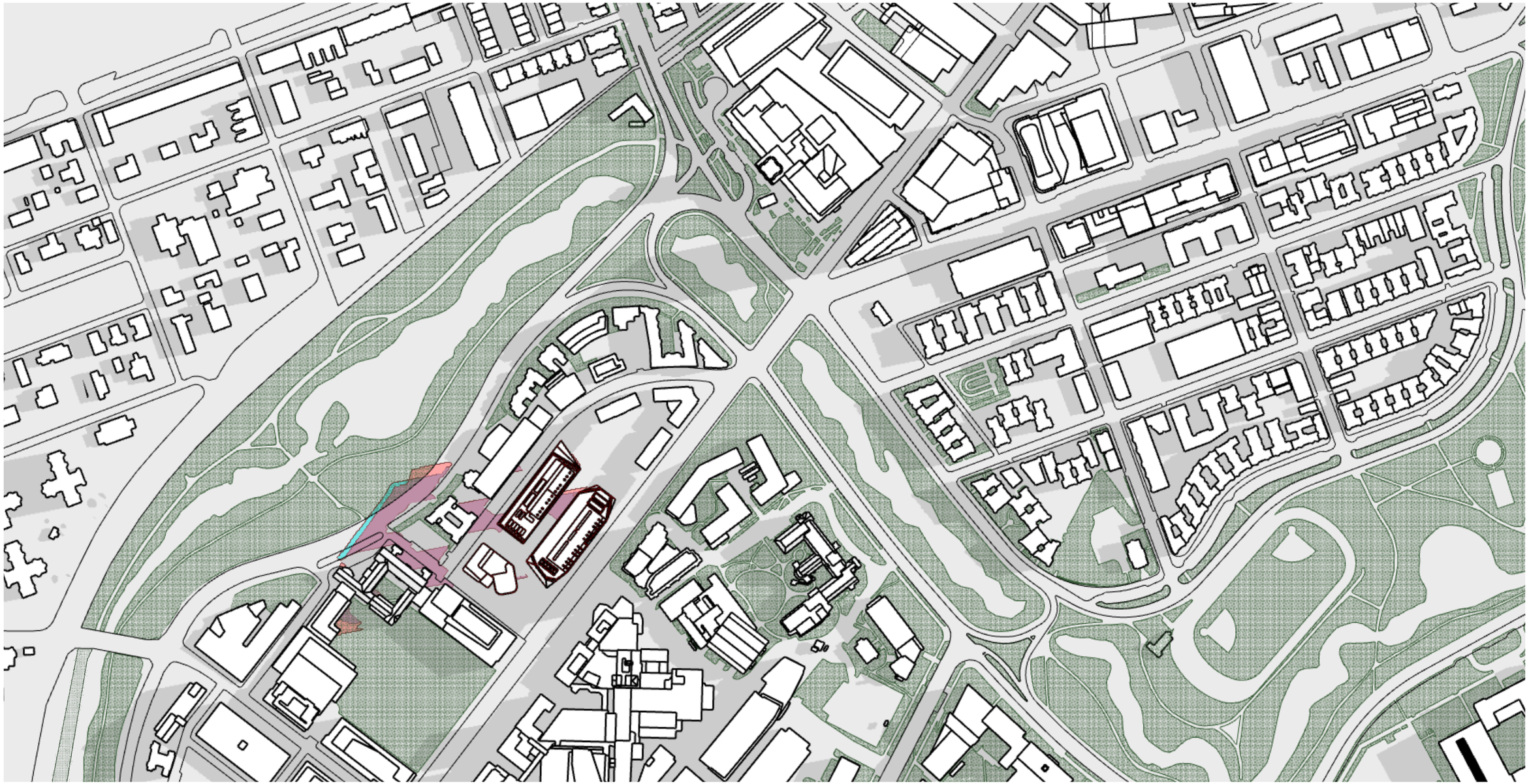


Figure 4.2c-62: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 7:45AM (DST)

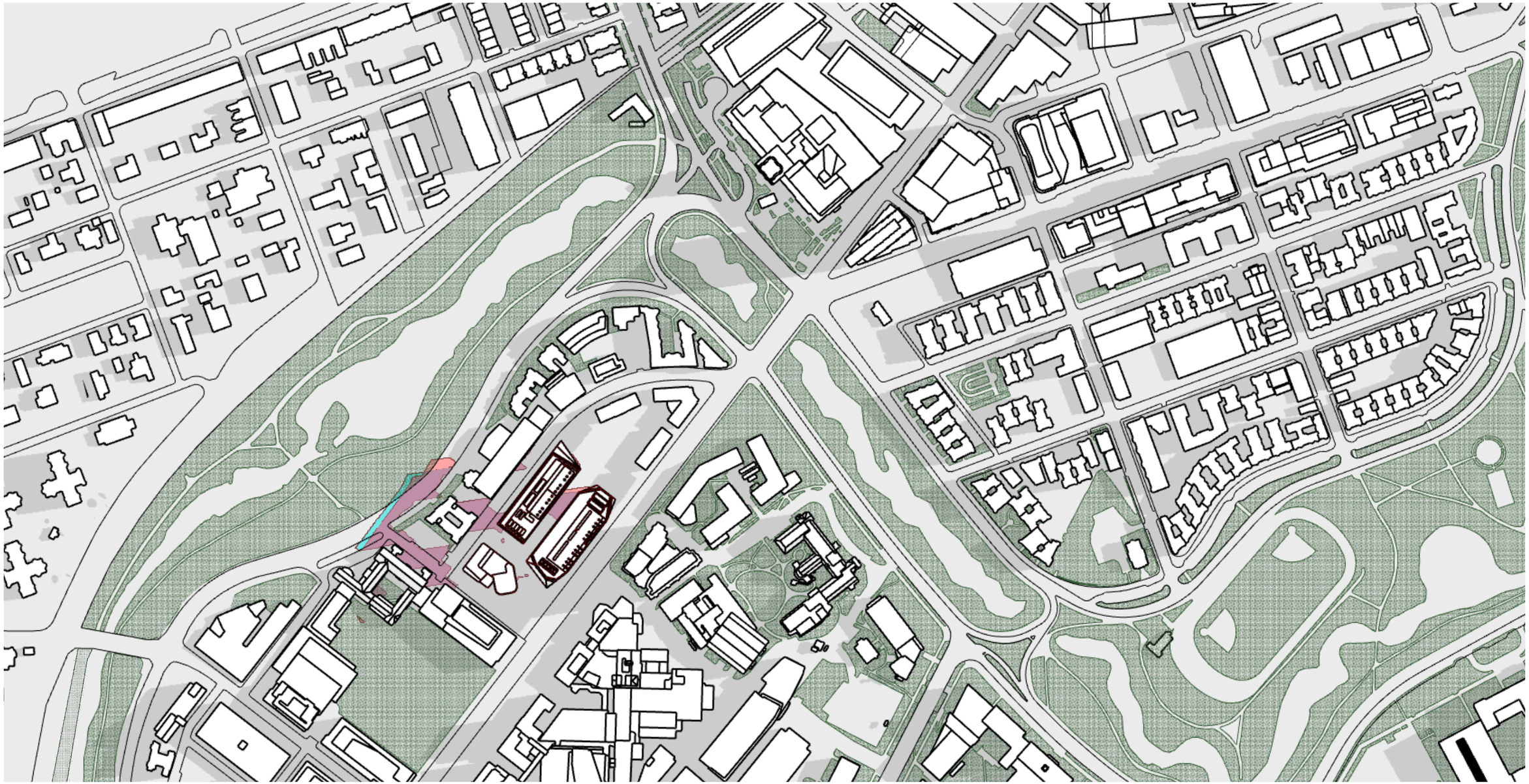


Figure 4.2c-63: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 8:00AM (DST)

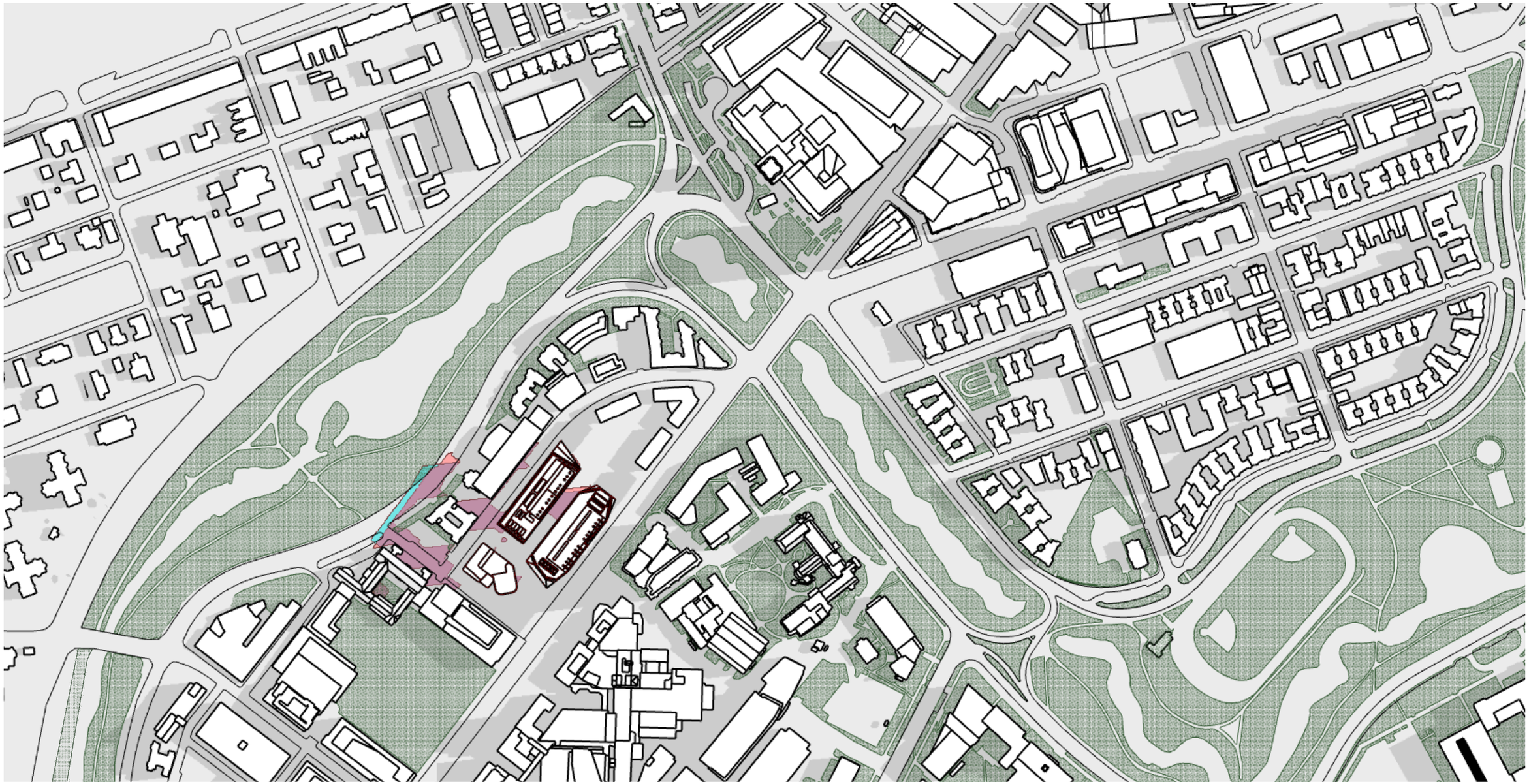


Figure 4.2c-64: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 8:15AM (DST)

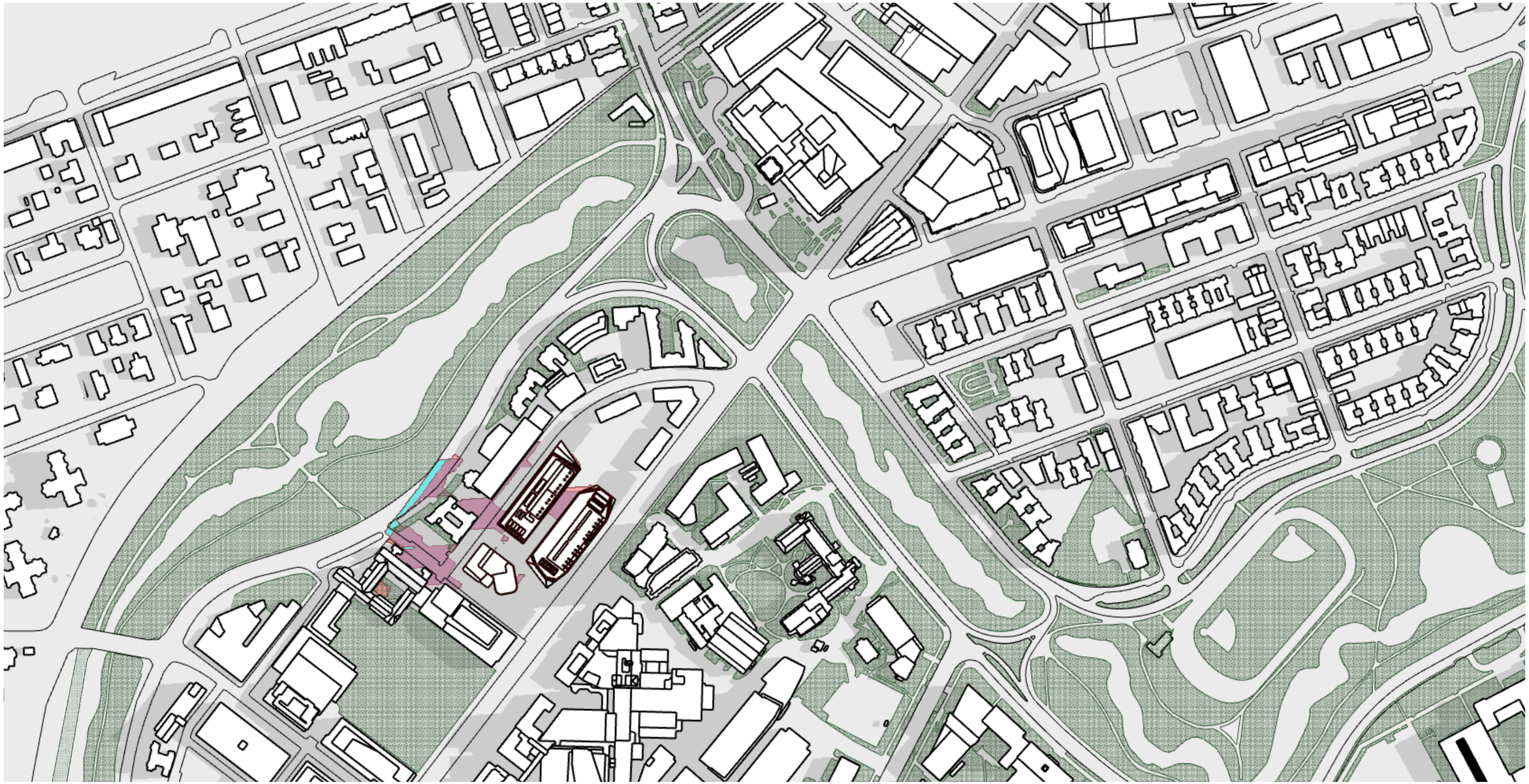


Figure 4.2c-65: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 8:30AM (DST)

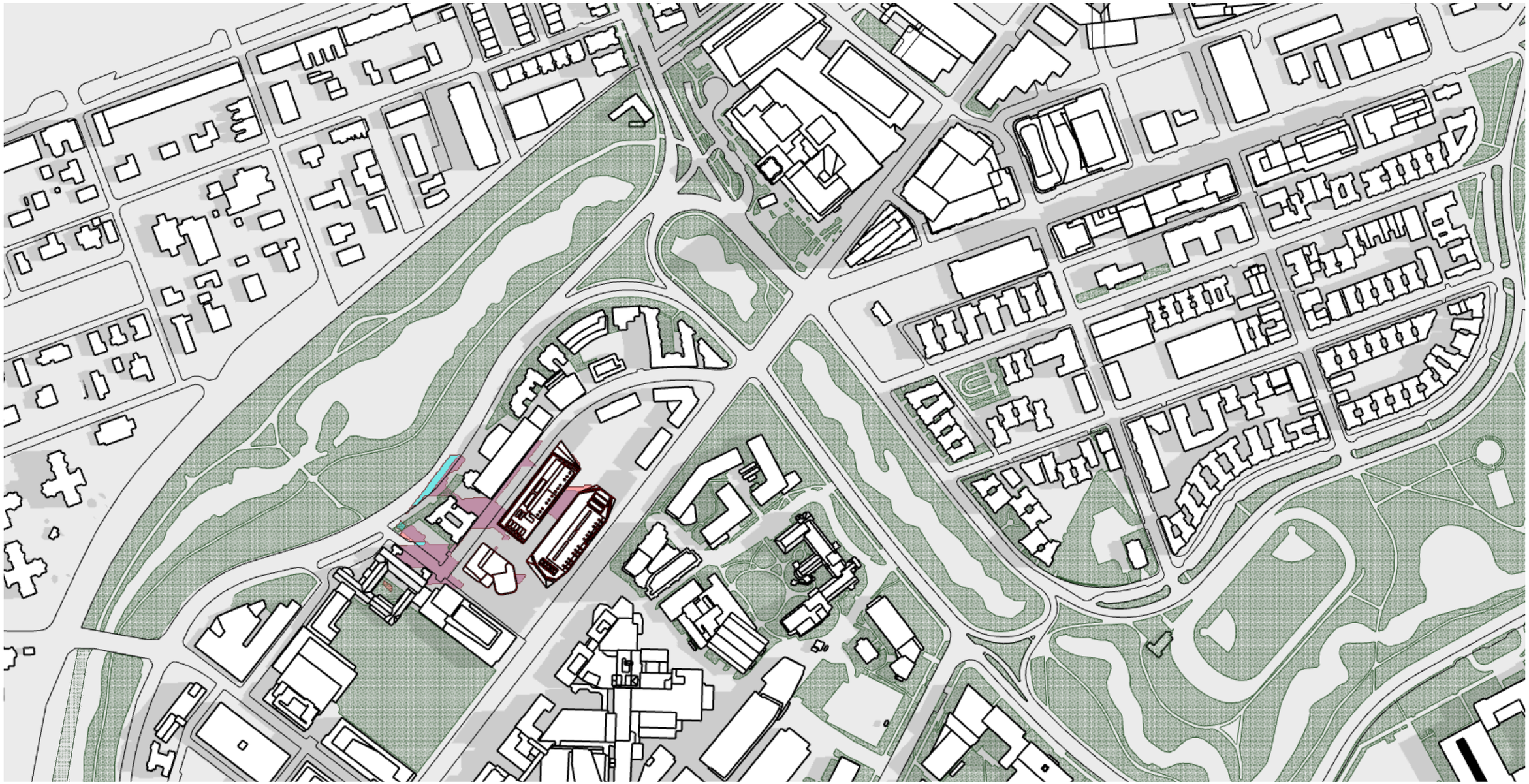


Figure 4.2c-66: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 8:45AM (DST)

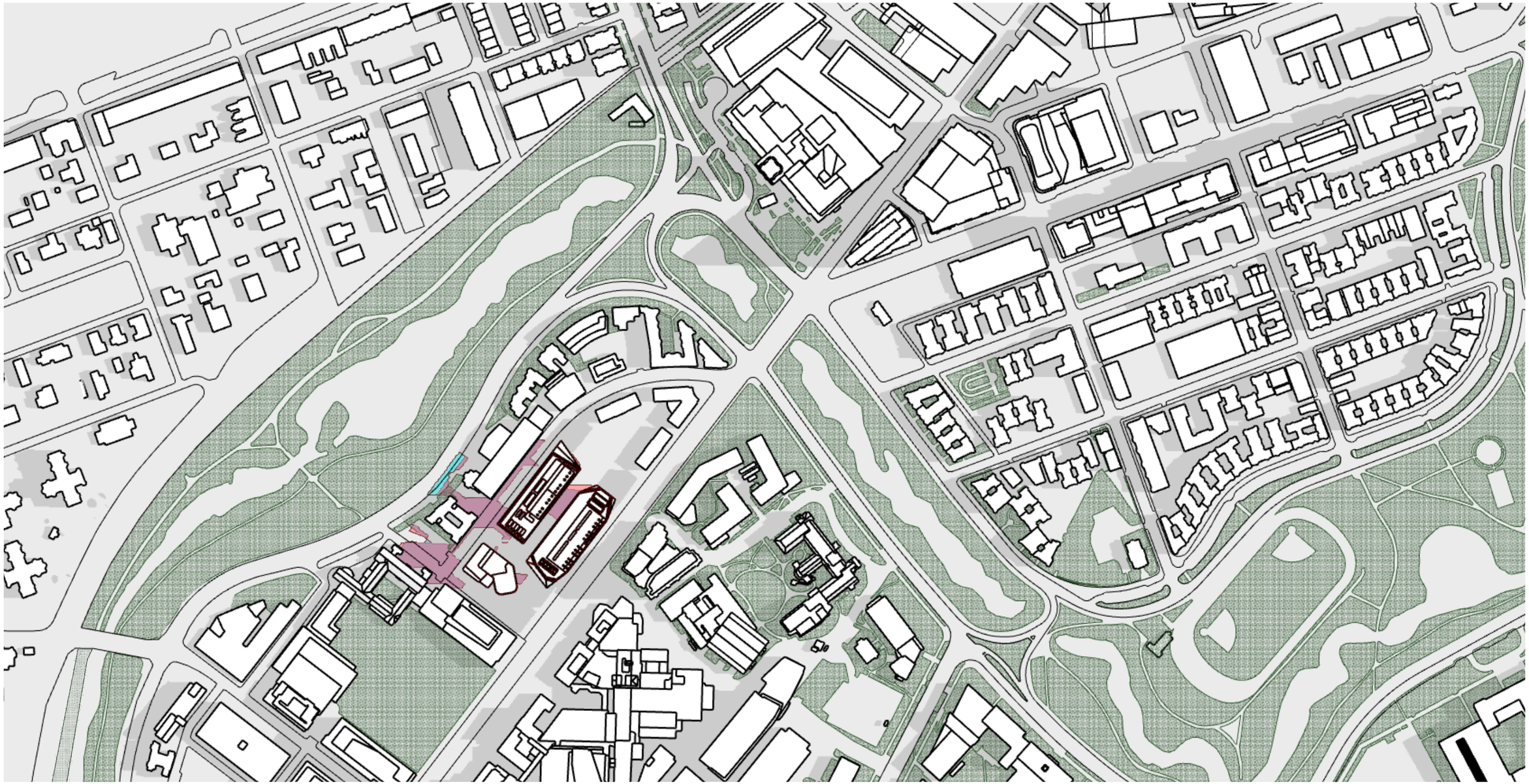


Figure 4.2c-67: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 9:00AM (DST)

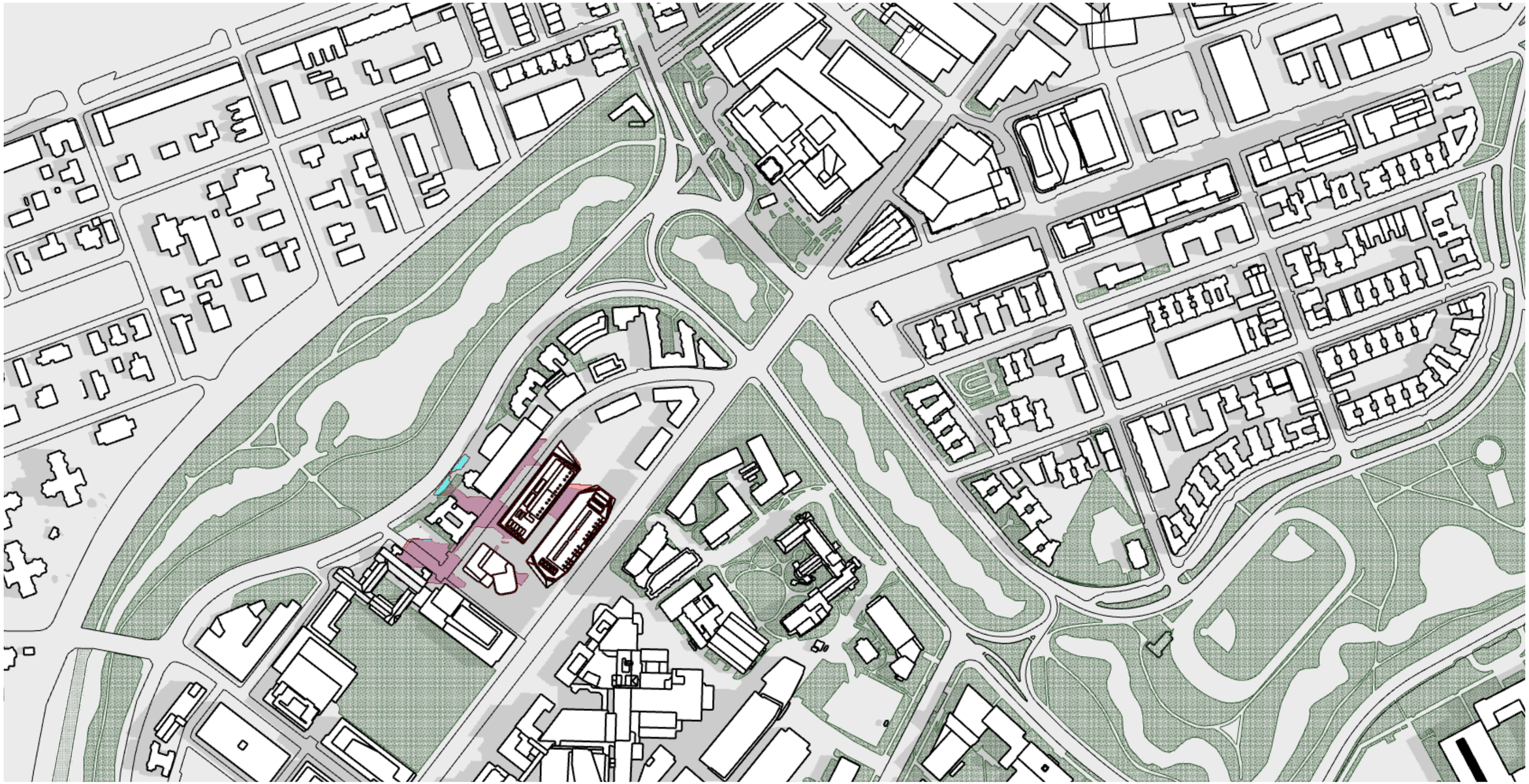


Figure 4.2c-68: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 9:15AM (DST)

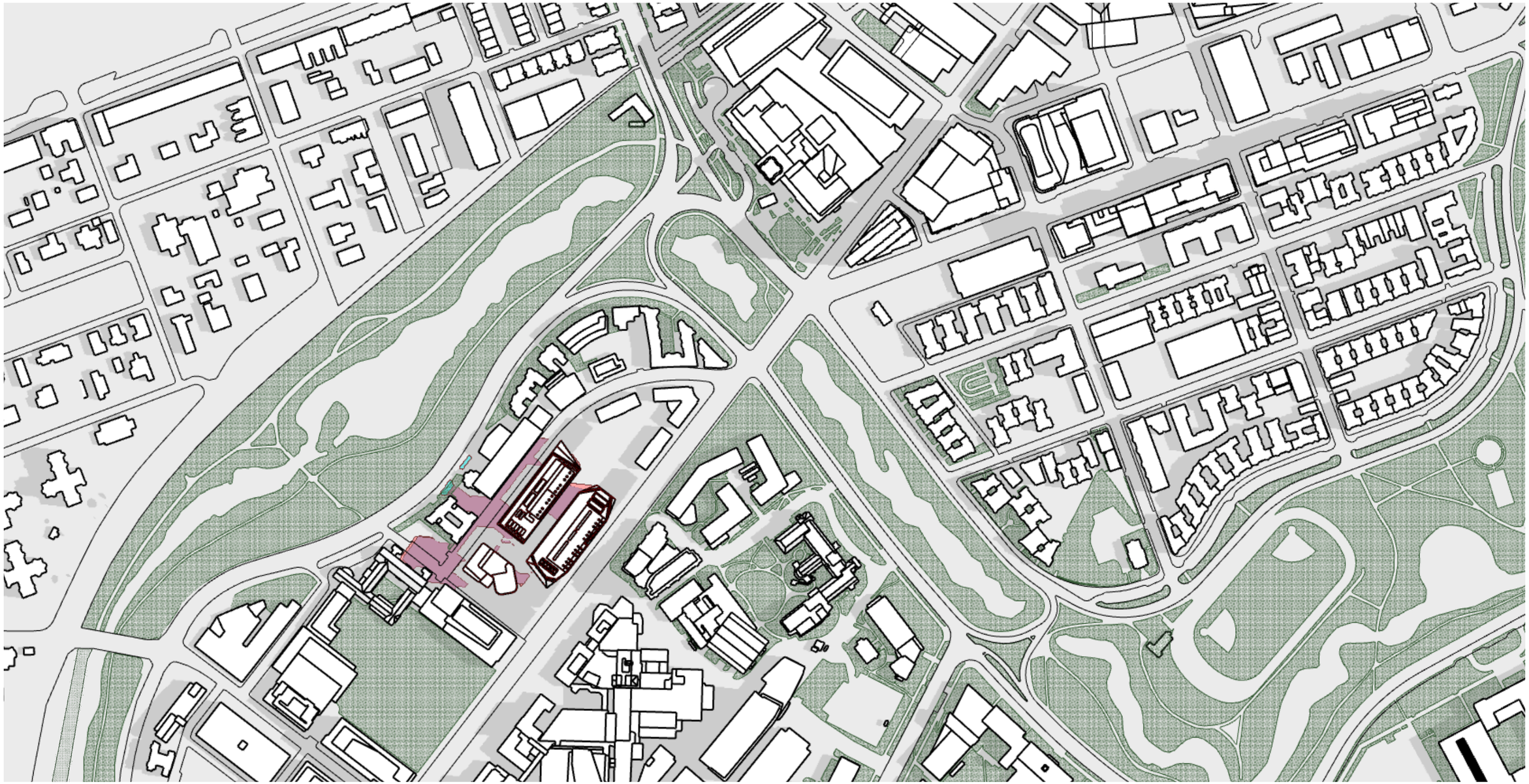


Figure 4.2c-69: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 9:30AM (DST)

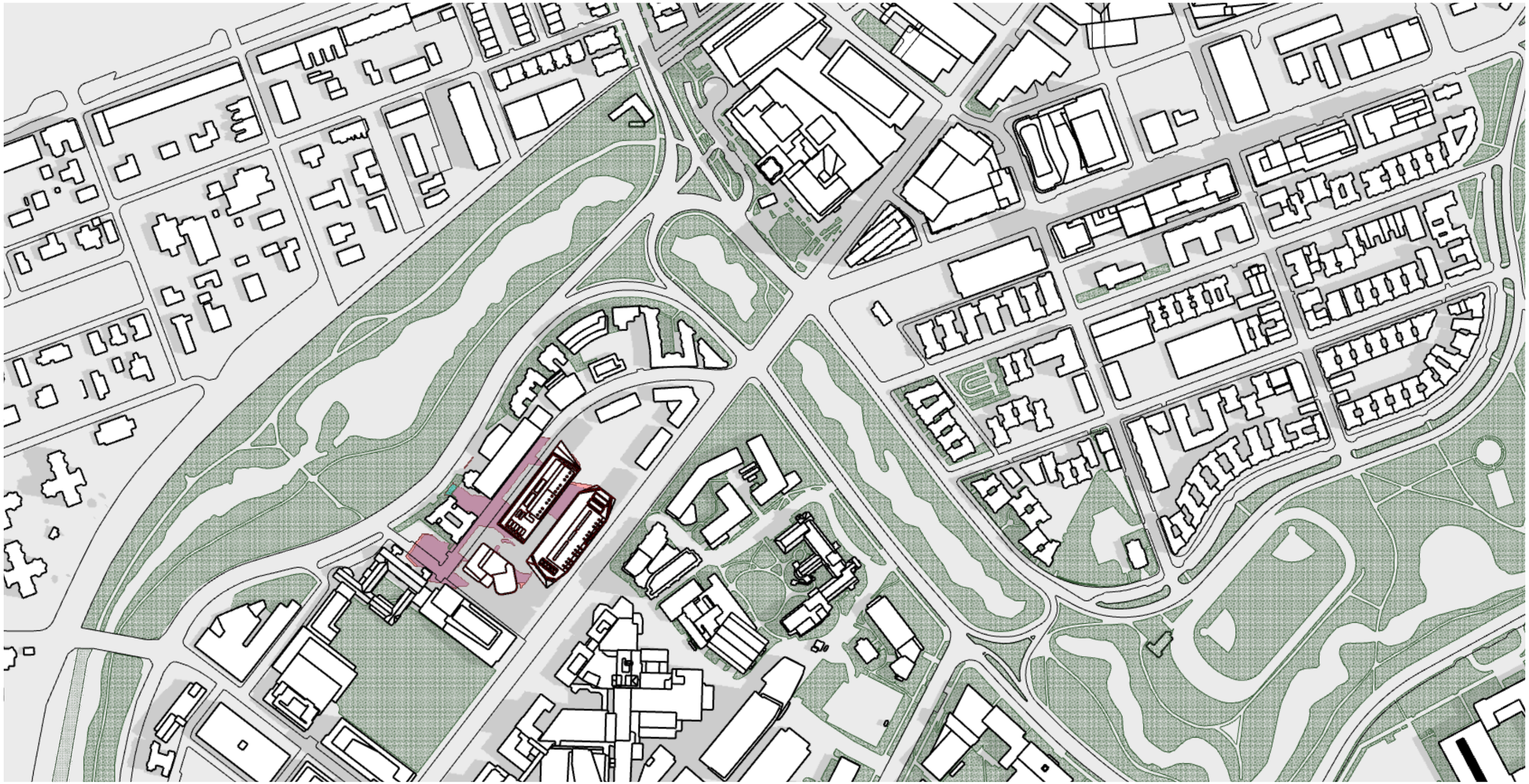


Figure 4.2c-70: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 9:45AM (DST)

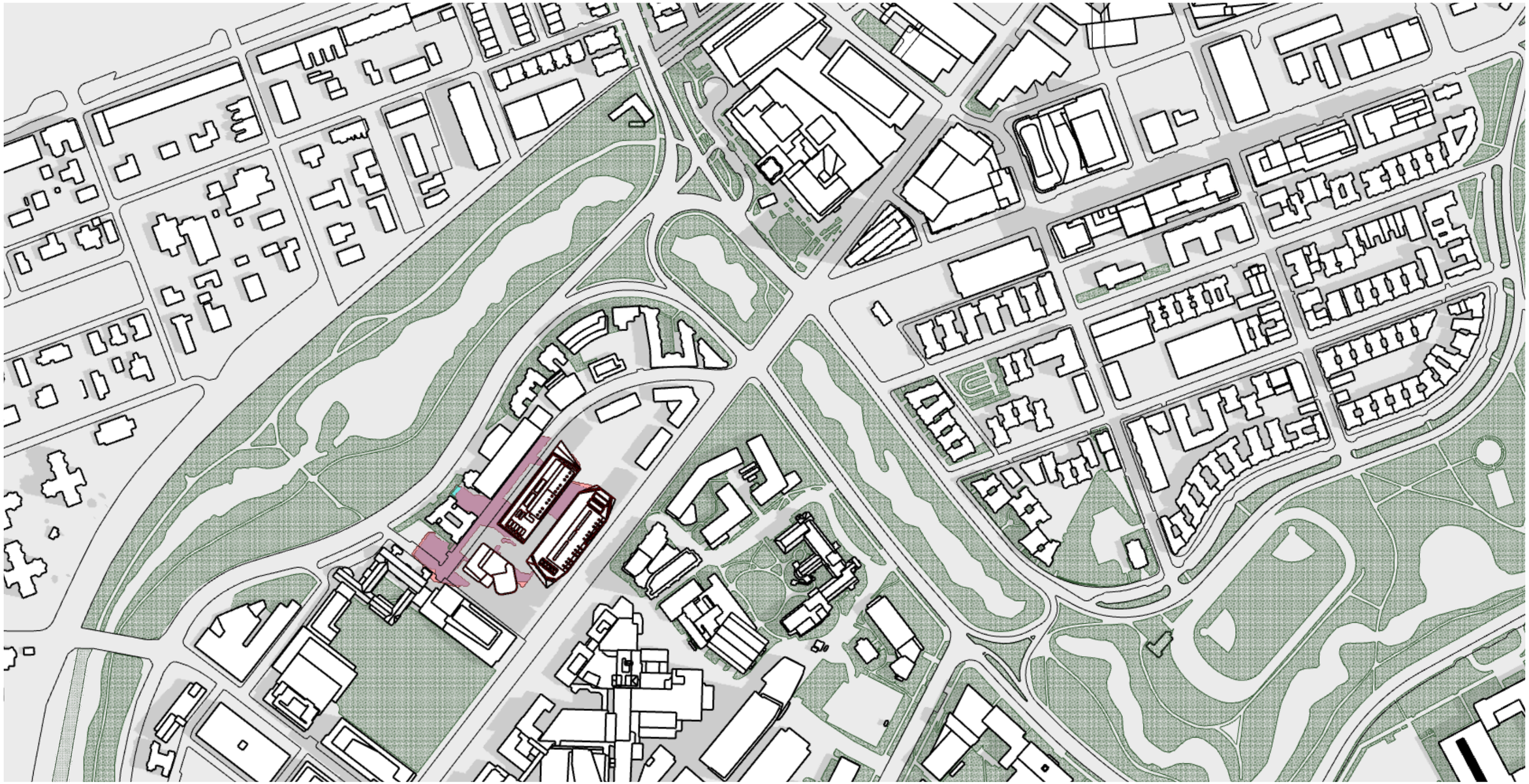


Figure 4.2c-71: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 10:00AM (DST)

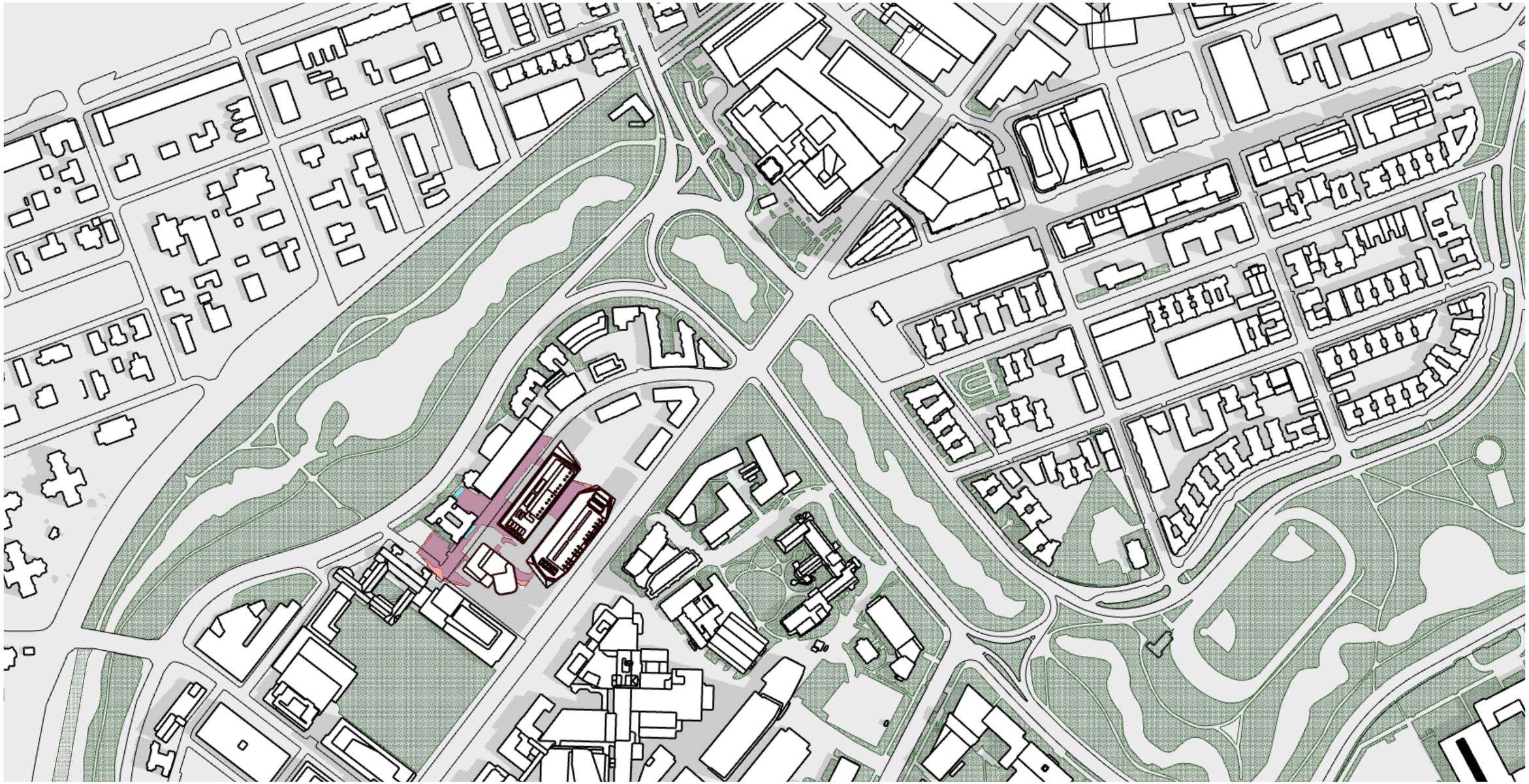


Figure 4.2c-72: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 10:15AM (DST)

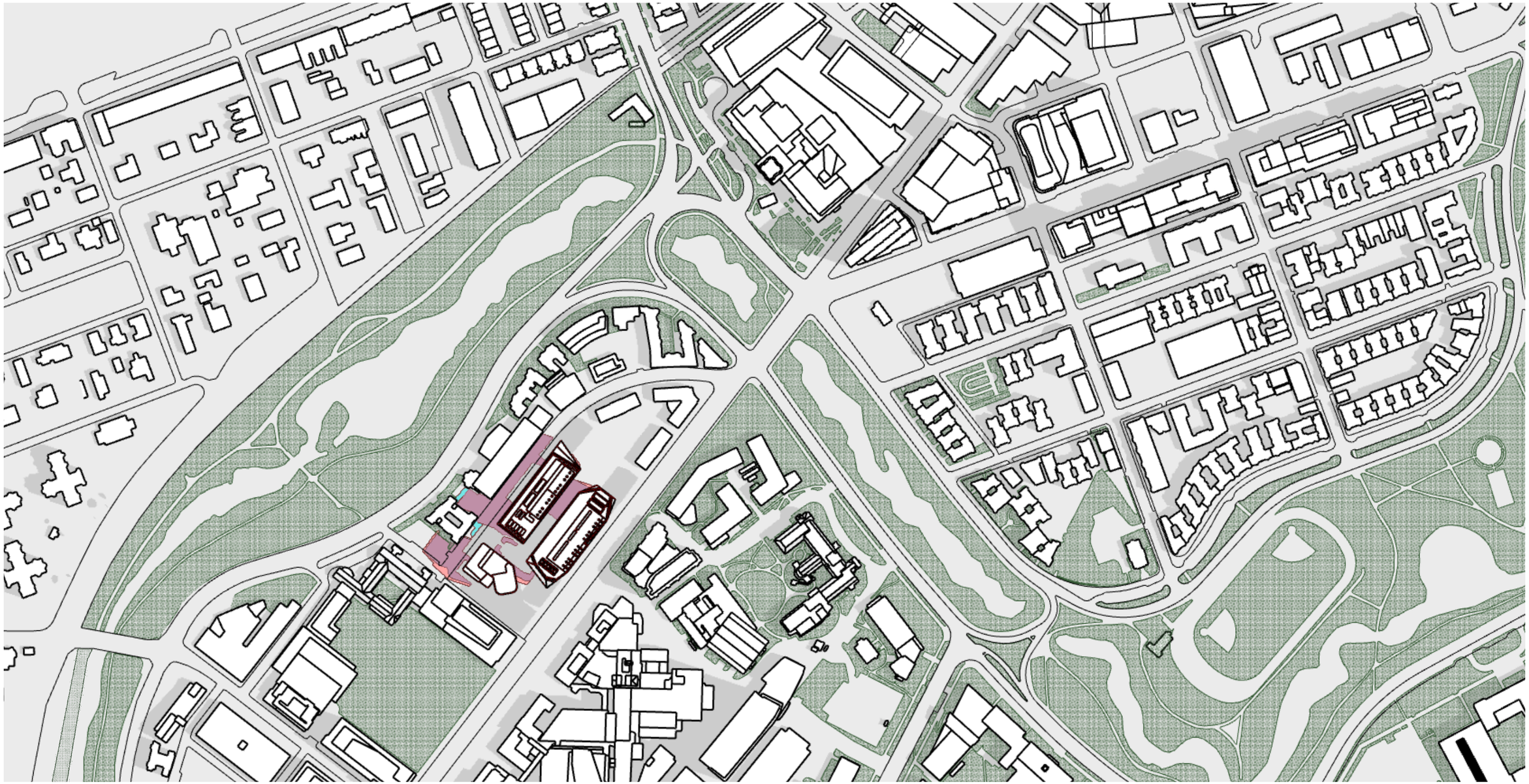


Figure 4.2c-73: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 10:30AM (DST)

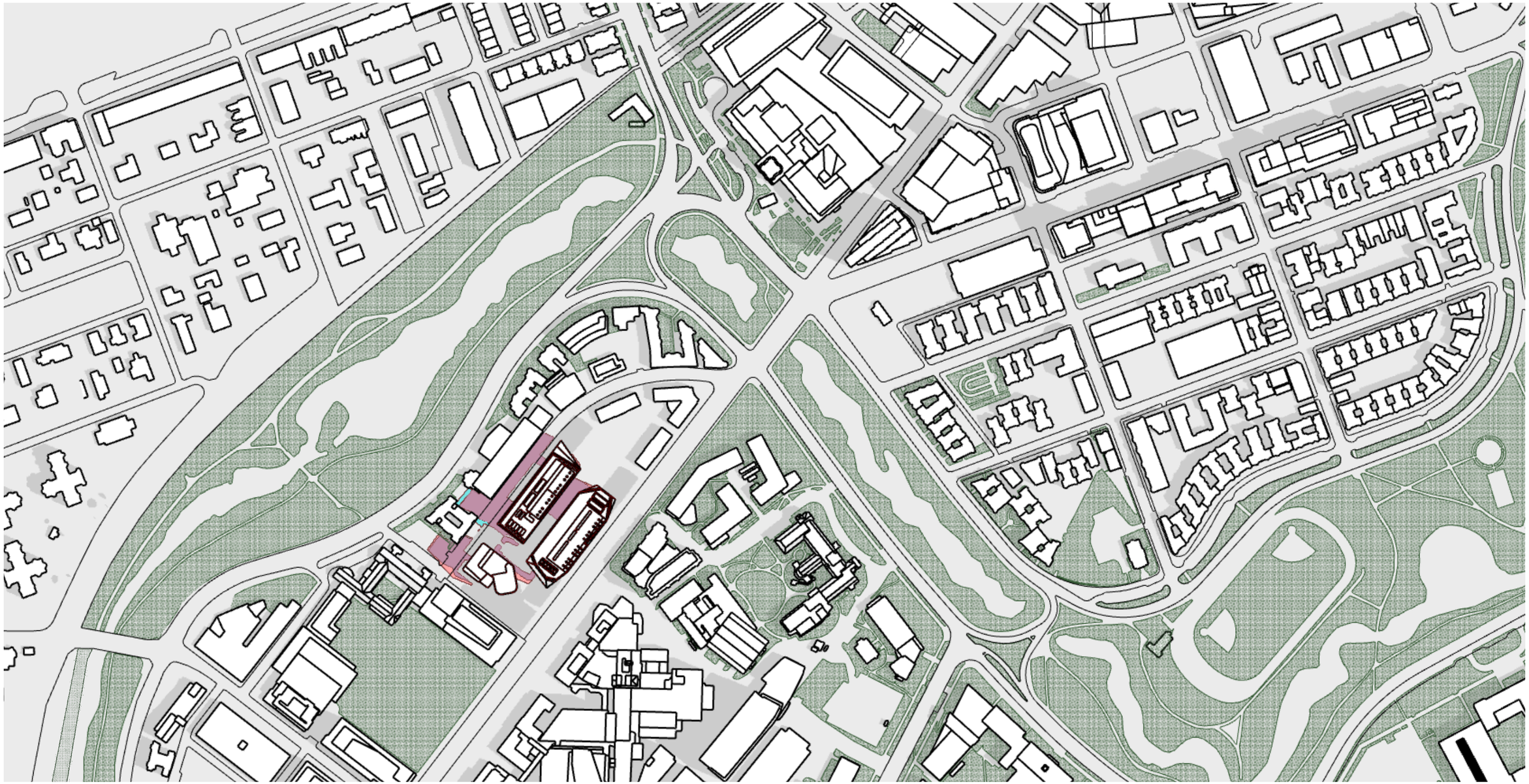


Figure 4.2c-74: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 10:45AM (DST)

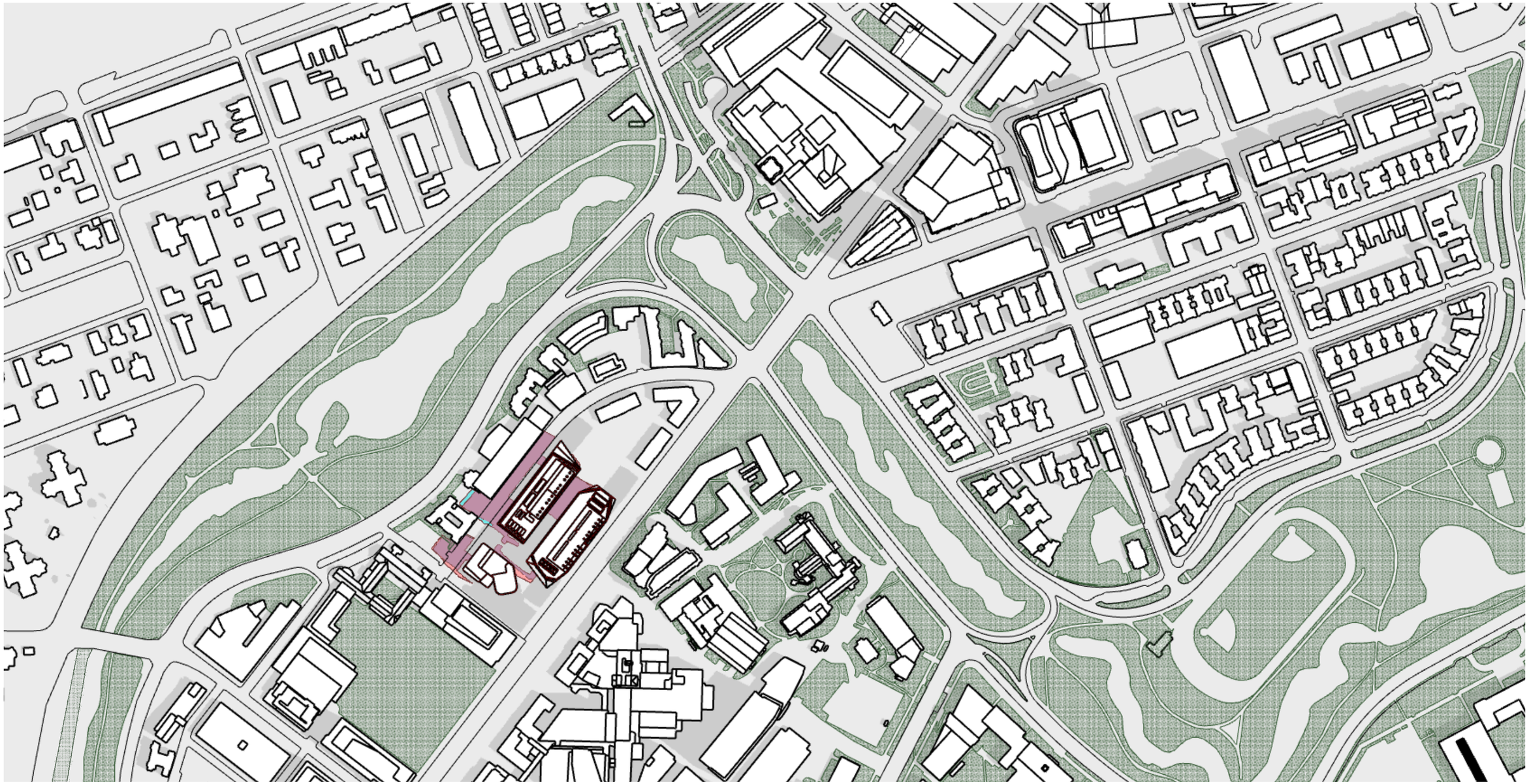


Figure 4.2c-75: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 11:00AM (DST)

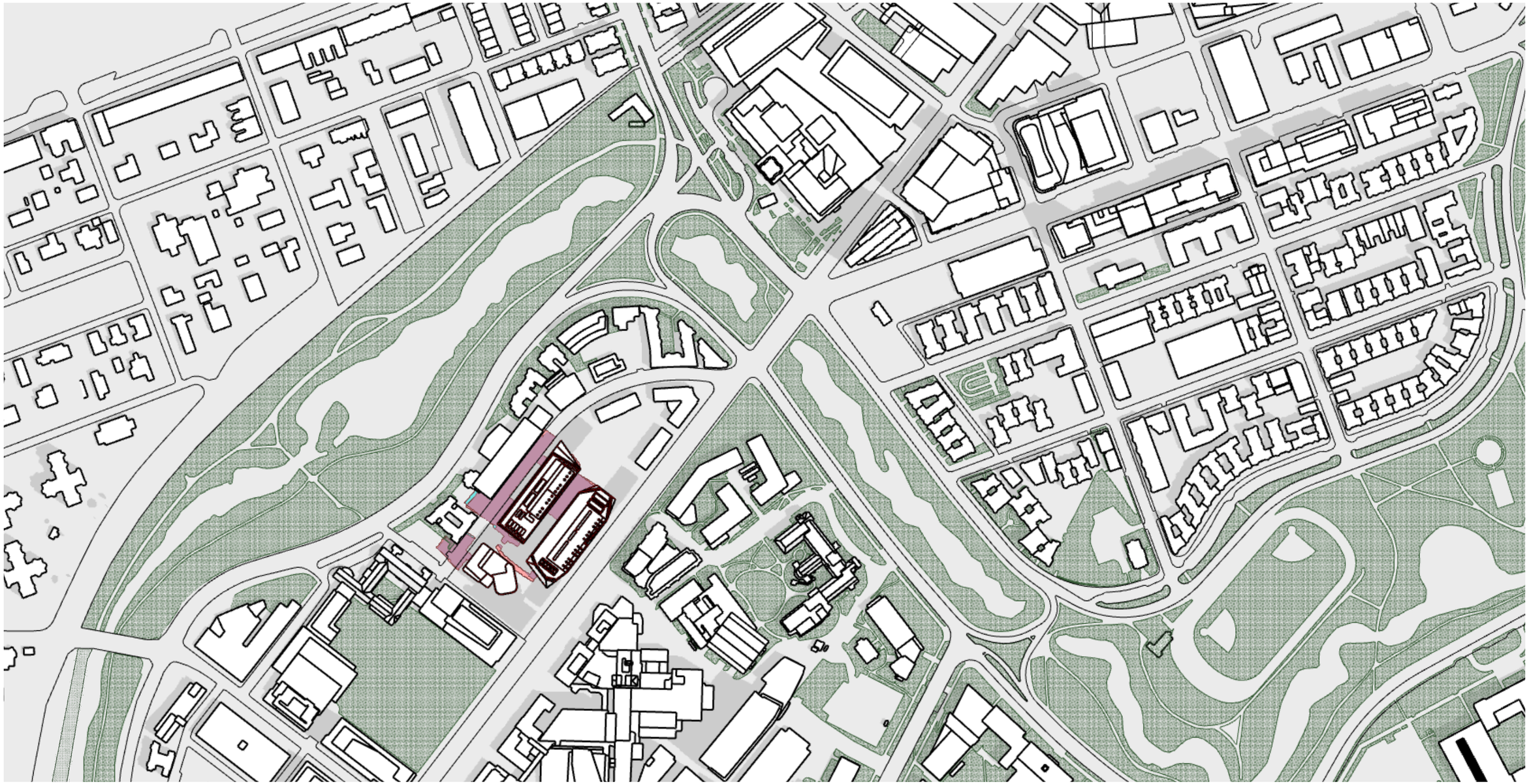


Figure 4.2c-76: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 11:15AM (DST)

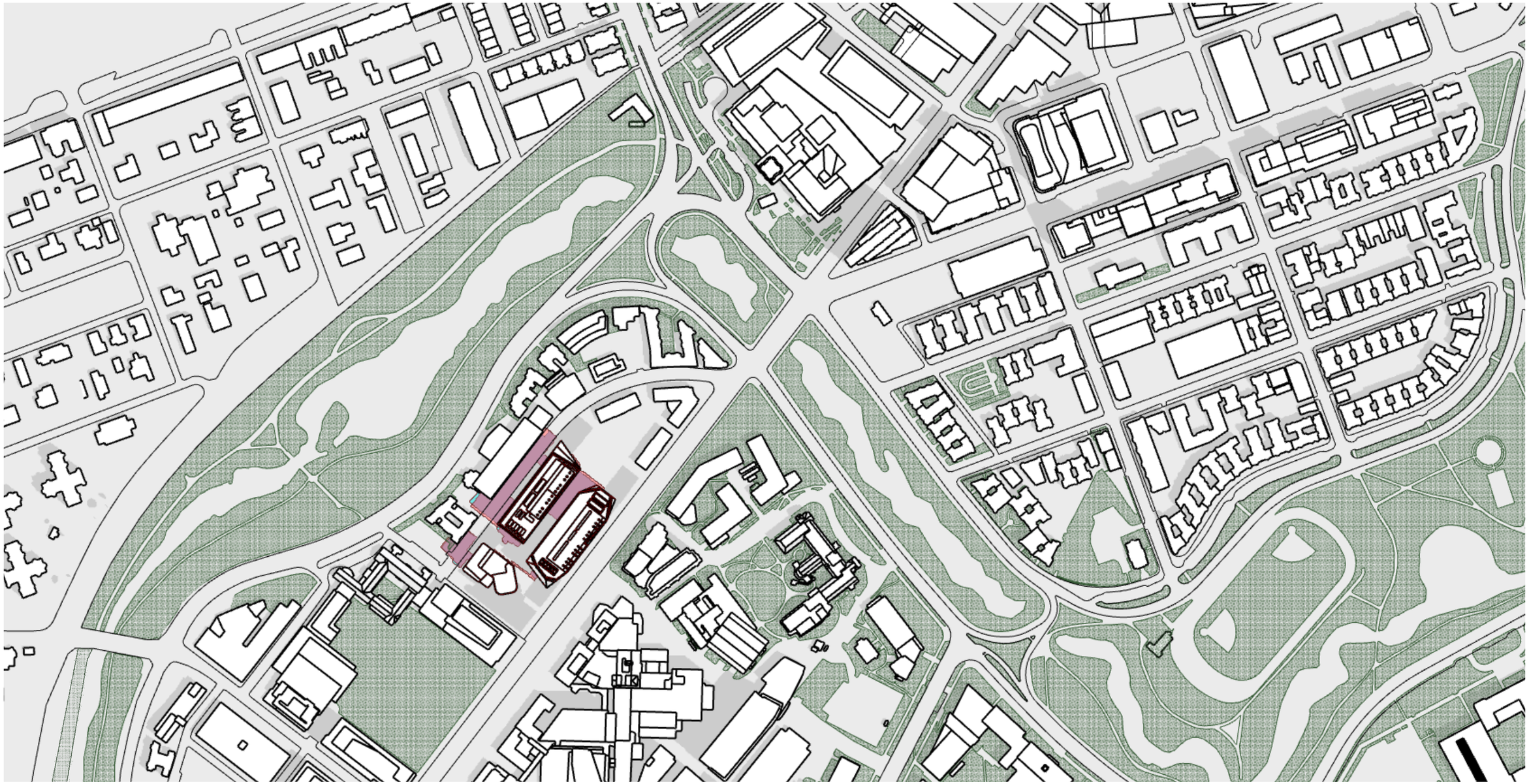


Figure 4.2c-77: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 11:30AM (DST)

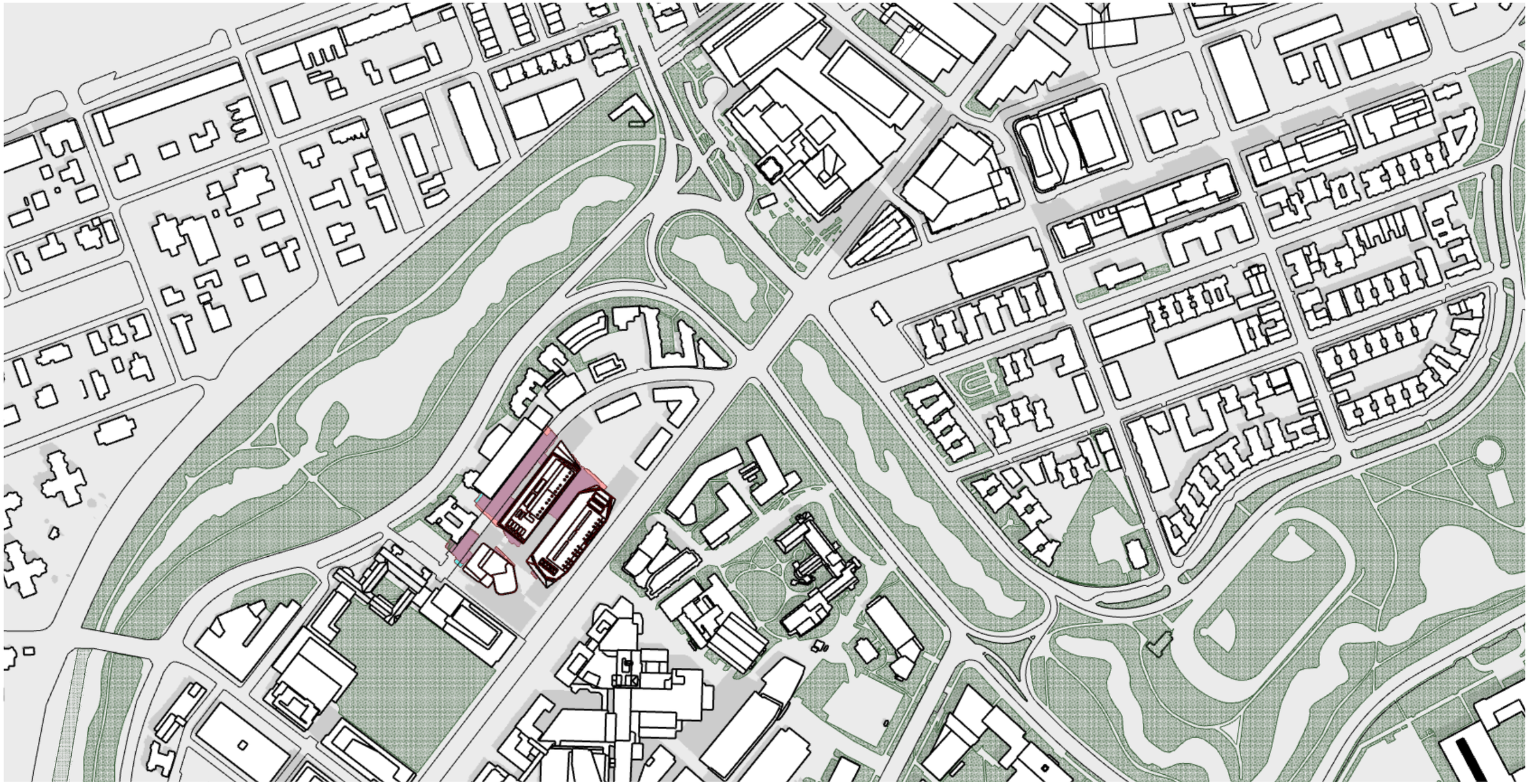


Figure 4.2c-78: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 11:45AM (DST)

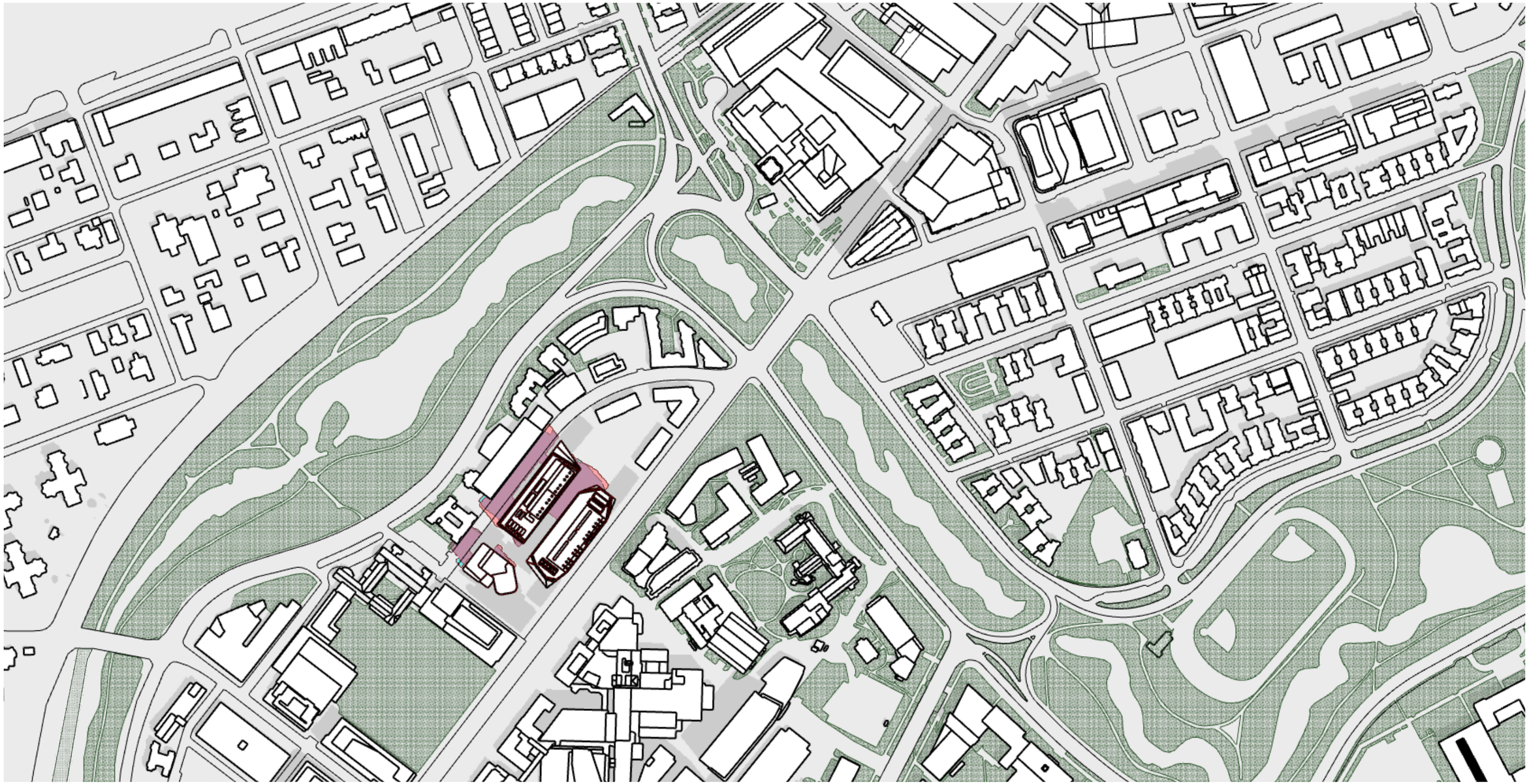


Figure 4.2c-79: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 12:00PM (DST)

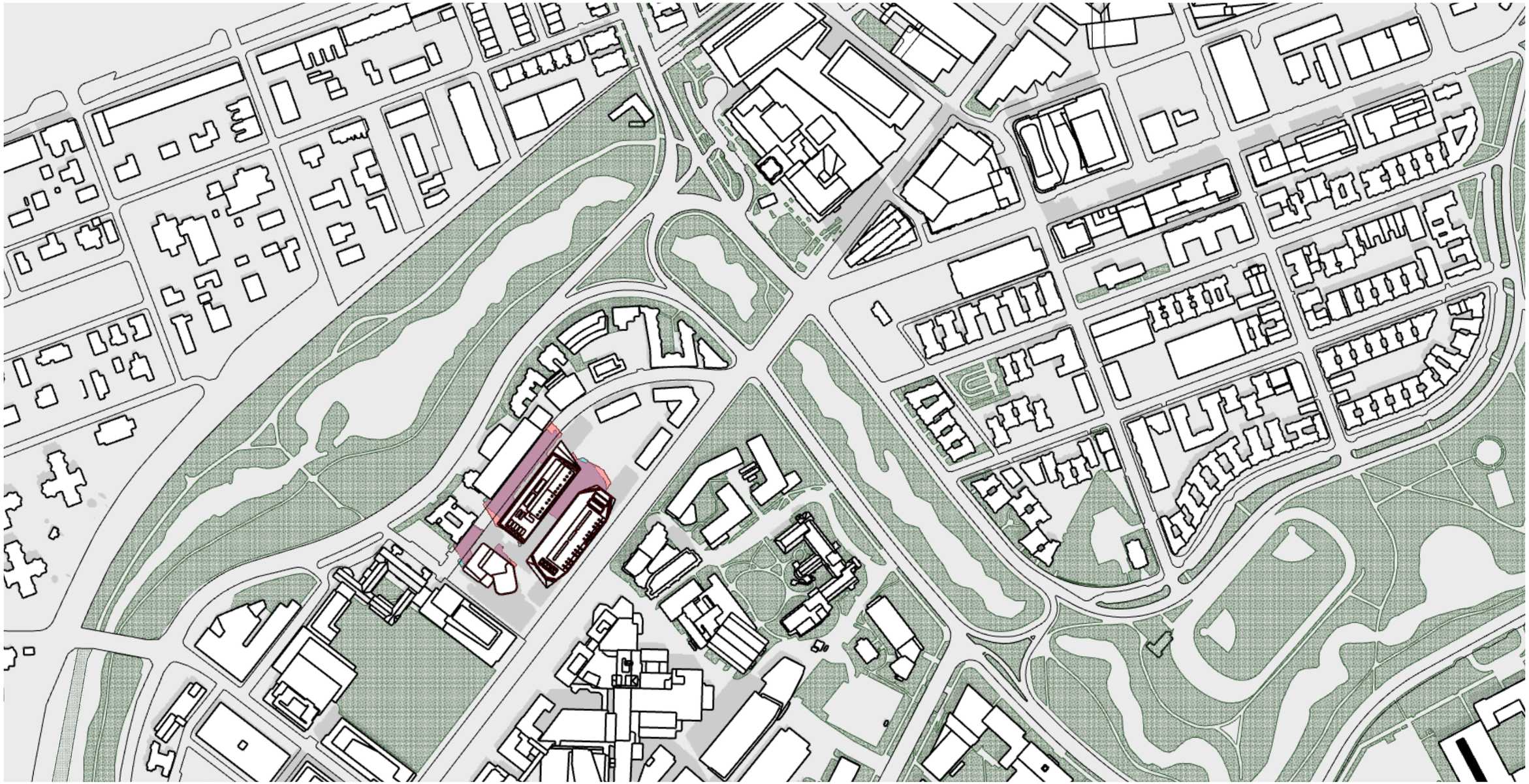


Figure 4.2c-80: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 12:15PM (DST)

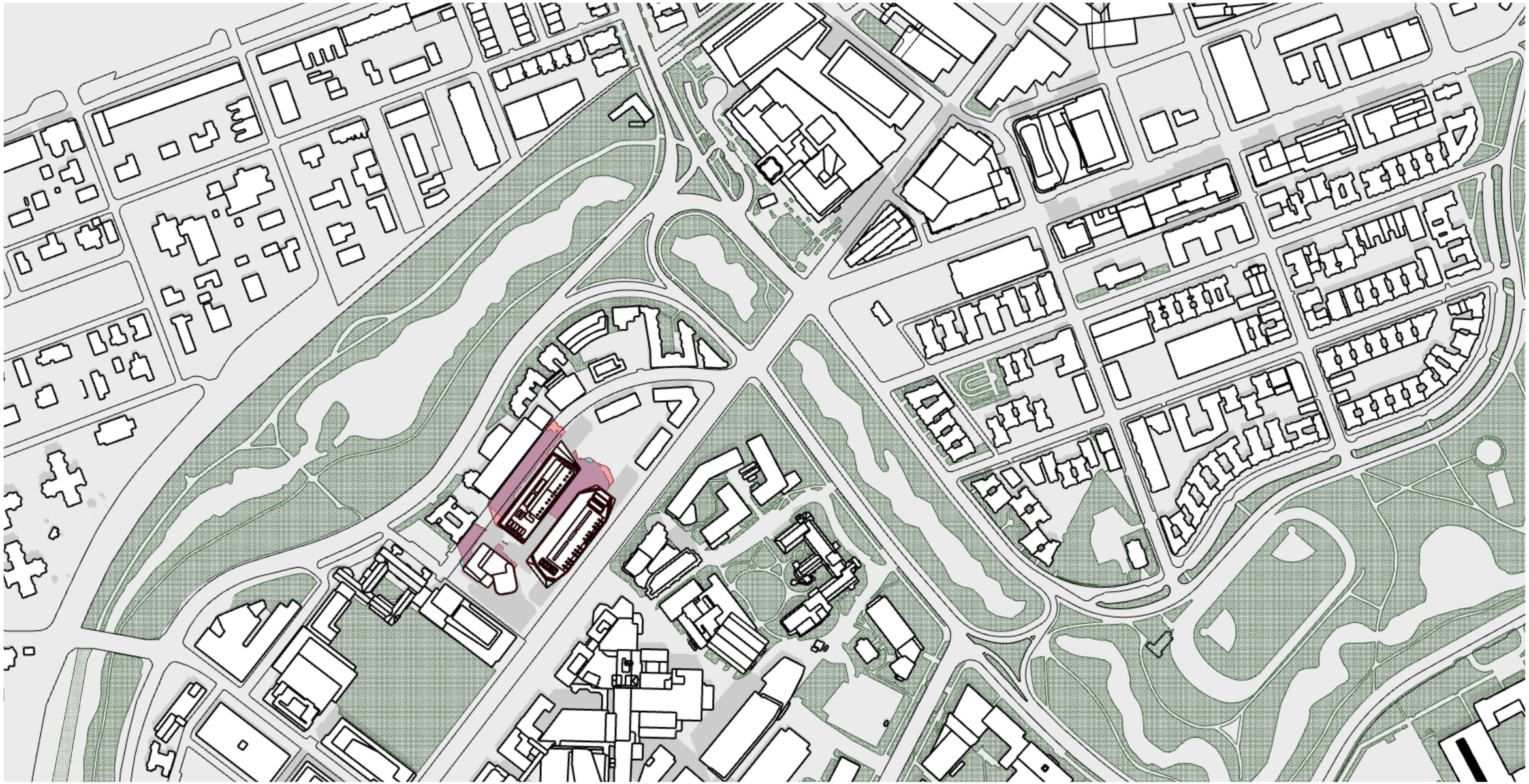


Figure 4.2c-81: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 12:30PM (DST)

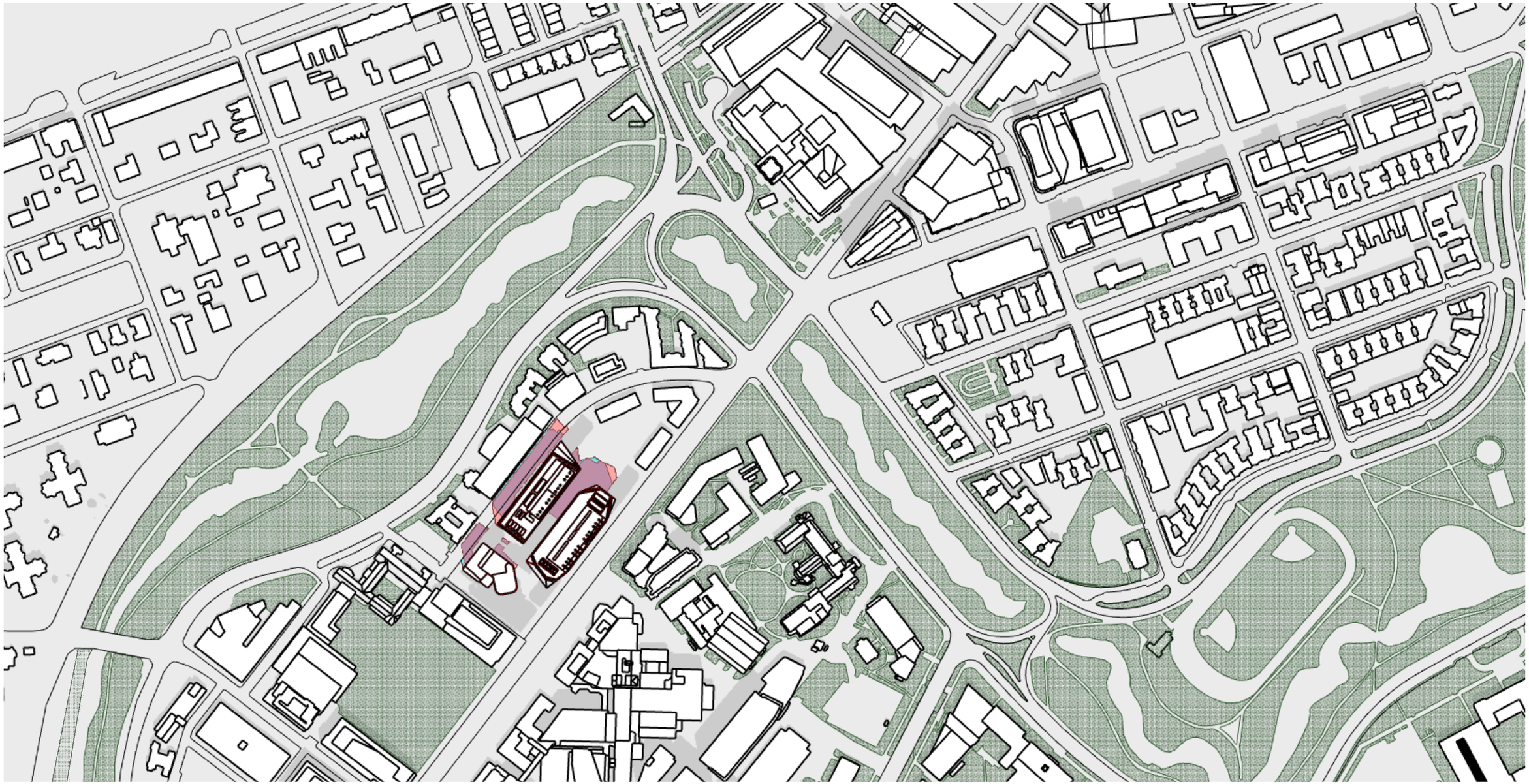


Figure 4.2c-82: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 12:45PM (DST)

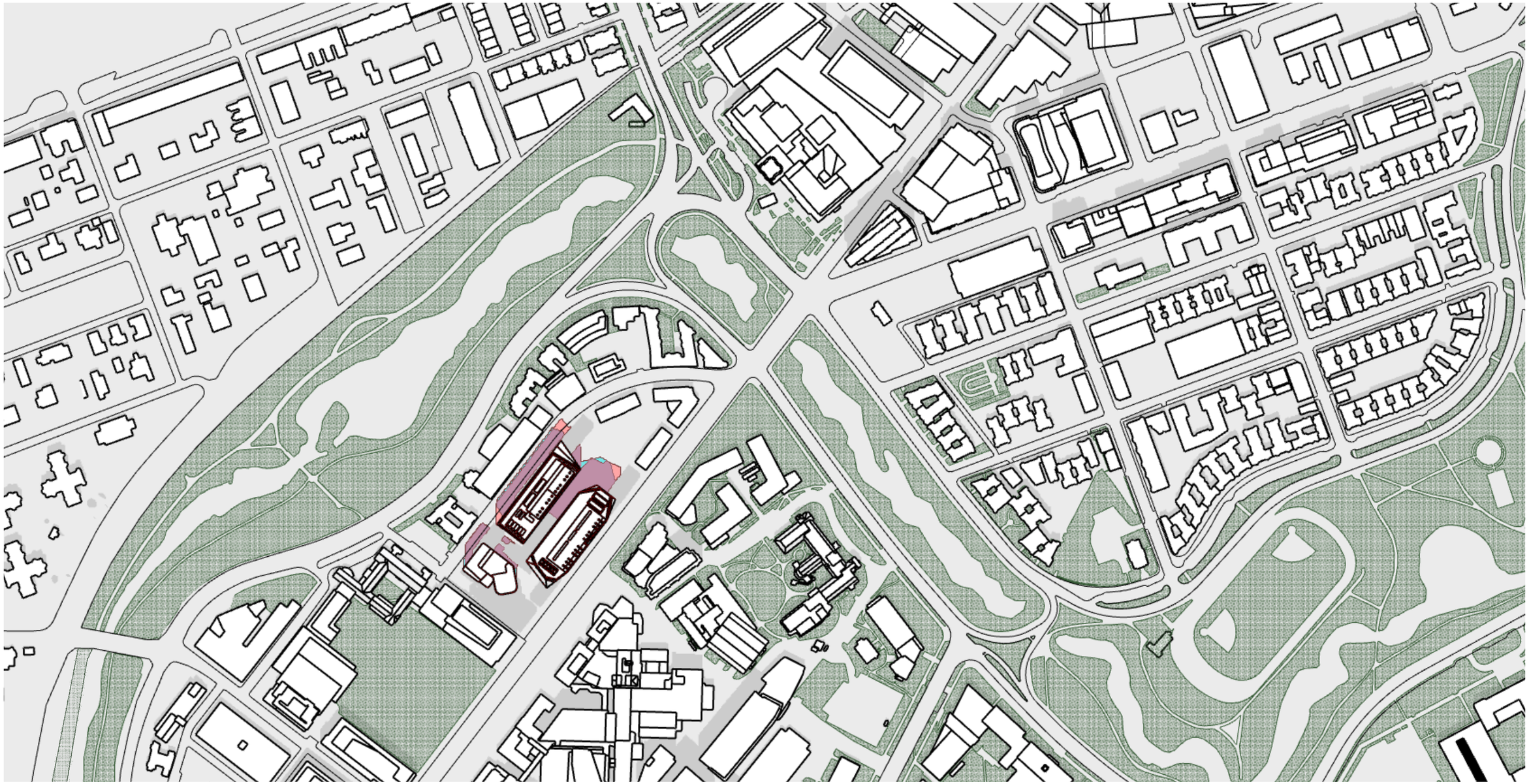


Figure 4.2c-83: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 1:00PM (DST)

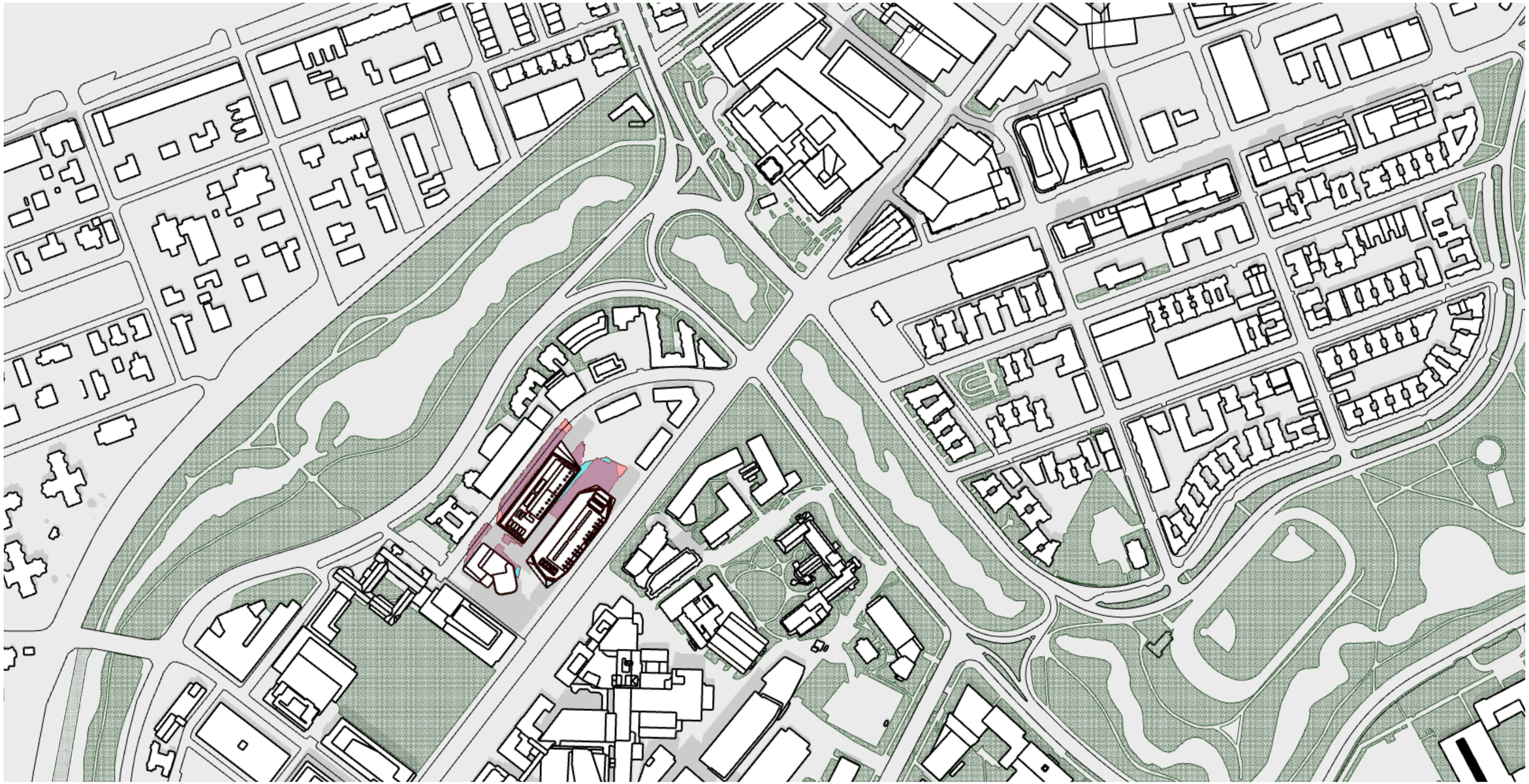


Figure 4.2c-84: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 1:15PM (DST)

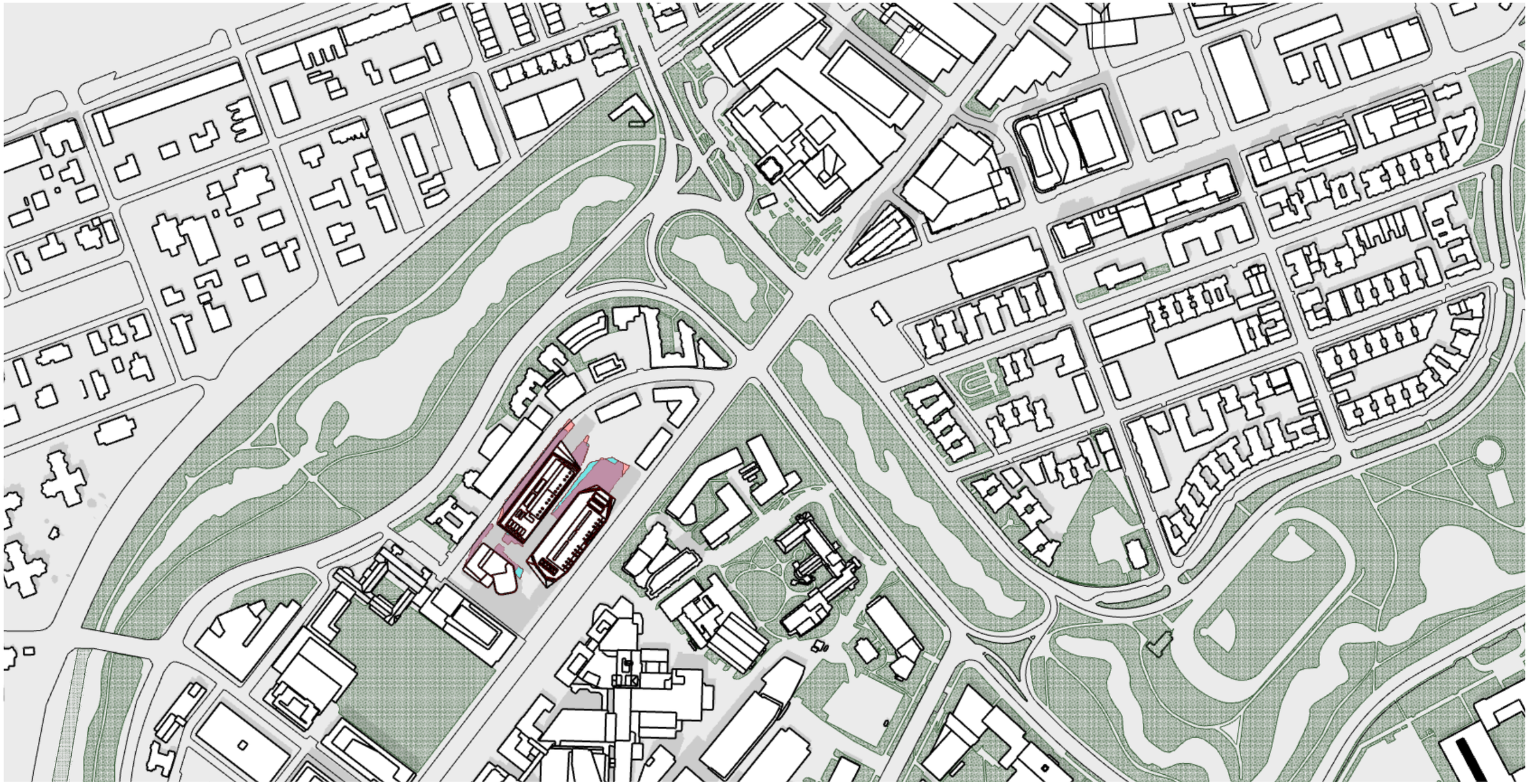


Figure 4.2c-85: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 1:30PM (DST)

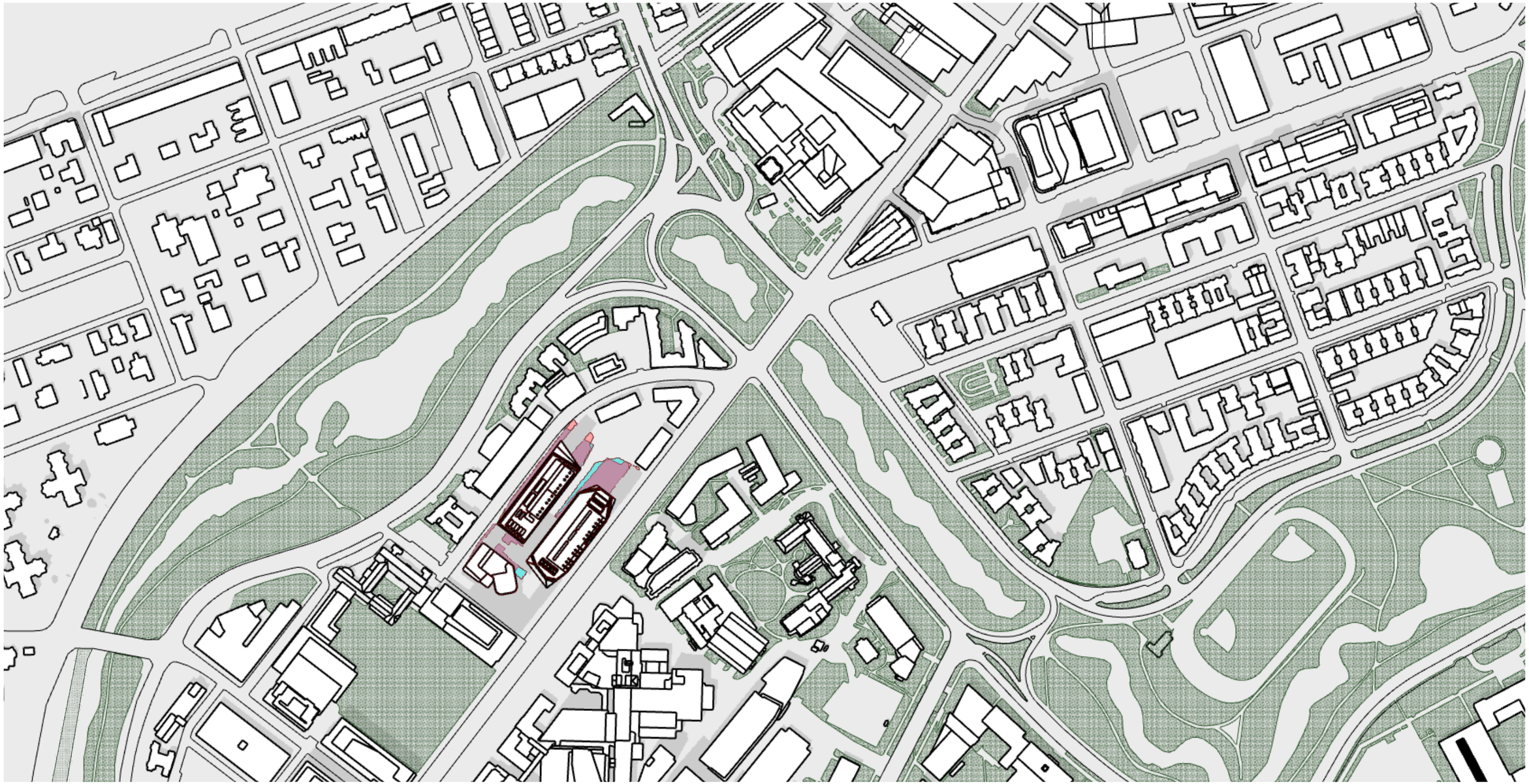


Figure 4.2c-86: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 1:45PM (DST)

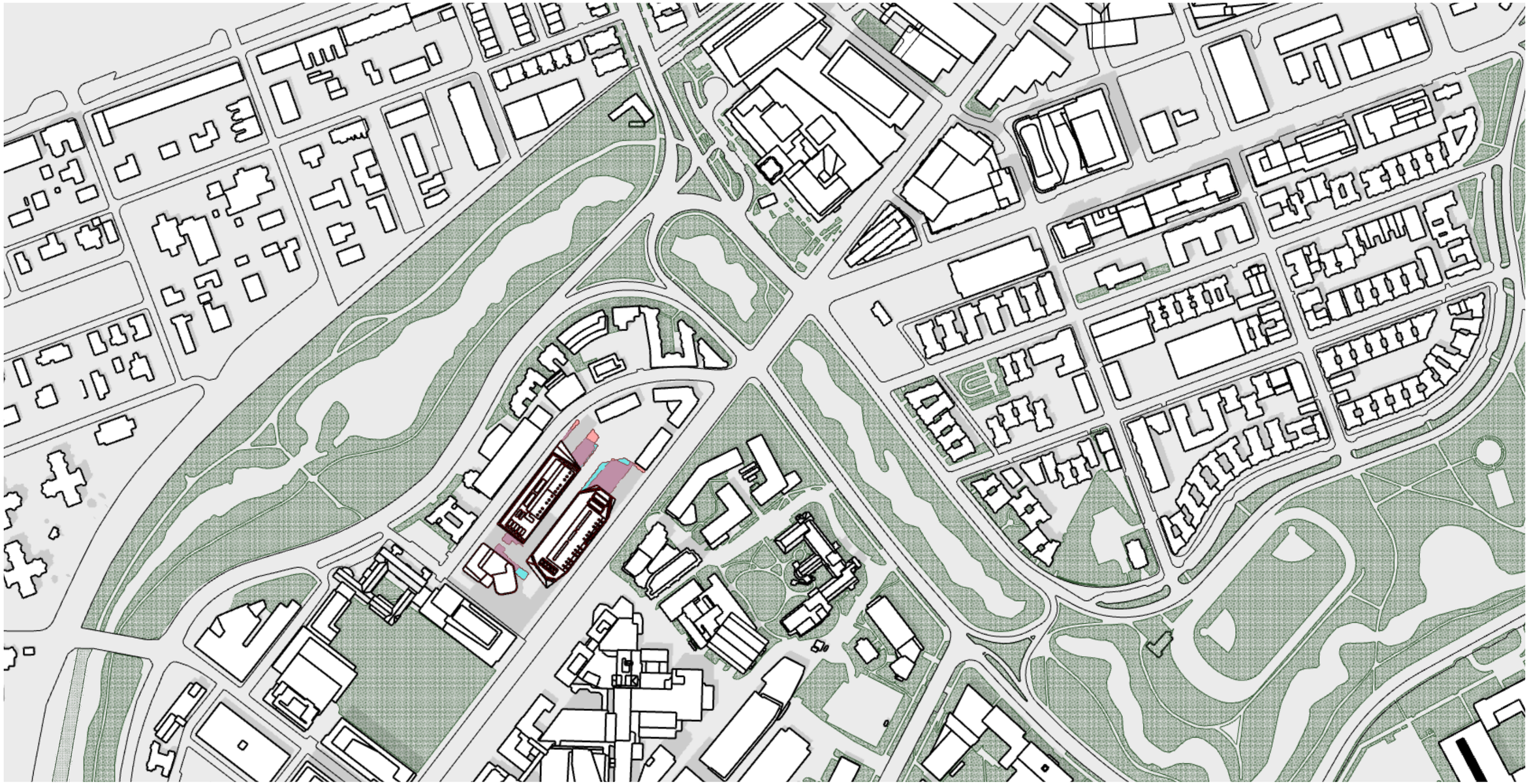


Figure 4.2c-87: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 2:00PM (DST)

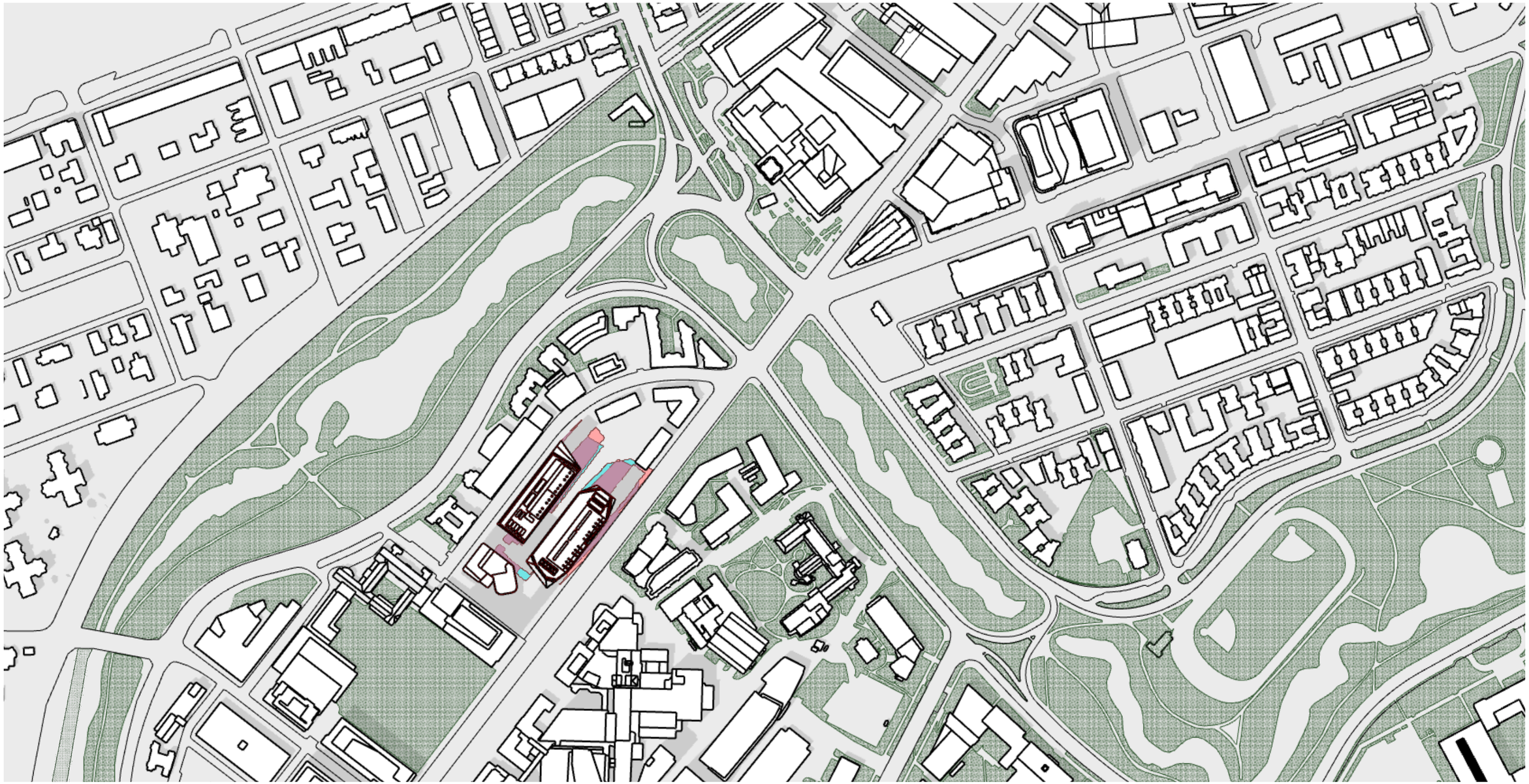


Figure 4.2c-88: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 2:15PM (DST)

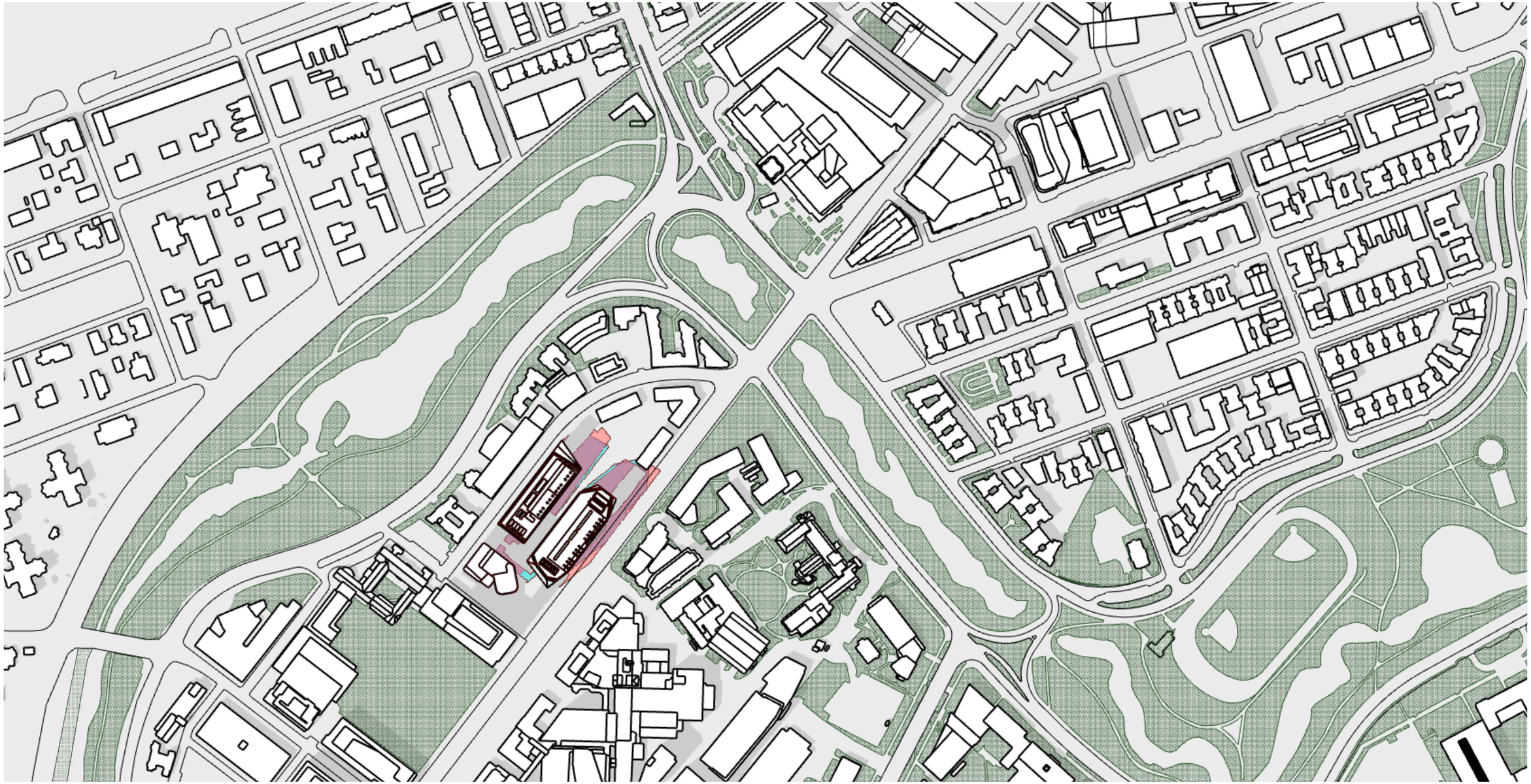


Figure 4.2c-89: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 2:30PM (DST)

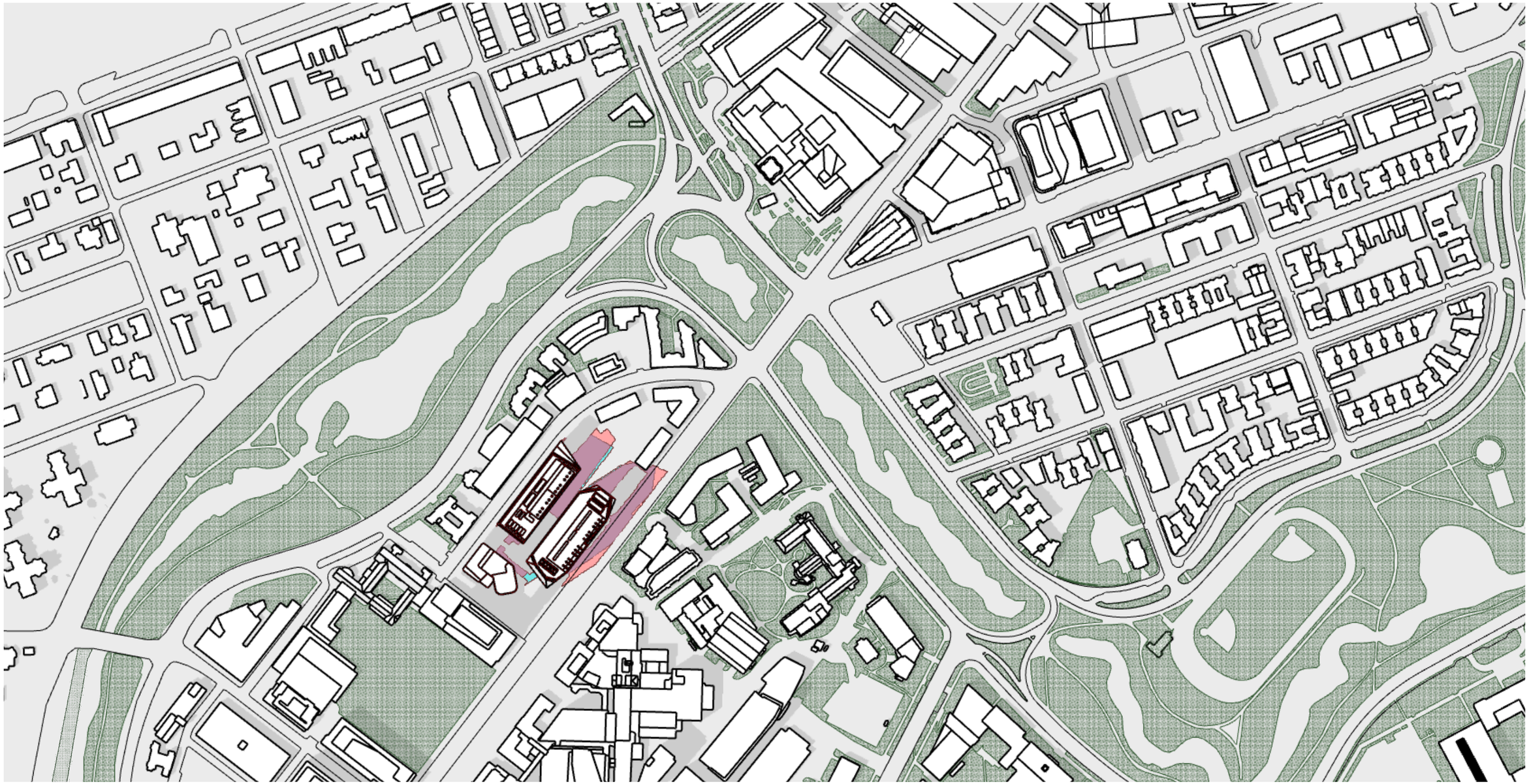


Figure 4.2c-90: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 2:45PM (DST)

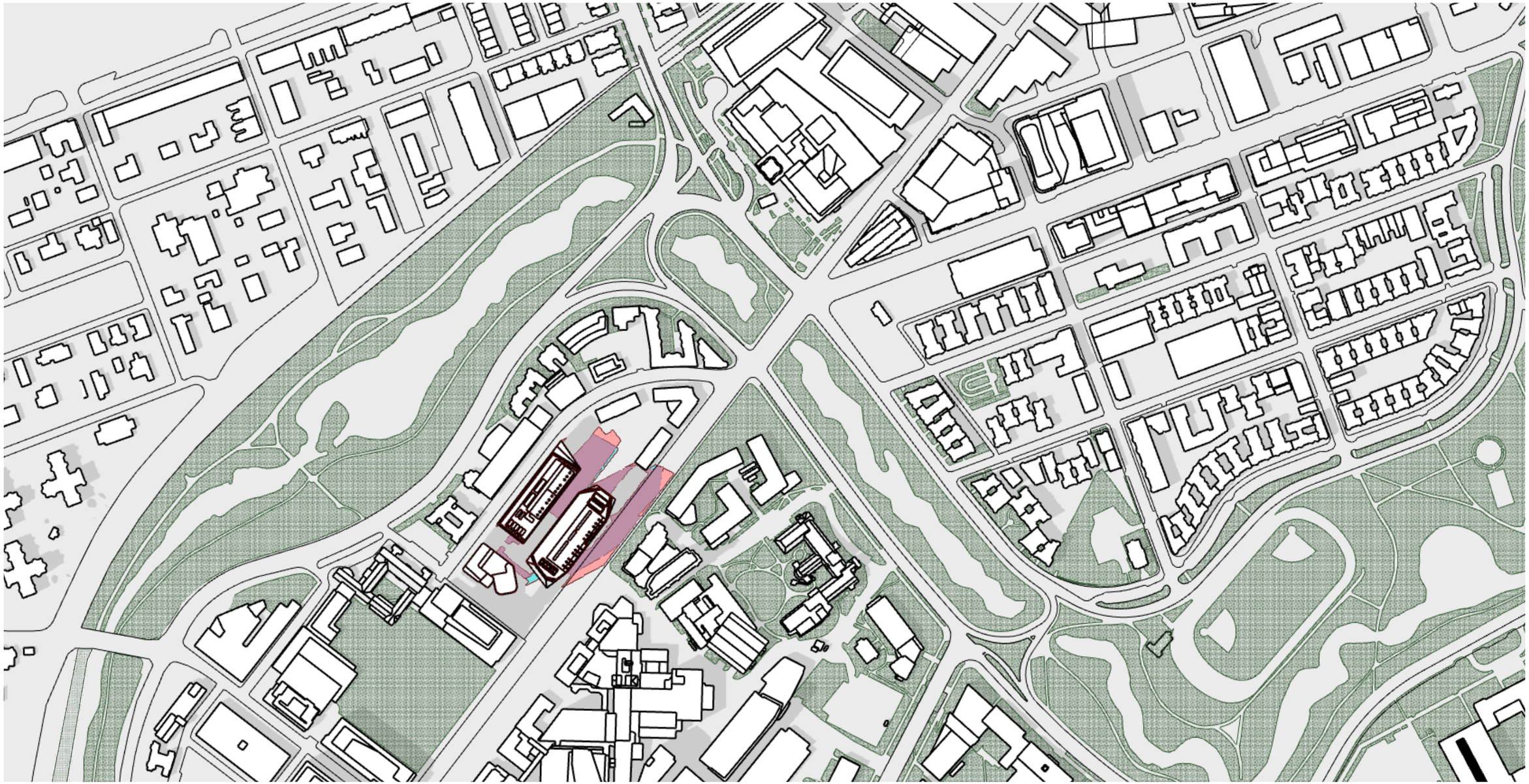


Figure 4.2c-91: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 3:00PM (DST)

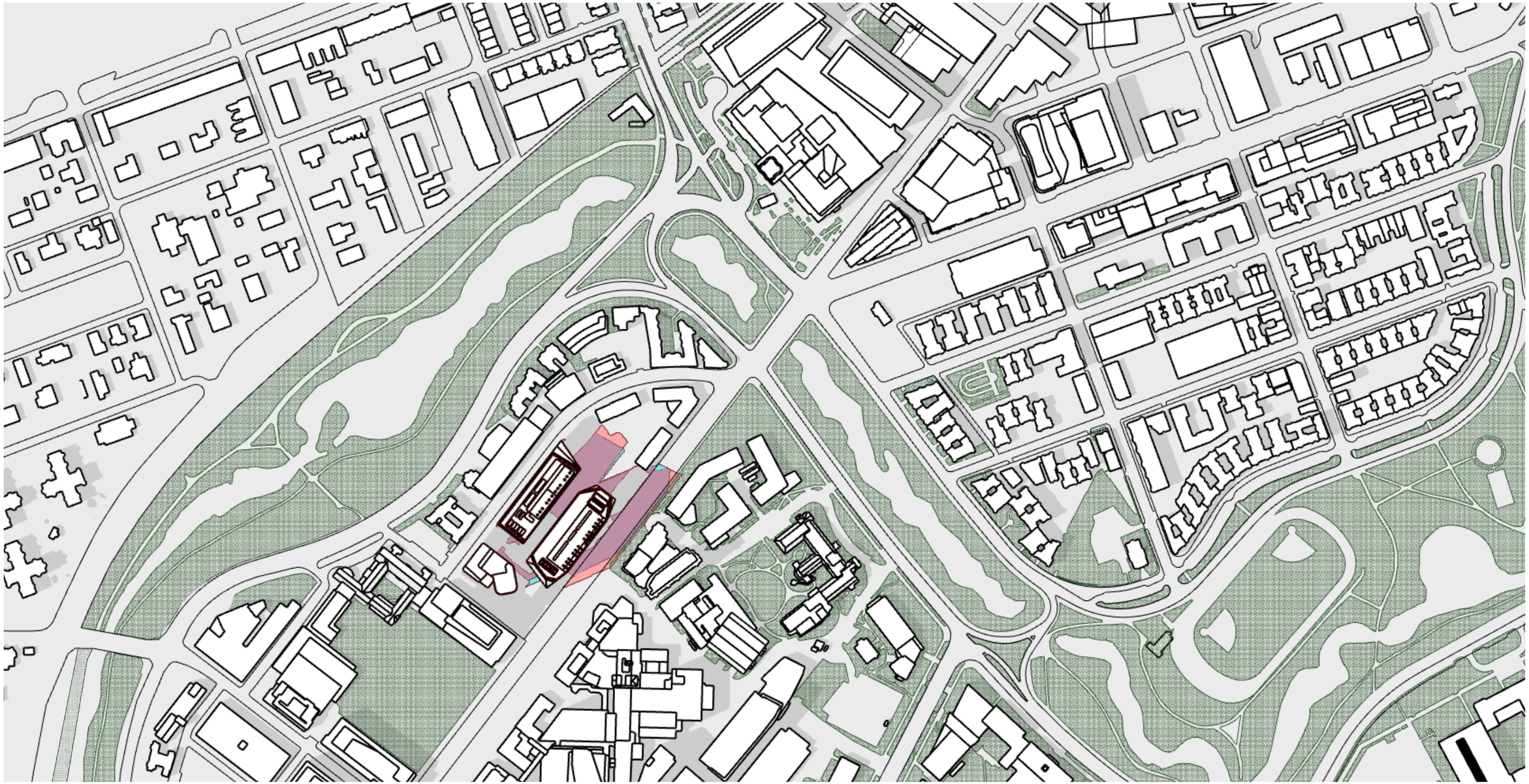


Figure 4.2c-92: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 3:15PM (DST)

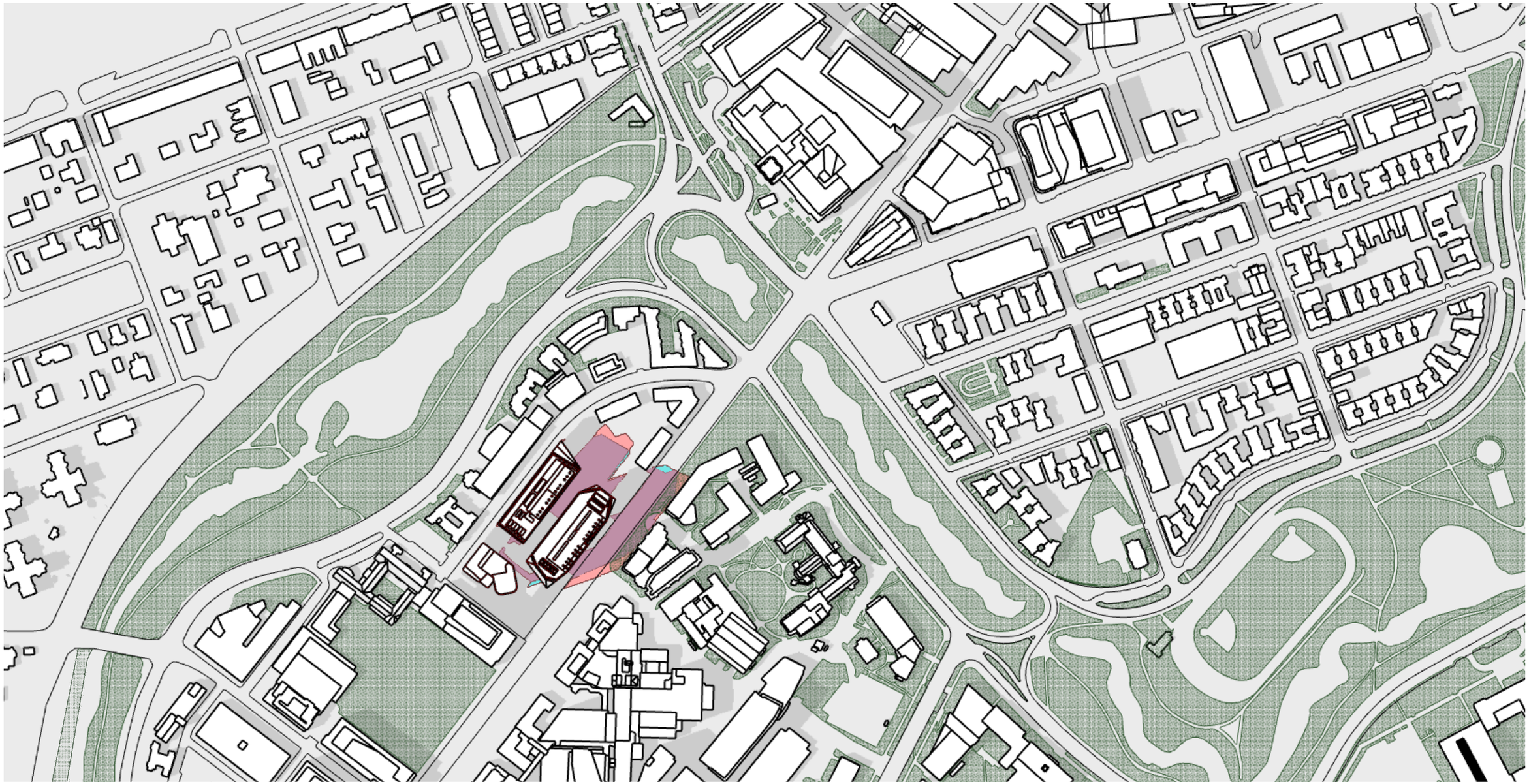


Figure 4.2c-93: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 3:30PM (DST)

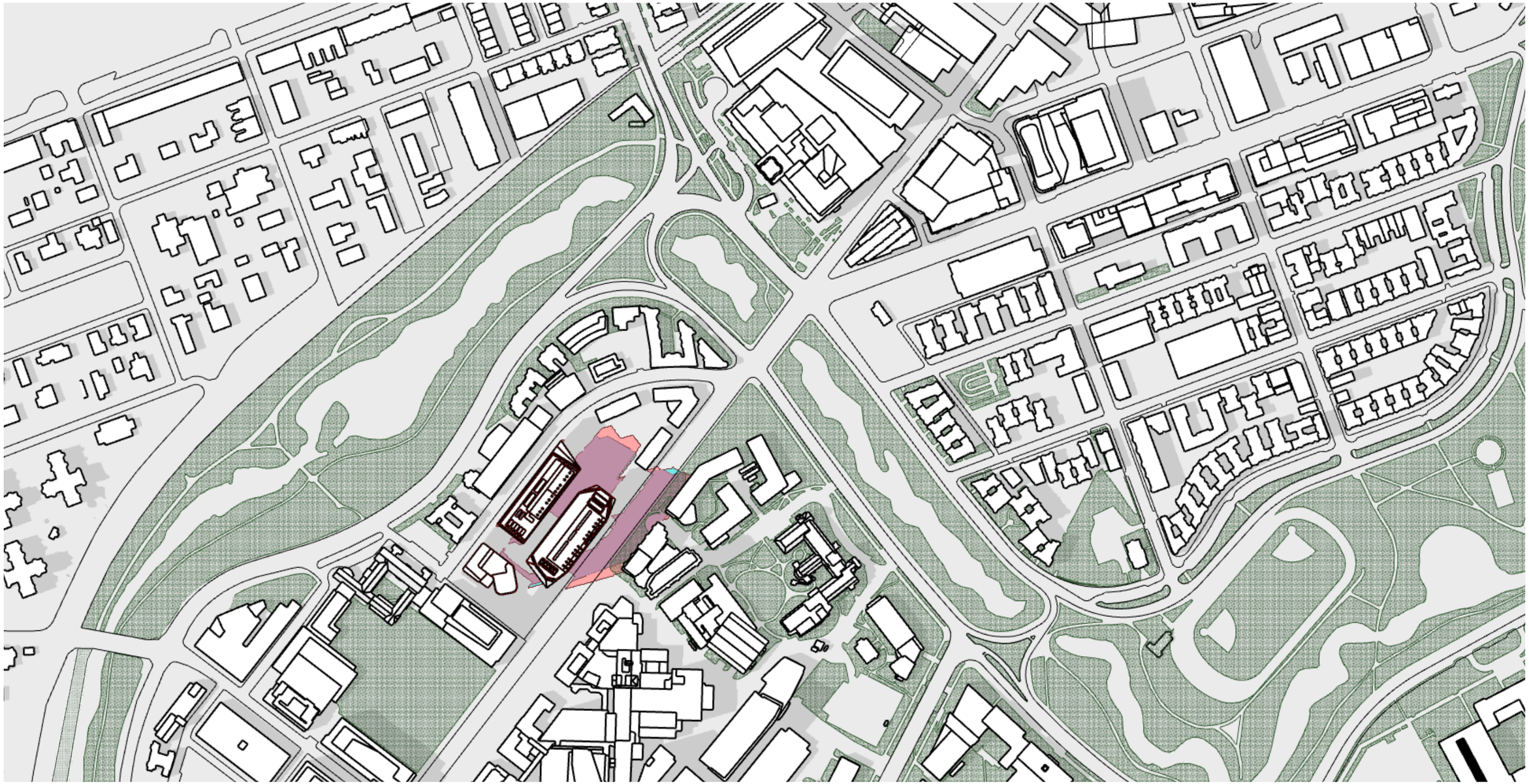


Figure 4.2c-94: Shadow Analysis
Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 3:45PM (DST)

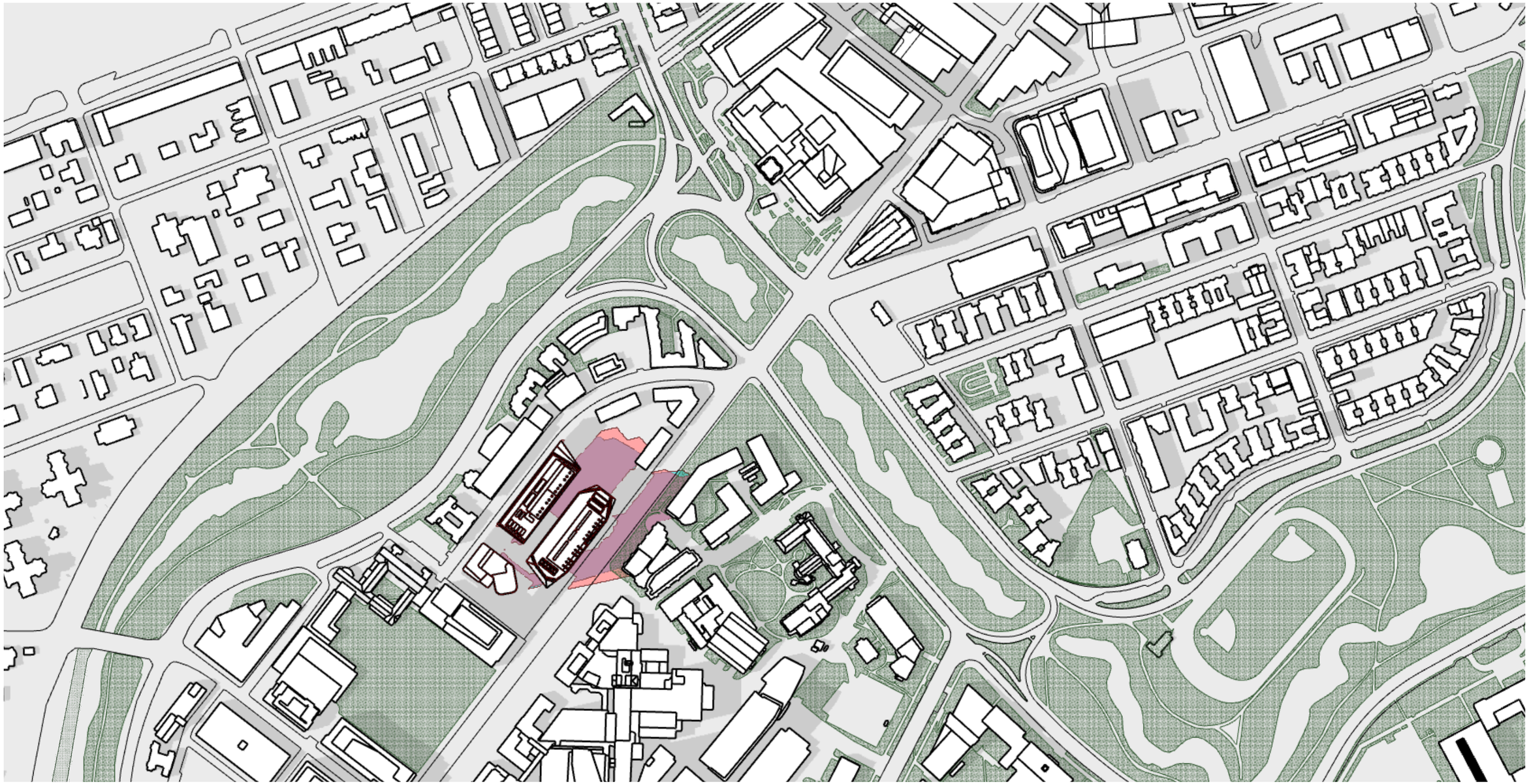


Figure 4.2c-95: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 4:00PM (DST)



Figure 4.2c-96: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 4:15PM (DST)

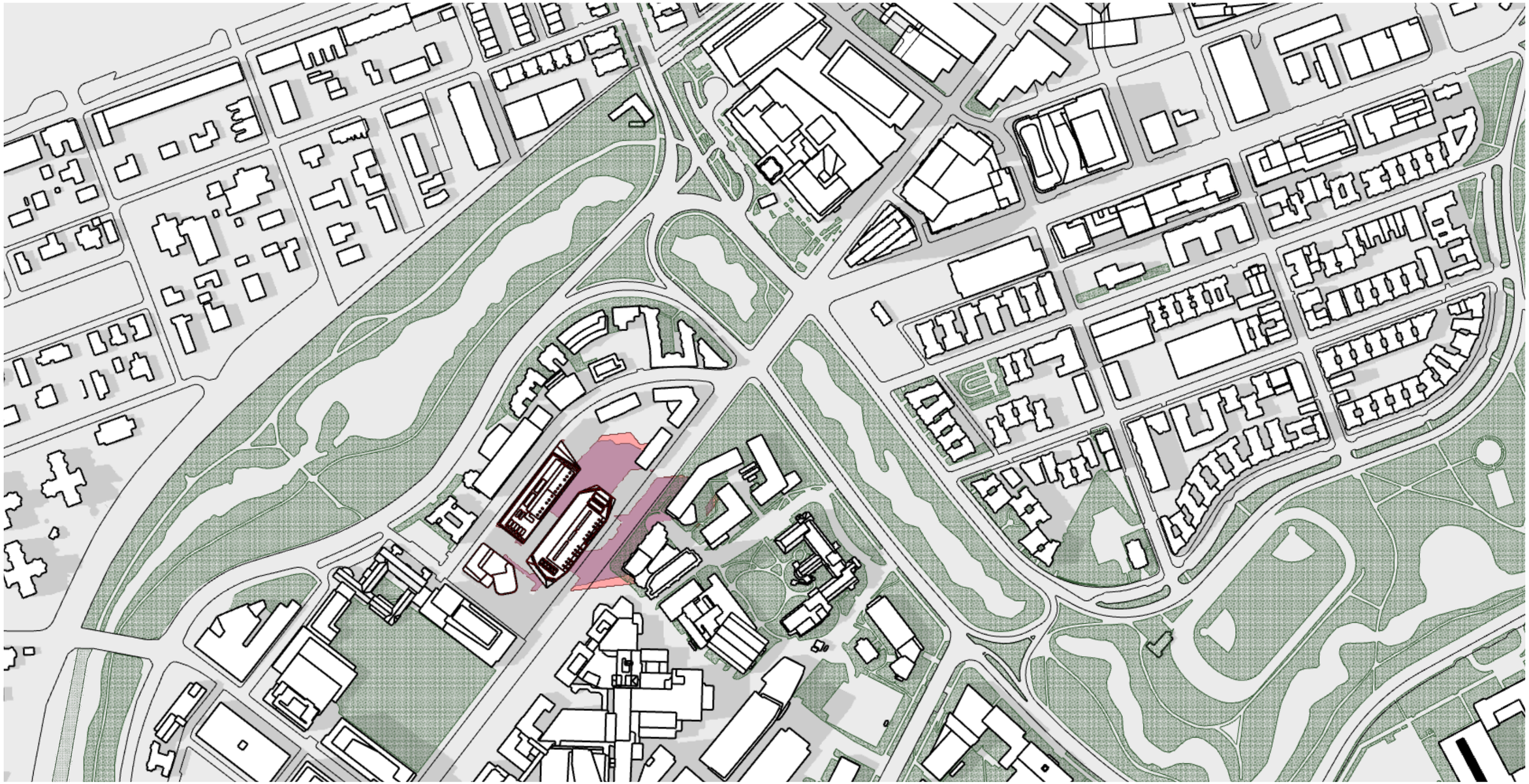


Figure 4.2c-97: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 4:30PM (DST)

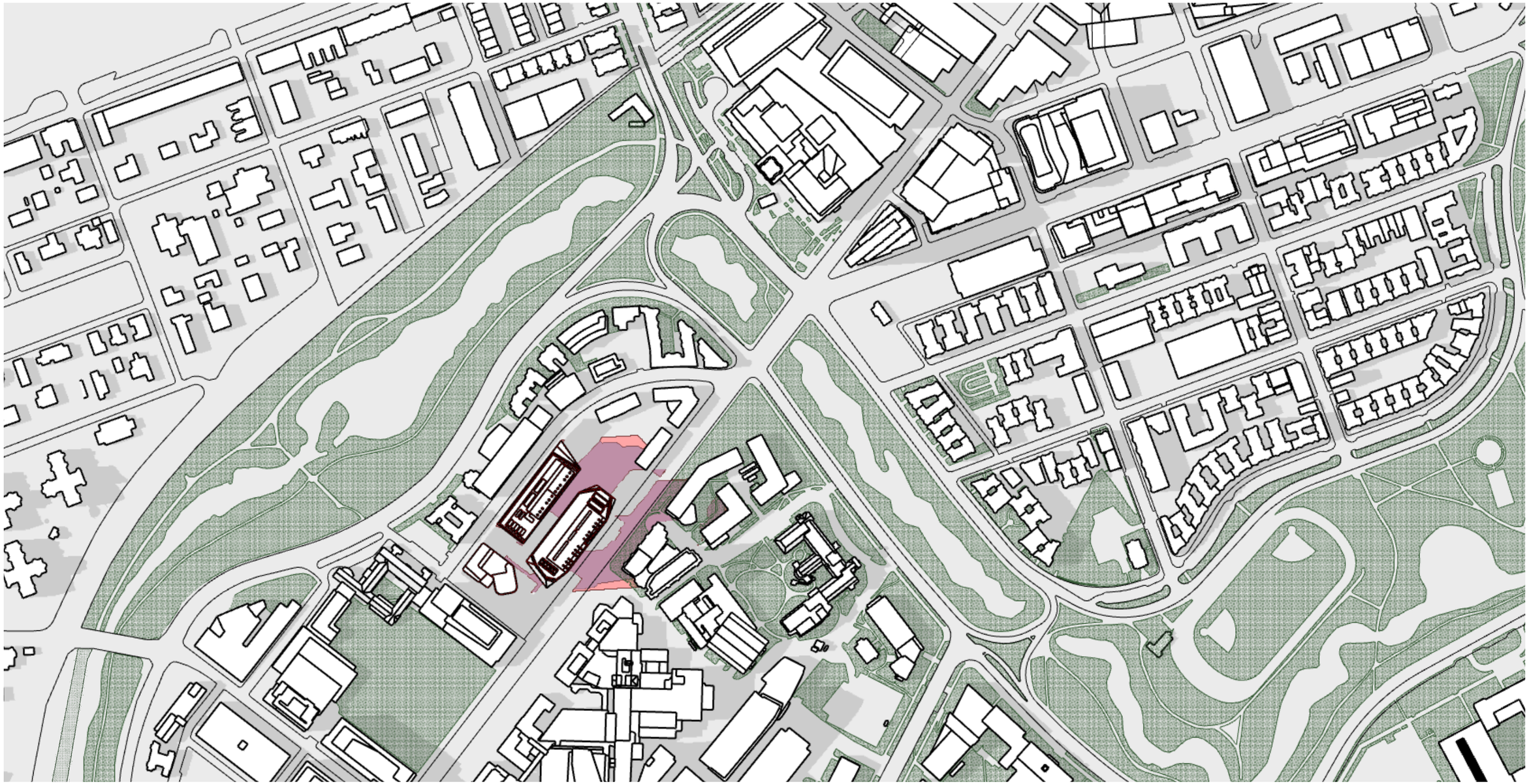


Figure 4.2c-98: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 4:45PM (DST)

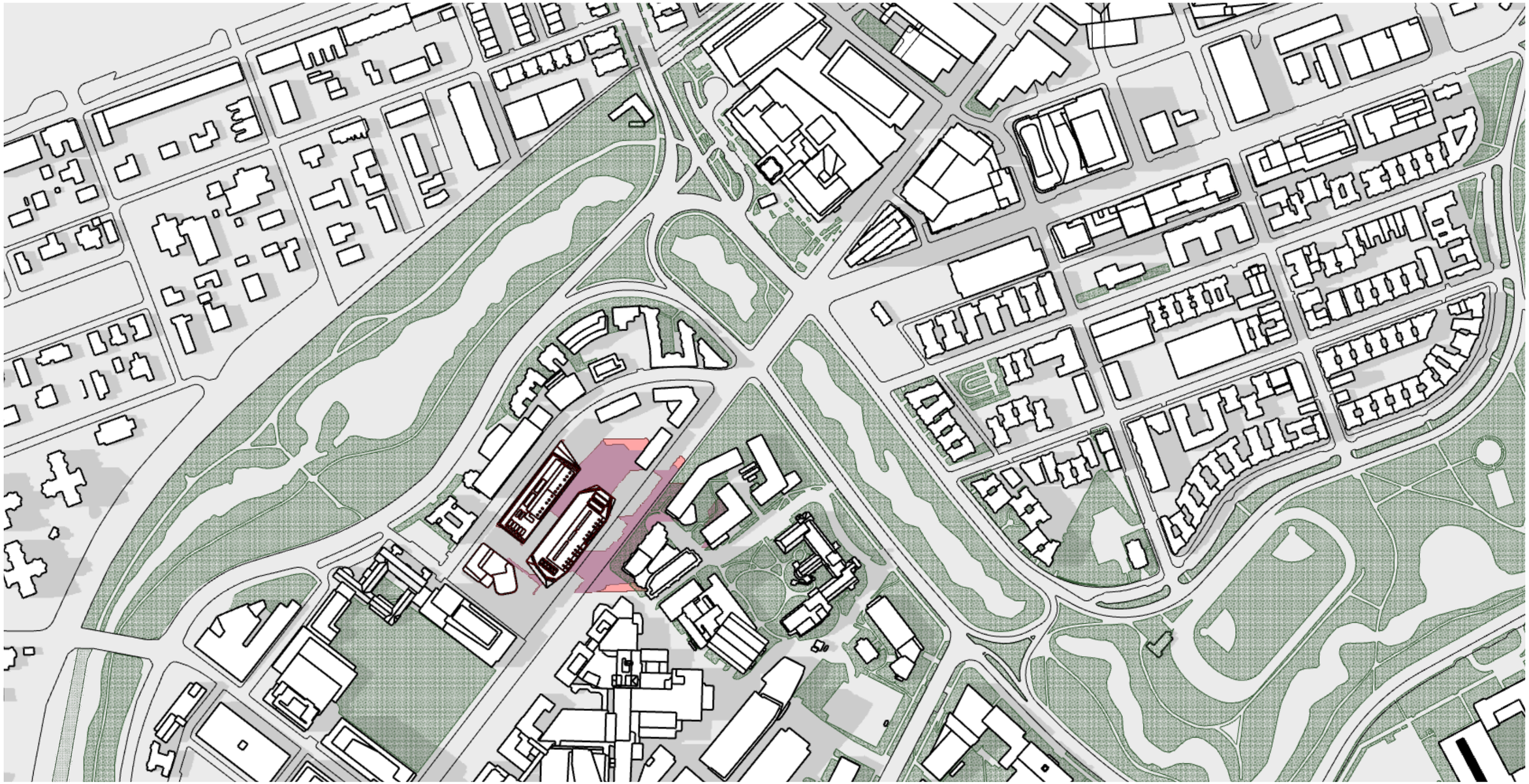


Figure 4.2c-99: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 5:00PM (DST)

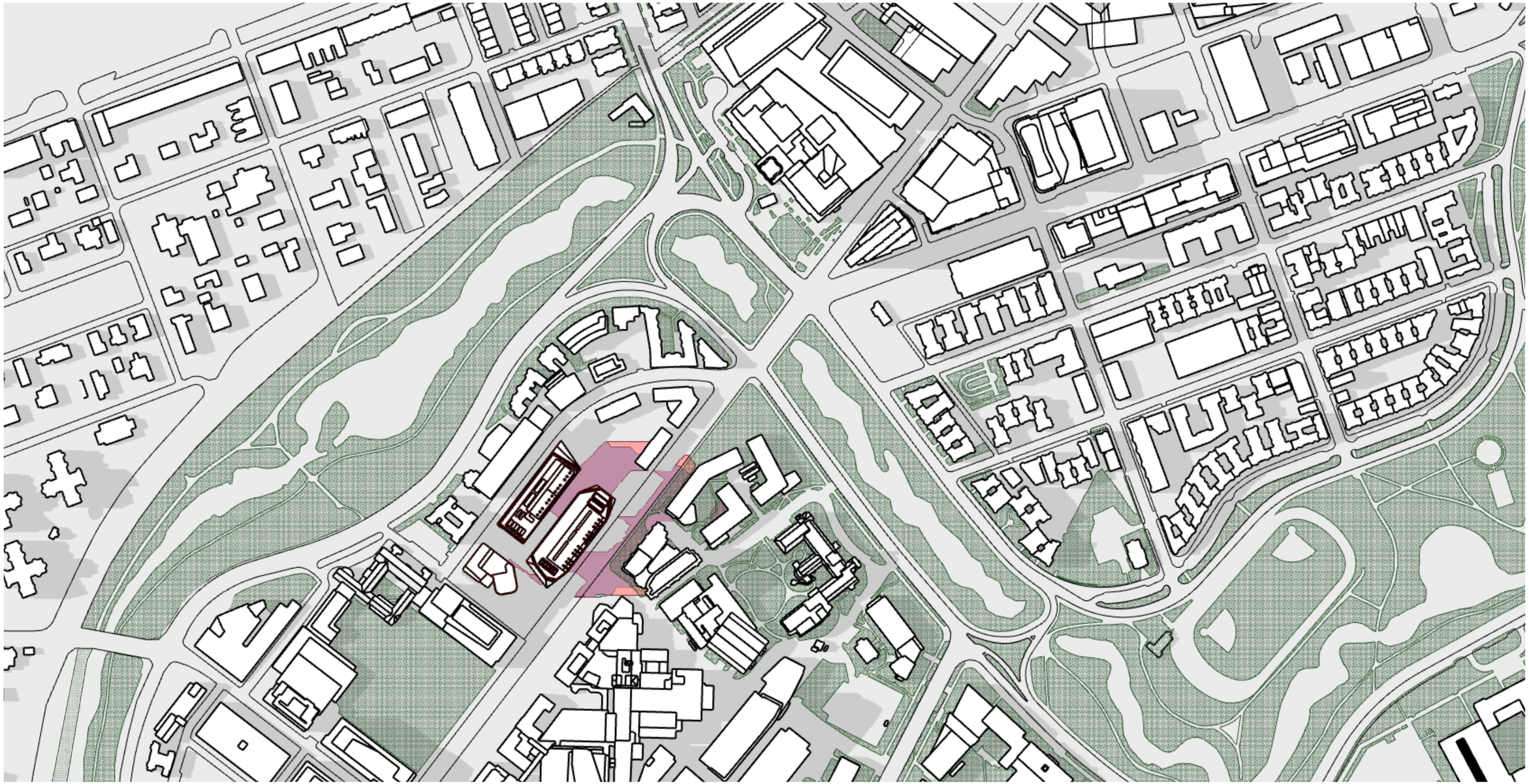


Figure 4.2c-100: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 5:15PM (DST)



Figure 4.2c-101: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 5:30PM (DST)

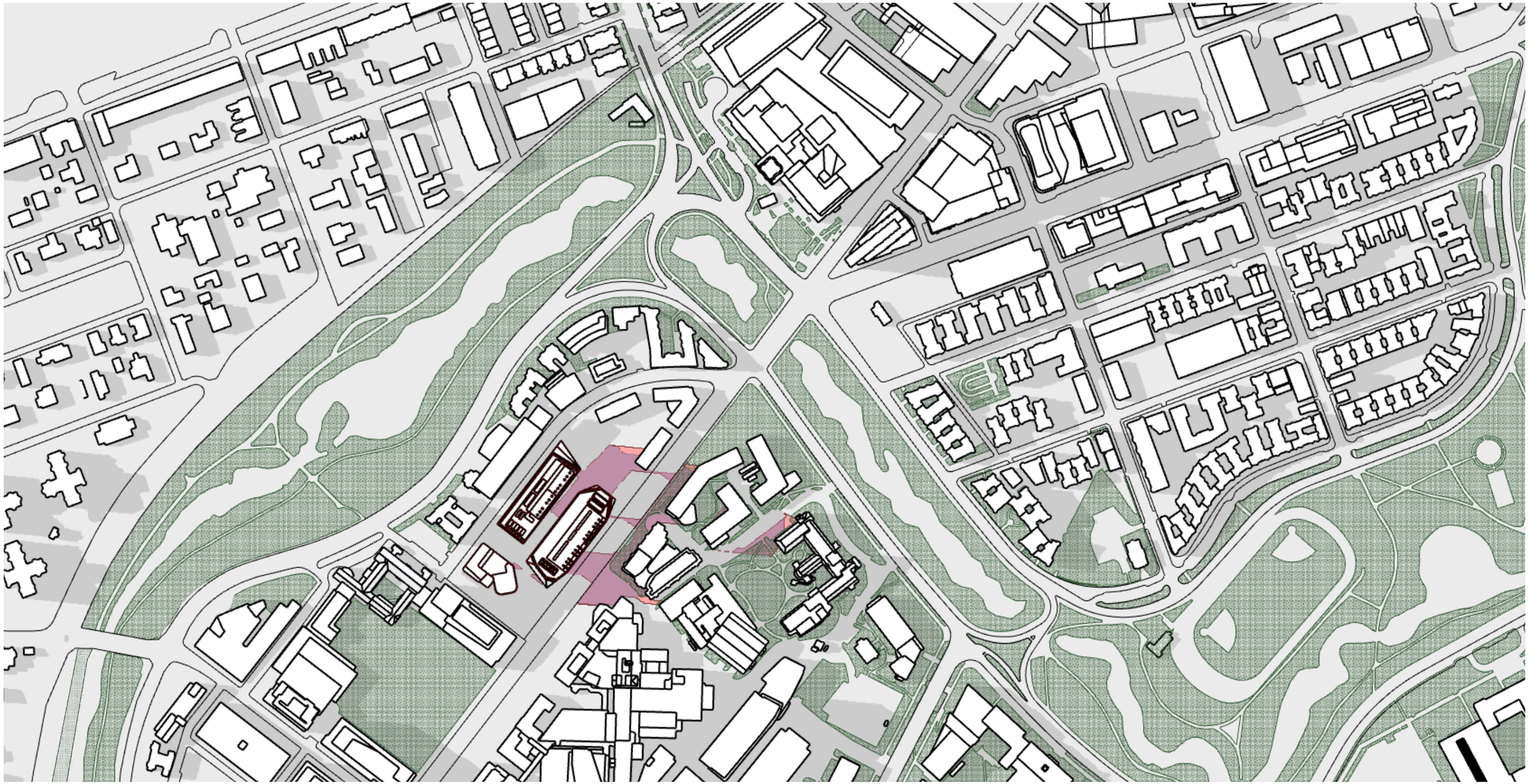


Figure 4.2c-102: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 5:45PM (DST)

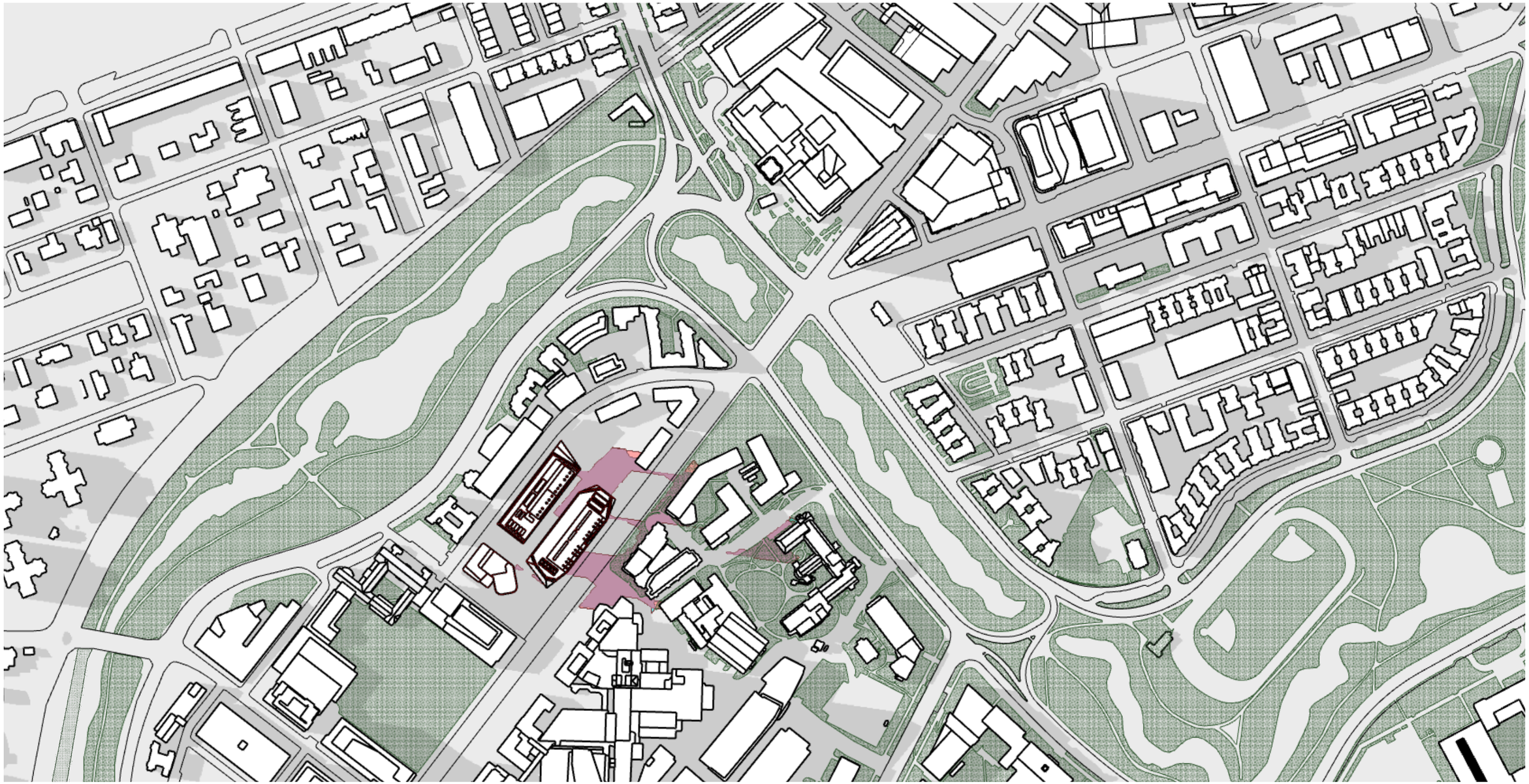


Figure 4.2c-103: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 6:00PM (DST)

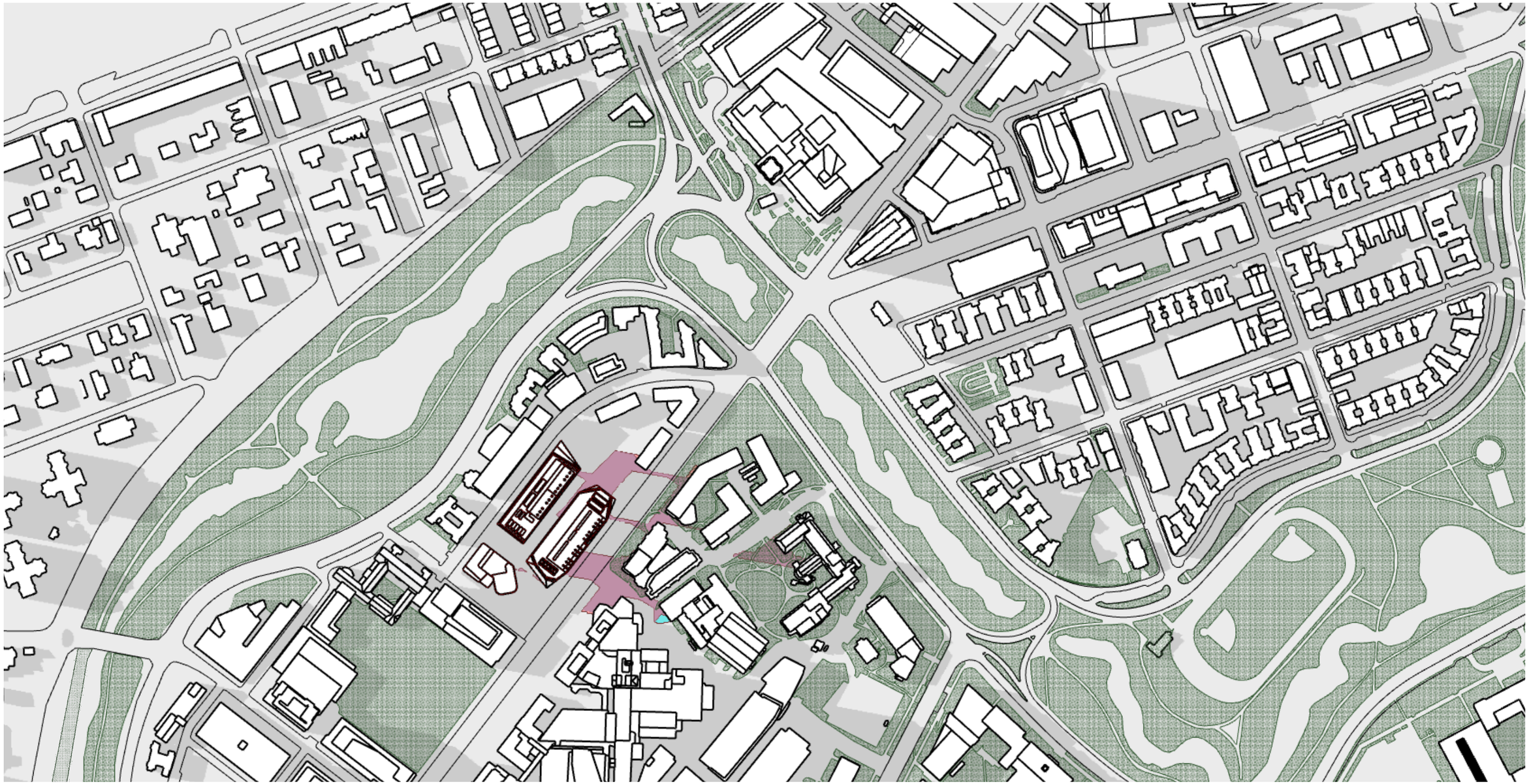


Figure 4.2c-104: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 6:15PM (DST)

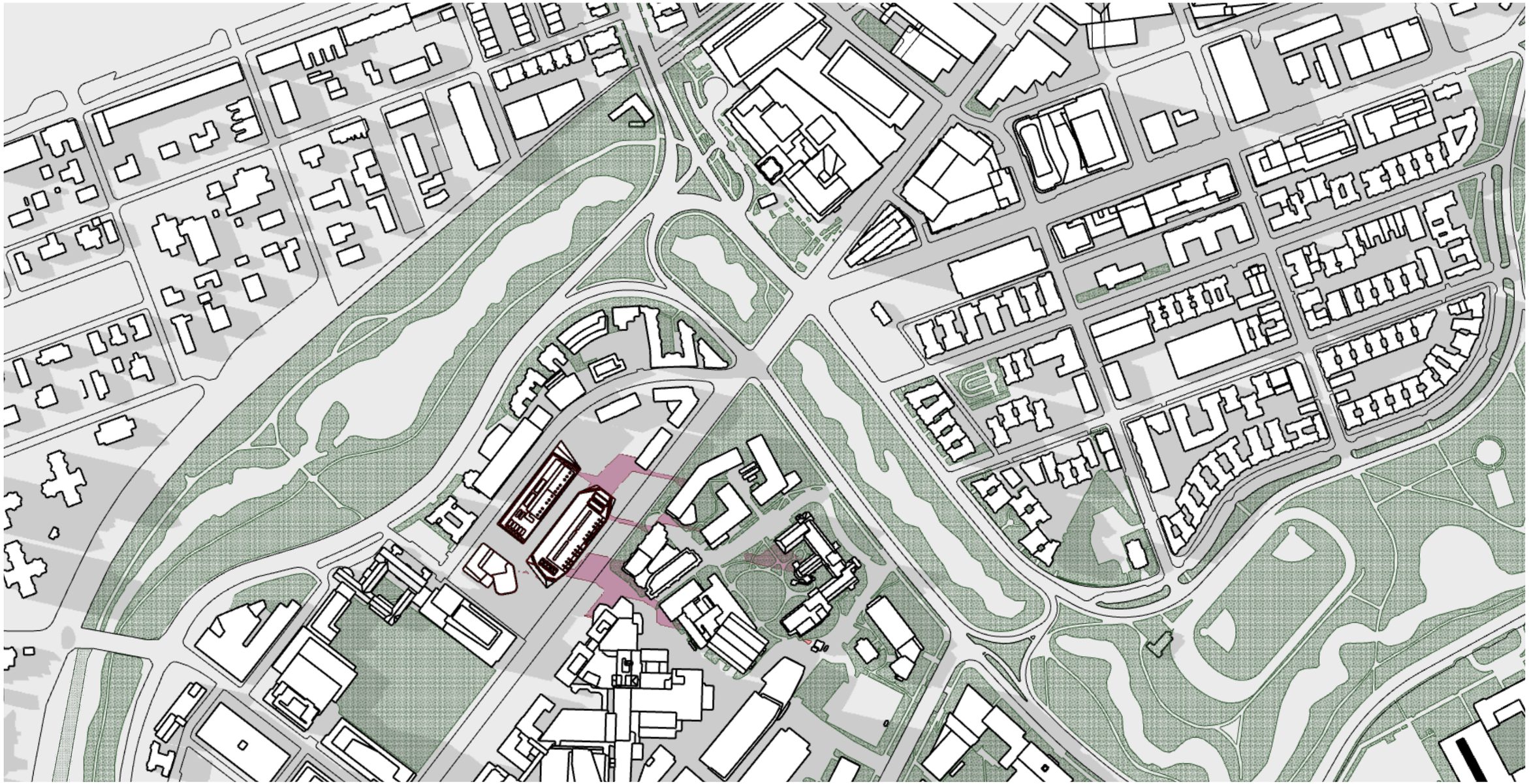


Figure 4.2c-105: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 6:30PM (DST)

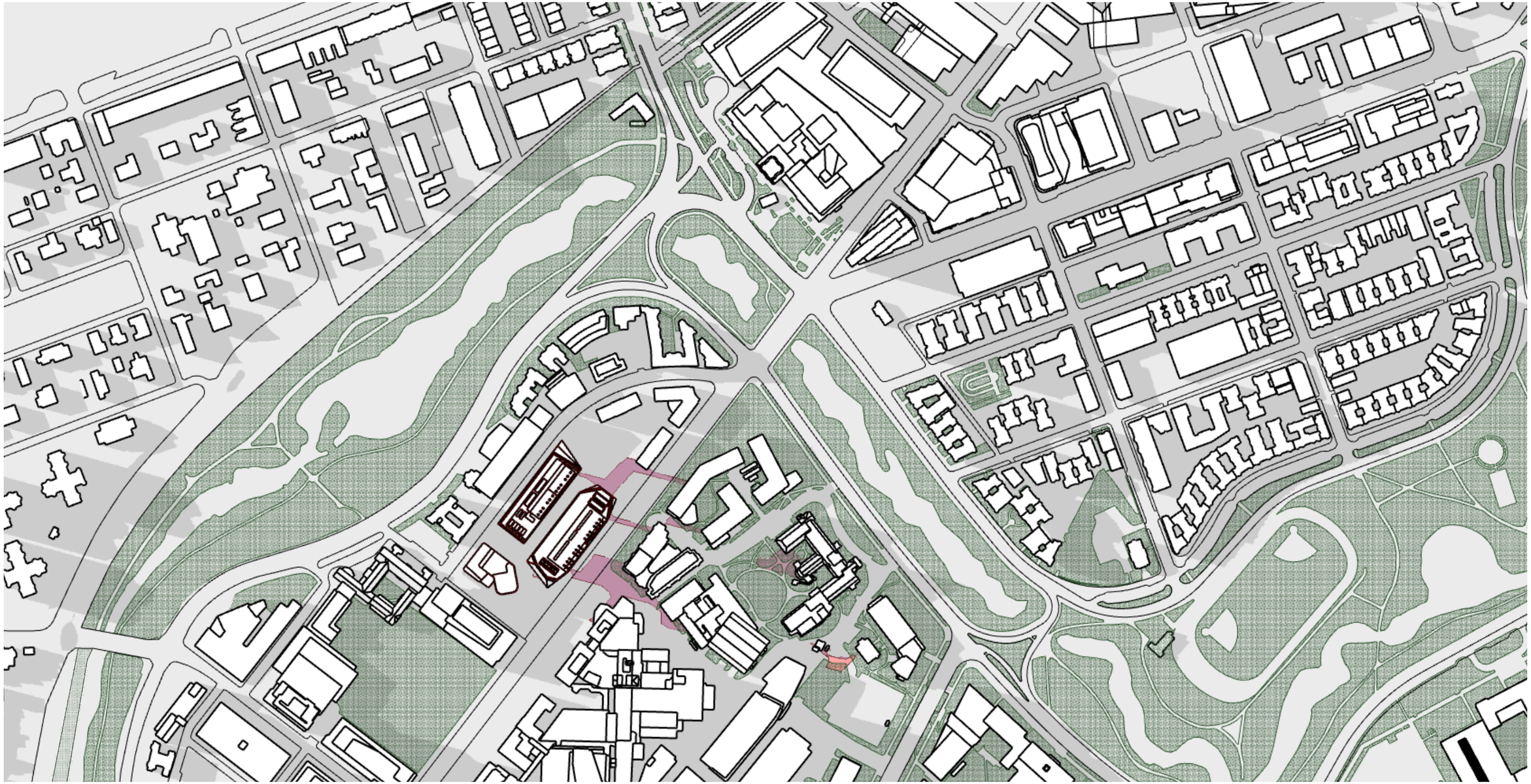


Figure 4.2c-106: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 6:45PM (DST)

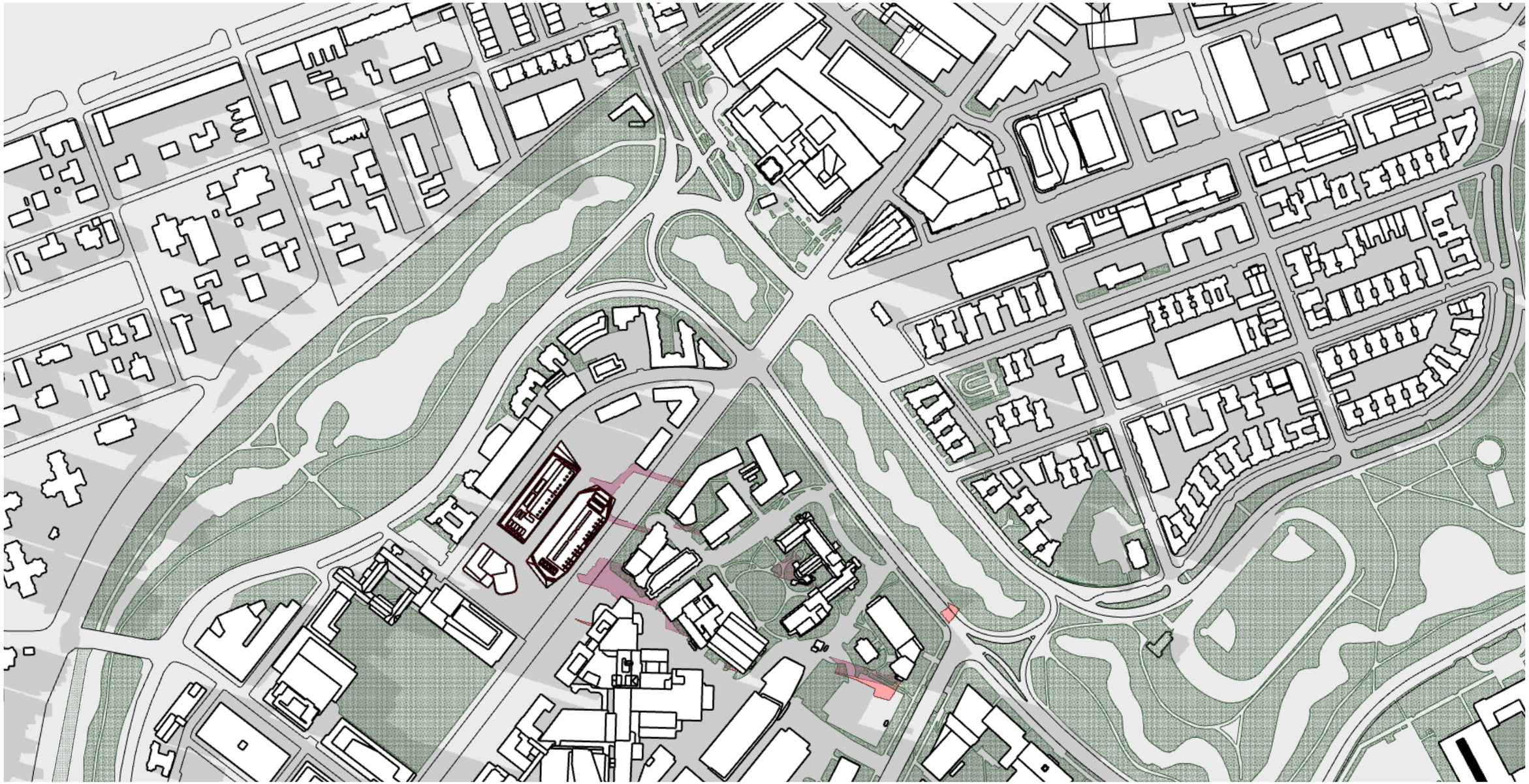


Figure 4.2c-107: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 7:00PM (DST)



Figure 4.2c-108: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 7:15PM (DST)



Figure 4.2c-109: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 7:30PM (DST)

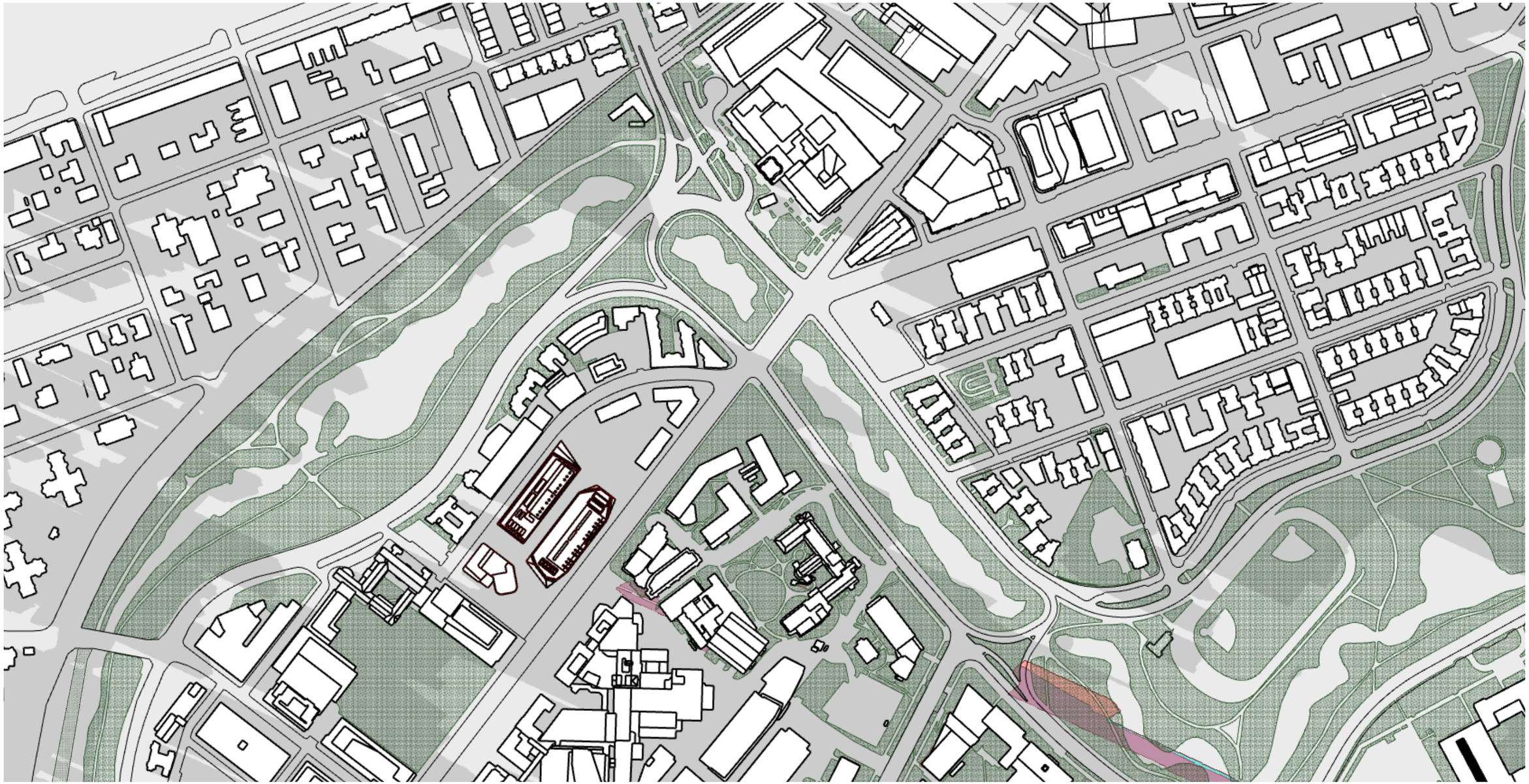


Figure 4.2c-110: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 7:45PM (DST)



Figure 4.2c-111: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 8:00PM (DST)

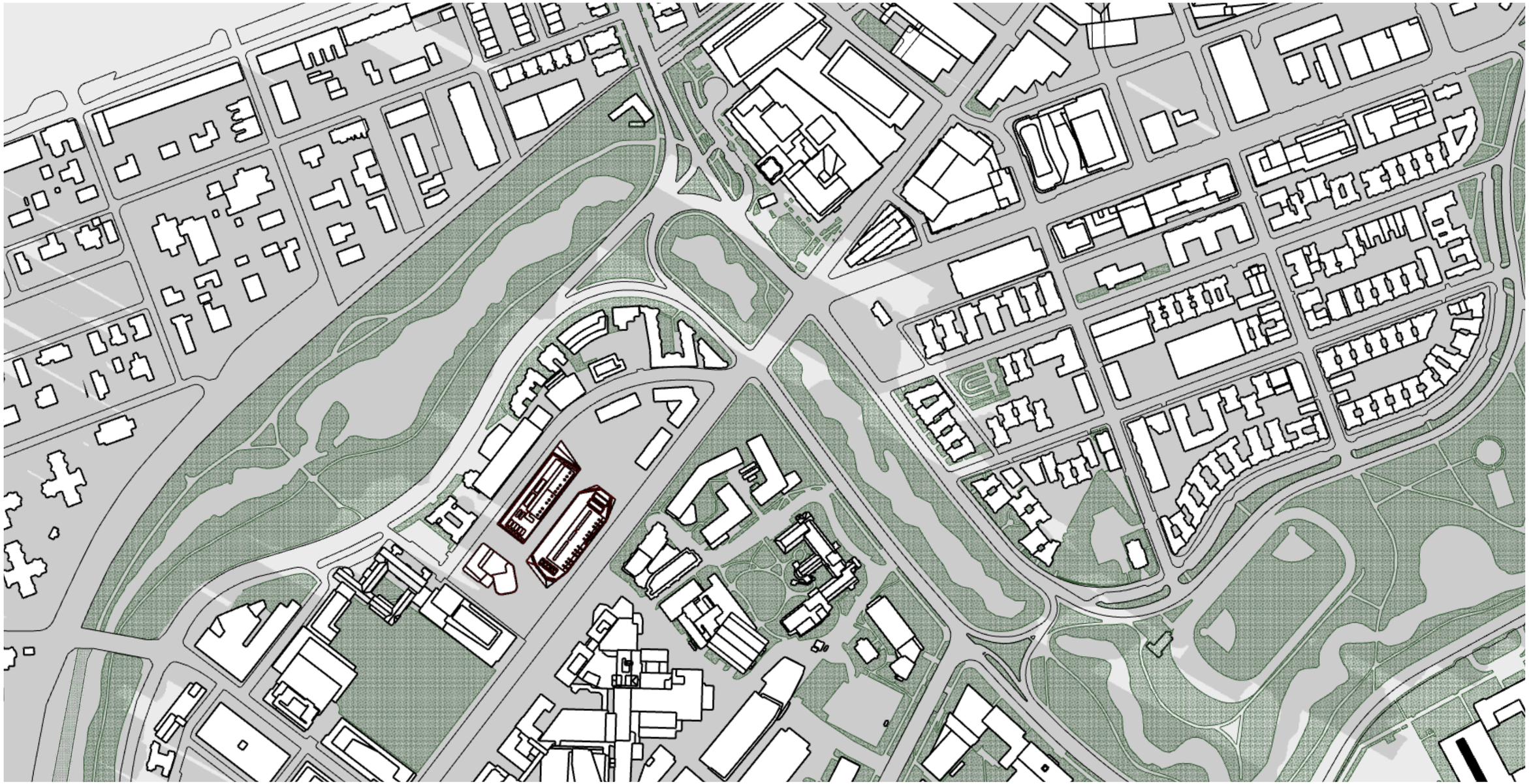


Figure 4.2c-112: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - 8:15PM (DST)

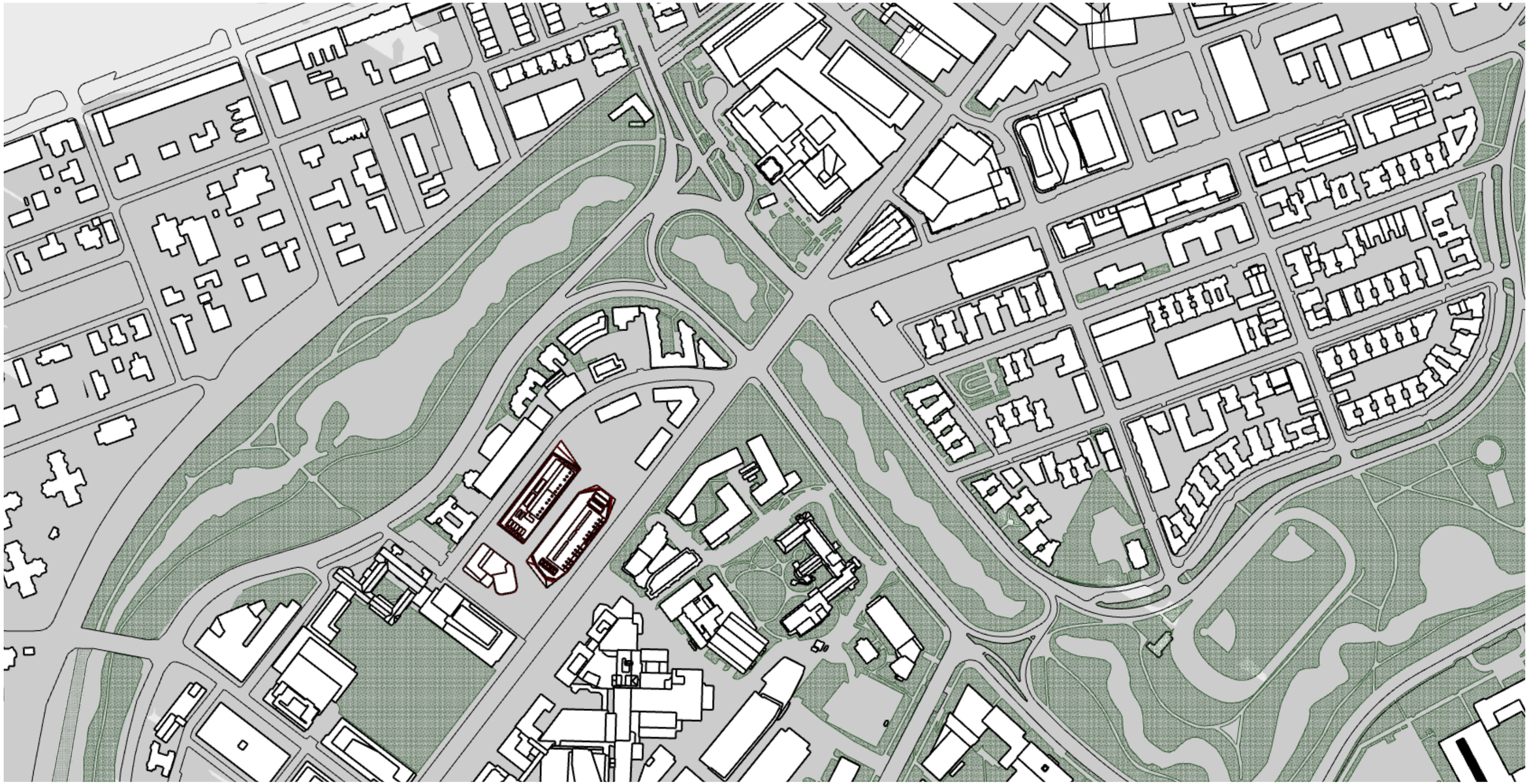


Figure 4.2c-113: Shadow Analysis

Longwood Place | Boston, MA

JUNE 21 (SUMMER SOLSTICE) - SUNSET 8:25PM (DST)



Figure 4.2c-114: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - SUNRISE 6:30AM (DST)



Figure 4.2c-115: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 6:45AM (DST)



Figure 4.2c-116: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 7:00AM (DST)



Figure 4.2c-117: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 7:15AM (DST)



Figure 4.2c-118: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 7:30AM (DST)

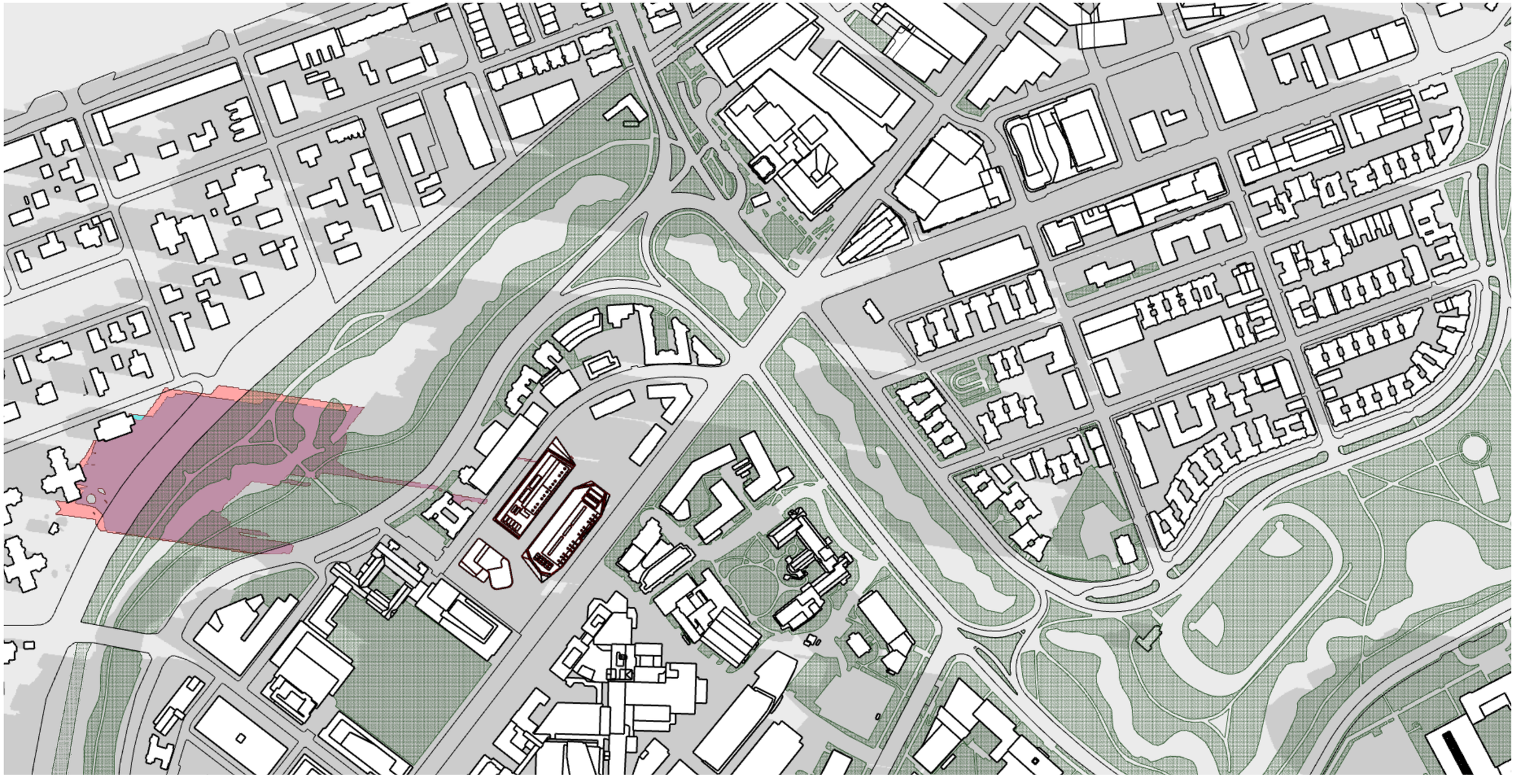


Figure 4.2c-119: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 7:45AM (DST)

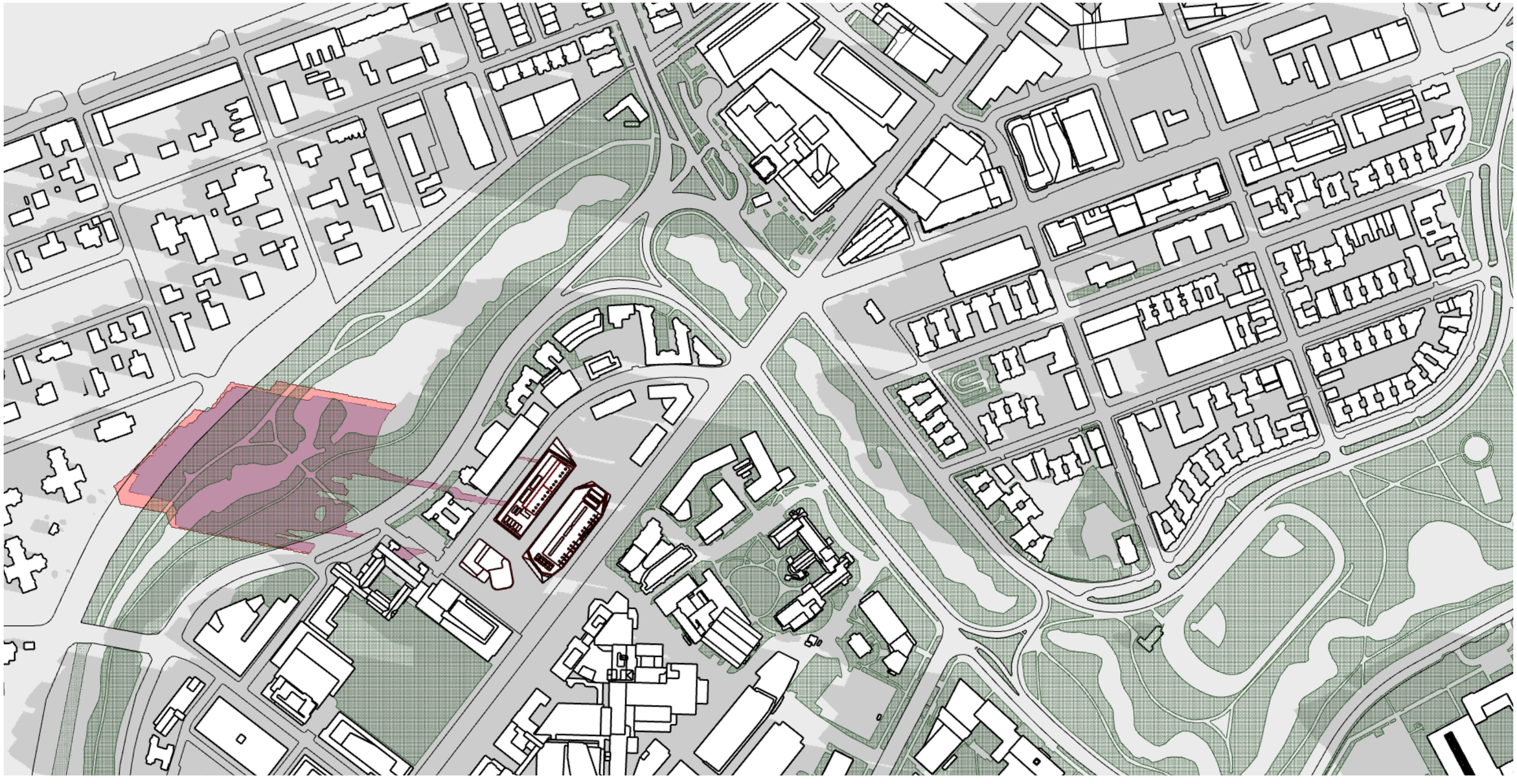


Figure 4.2c-120: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 8:00AM (DST)

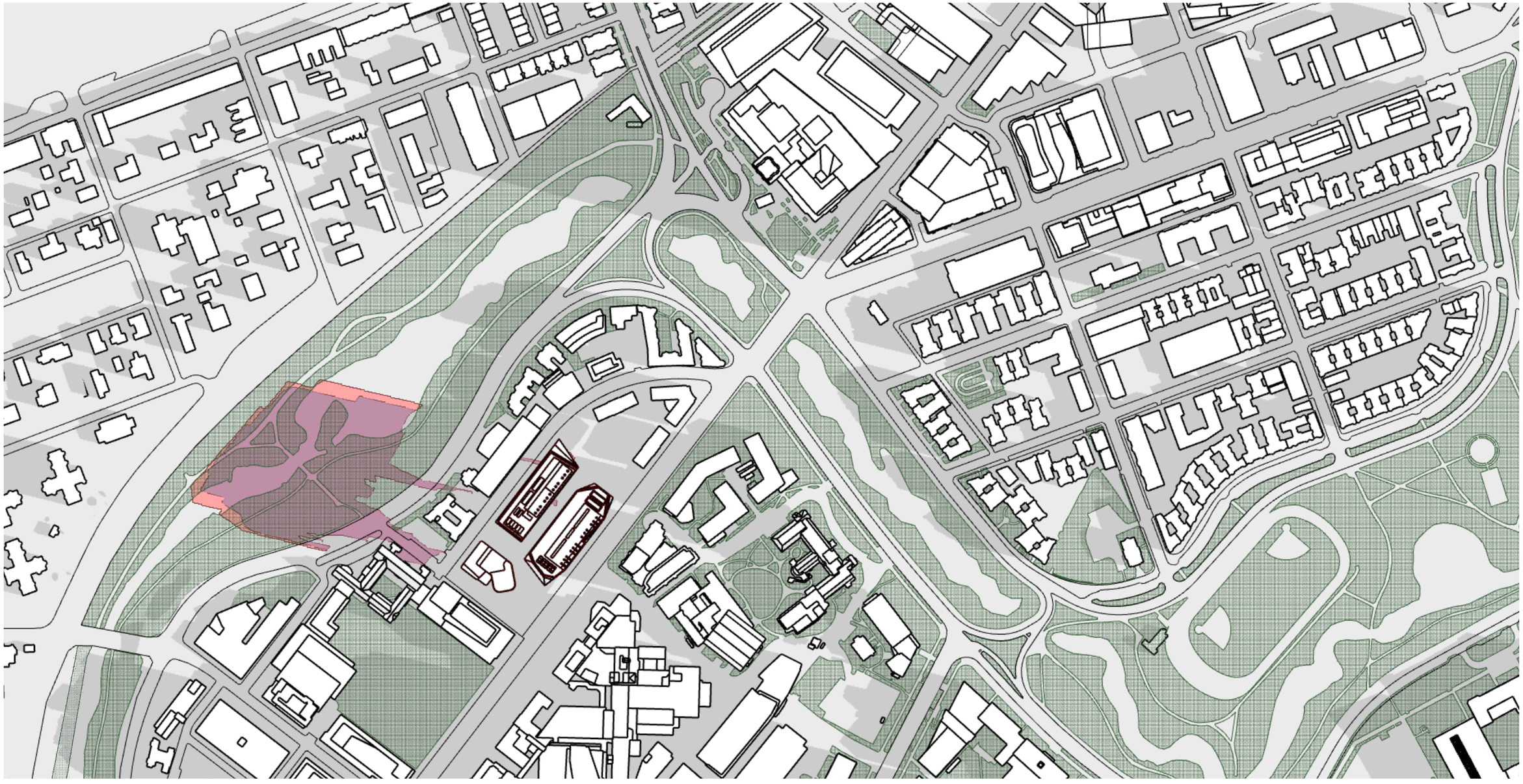


Figure 4.2c-121: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 8:15AM (DST)

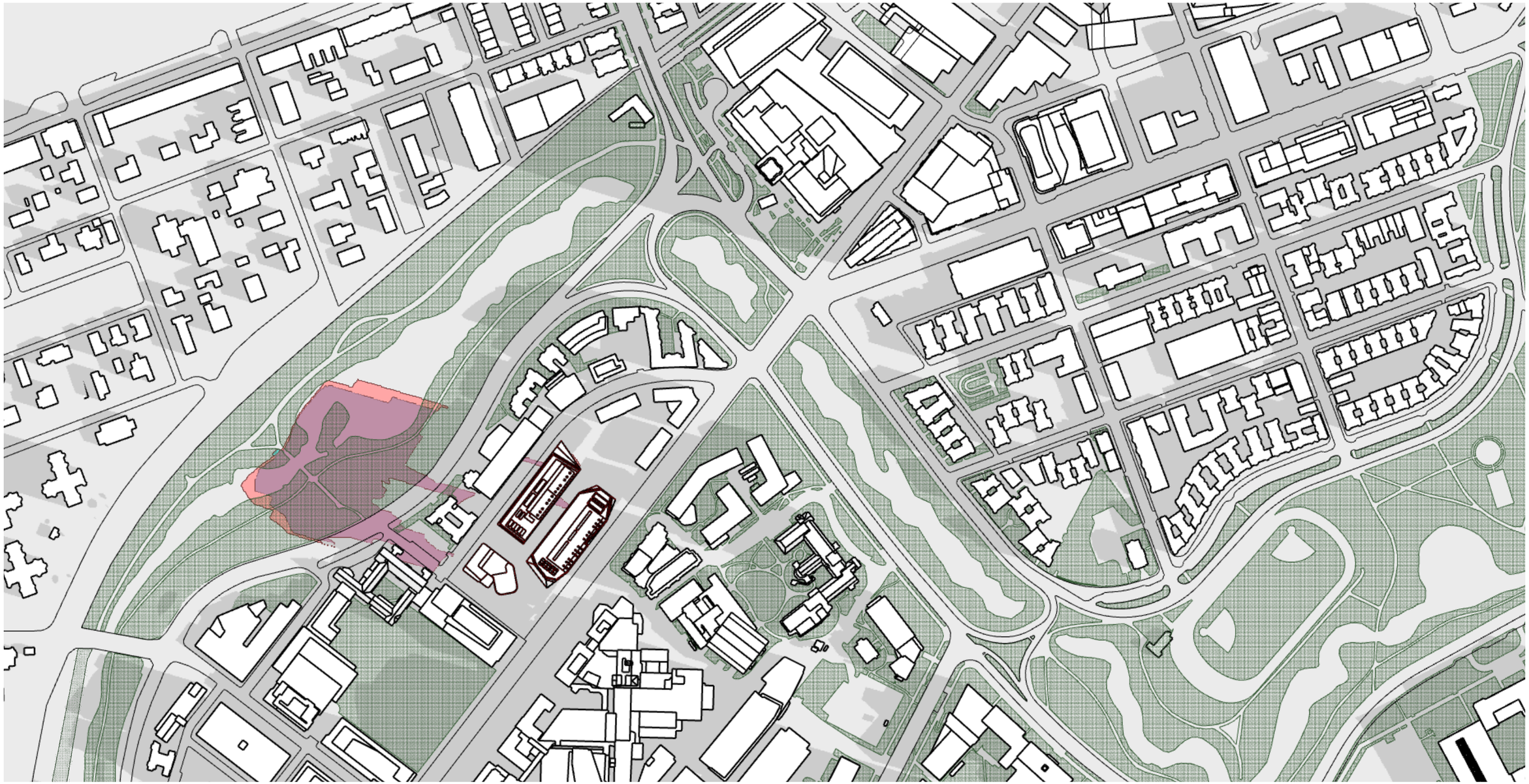


Figure 4.2c-122: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 8:30AM (DST)

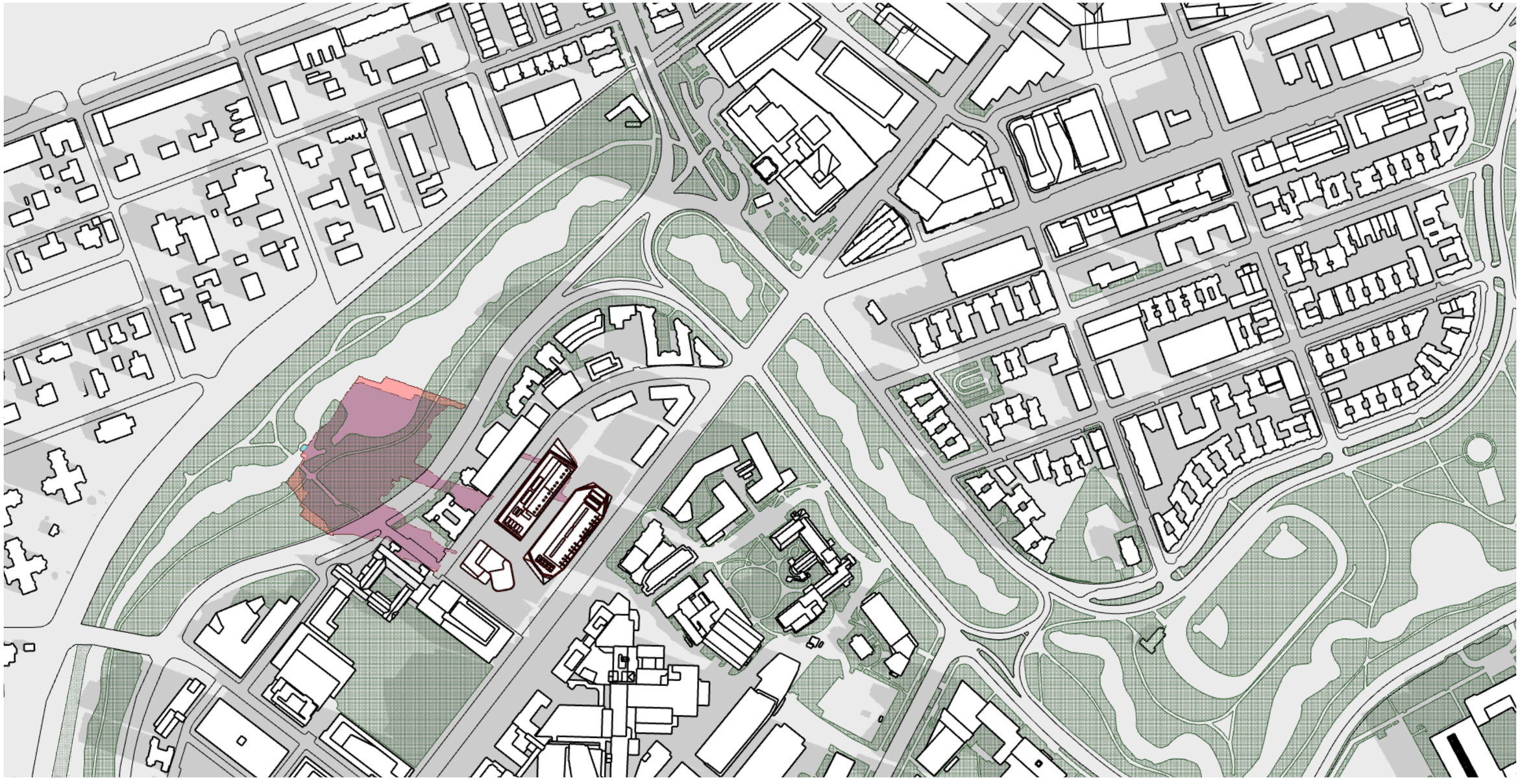


Figure 4.2c-123: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 8:45AM (DST)

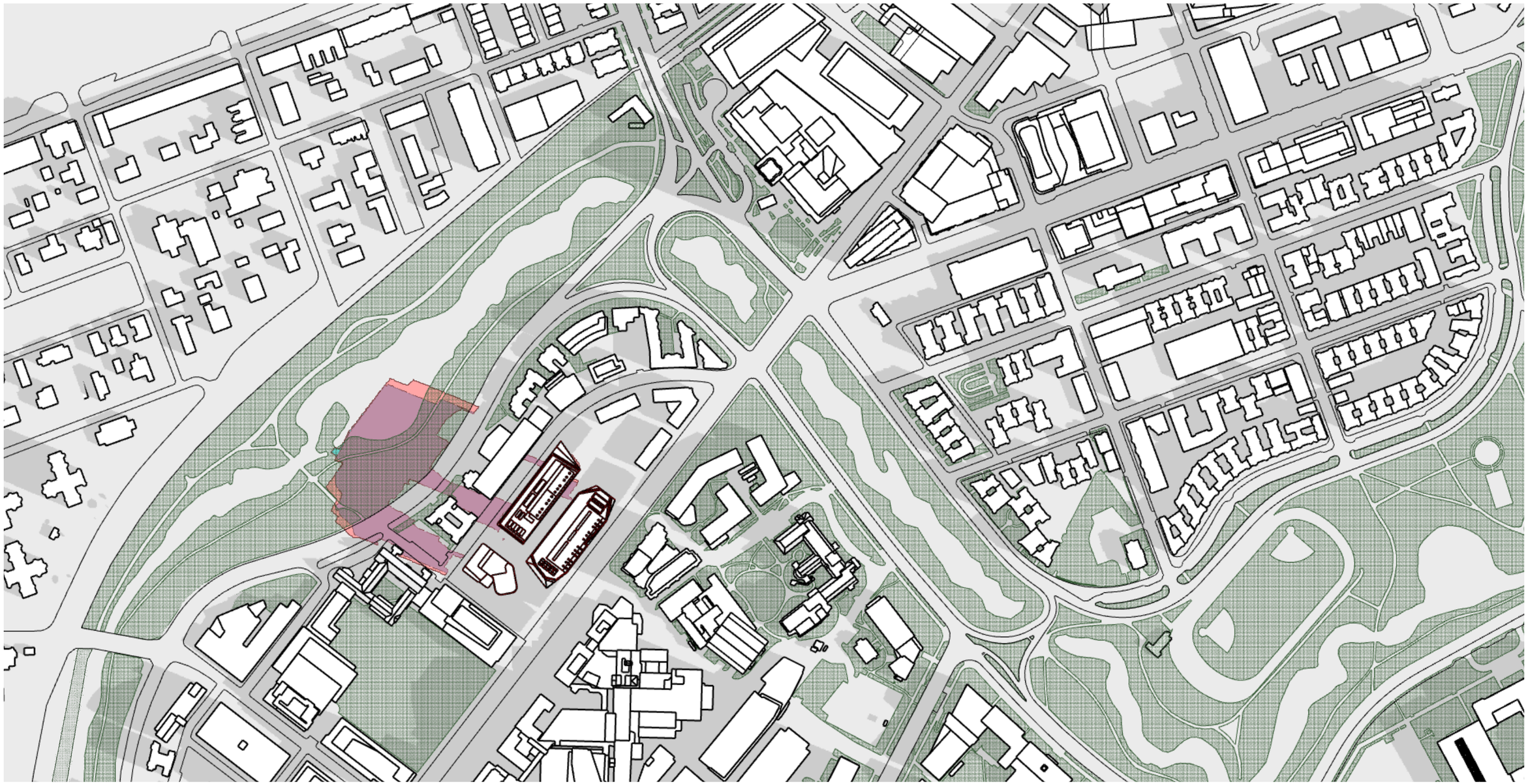


Figure 4.2c-124: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 9:00AM (DST)

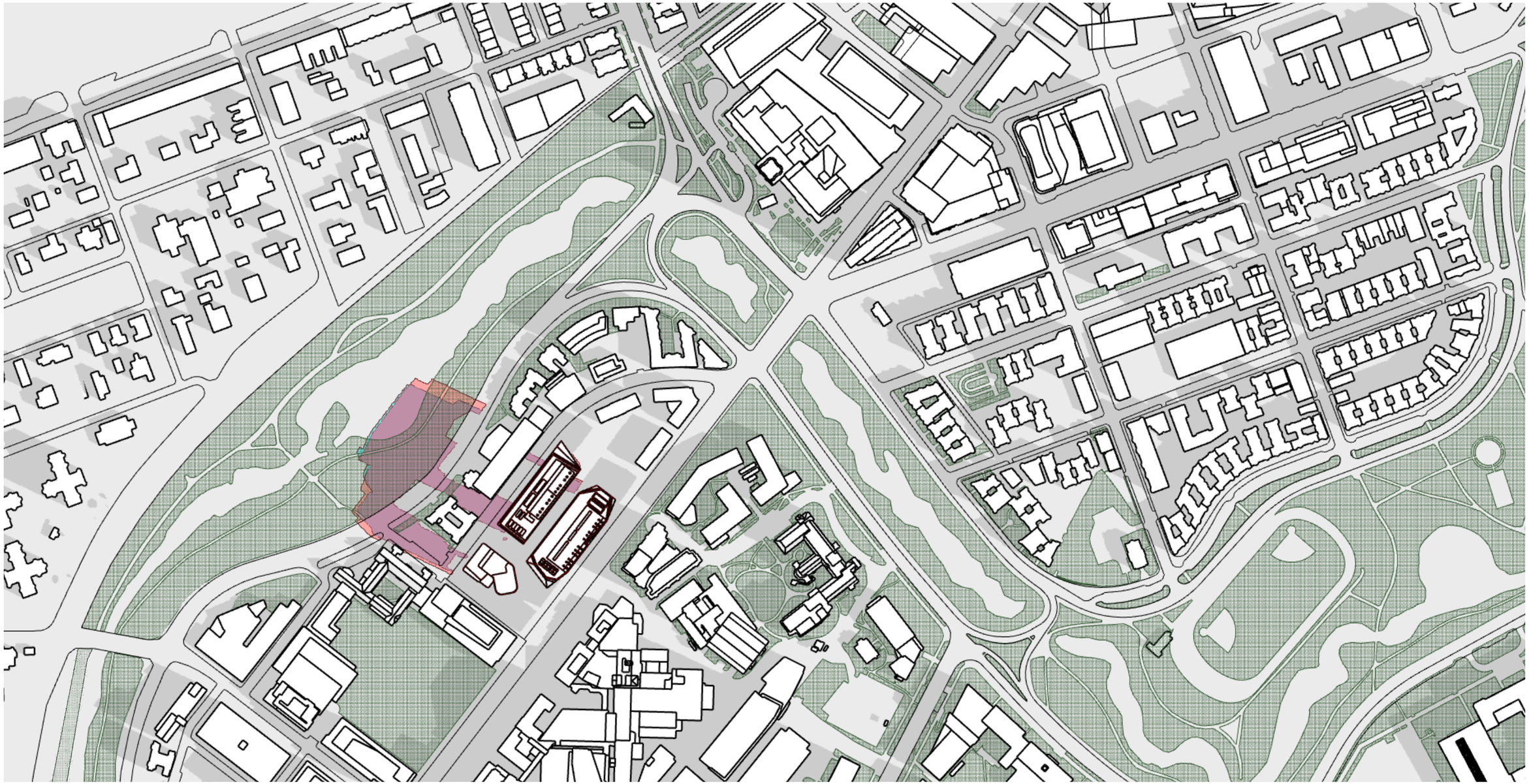


Figure 4.2c-125: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 9:15AM (DST)

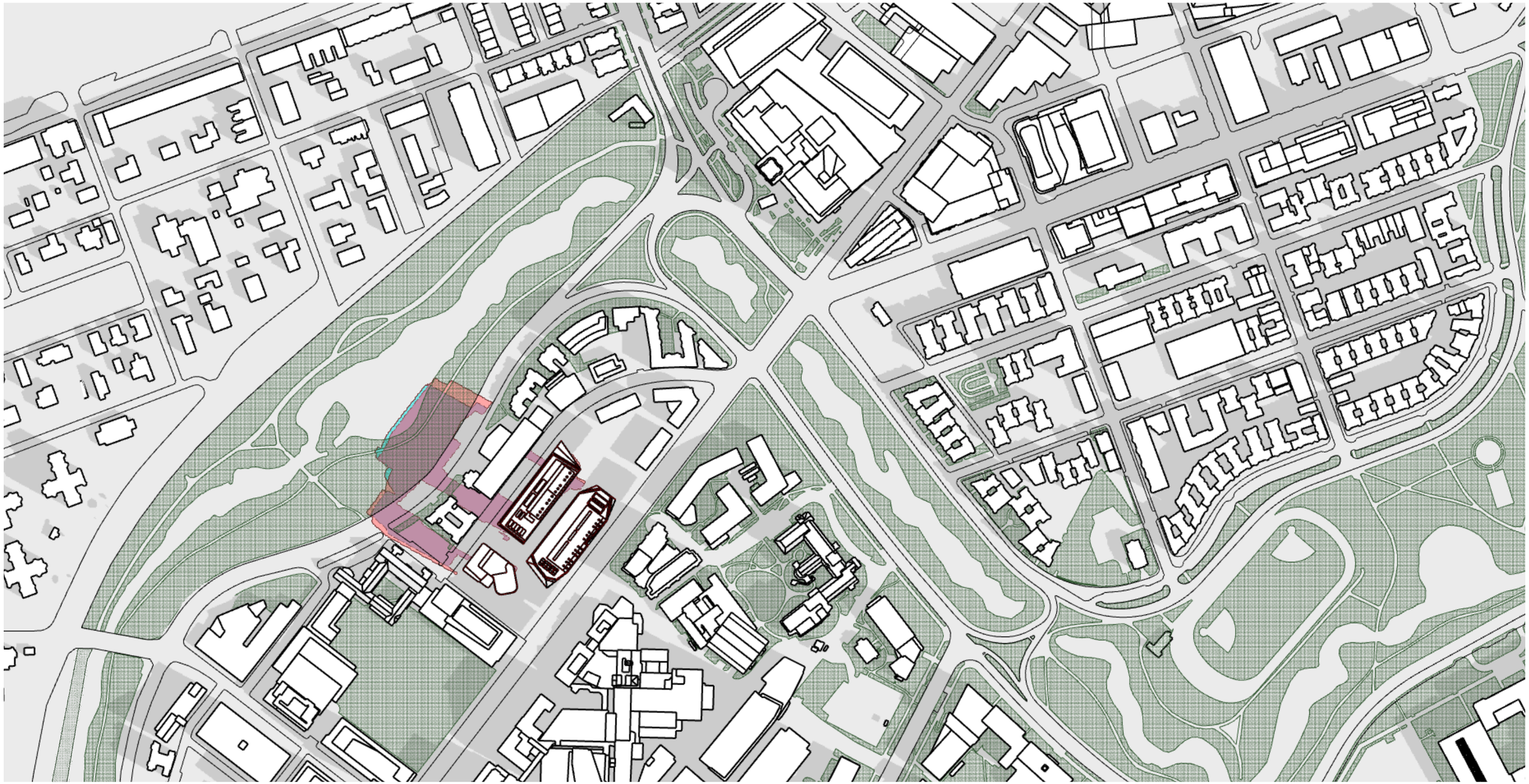


Figure 4.2c-126: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 9:30AM (DST)

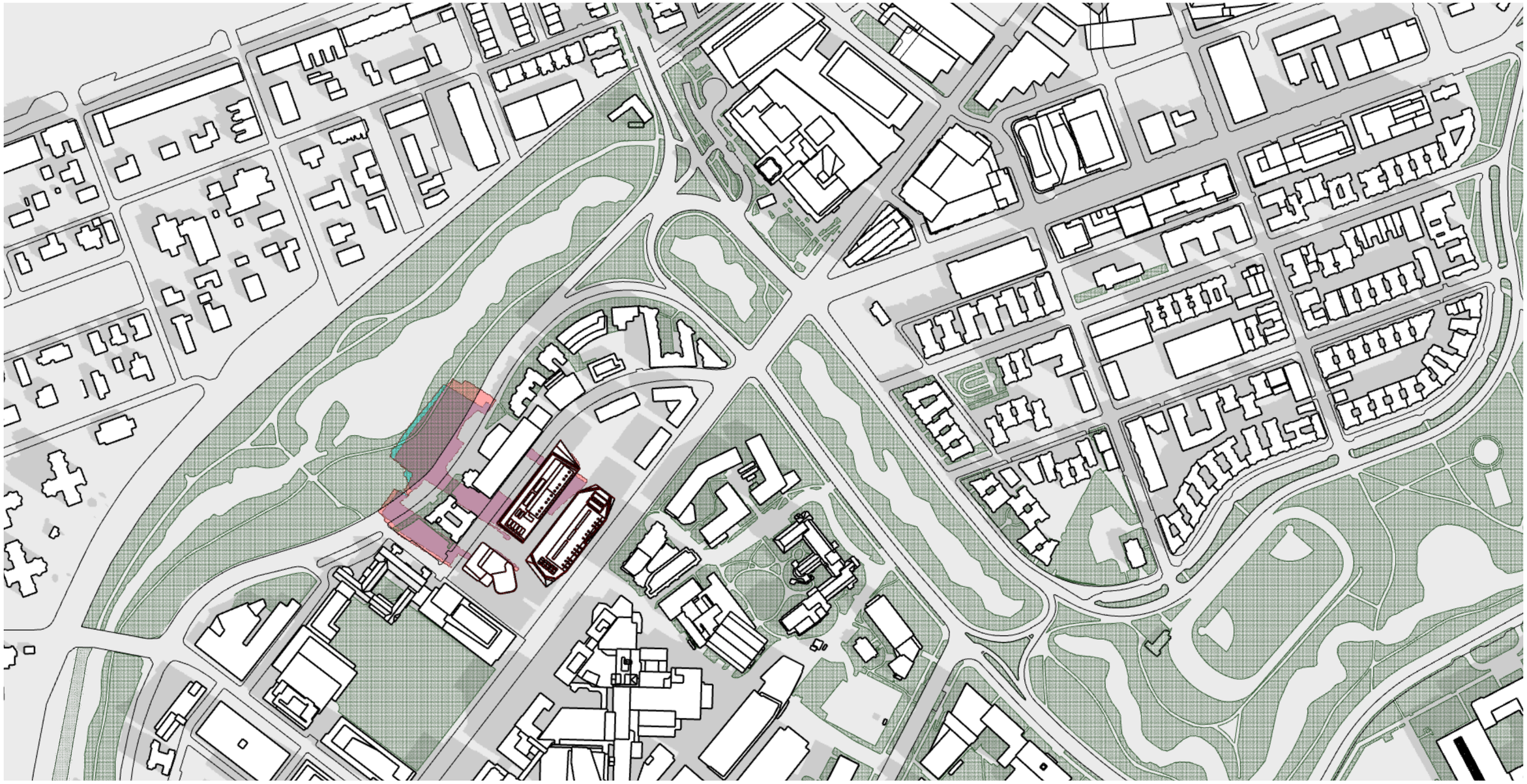


Figure 4.2c-127: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 9:45AM (DST)

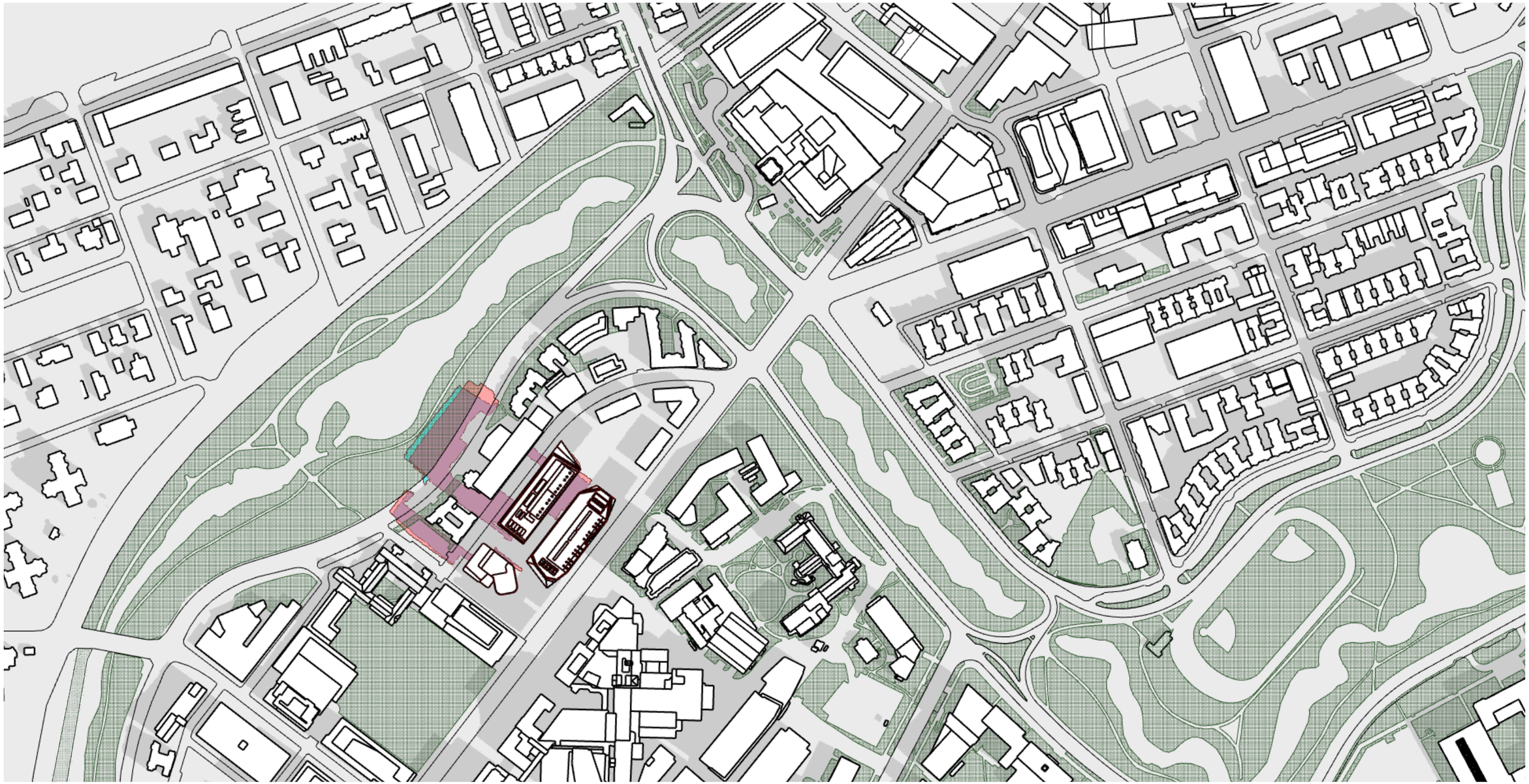


Figure 4.2c-128: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 10:00AM (DST)

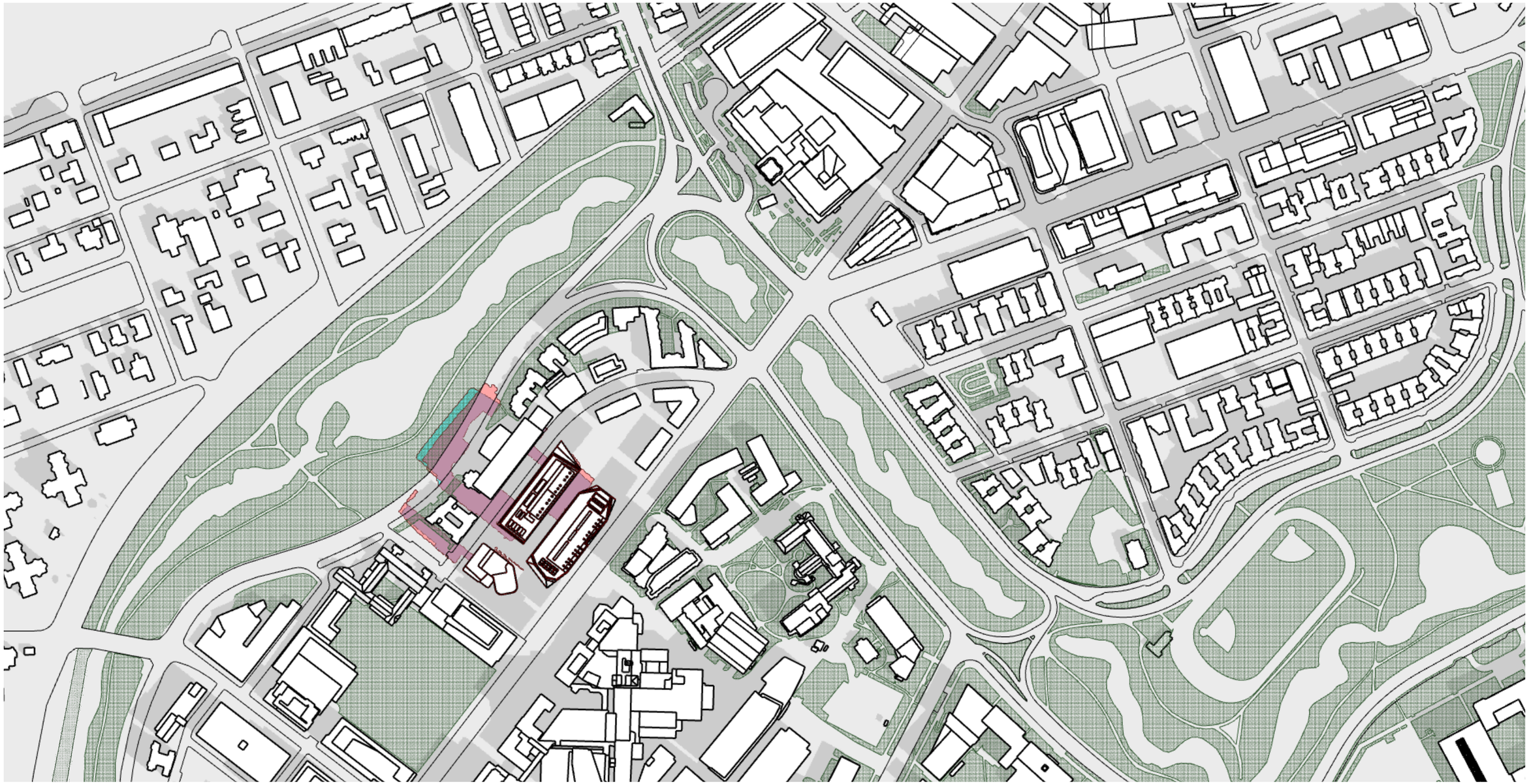


Figure 4.2c-129: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 10:15AM (DST)

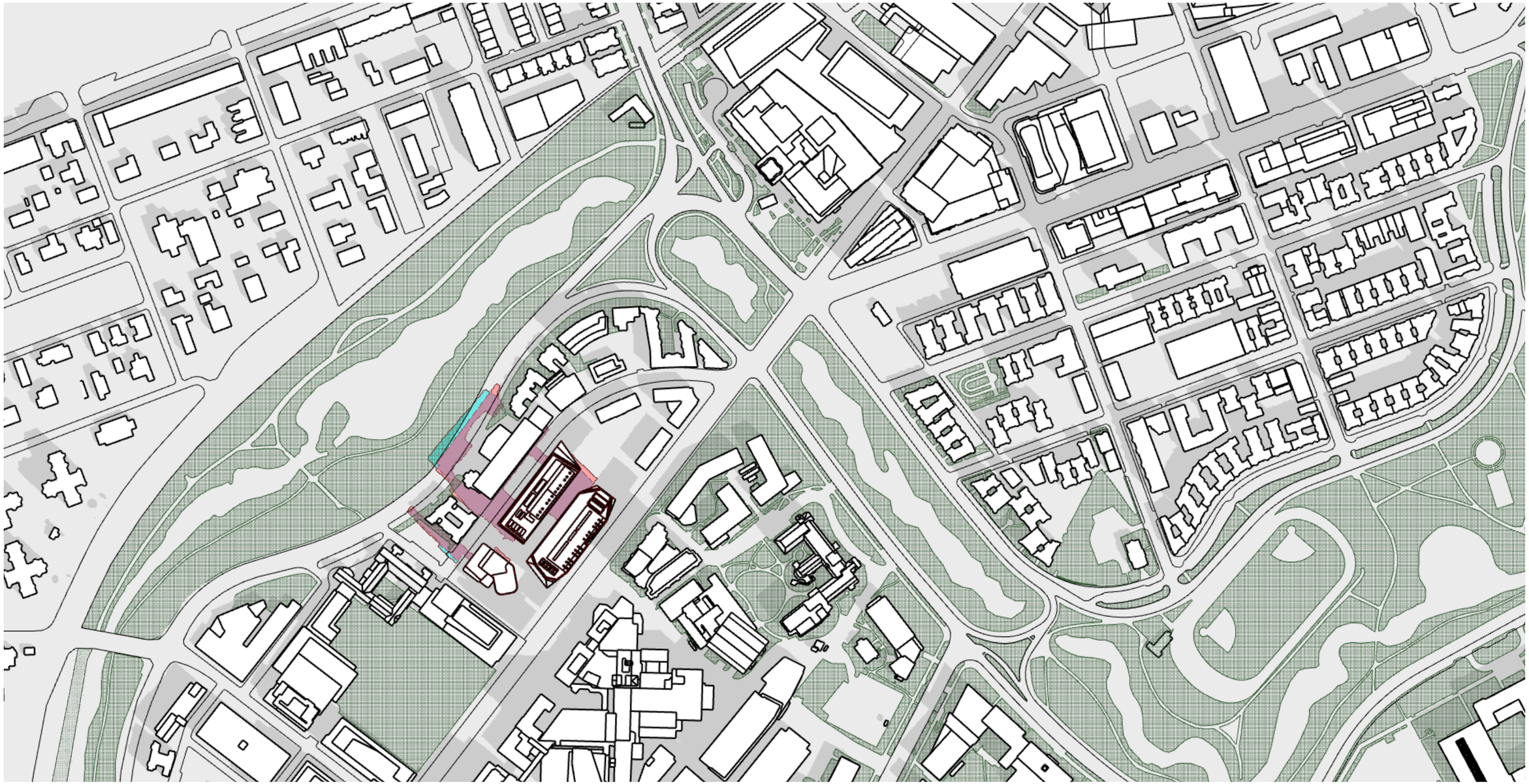


Figure 4.2c-130: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 10:30AM (DST)

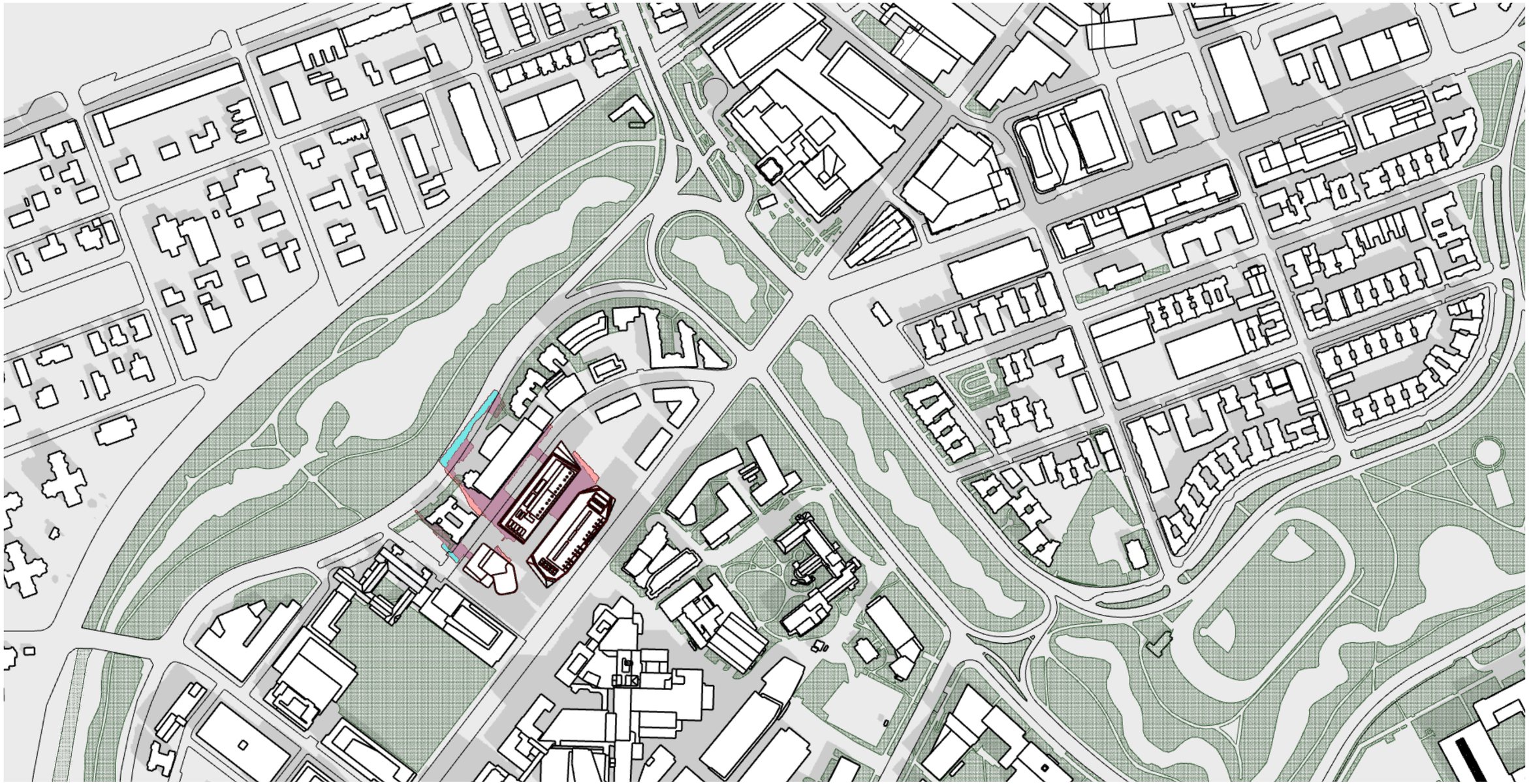


Figure 4.2c-131: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 10:45AM (DST)

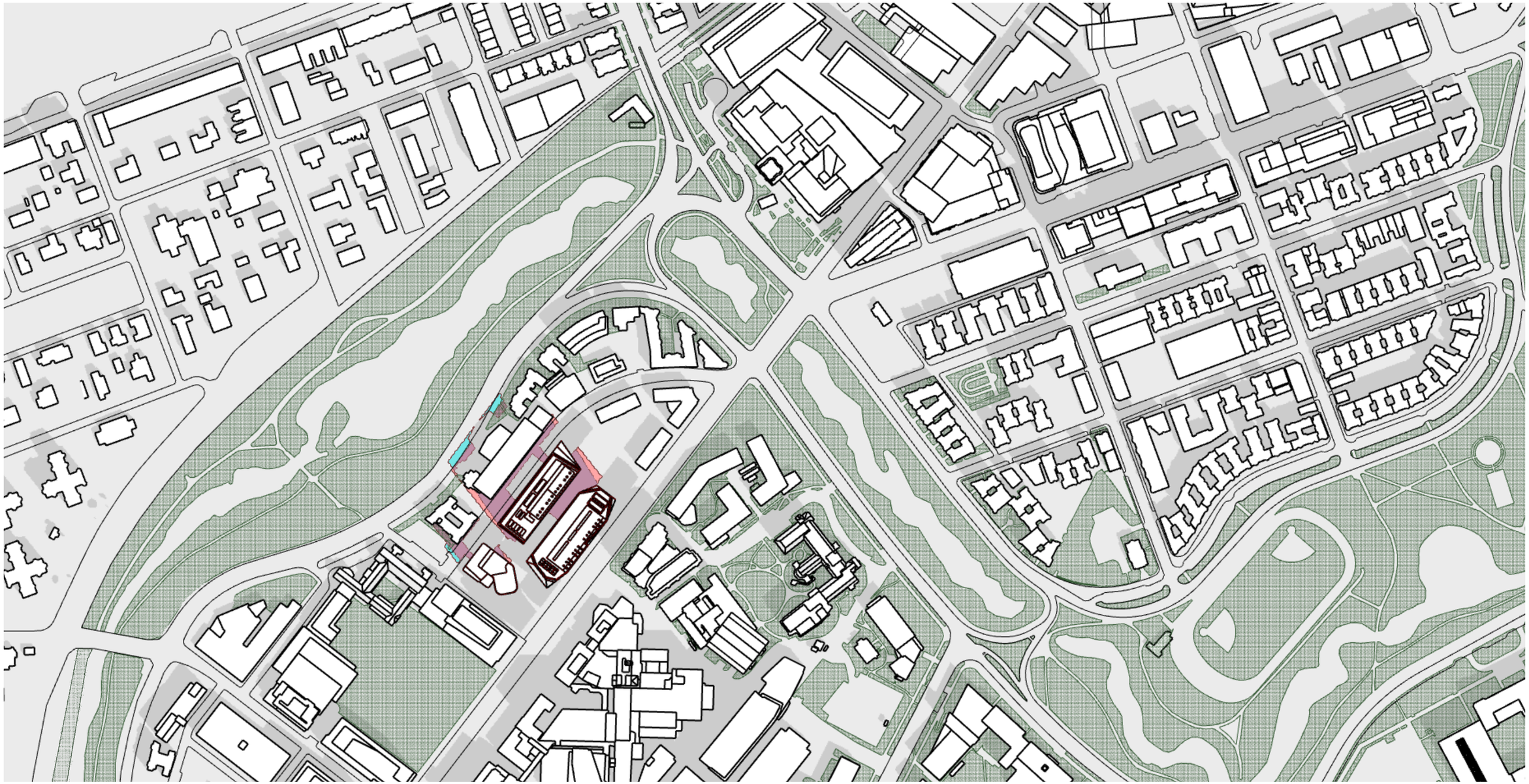


Figure 4.2c-132: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 11:00AM (DST)

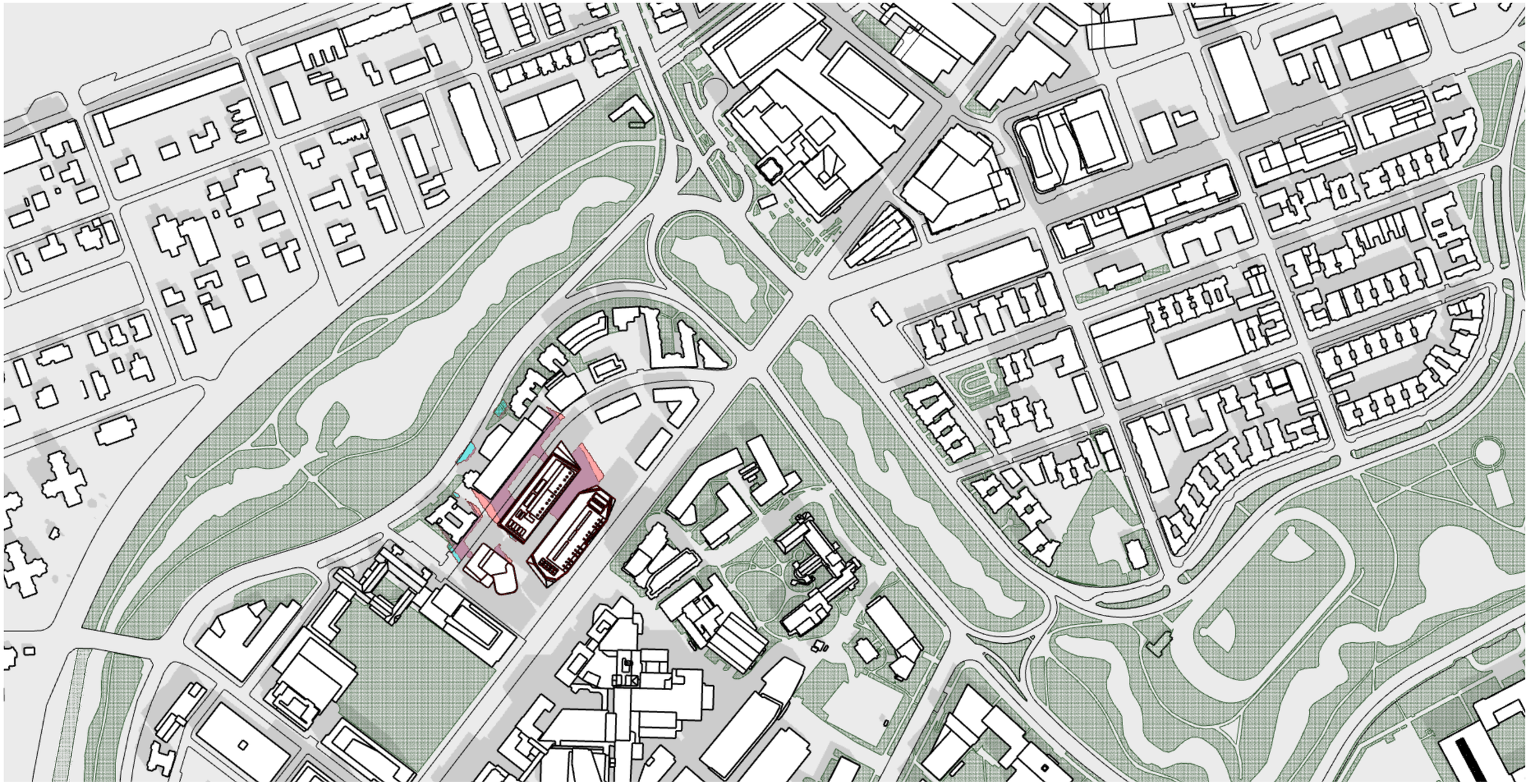


Figure 4.2c-133: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 11:15AM (DST)

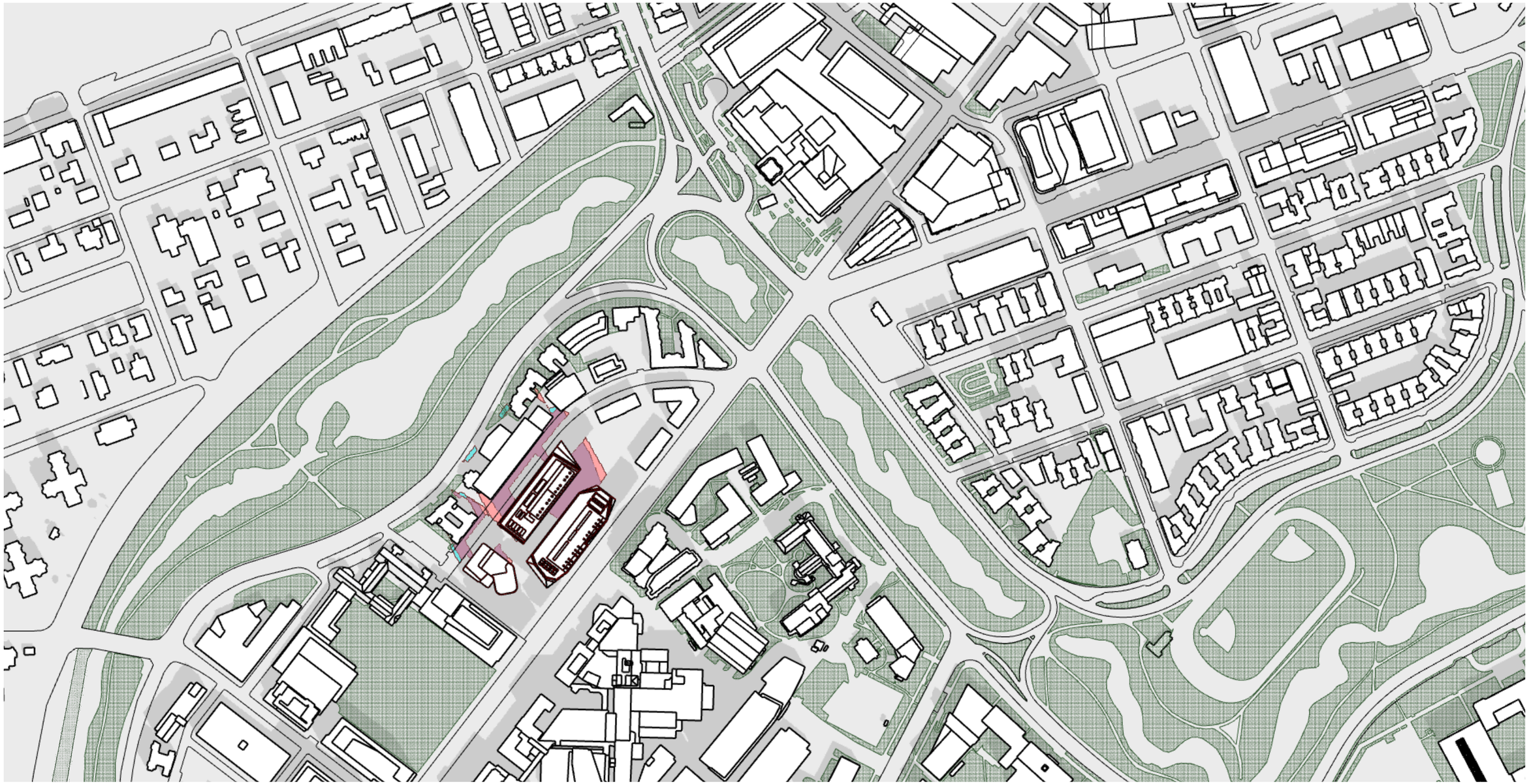


Figure 4.2c-134: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 11:30AM (DST)

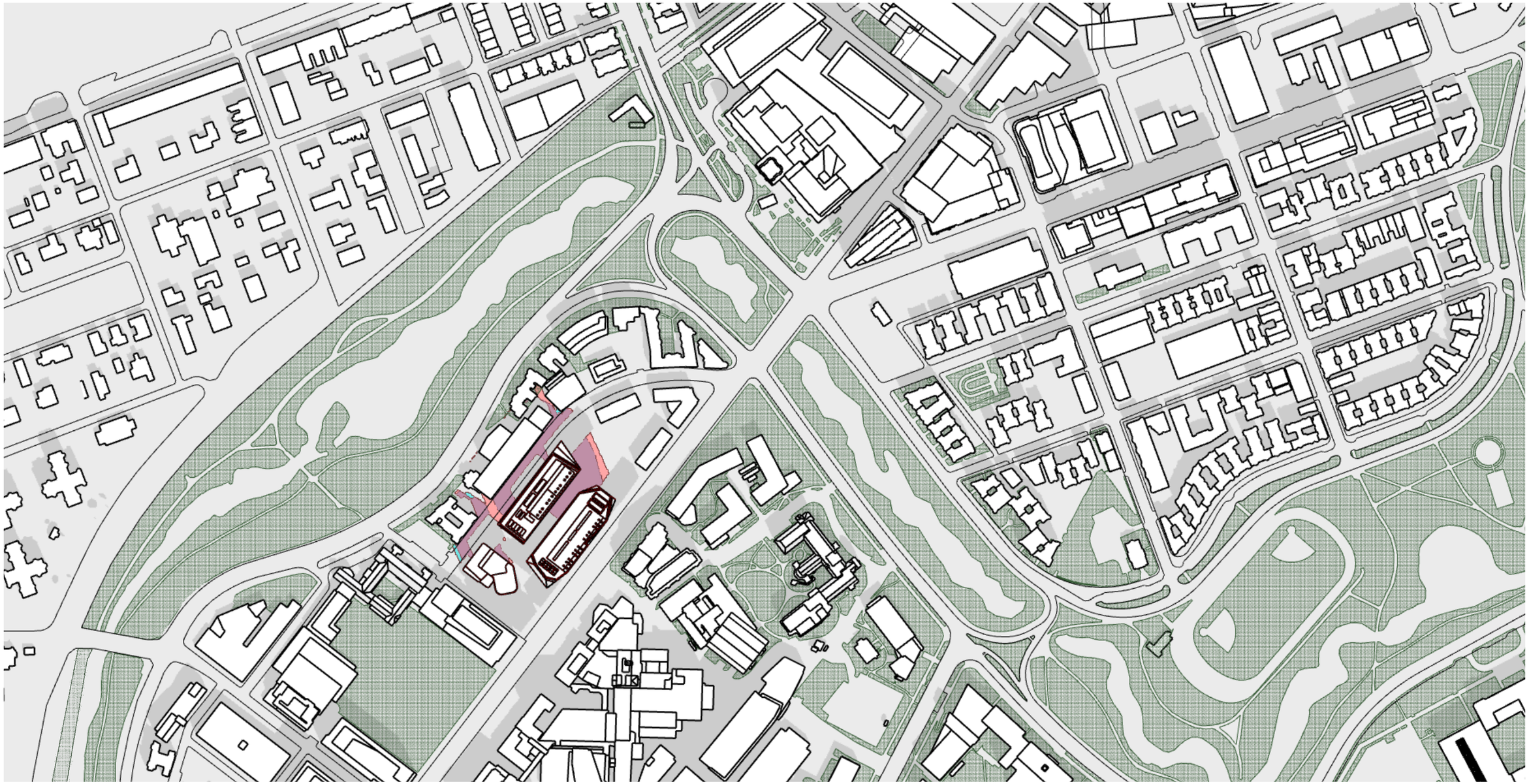


Figure 4.2c-135: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 11:45AM (DST)

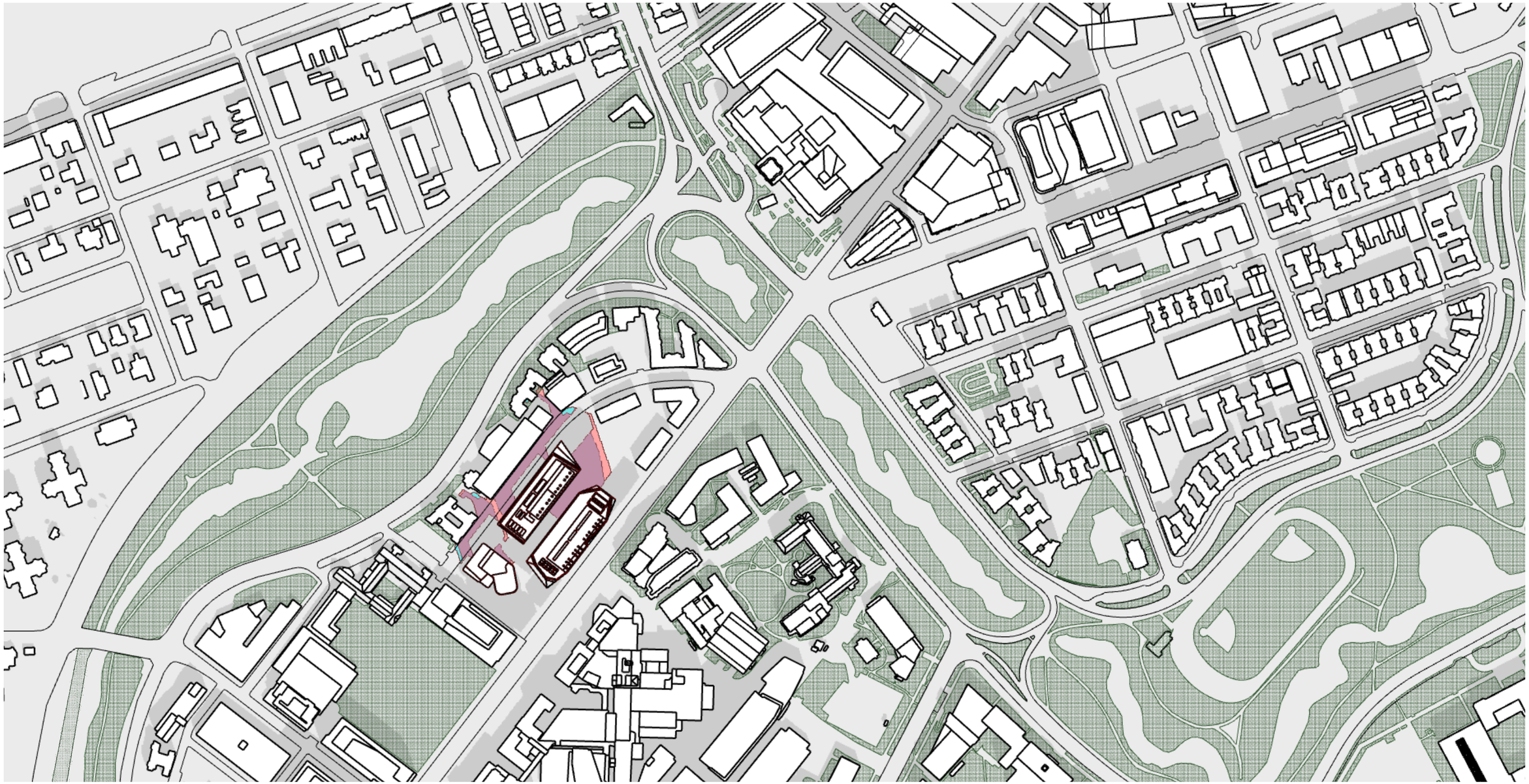


Figure 4.2c-136: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 12:00PM (DST)

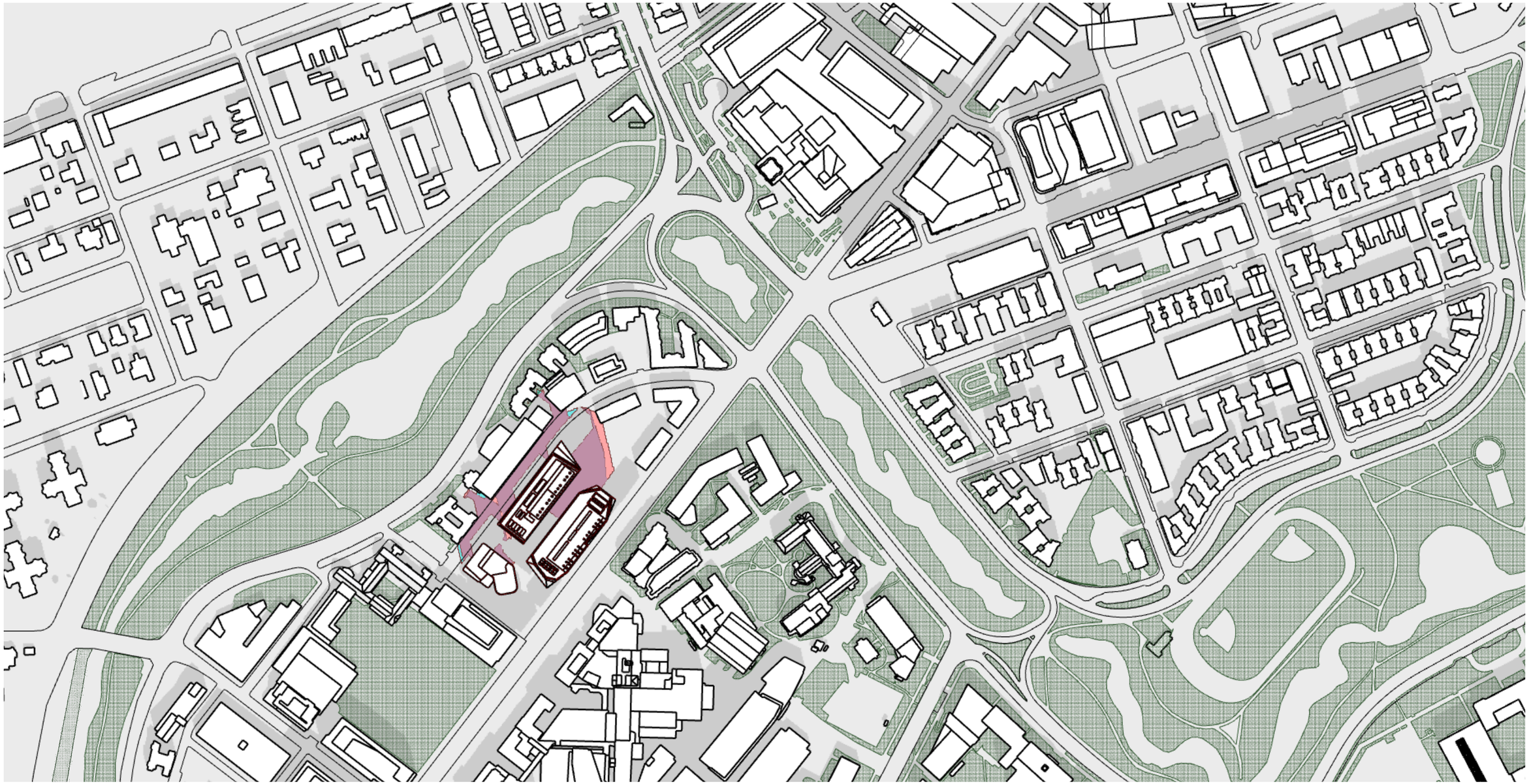


Figure 4.2c-137: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 12:15PM (DST)

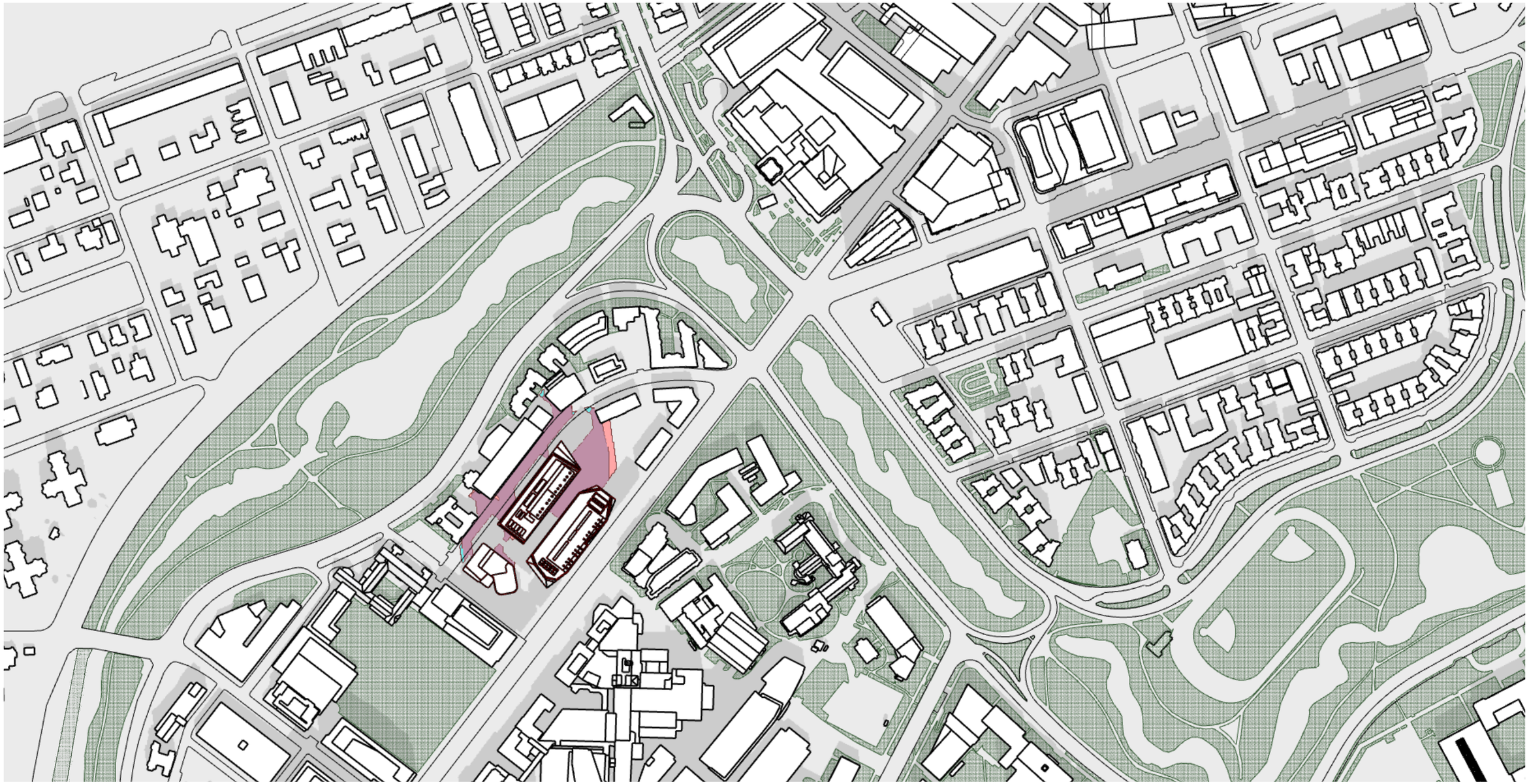


Figure 4.2c-138: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 12:30PM (DST)

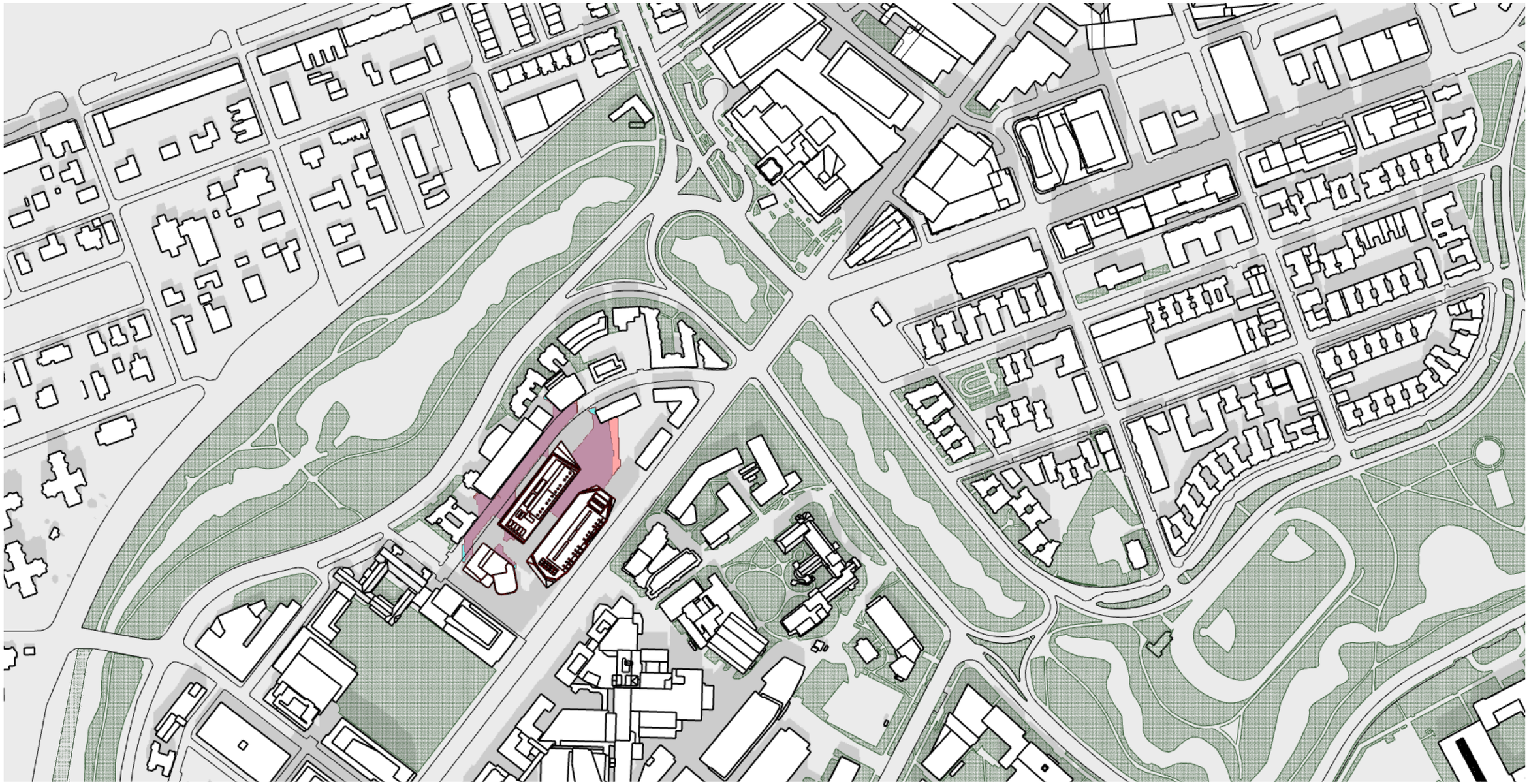


Figure 4.2c-139: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 12:45PM (DST)

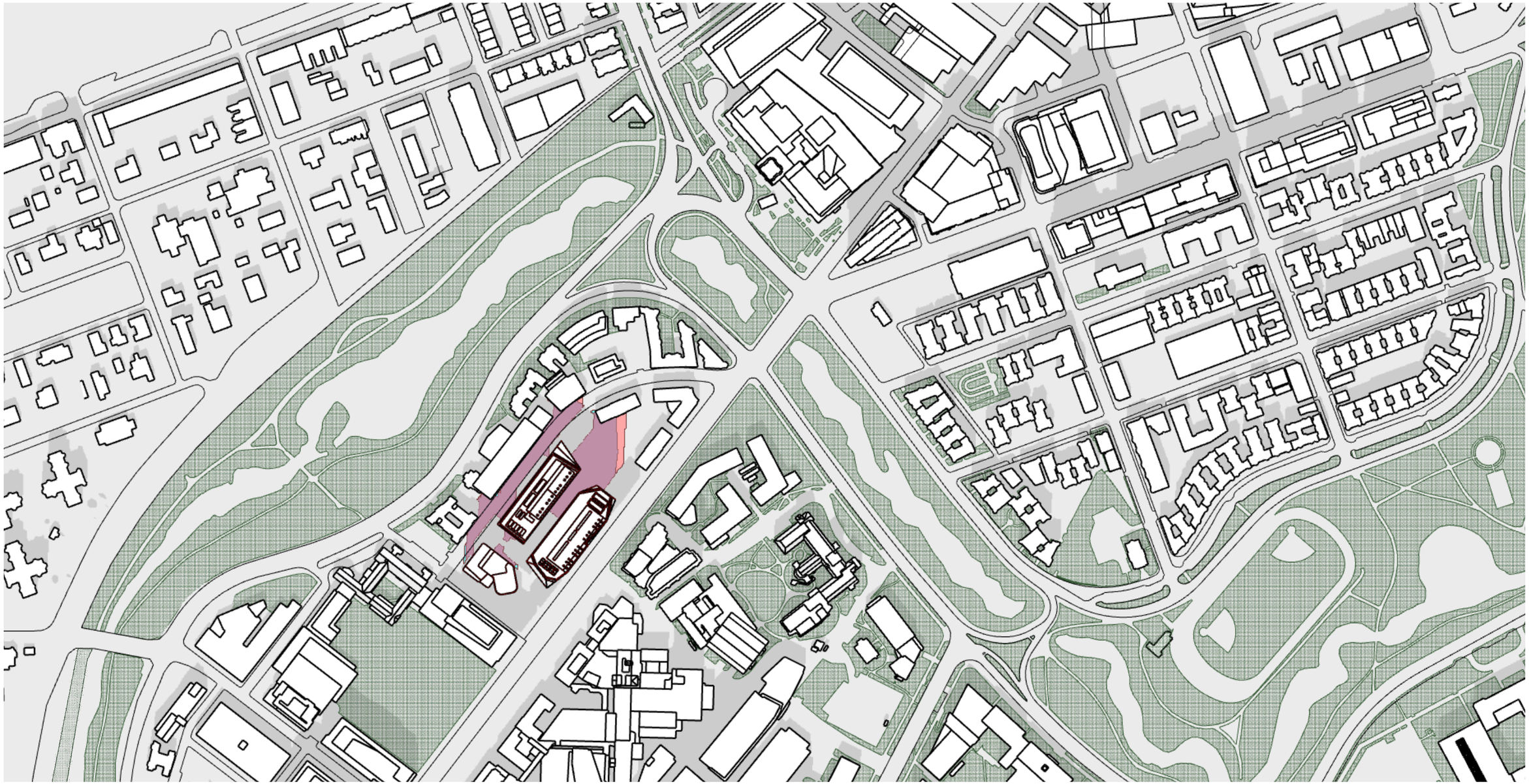


Figure 4.2c-140: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 1:00PM (DST)

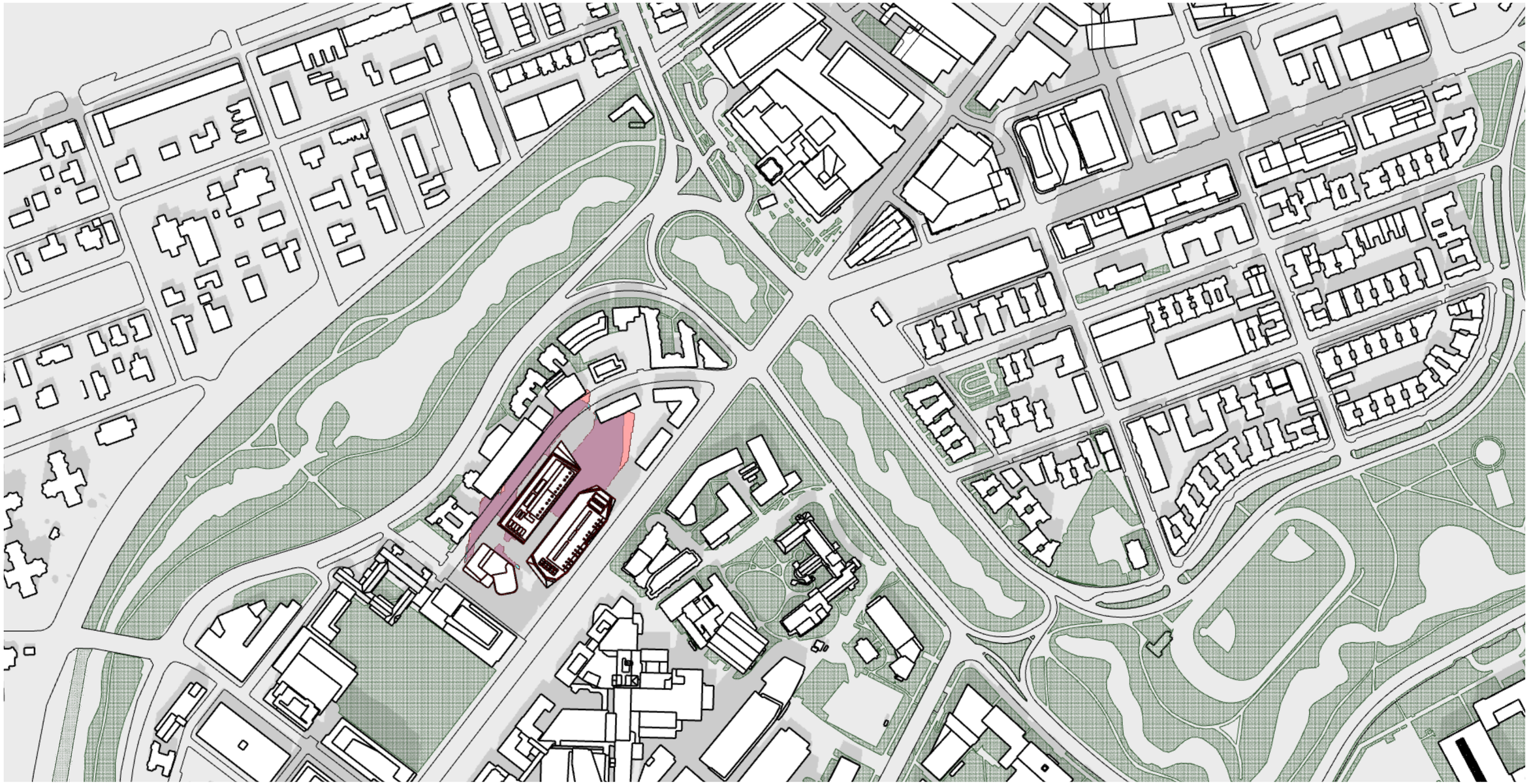


Figure 4.2c-141: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 1:15PM (DST)

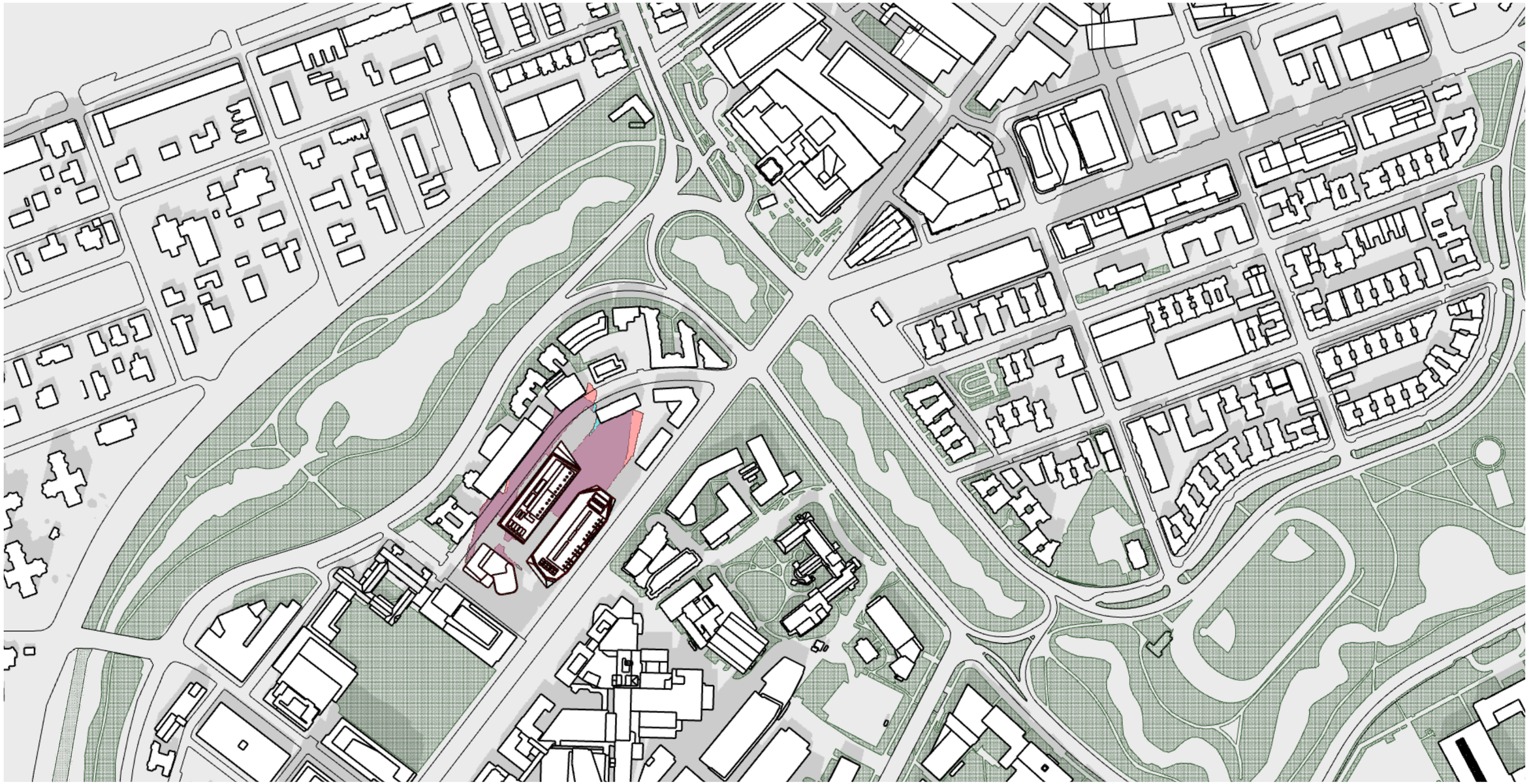


Figure 4.2c-142: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 1:30PM (DST)

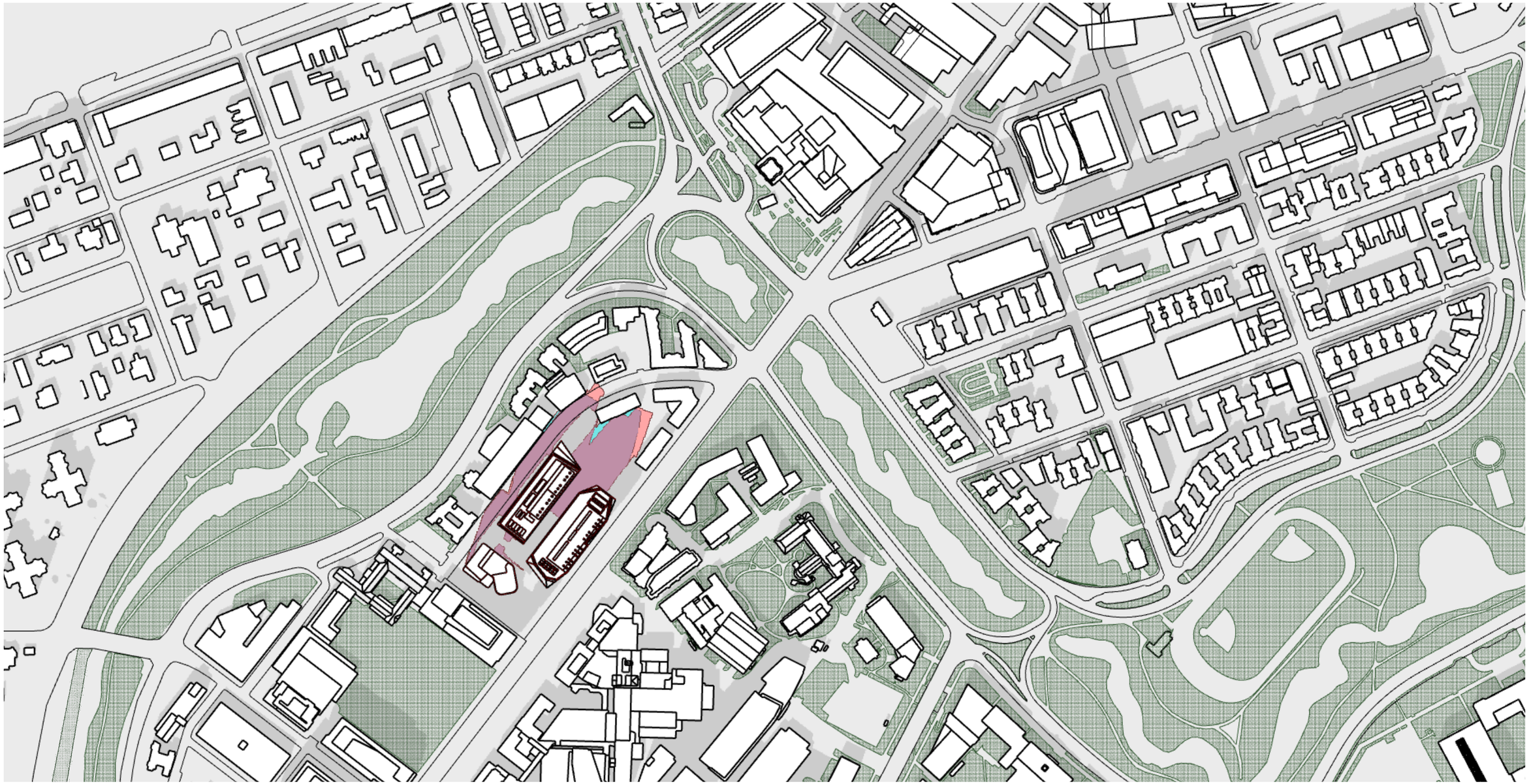


Figure 4.2c-143: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 1:45PM (DST)

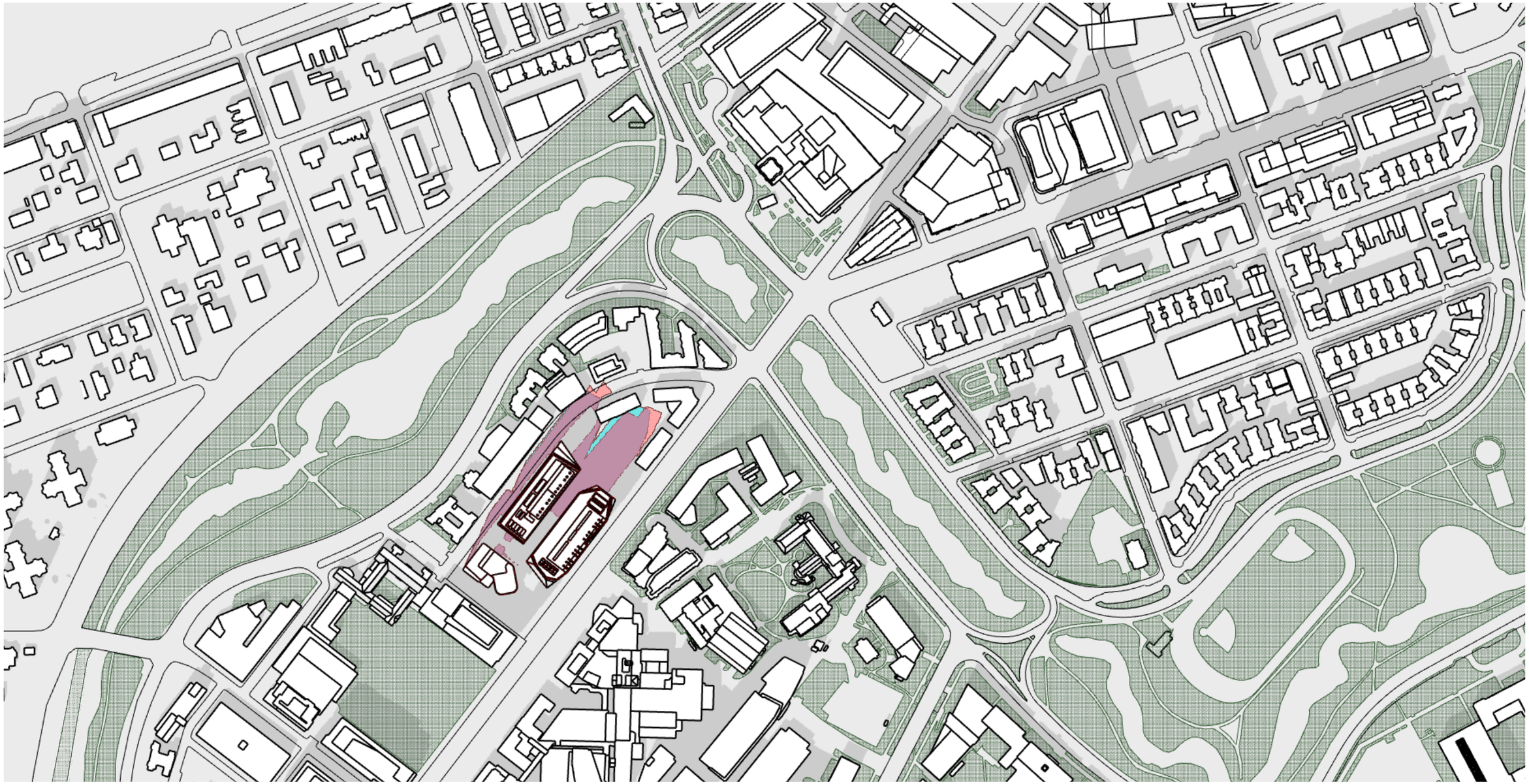


Figure 4.2c-144: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 2:00PM (DST)

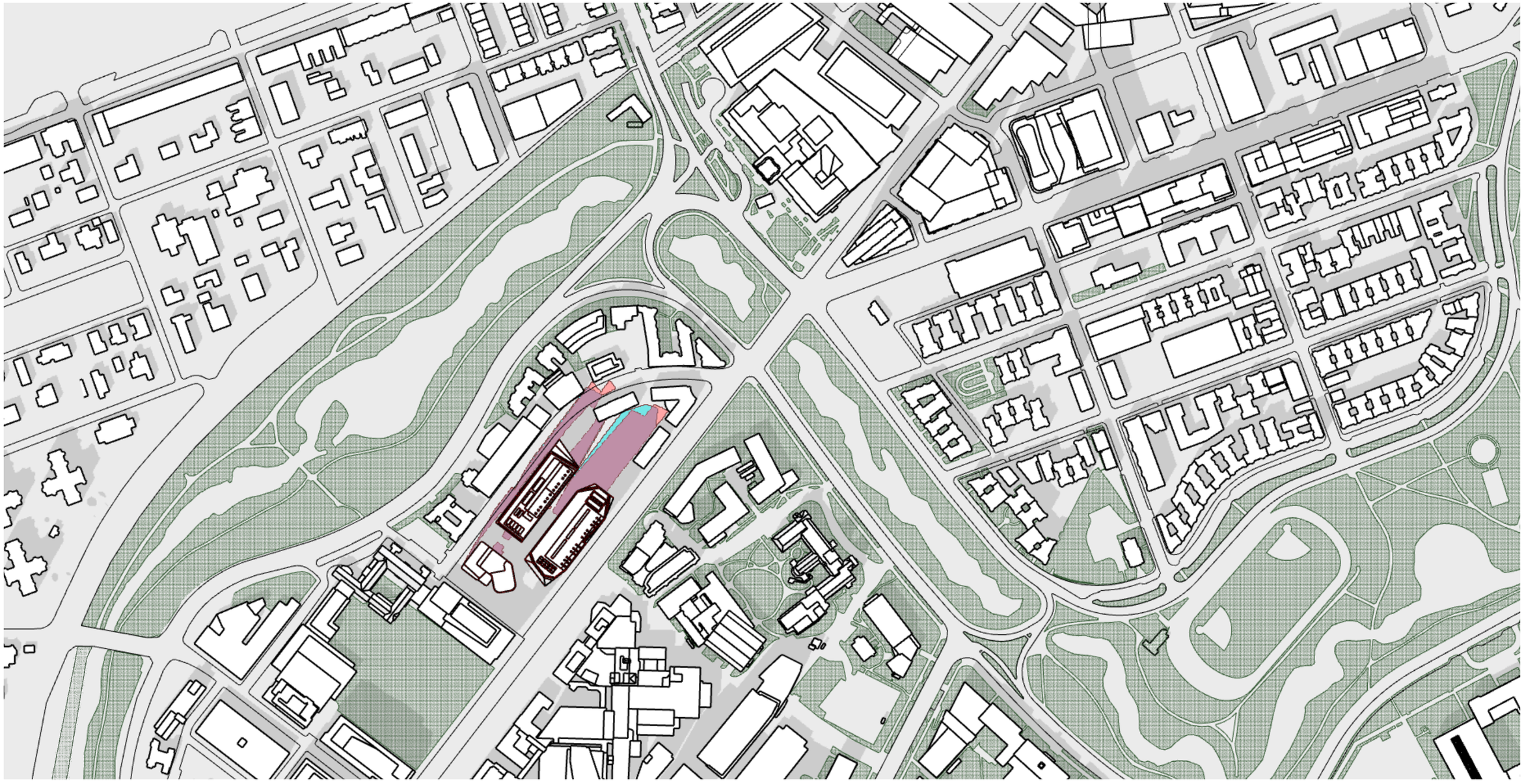


Figure 4.2c-145: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 2:15PM (DST)

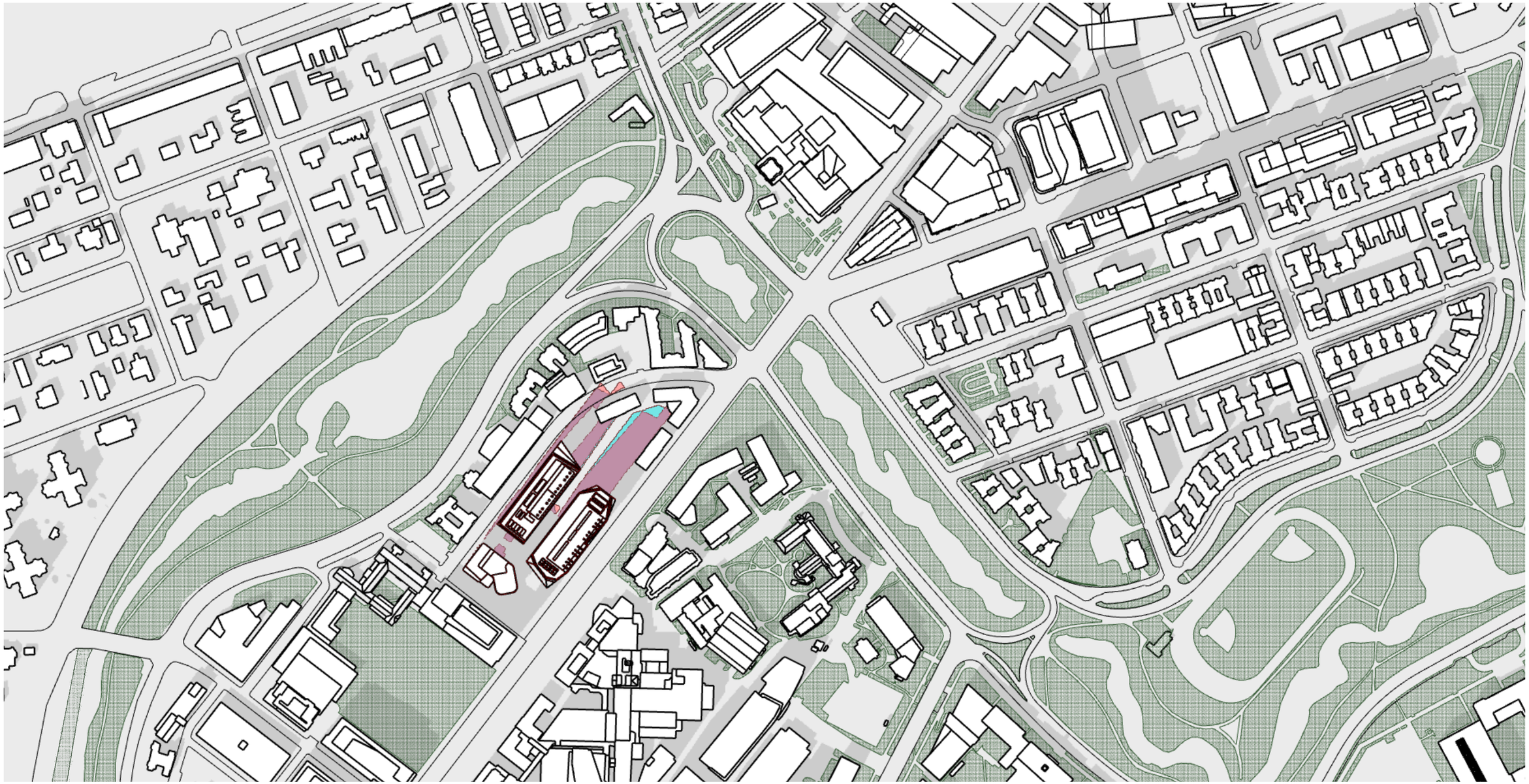


Figure 4.2c-146: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 2:30PM (DST)

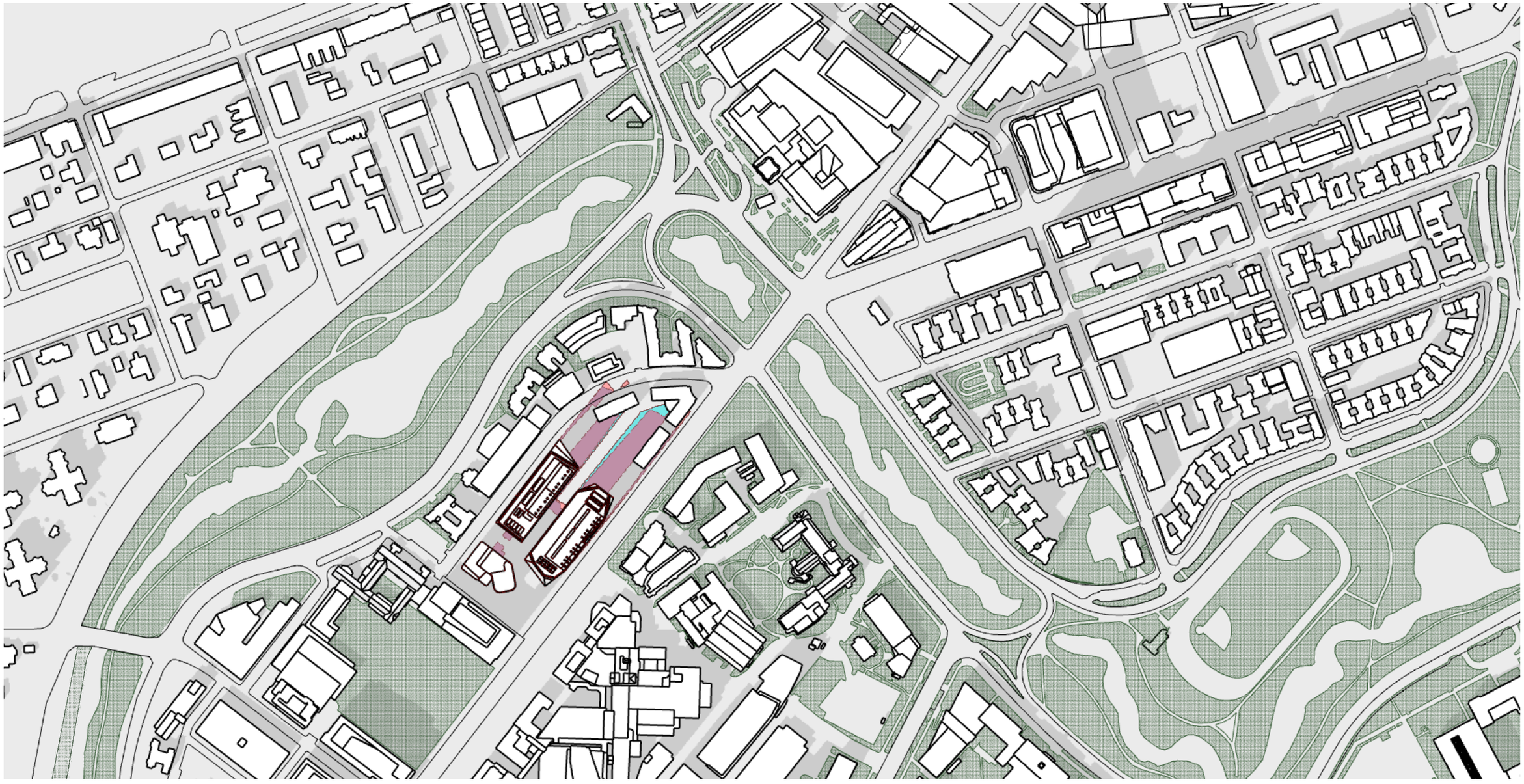


Figure 4.2c-147: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 2:45PM (DST)

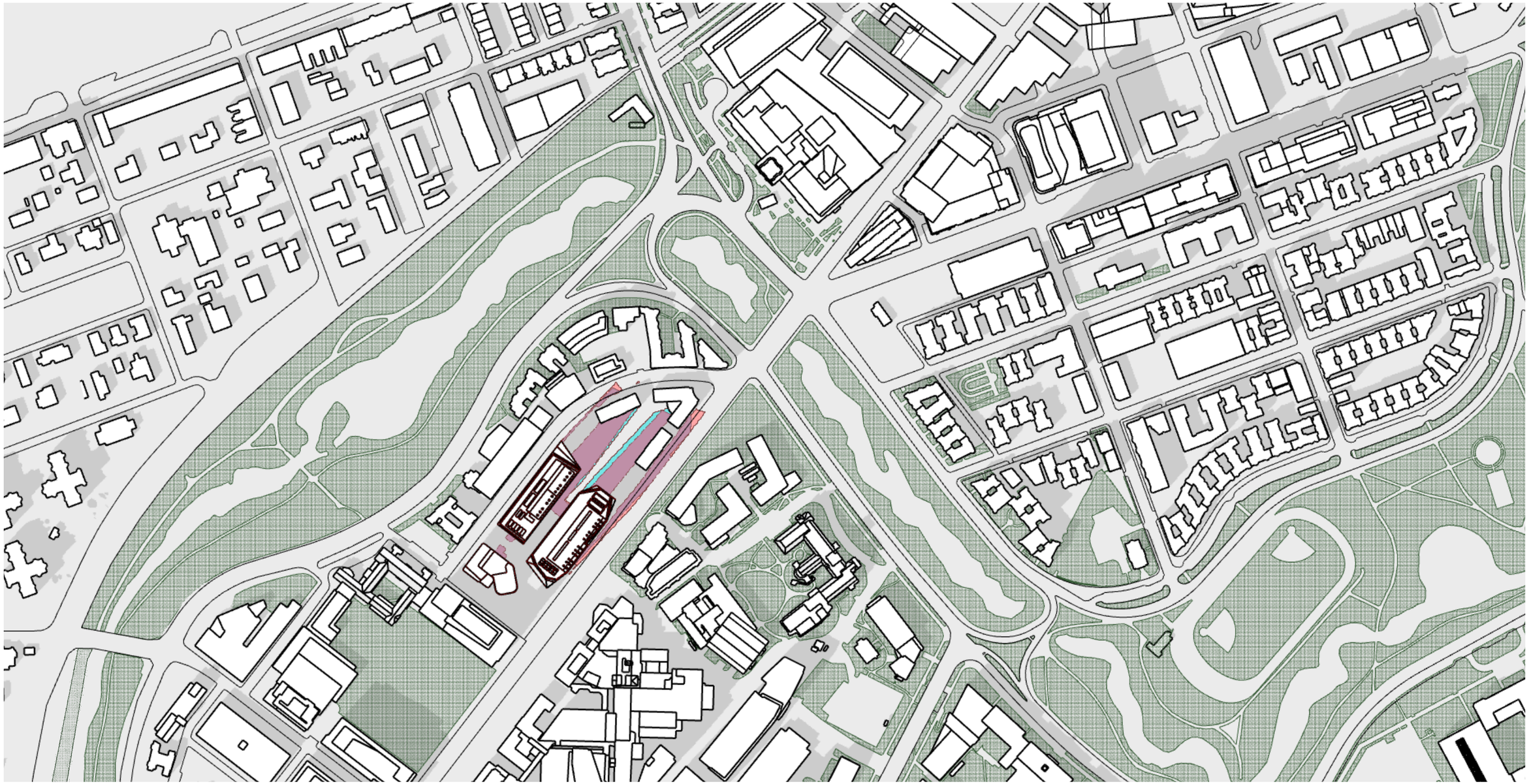


Figure 4.2c-148: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 3:00PM (DST)

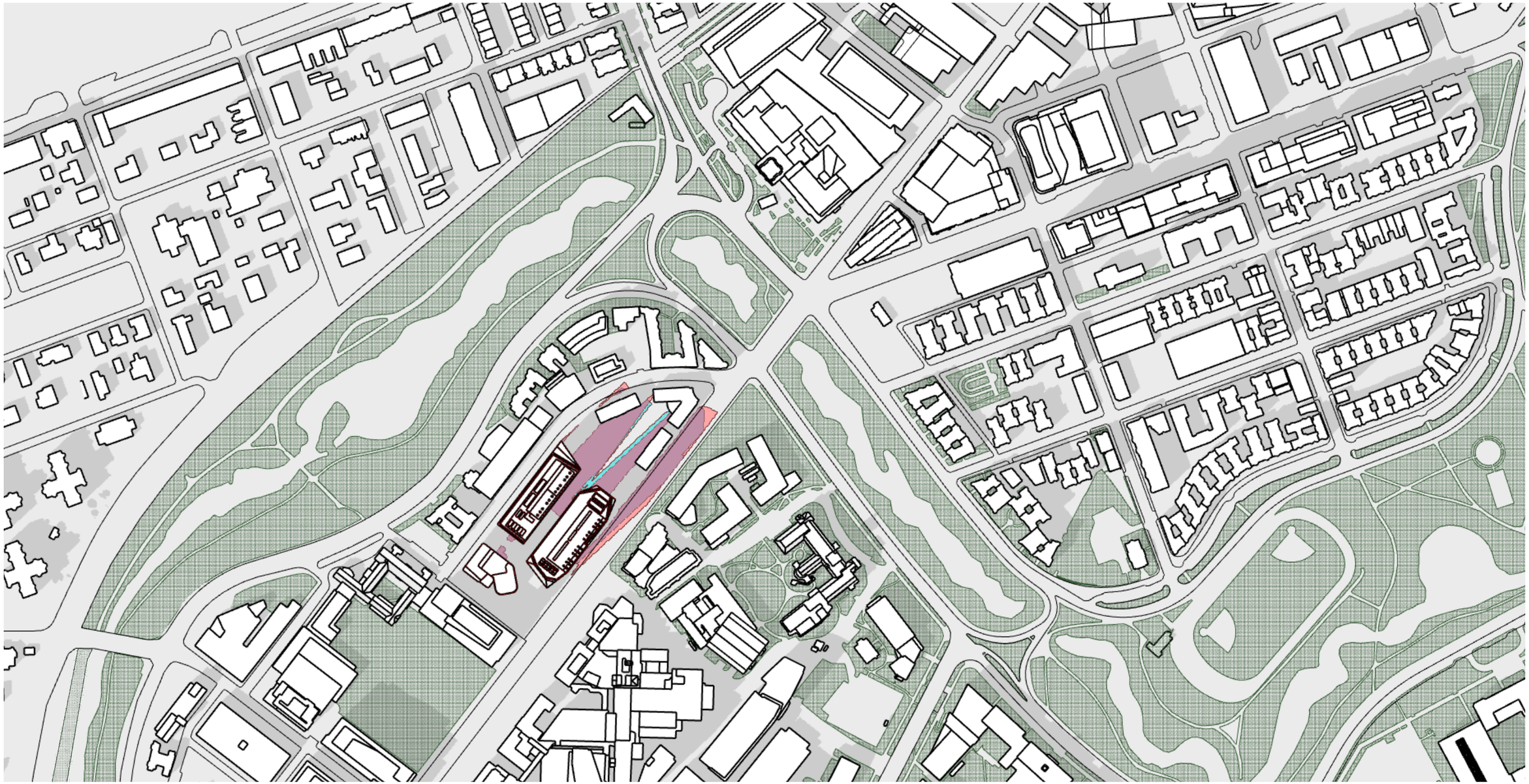


Figure 4.2c-149: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 3:15PM (DST)

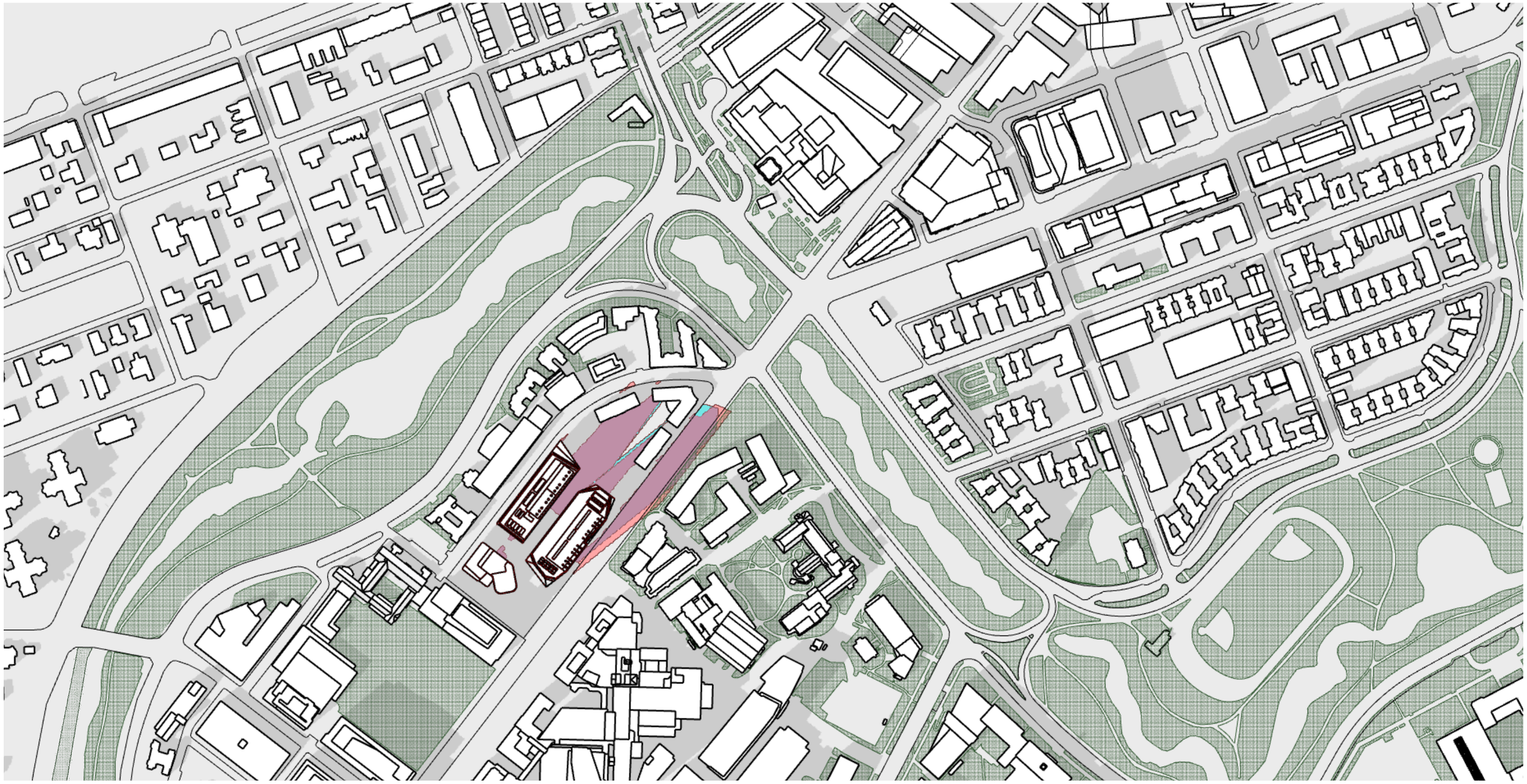


Figure 4.2c-150: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 3:30PM (DST)

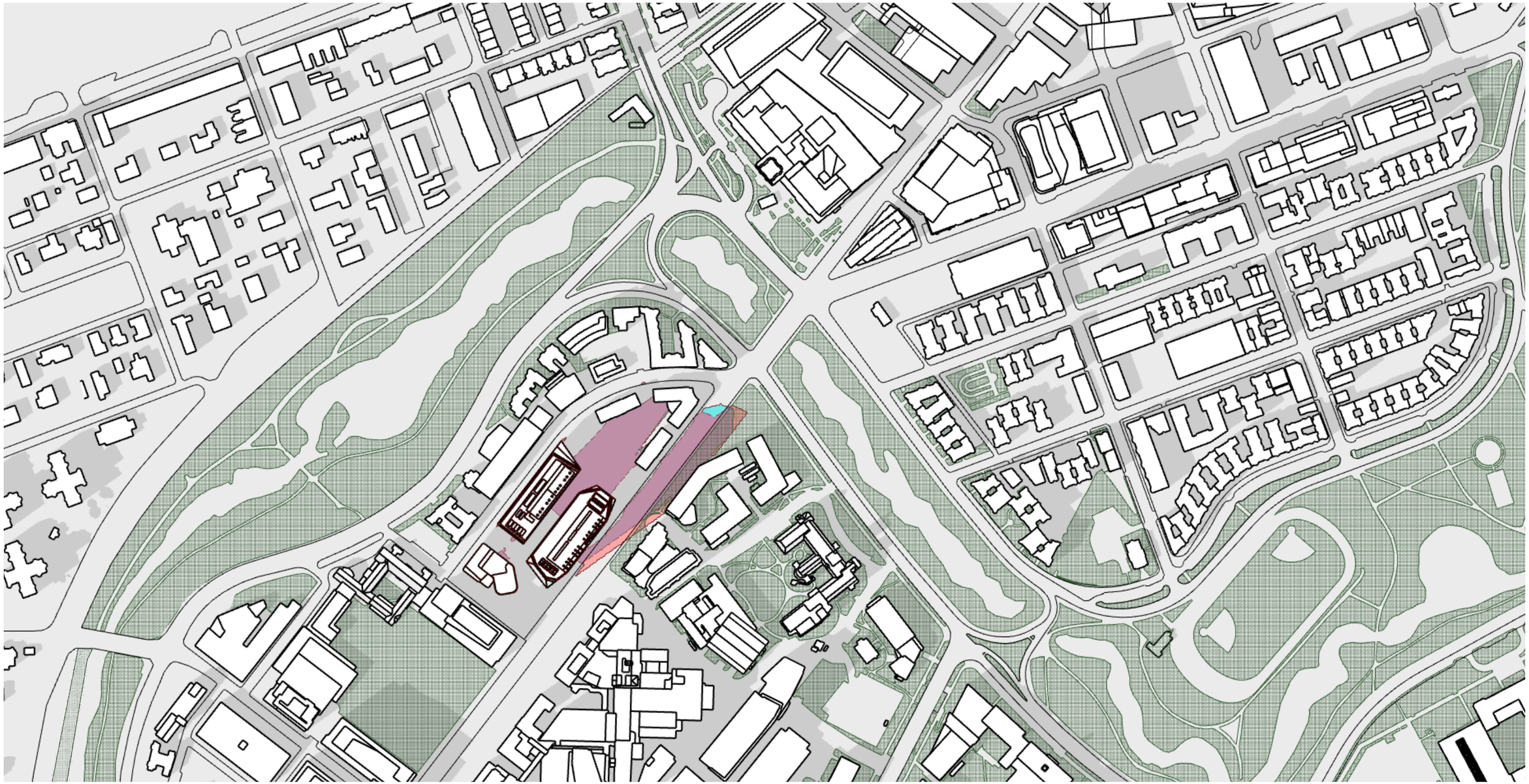


Figure 4.2c-151: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 3:45PM (DST)

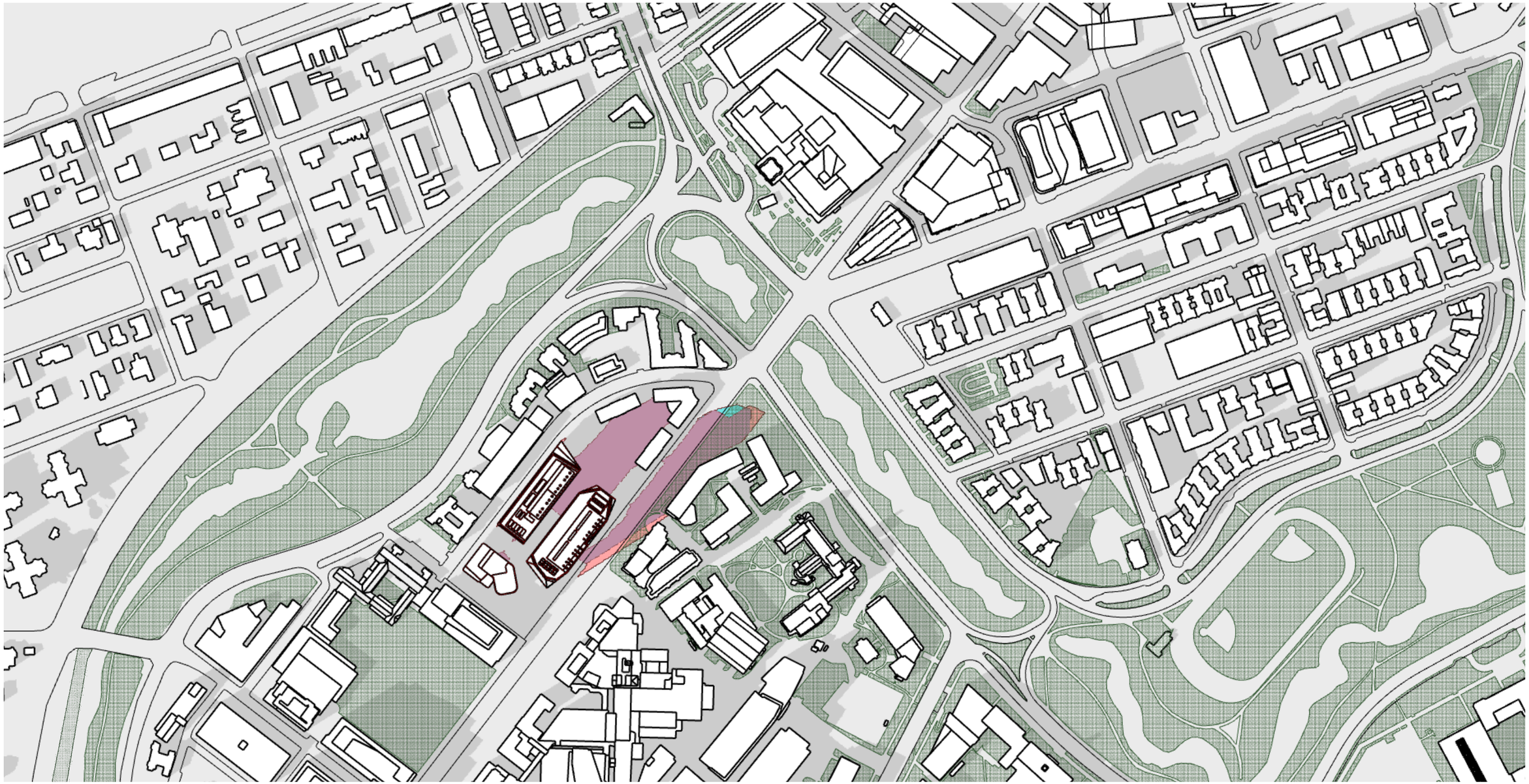


Figure 4.2c-152: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 4:00PM (DST)

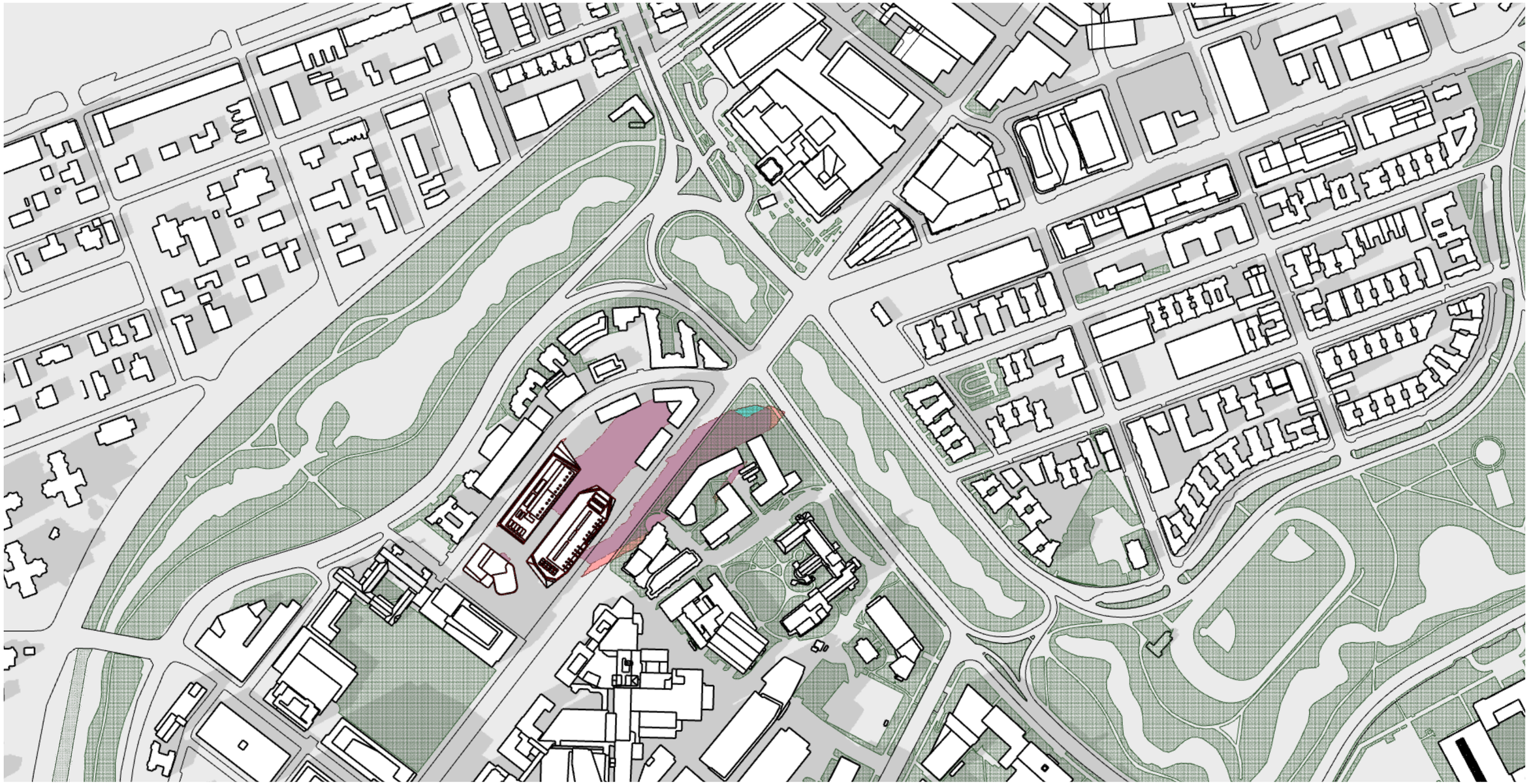


Figure 4.2c-153: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 4:15PM (DST)

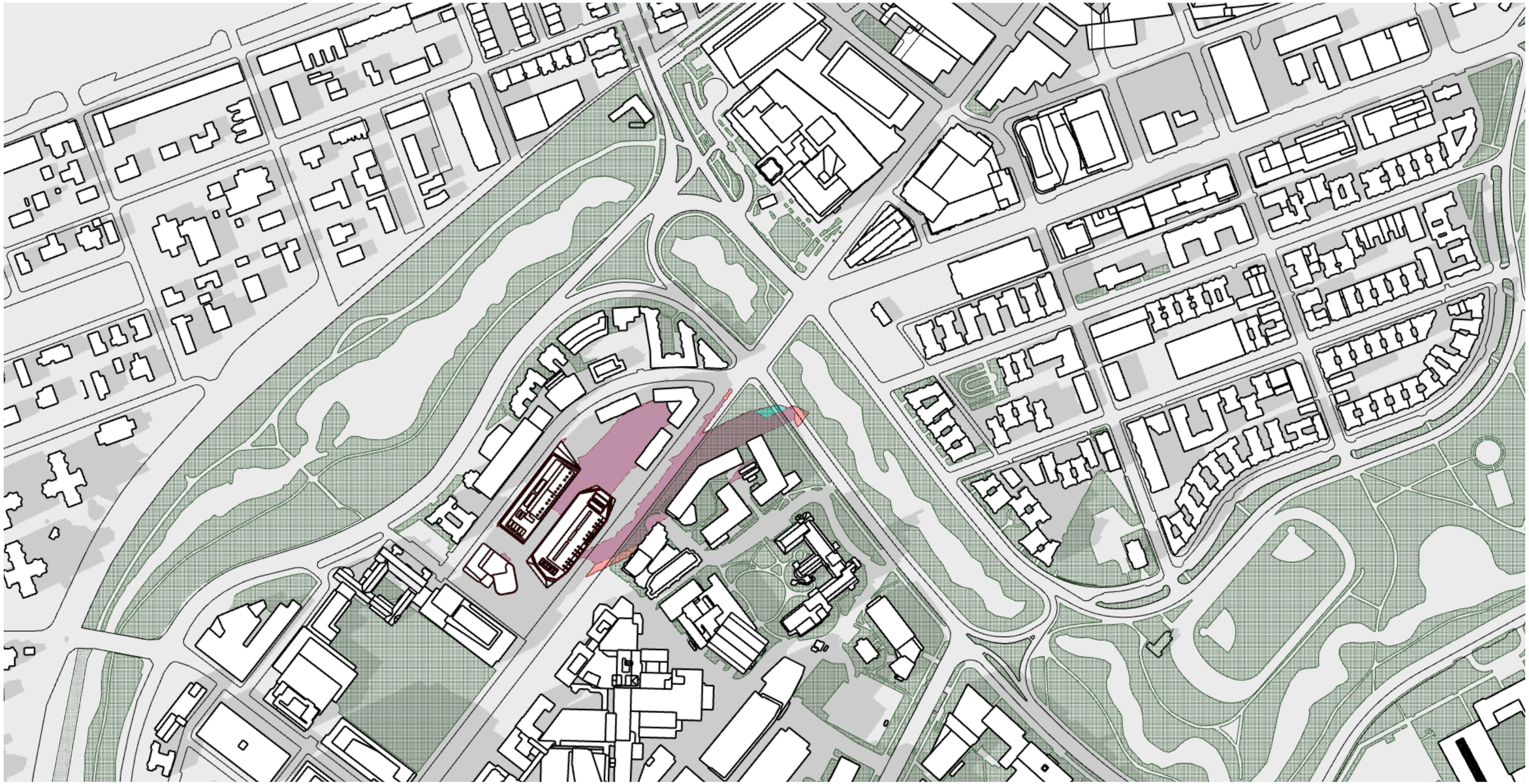


Figure 4.2c-154: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 4:30PM (DST)

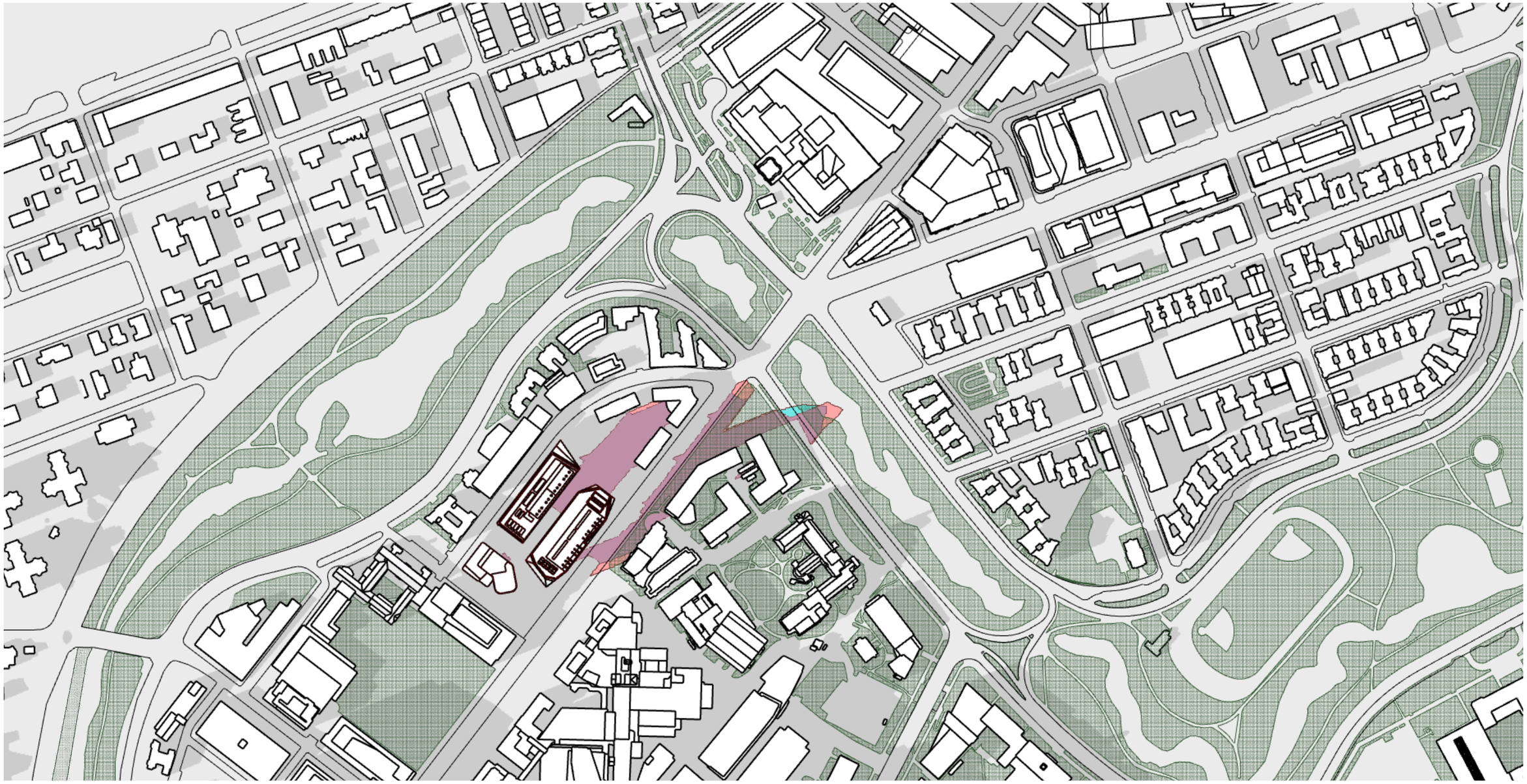


Figure 4.2c-155: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 4:45PM (DST)

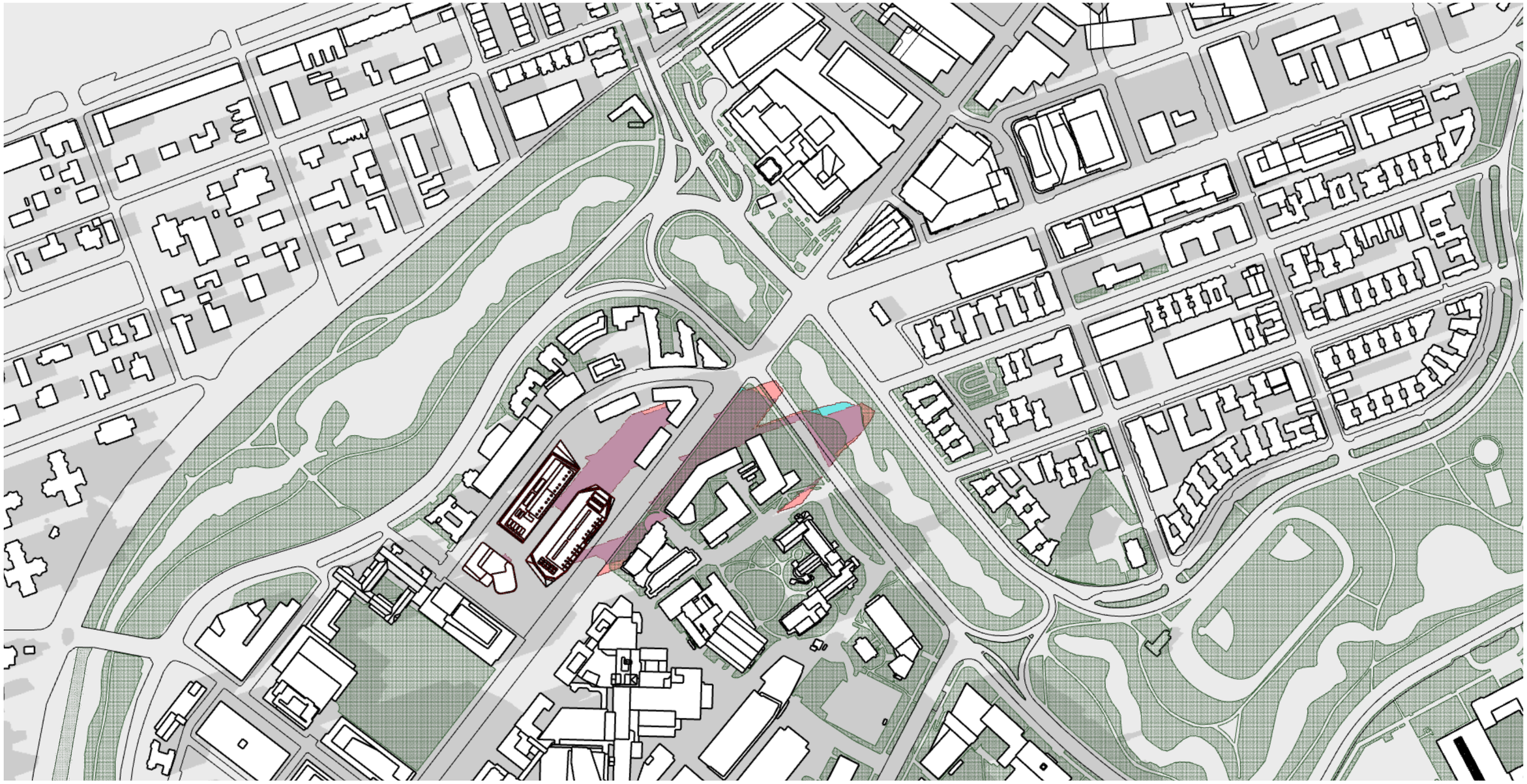


Figure 4.2c-156: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 5:00PM (DST)

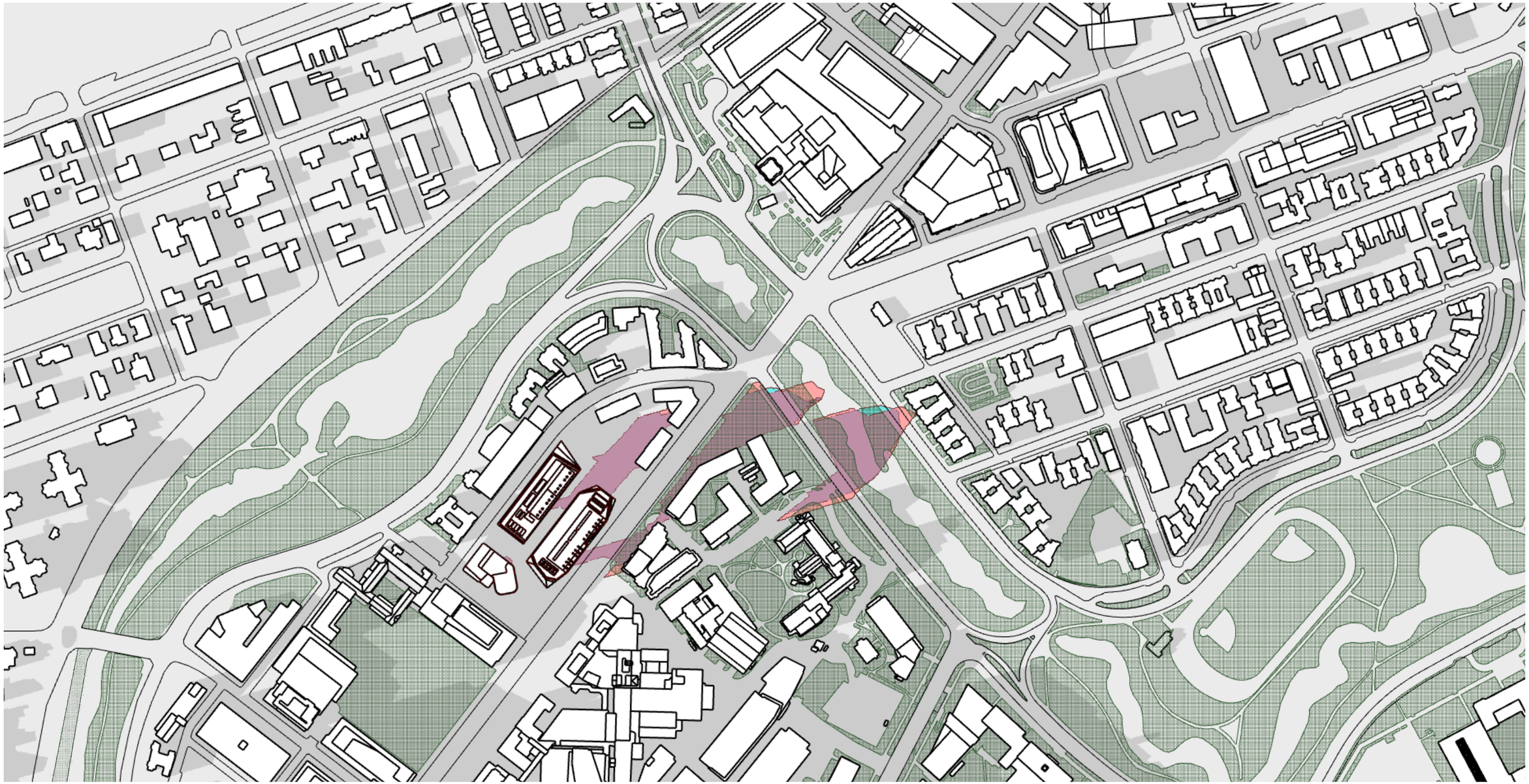


Figure 4.2c-157: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 5:15PM (DST)

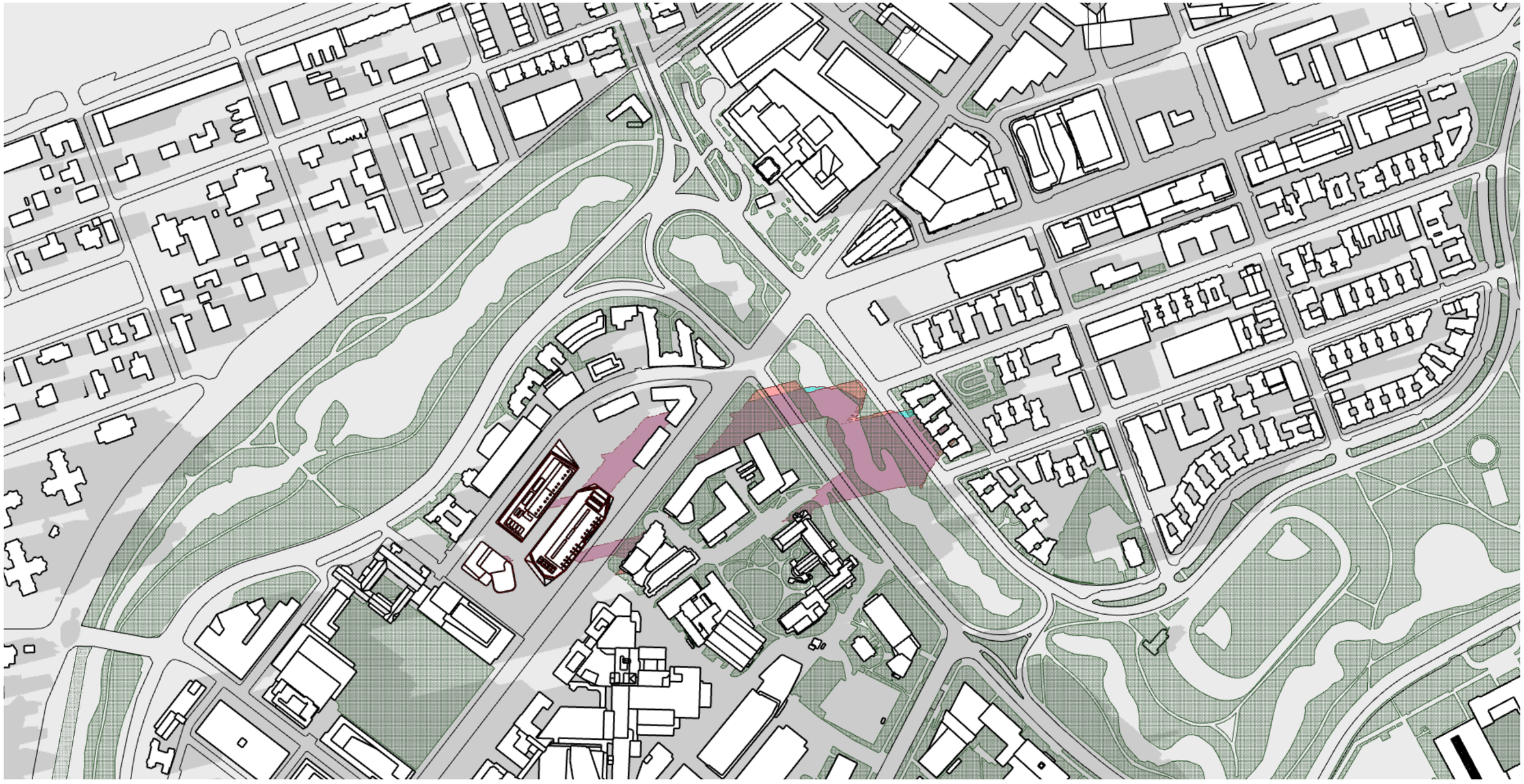


Figure 4.2c-158: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 5:30PM (DST)

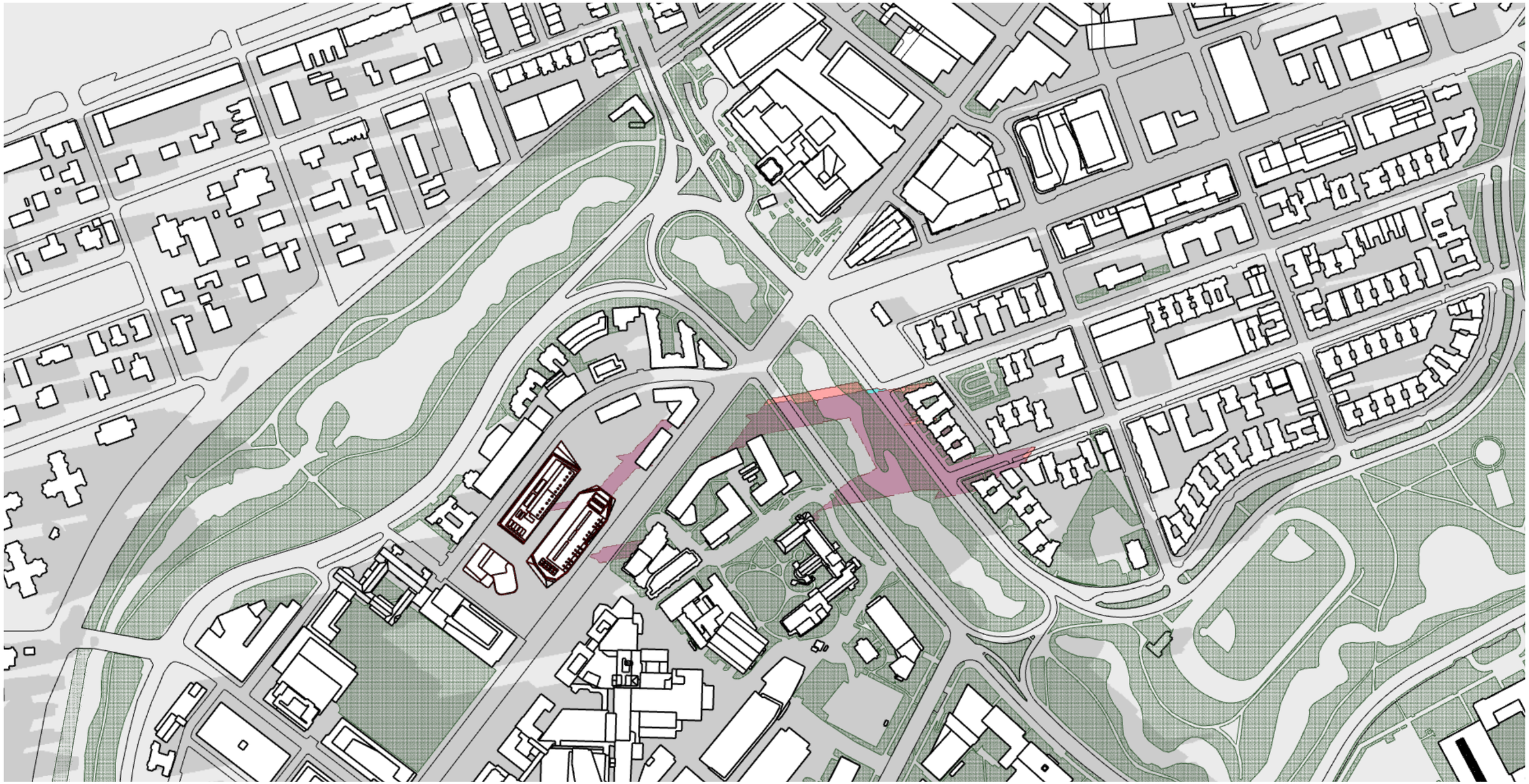


Figure 4.2c-159: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 5:45PM (DST)

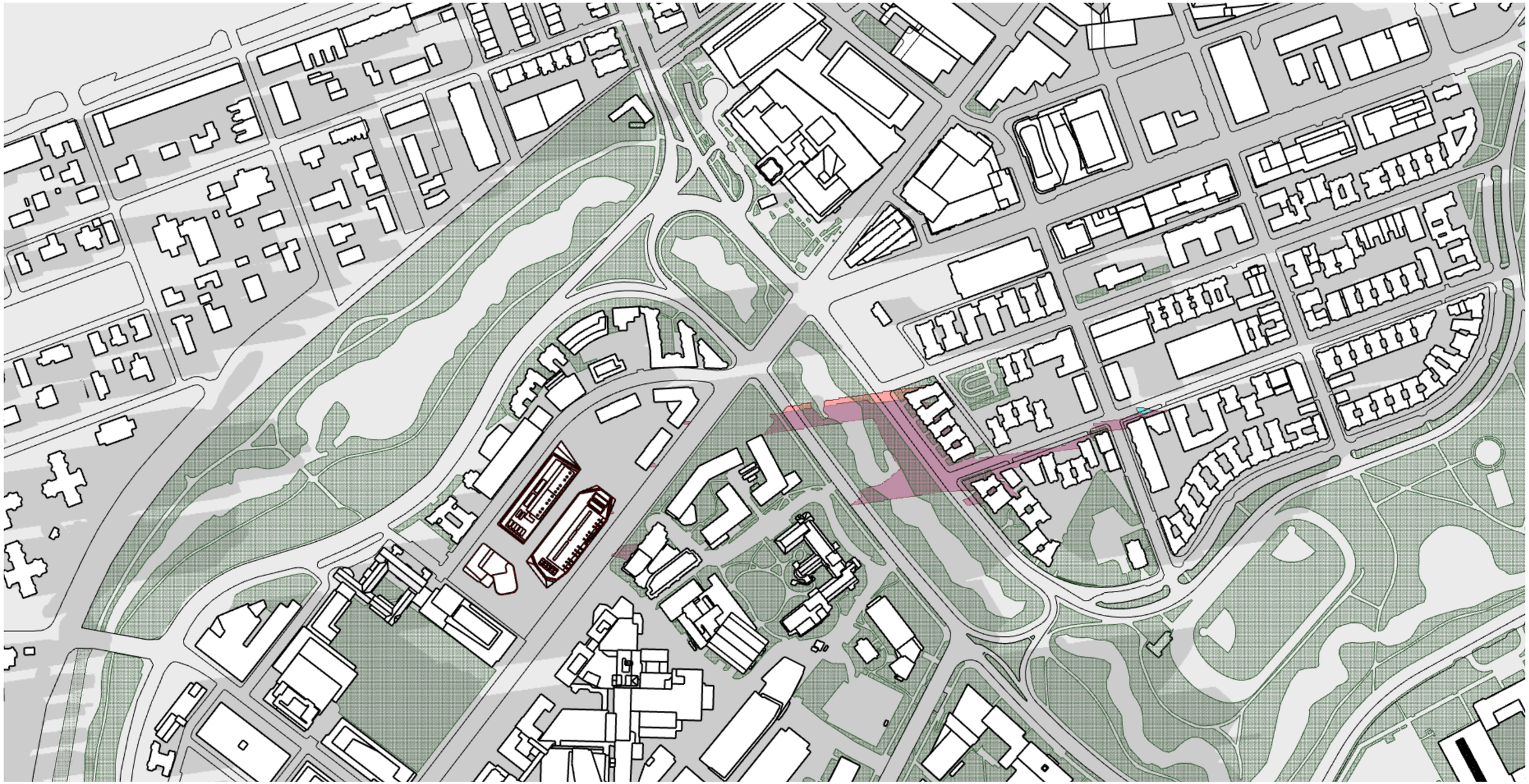


Figure 4.2c-160: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 6:00PM (DST)

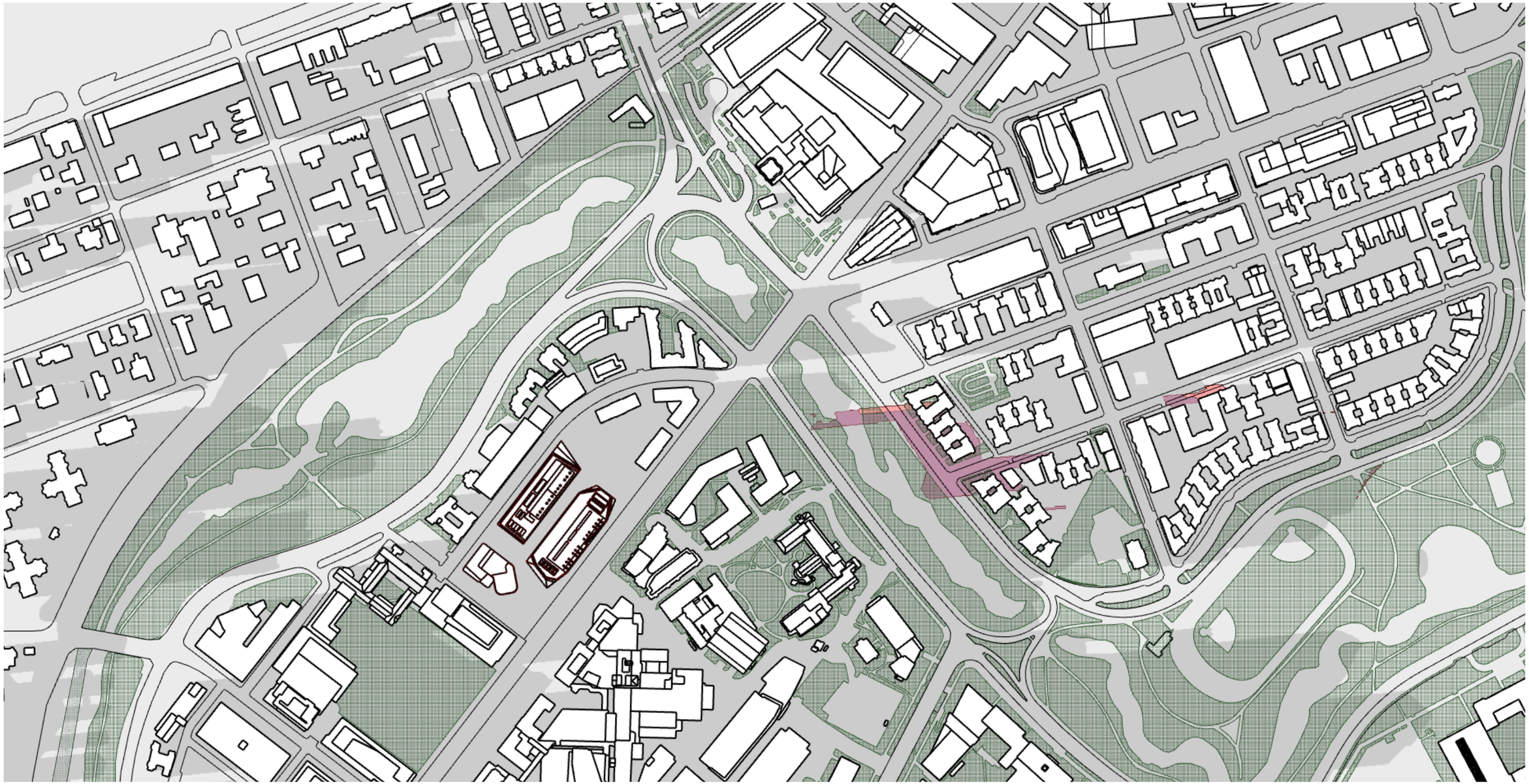


Figure 4.2c-161: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 6:15PM (DST)



Figure 4.2c-162: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - 6:30PM (DST)



Figure 4.2c-163: Shadow Analysis

Longwood Place | Boston, MA

SEPTEMBER 21 (FALL EQUINOX) - SUNSET 6:43PM (DST)



Figure 4.2c-164: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - SUNRISE 7:10AM (ST)



Figure 4.2c-165: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 7:15AM (ST)

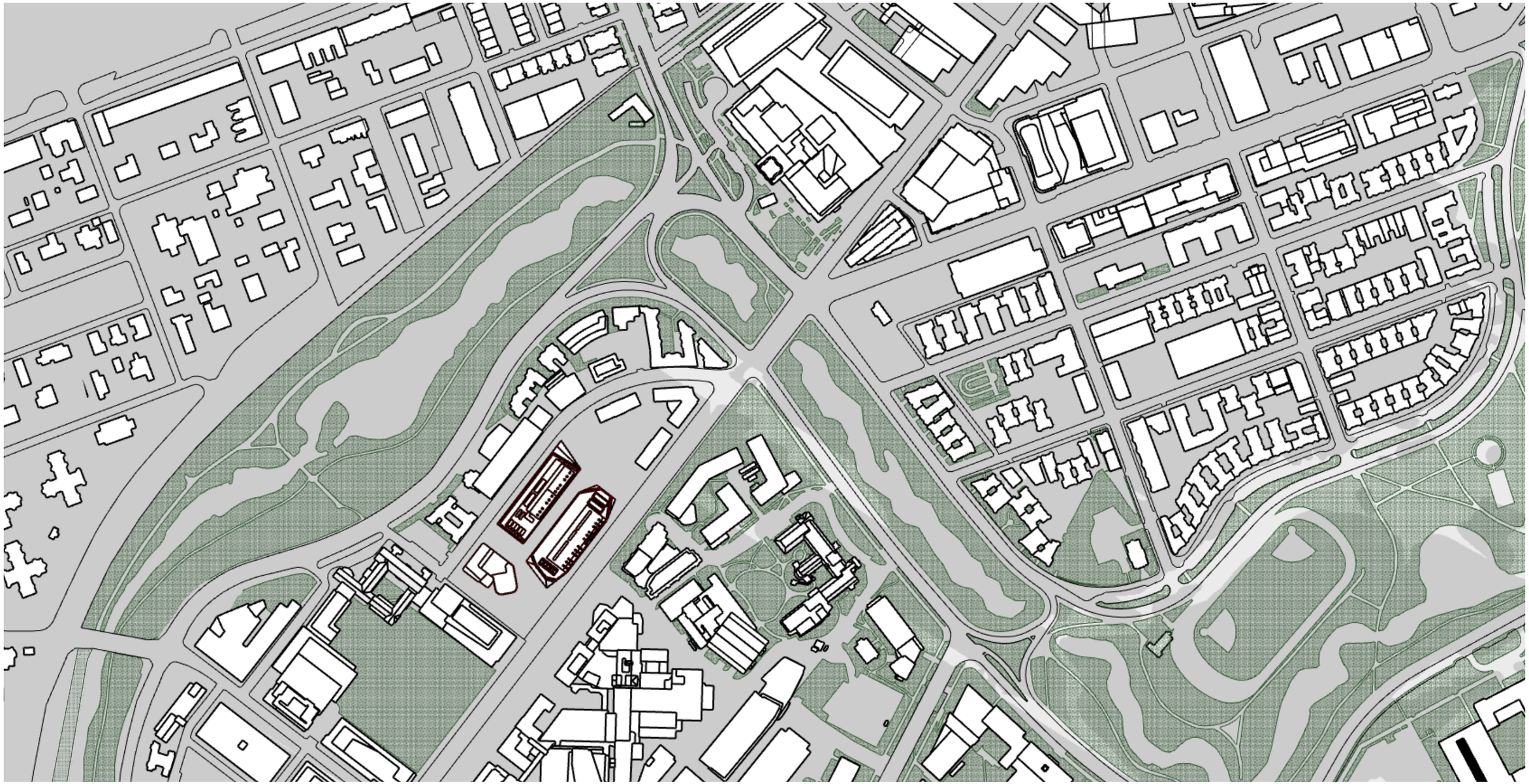


Figure 4.2c-166: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 7:30AM (ST)

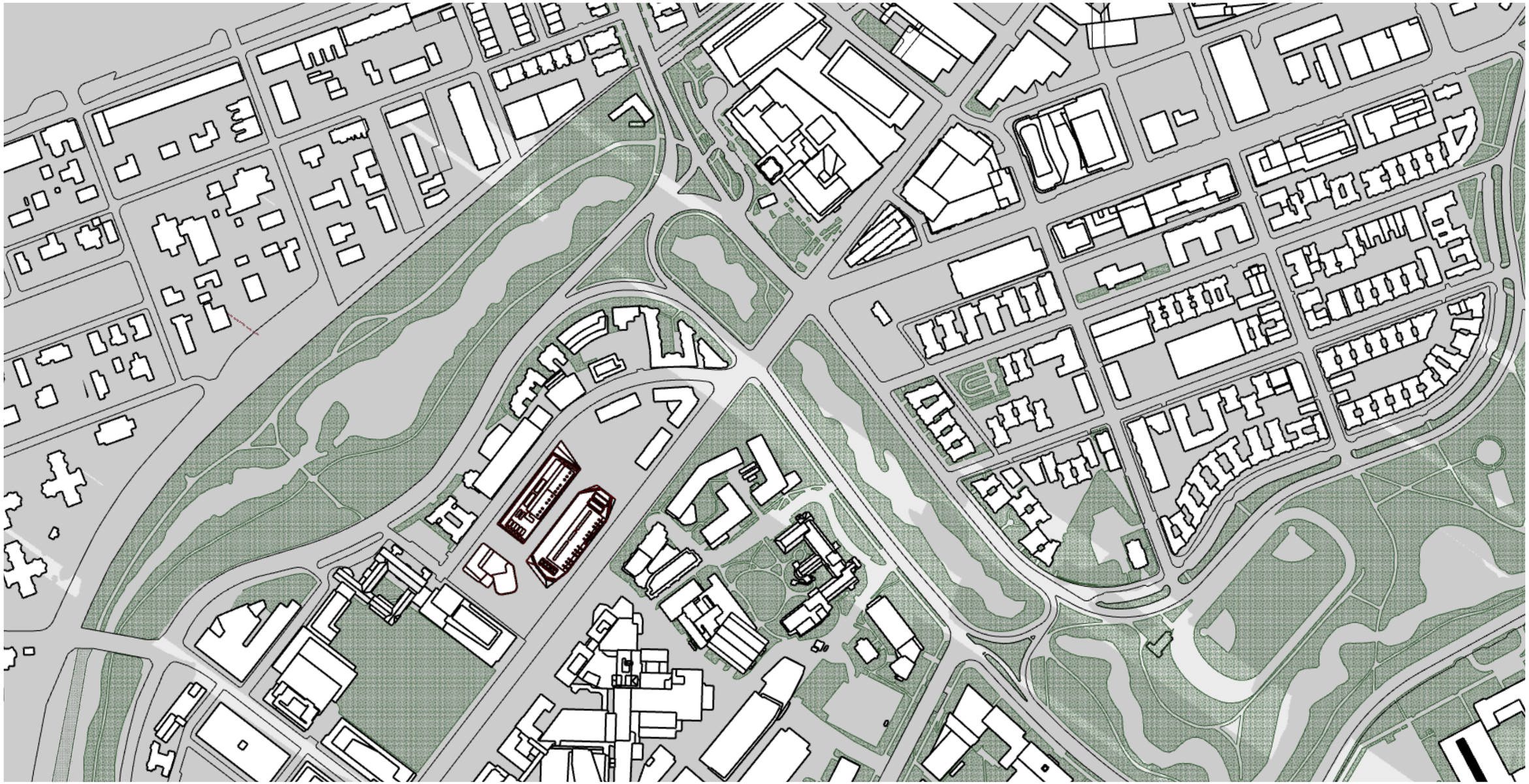


Figure 4.2c-167: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 7:45AM (ST)

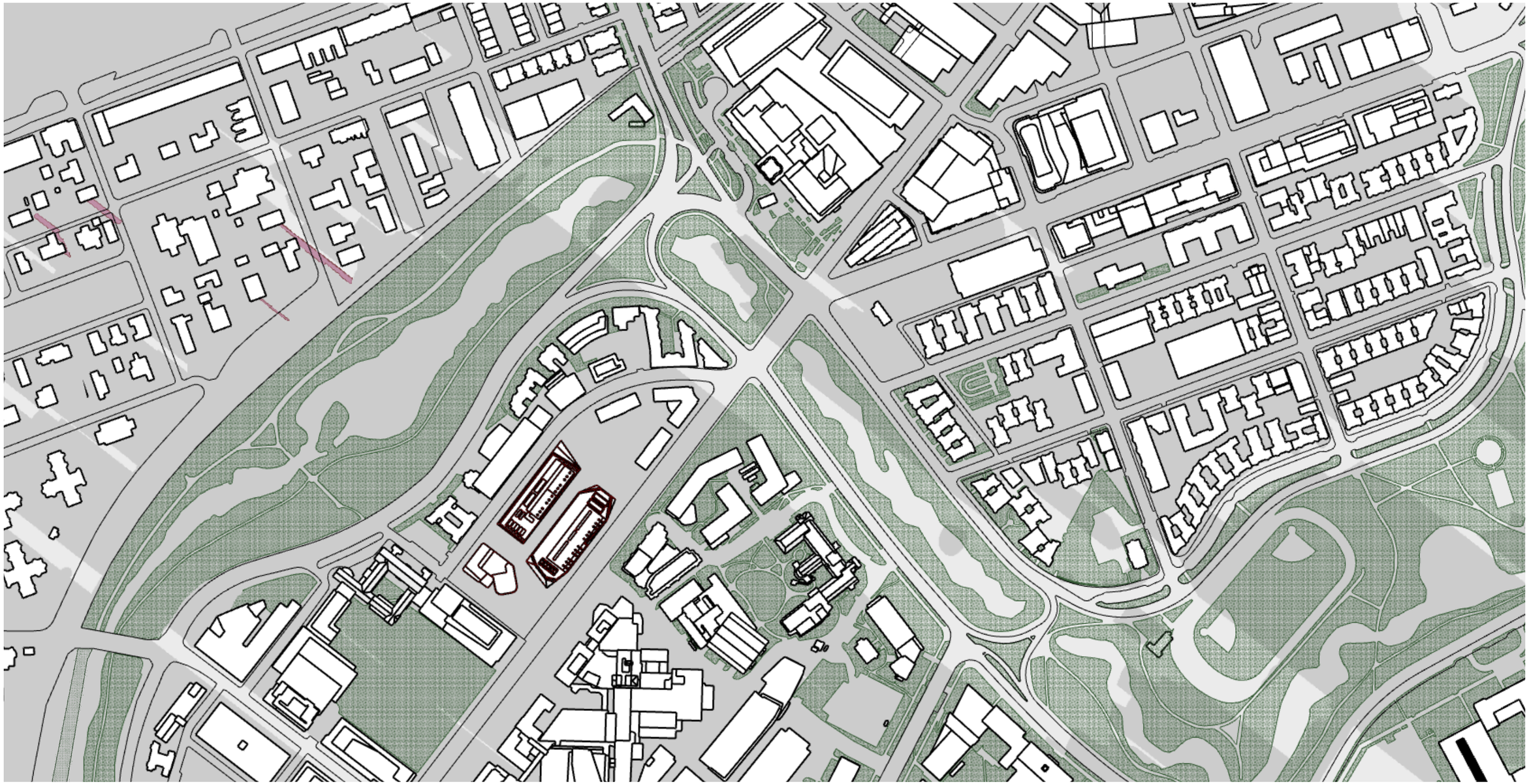


Figure 4.2c-168: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 8:00AM (ST)

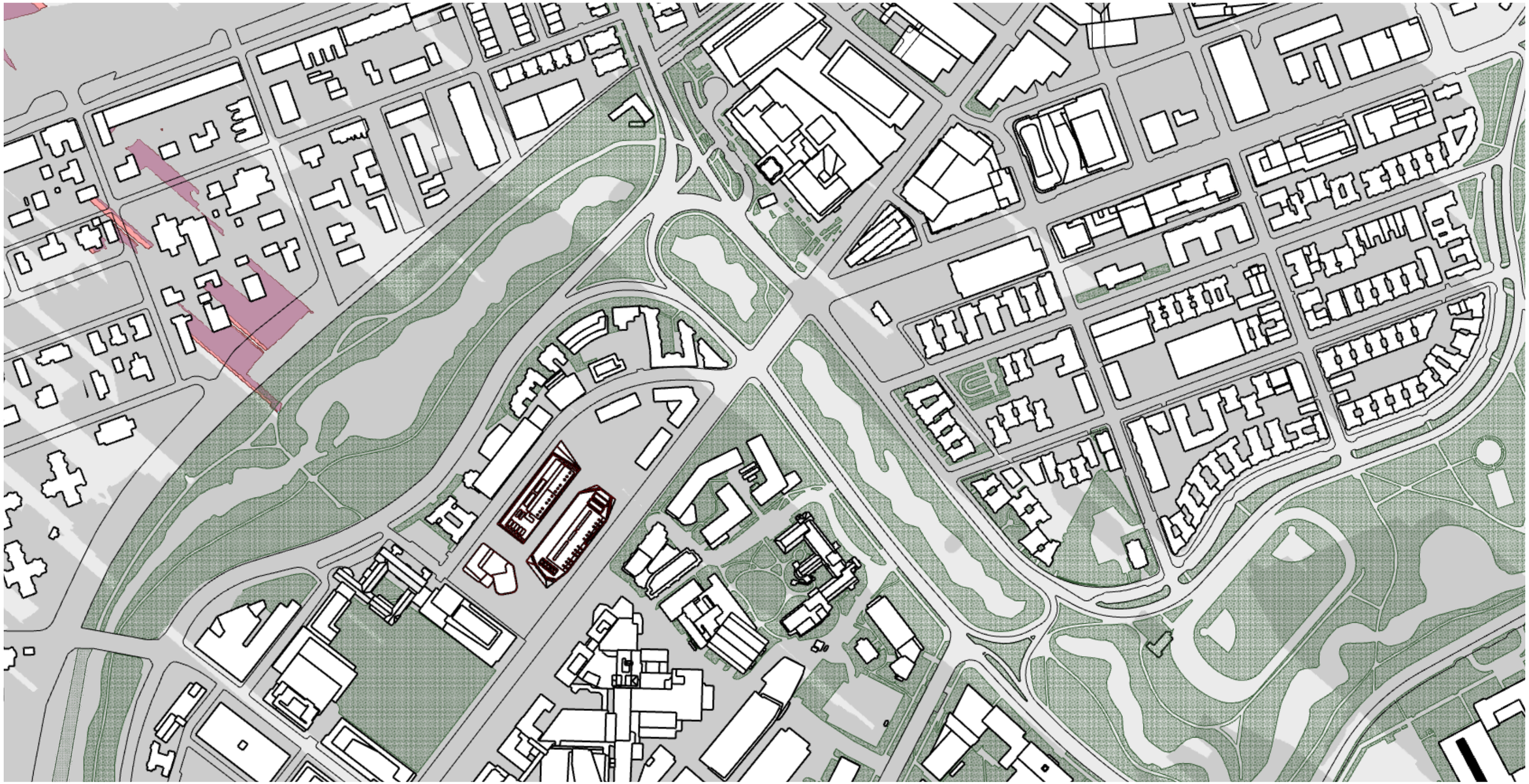


Figure 4.2c-169: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 8:15AM (ST)

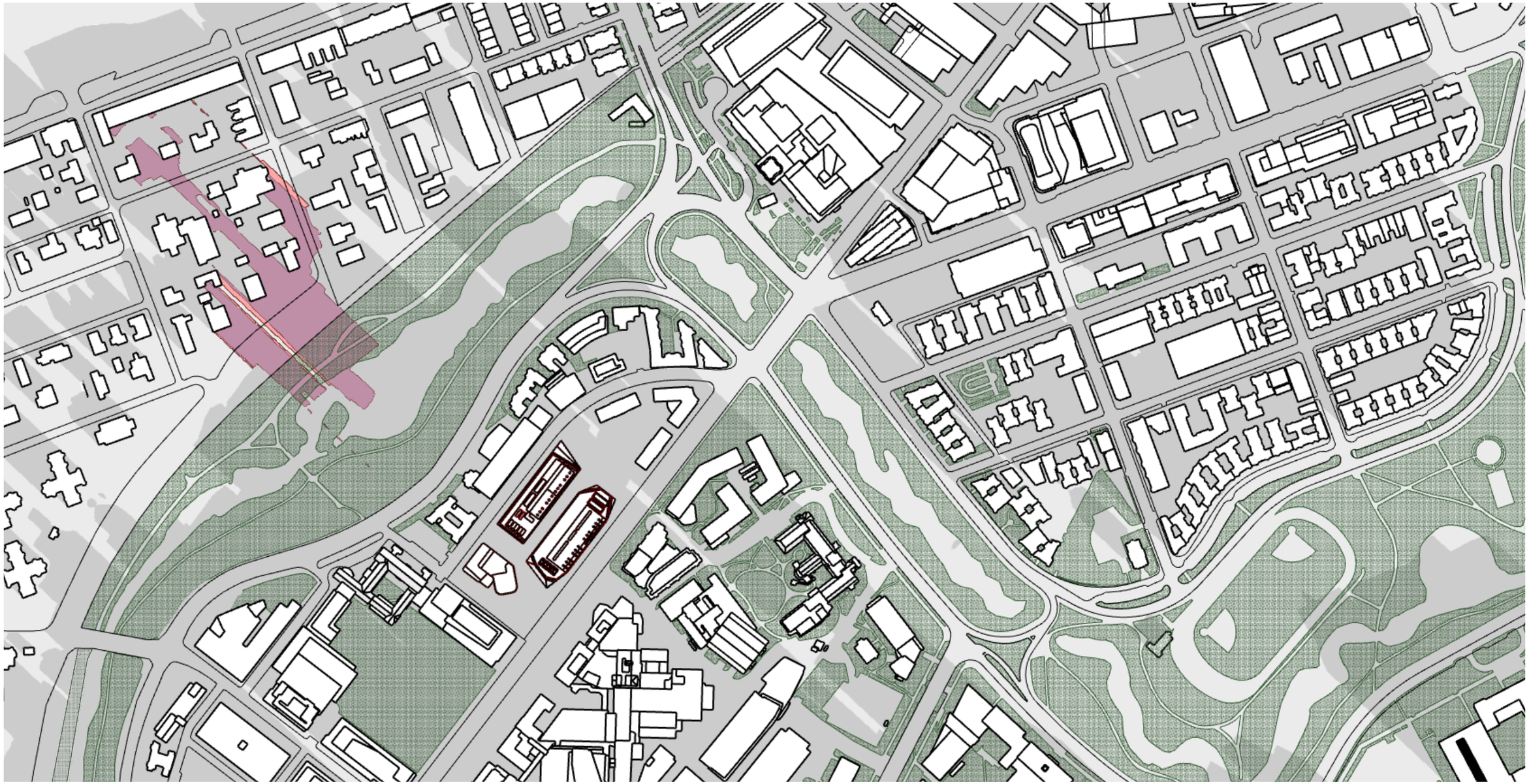


Figure 4.2c-170: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 8:30AM (ST)

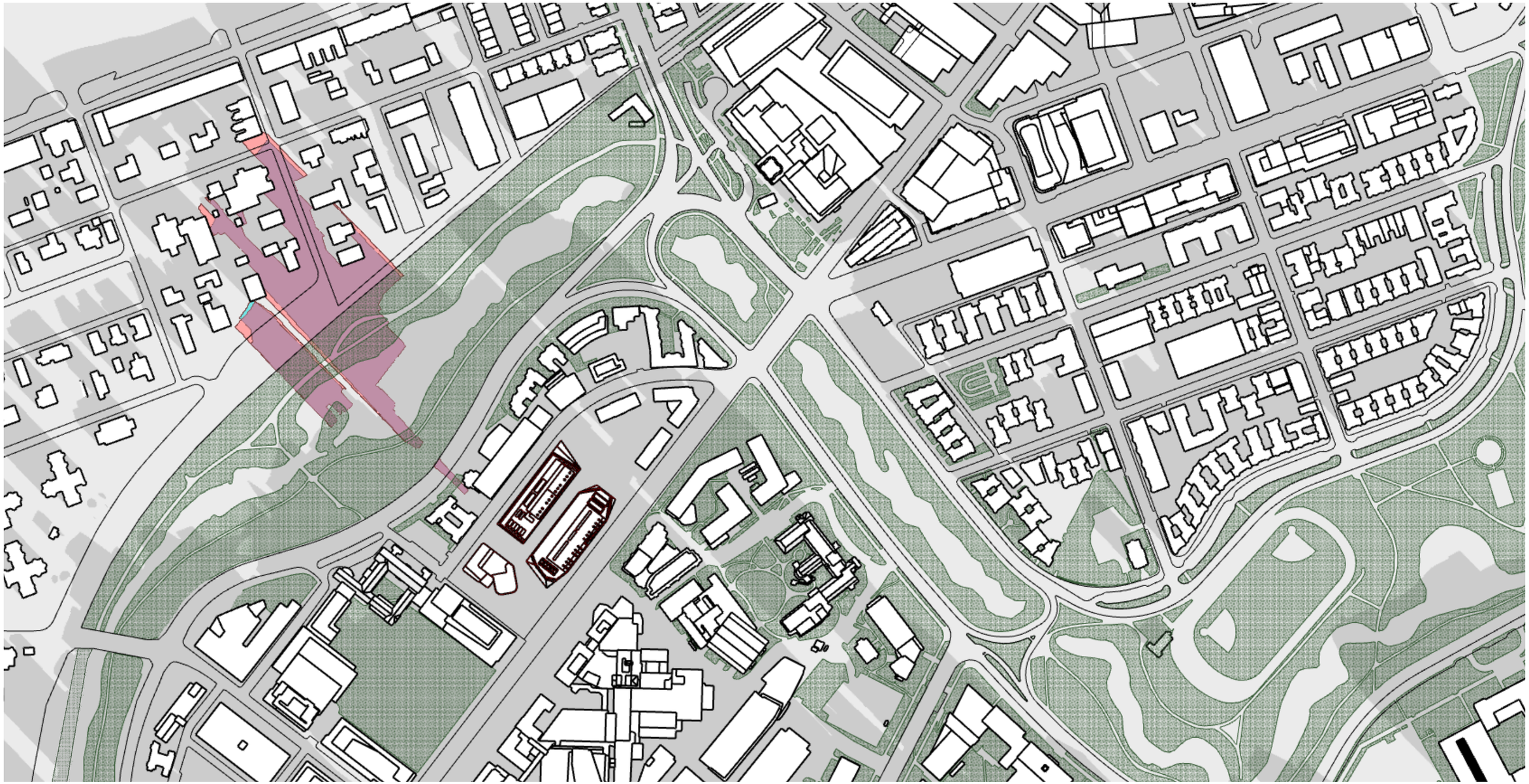


Figure 4.2c-171: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 8:45AM (ST)

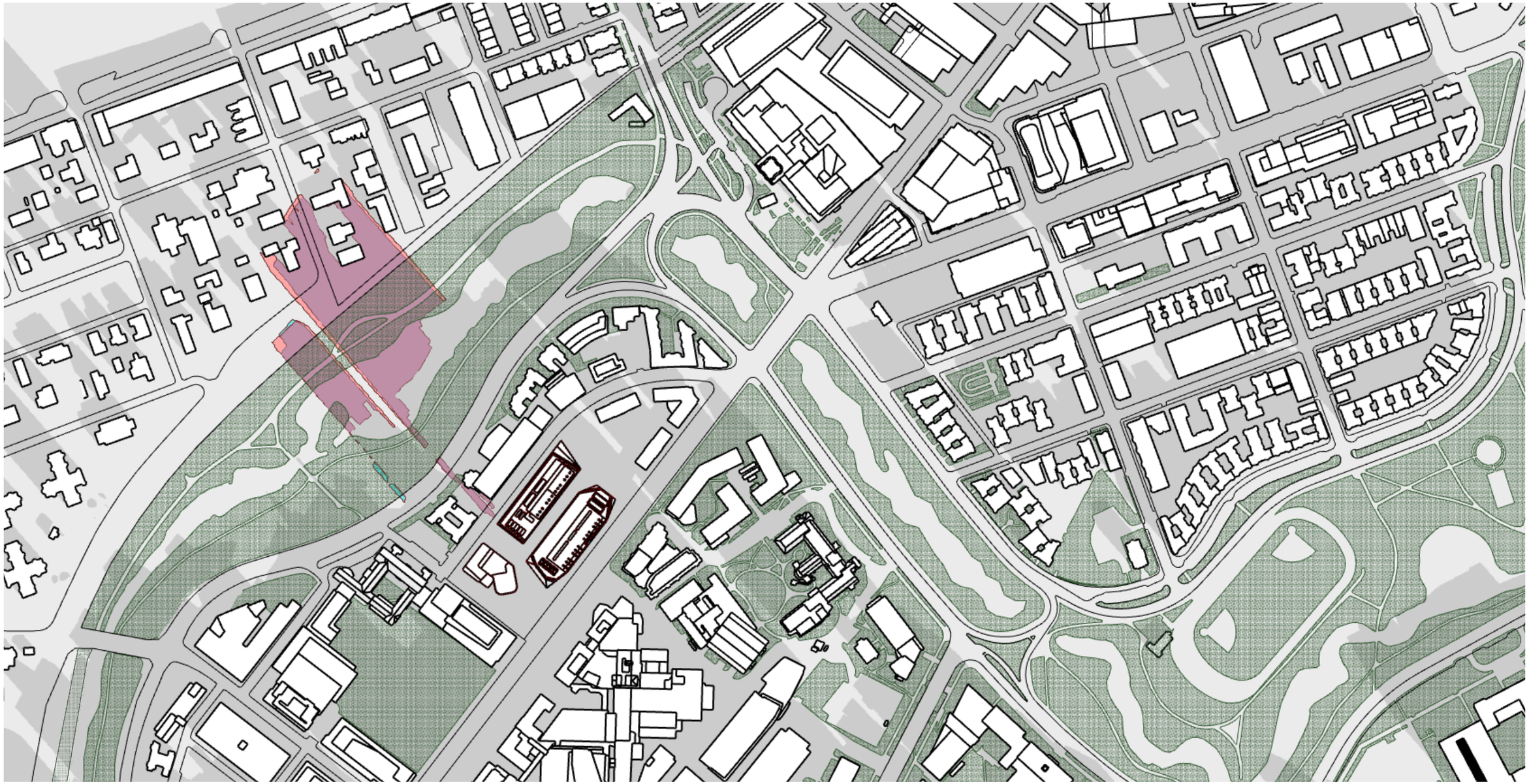


Figure 4.2c-172: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 9:00AM (ST)

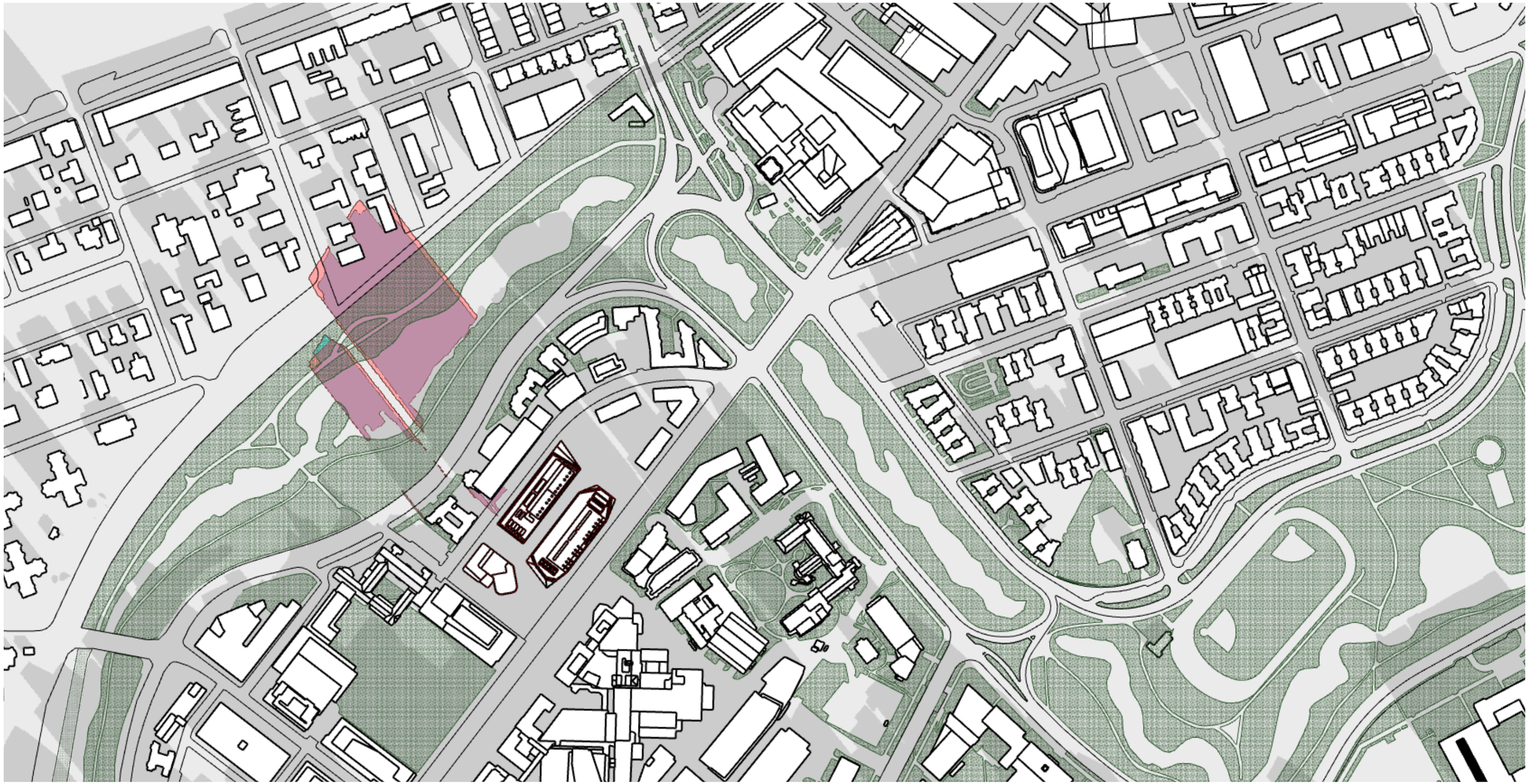


Figure 4.2c-173: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 9:15AM (ST)

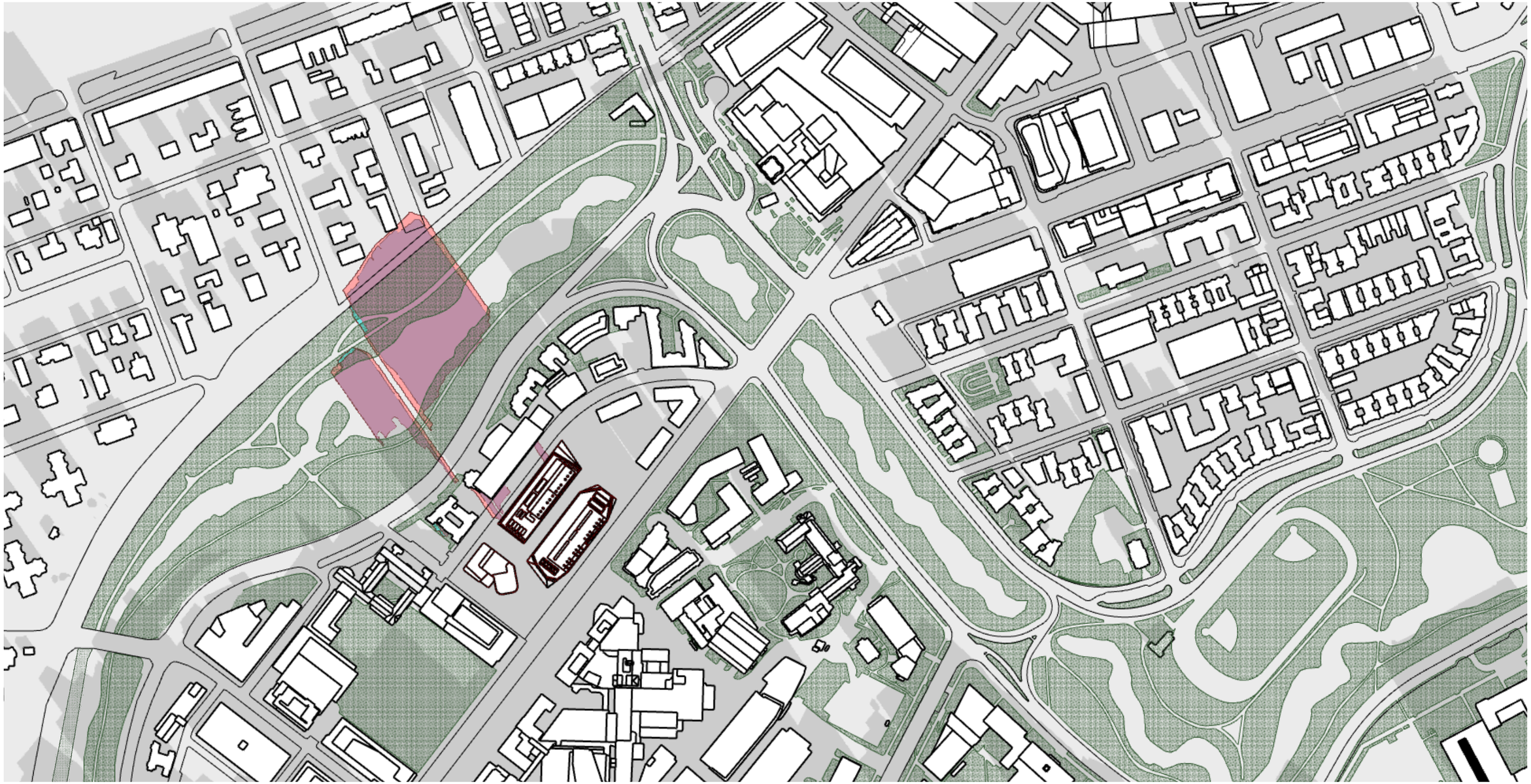


Figure 4.2c-174: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 9:30AM (ST)

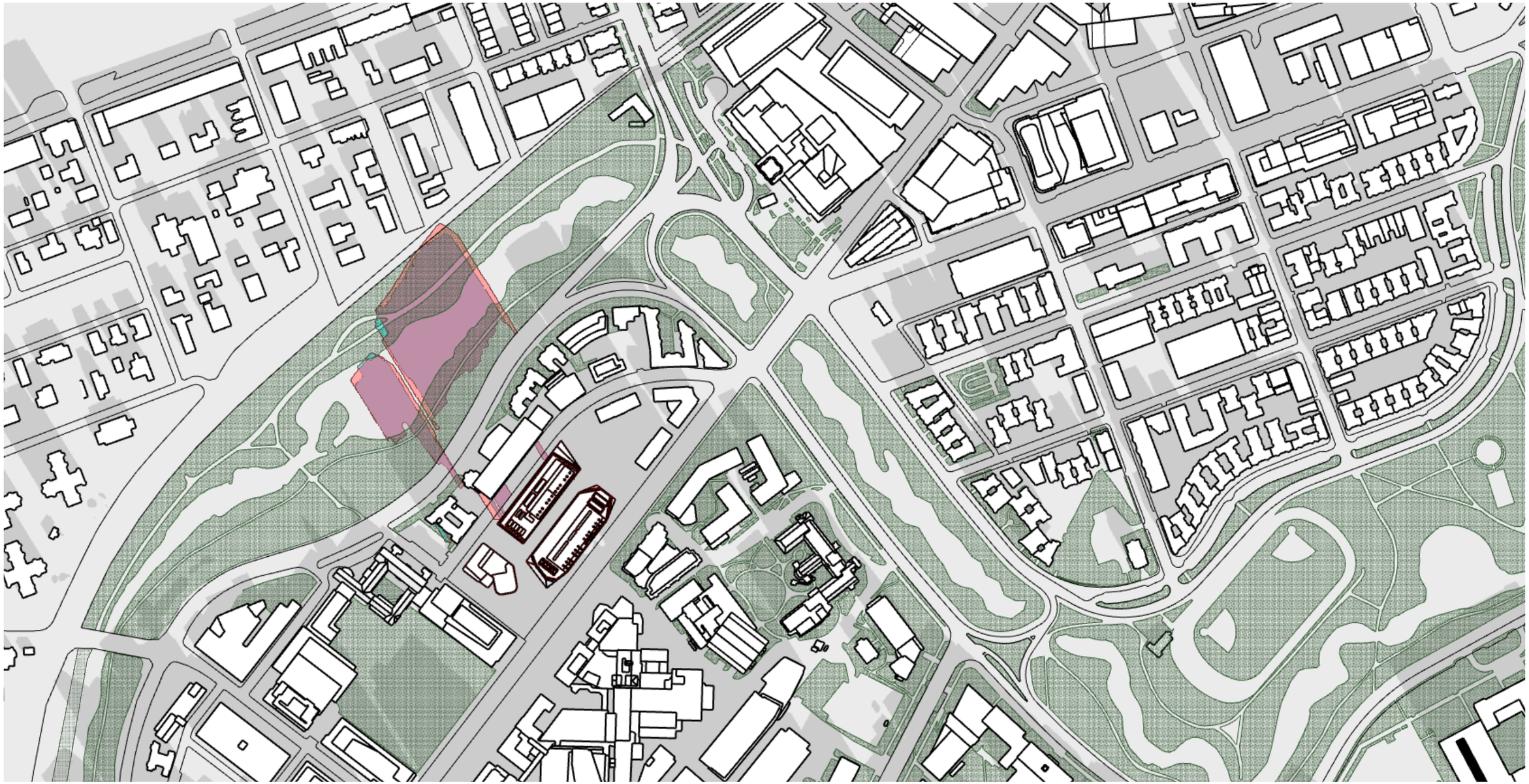


Figure 4.2c-175: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 9:45AM (ST)

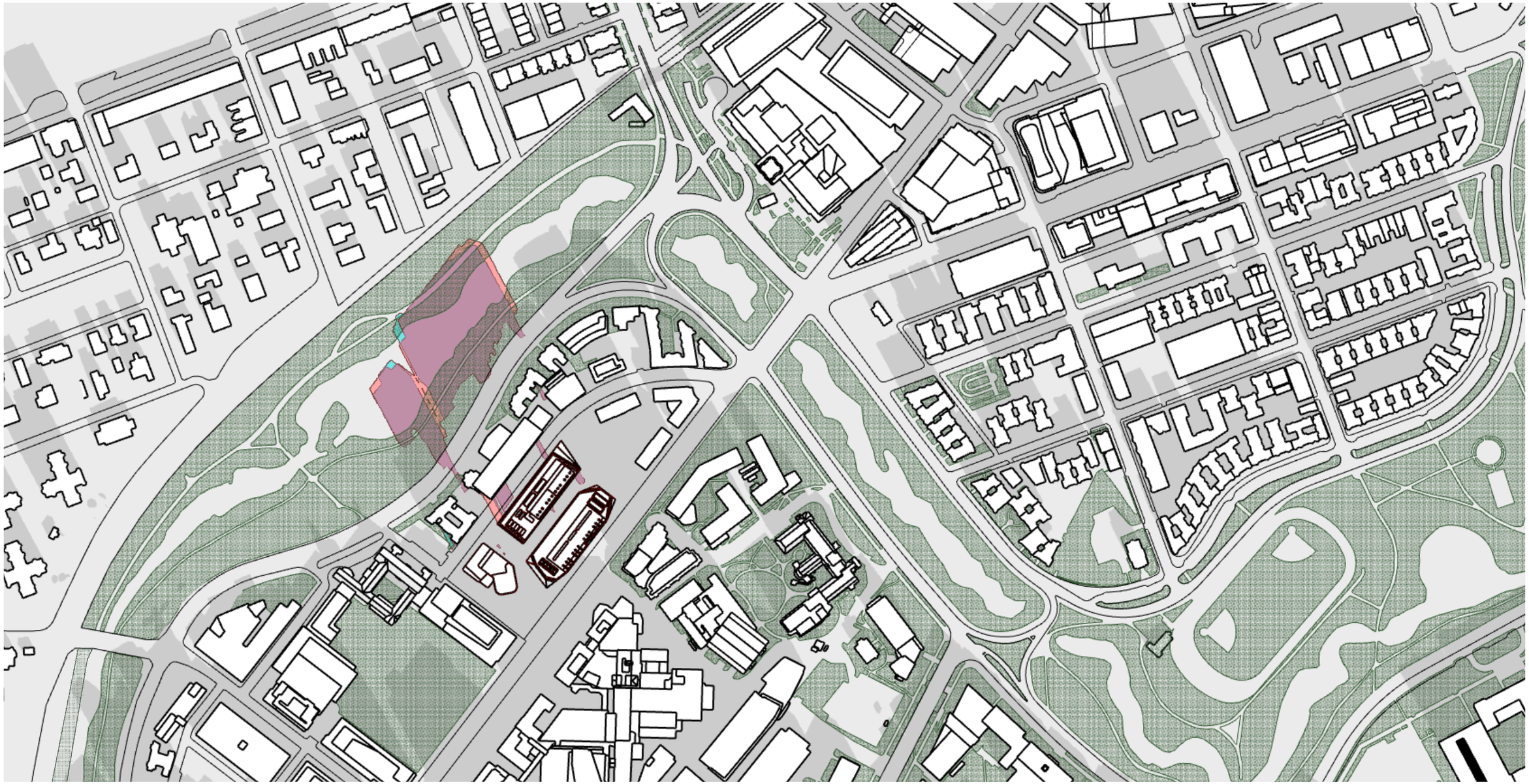


Figure 4.2c-176: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 10:00AM (ST)

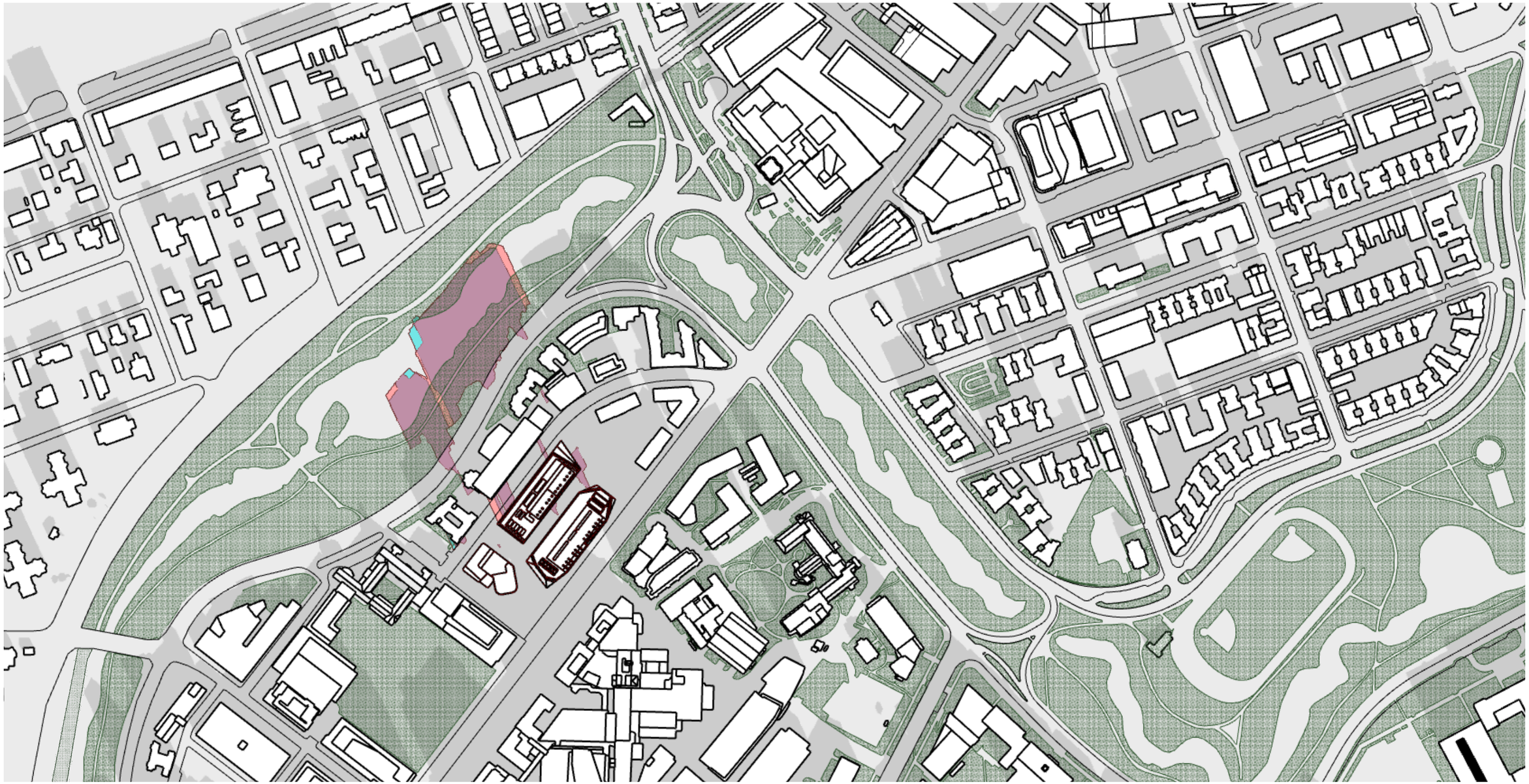


Figure 4.2c-177: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 10:15AM (ST)



Figure 4.2c-178: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 10:30AM (ST)



Figure 4.2c-179: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 10:45AM (ST)



Figure 4.2c-180: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 11:00AM (ST)



Figure 4.2c-181: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 11:15AM (ST)

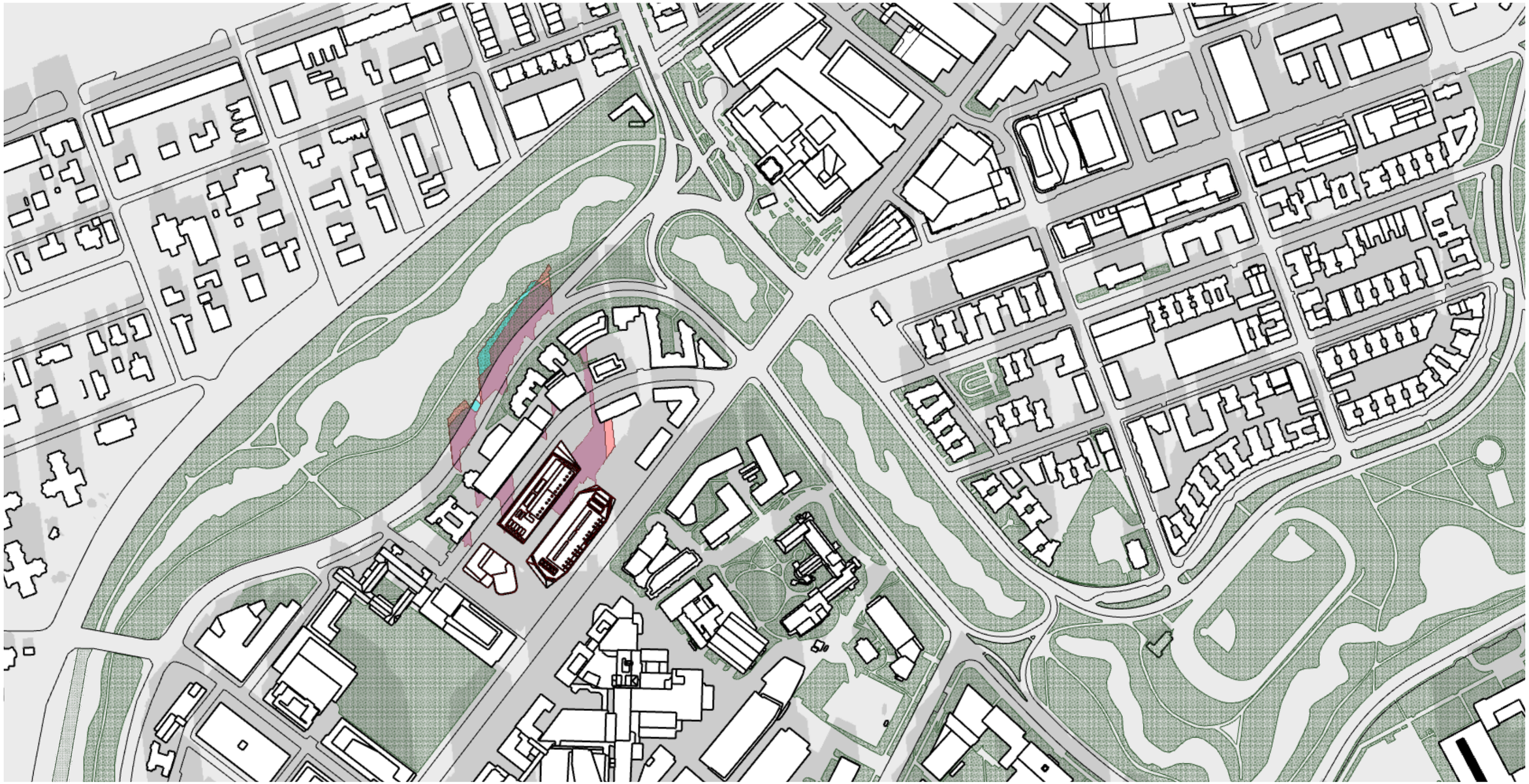


Figure 4.2c-182: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 11:30AM (ST)

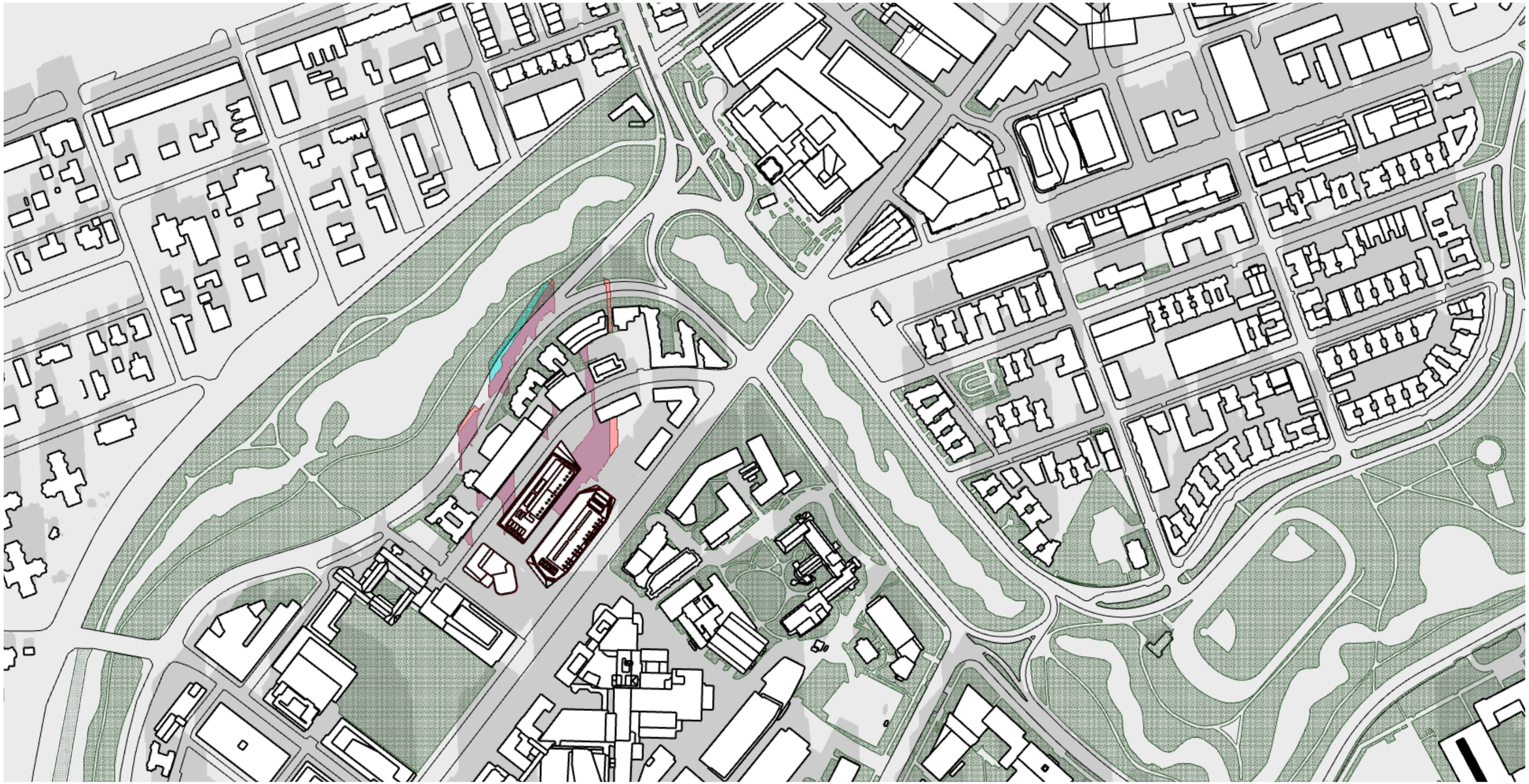


Figure 4.2c-183: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 11:45AM (ST)

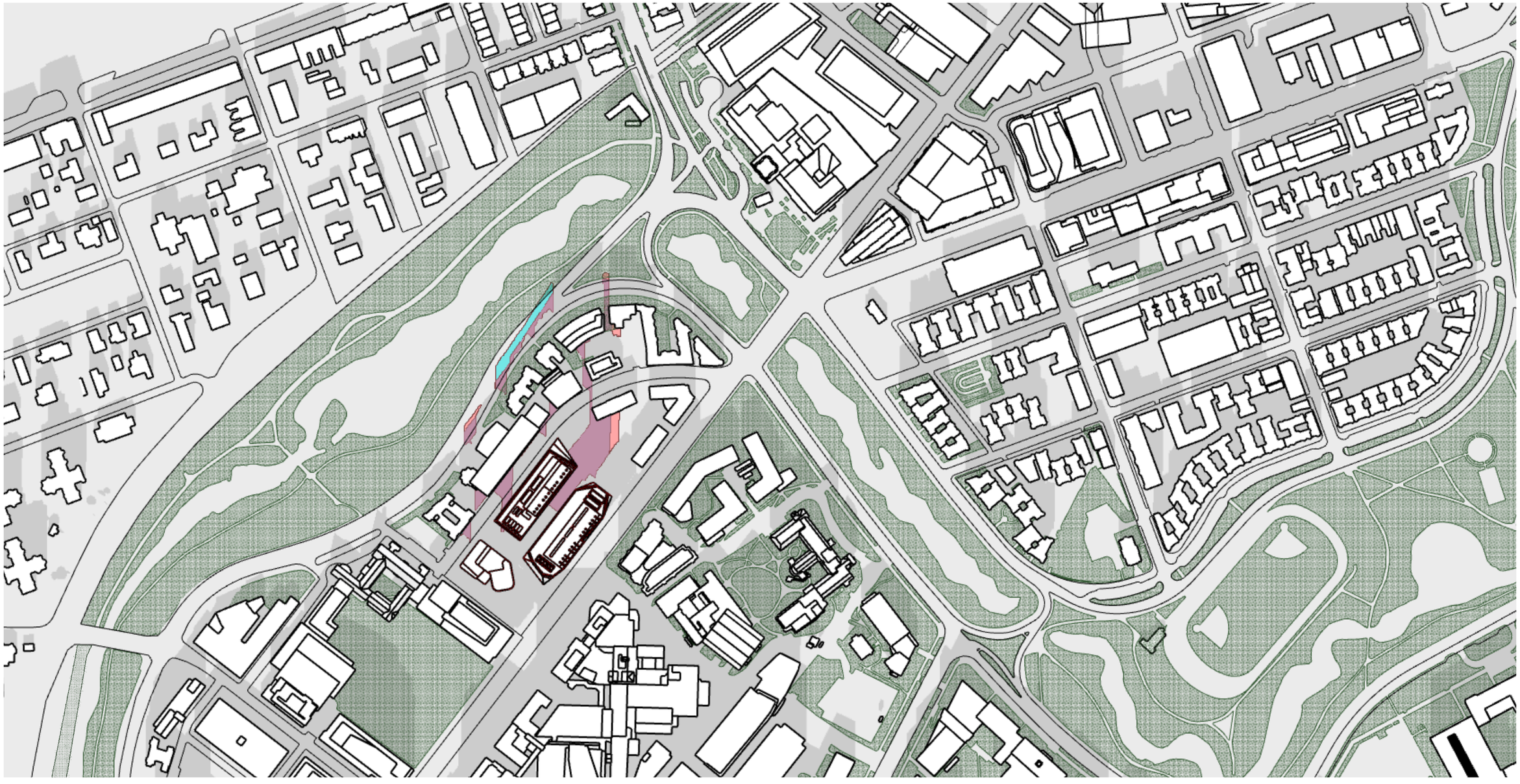


Figure 4.2c-184: Shadow Analysis
Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 12:00PM (ST)

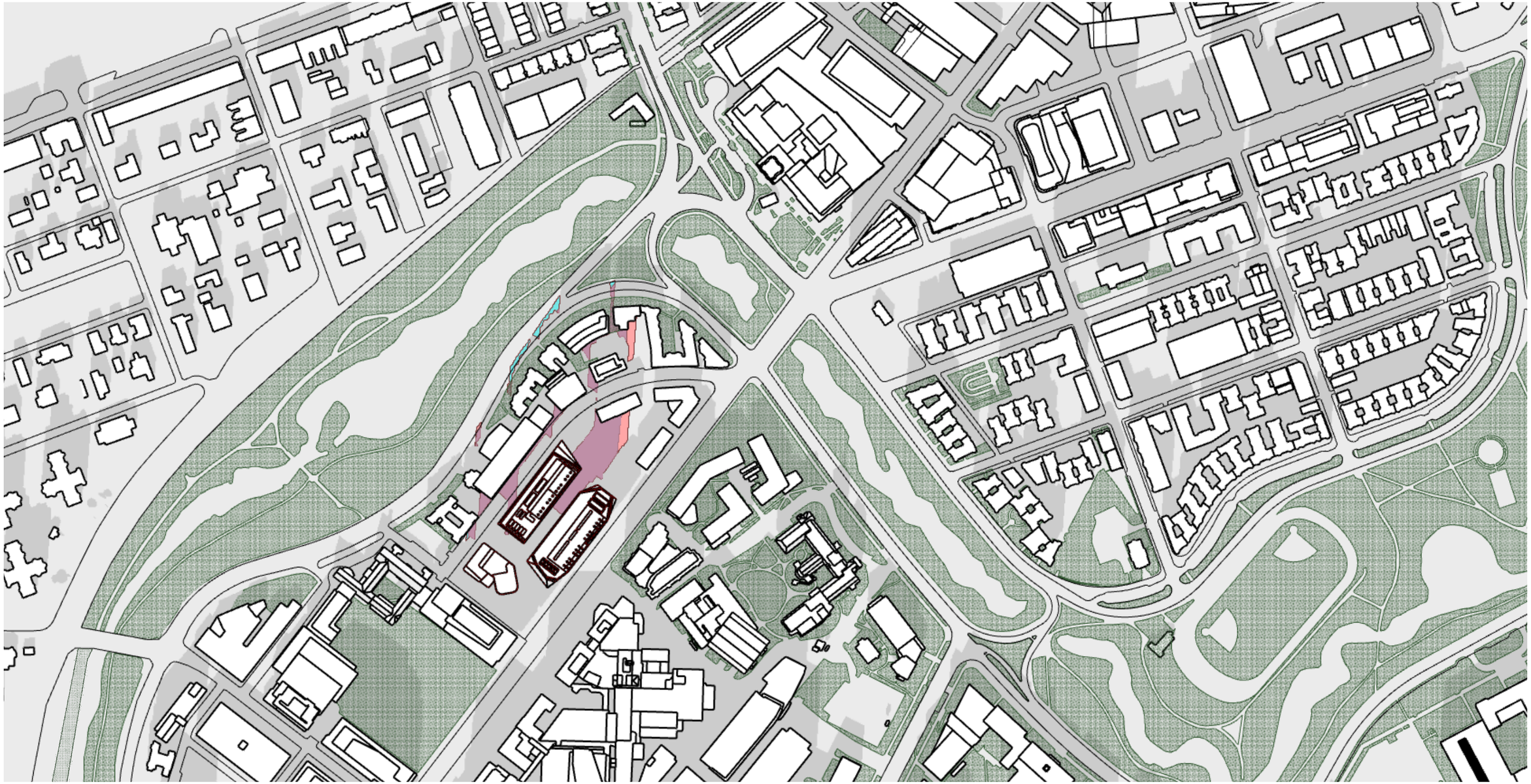


Figure 4.2c-185: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 12:15PM (ST)

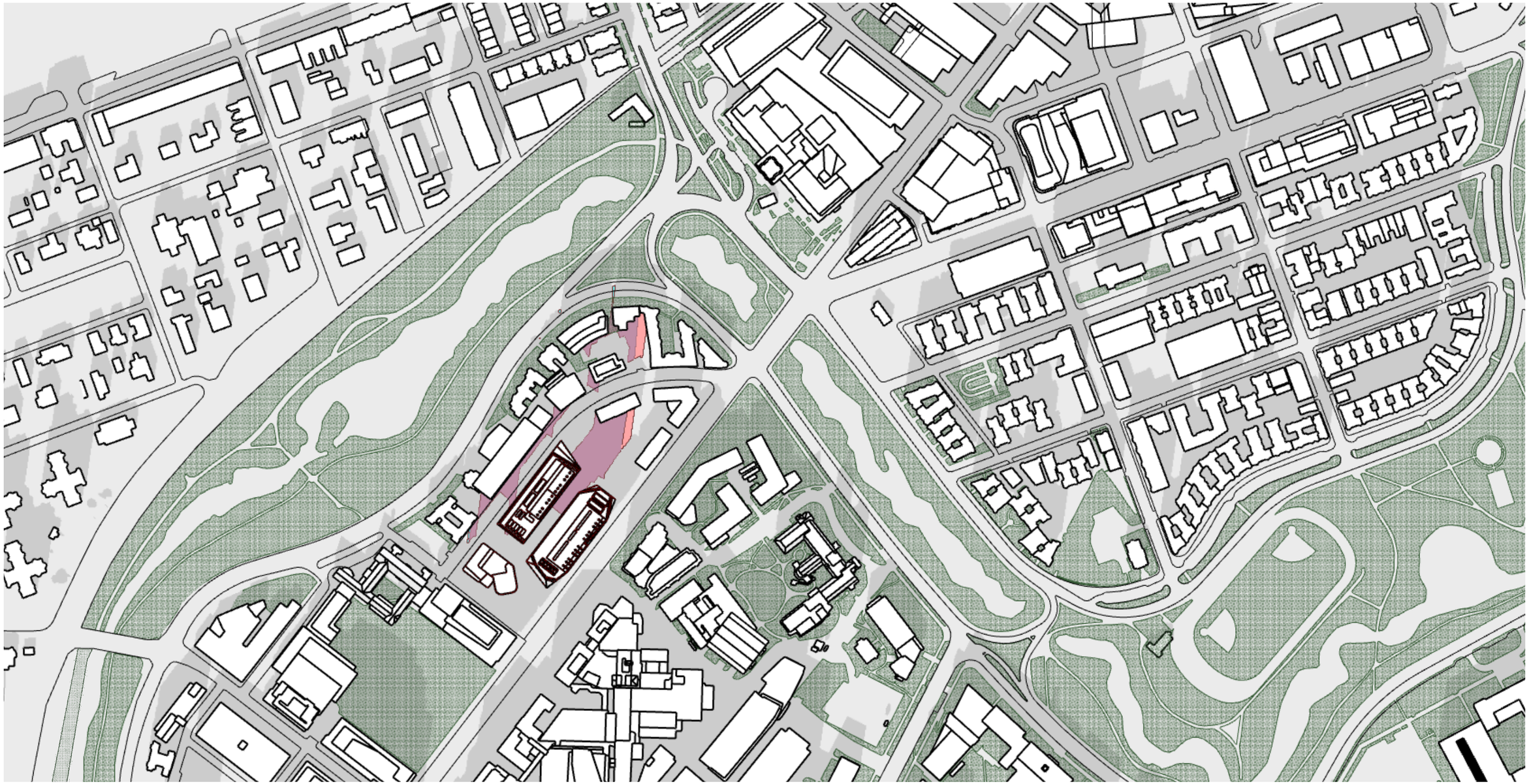


Figure 4.2c-186: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 12:30PM (ST)

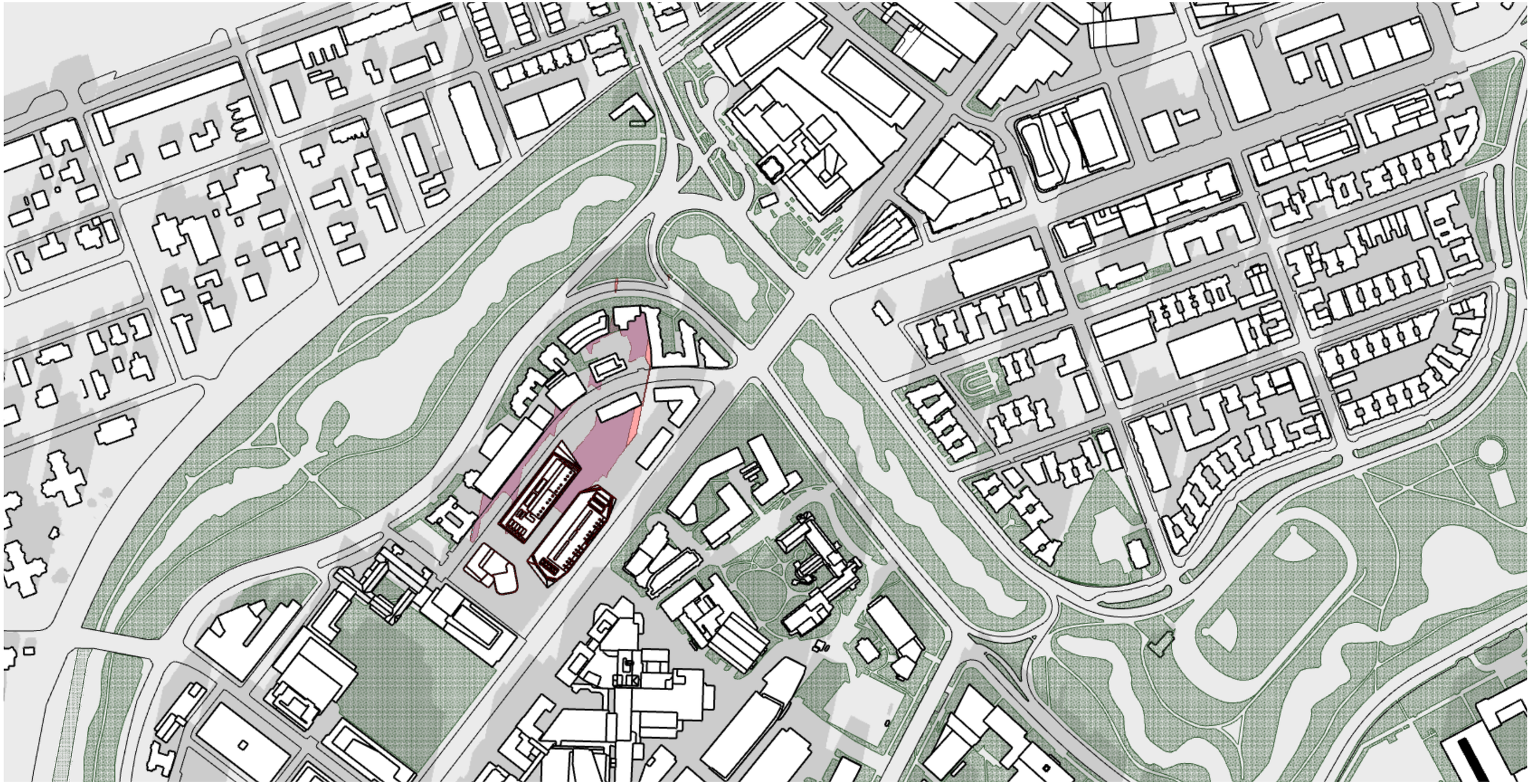


Figure 4.2c-187: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 12:45PM (ST)

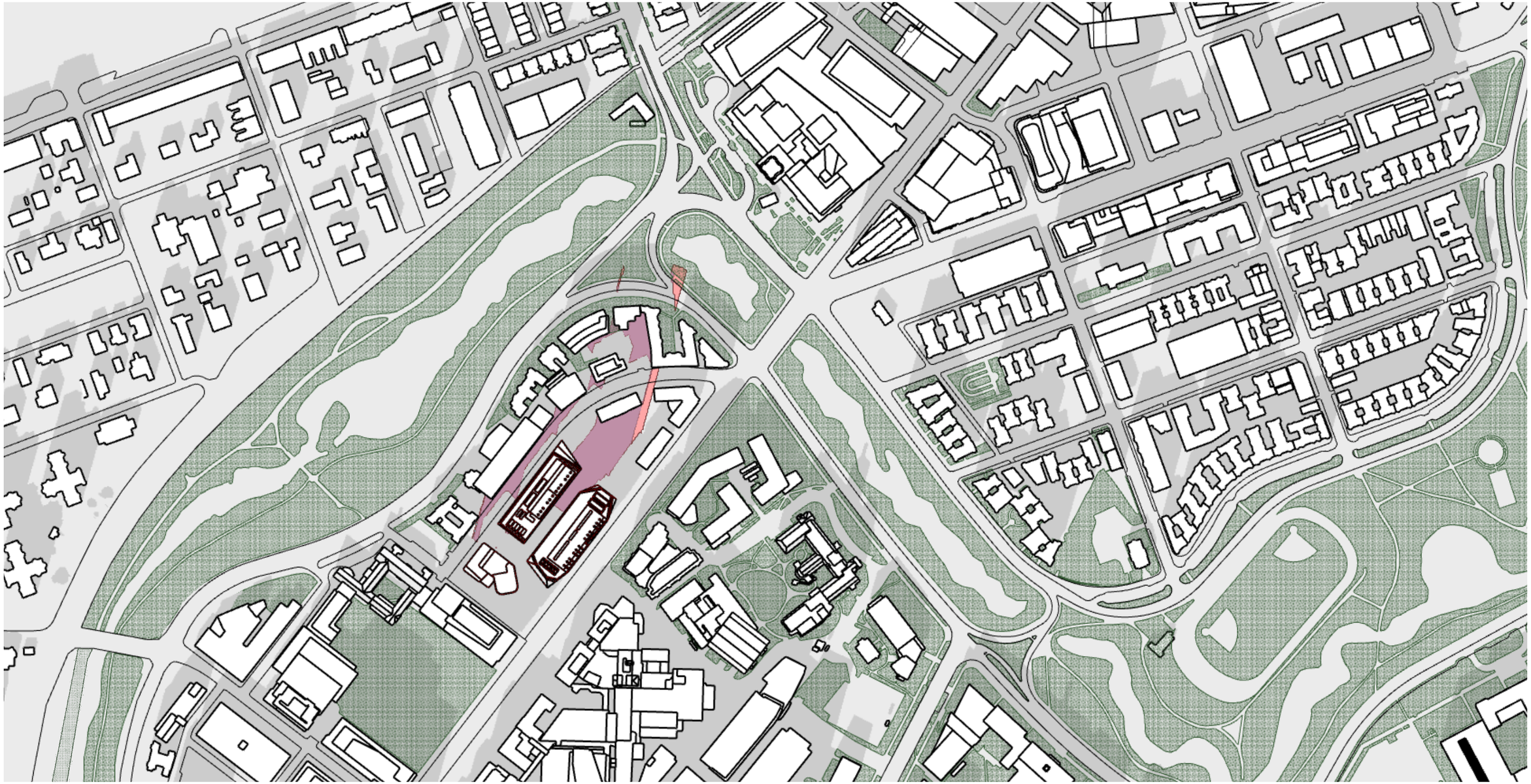


Figure 4.2c-188: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 1:00PM (ST)

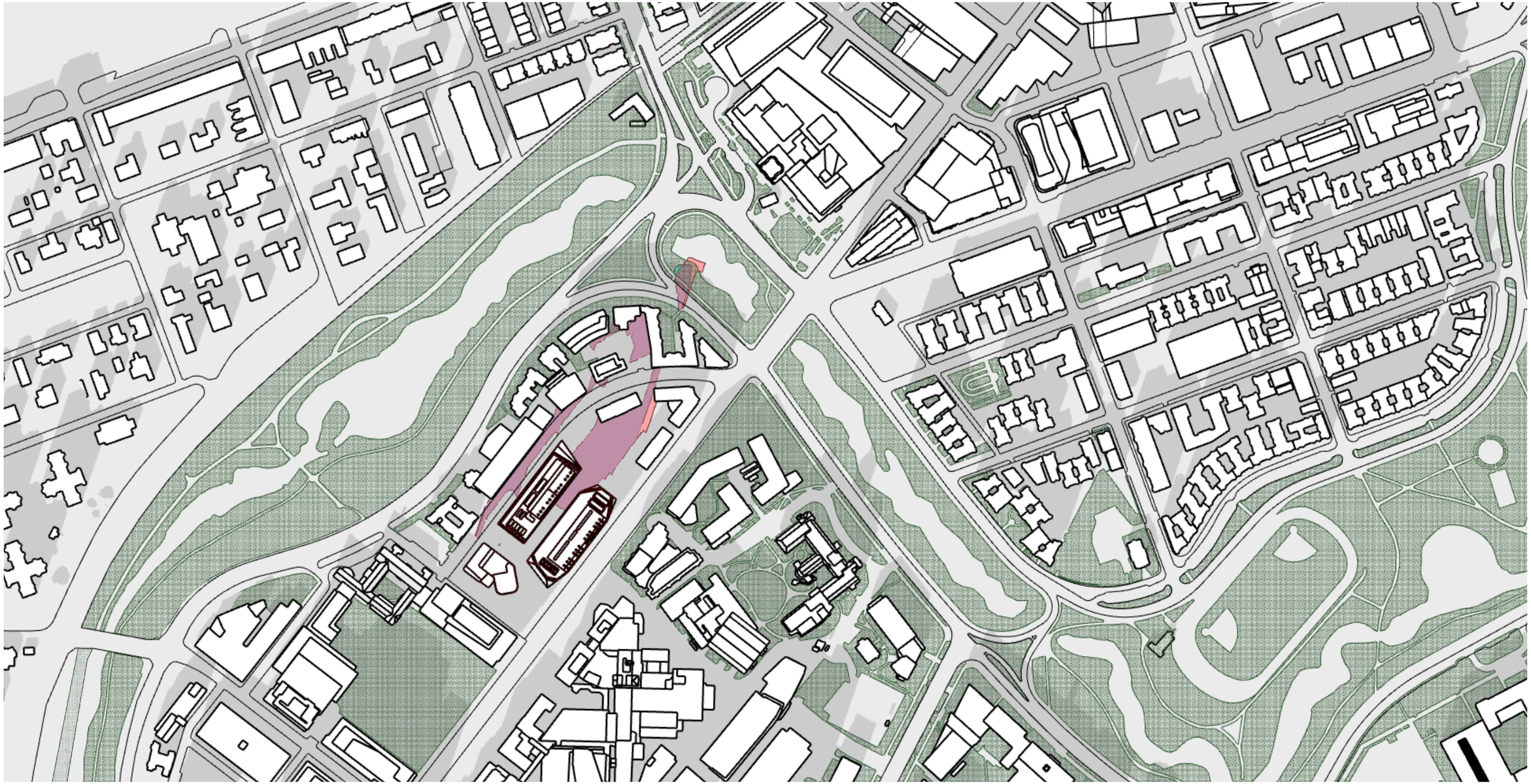


Figure 4.2c-189: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 1:15PM (ST)

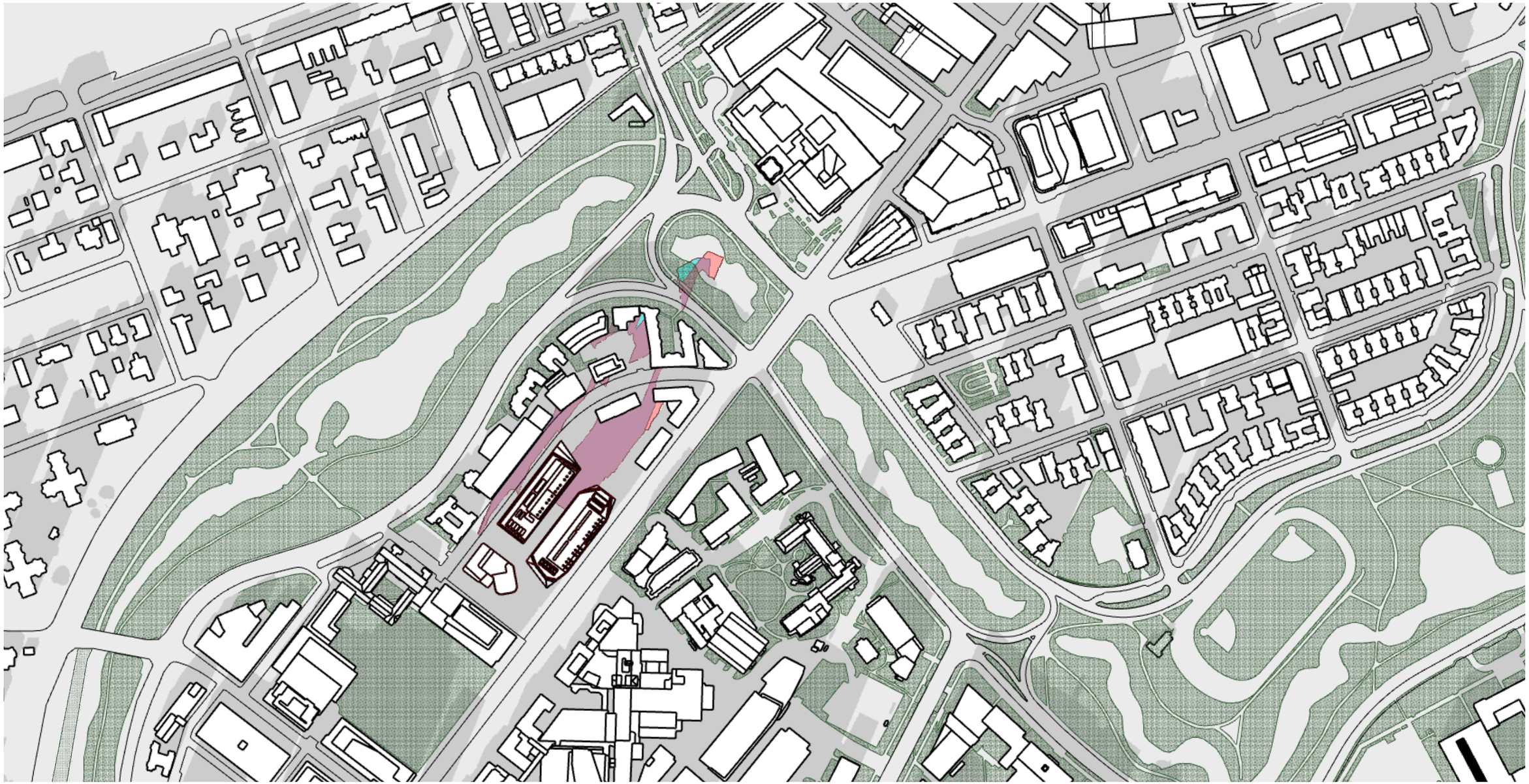


Figure 4.2c-190: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 1:30PM (ST)

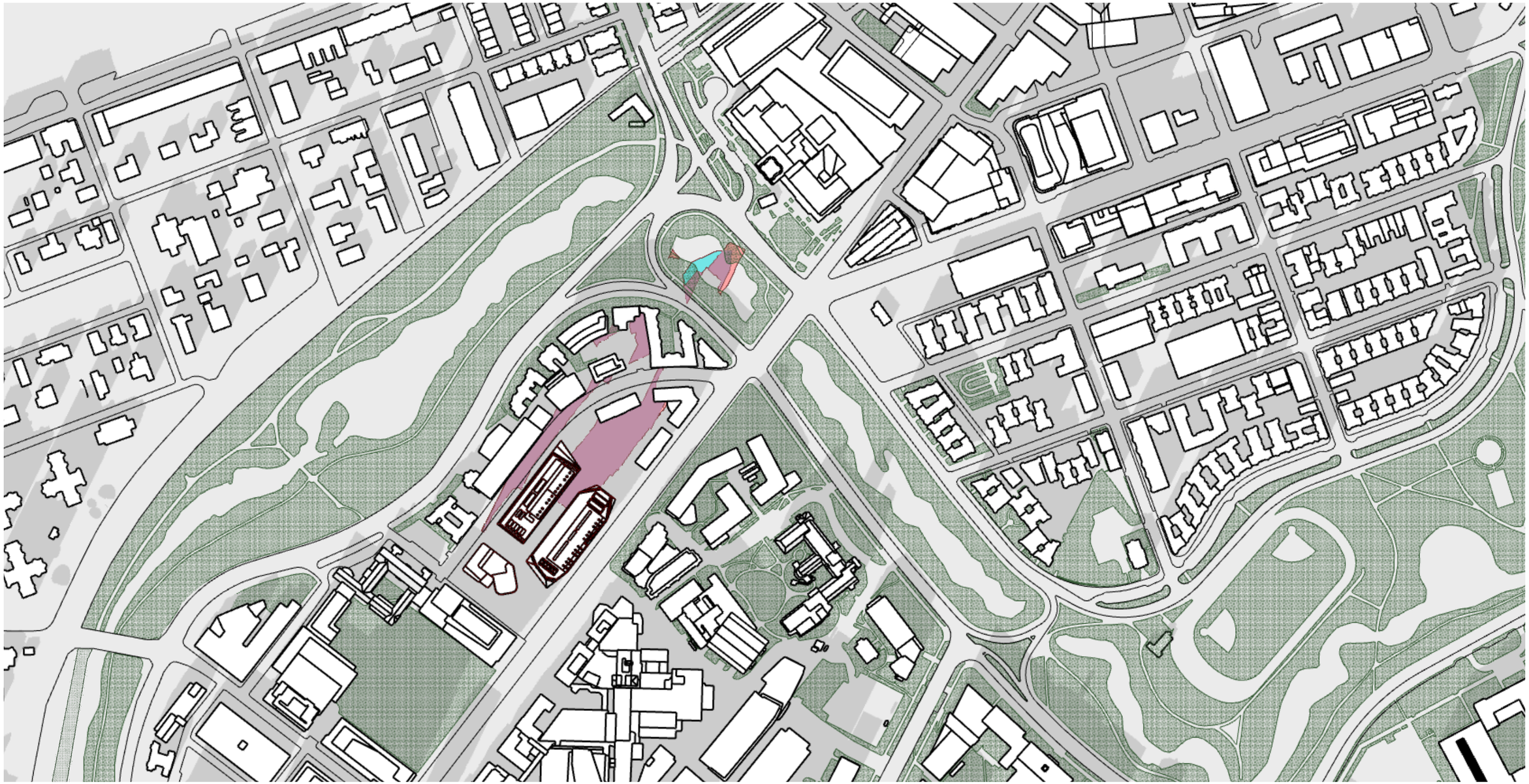


Figure 4.2c-191: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 1:45PM (ST)

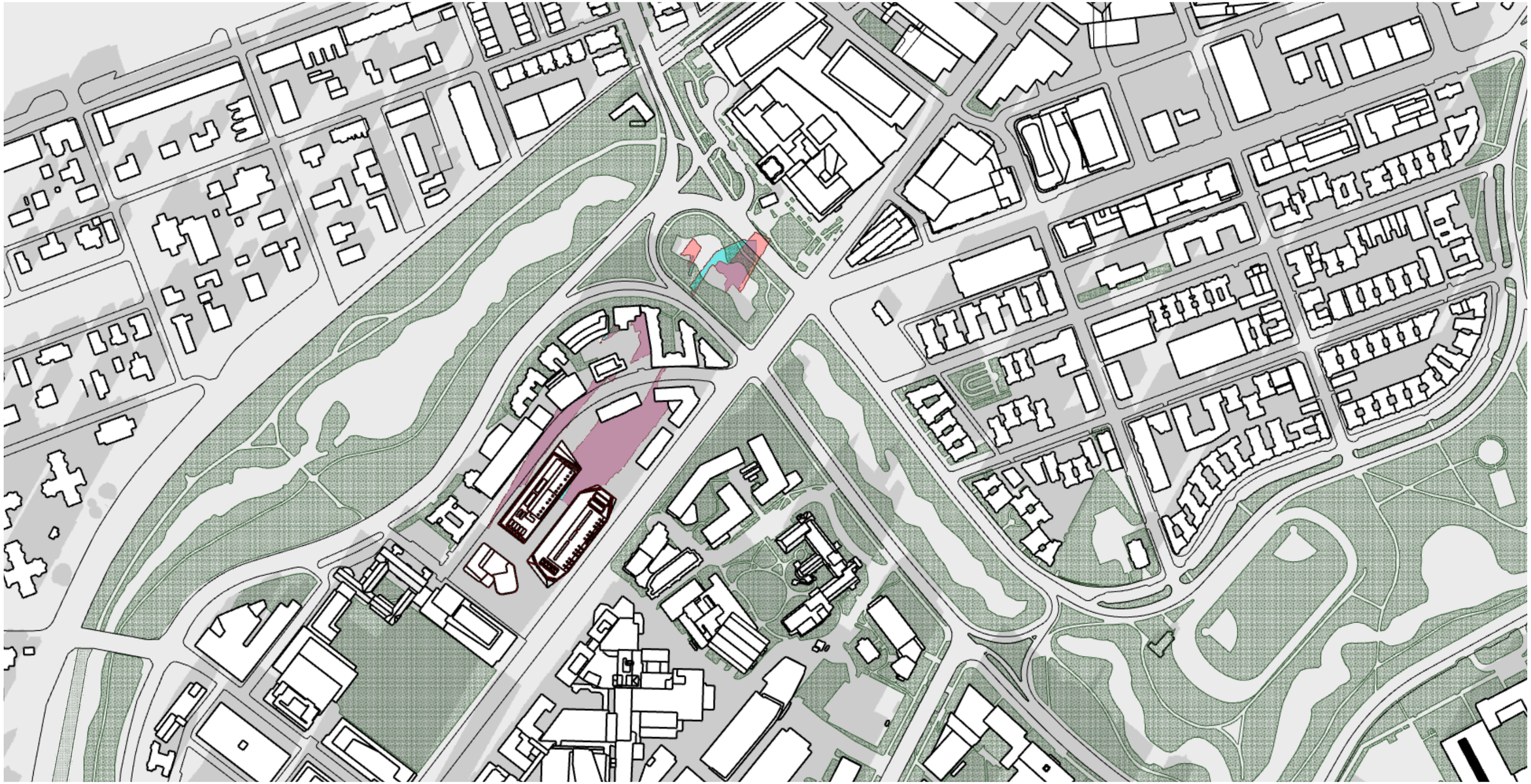


Figure 4.2c-192: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 2:00PM (ST)

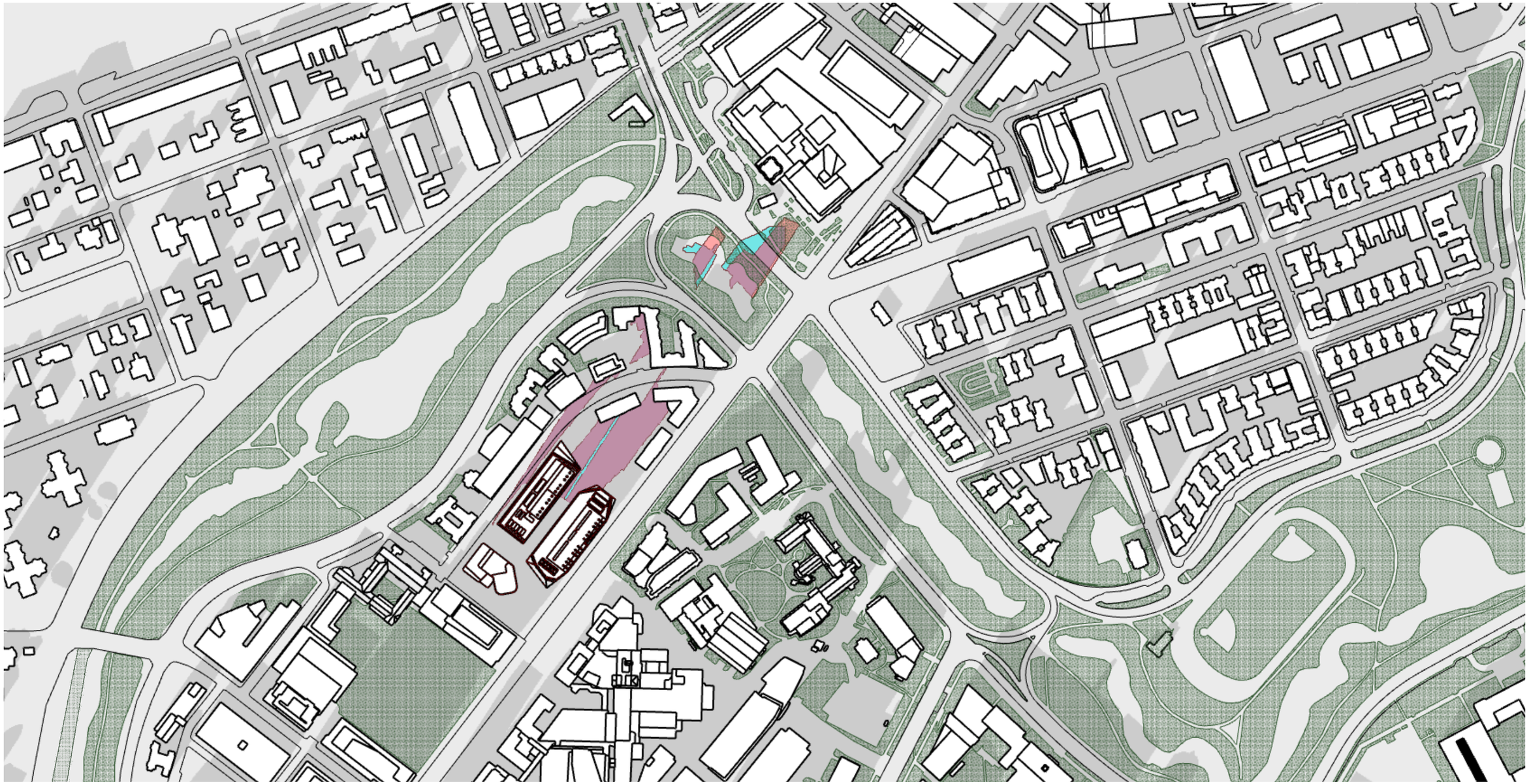


Figure 4.2c-193: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 2:15PM (ST)

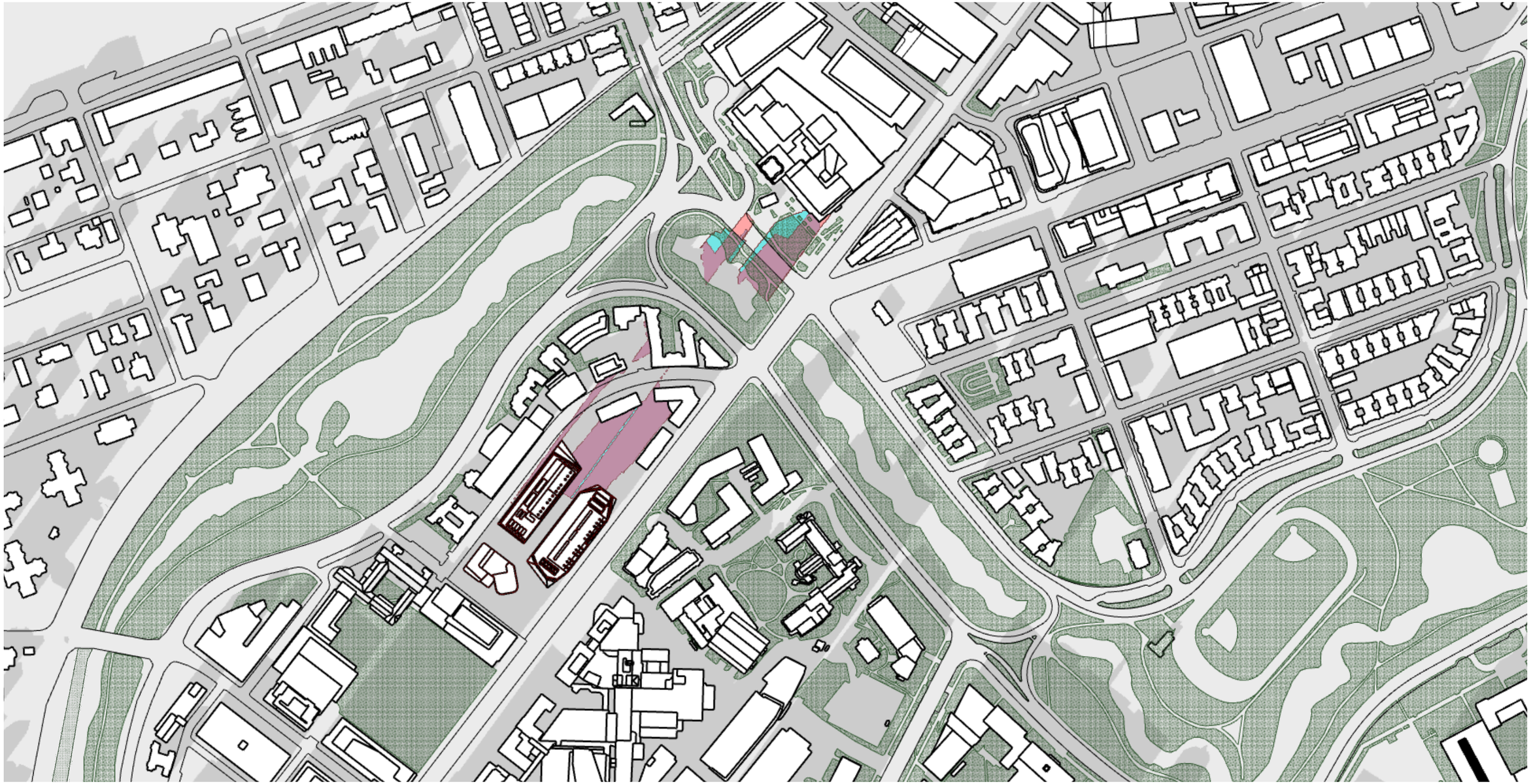


Figure 4.2c-194: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 2:30PM (ST)

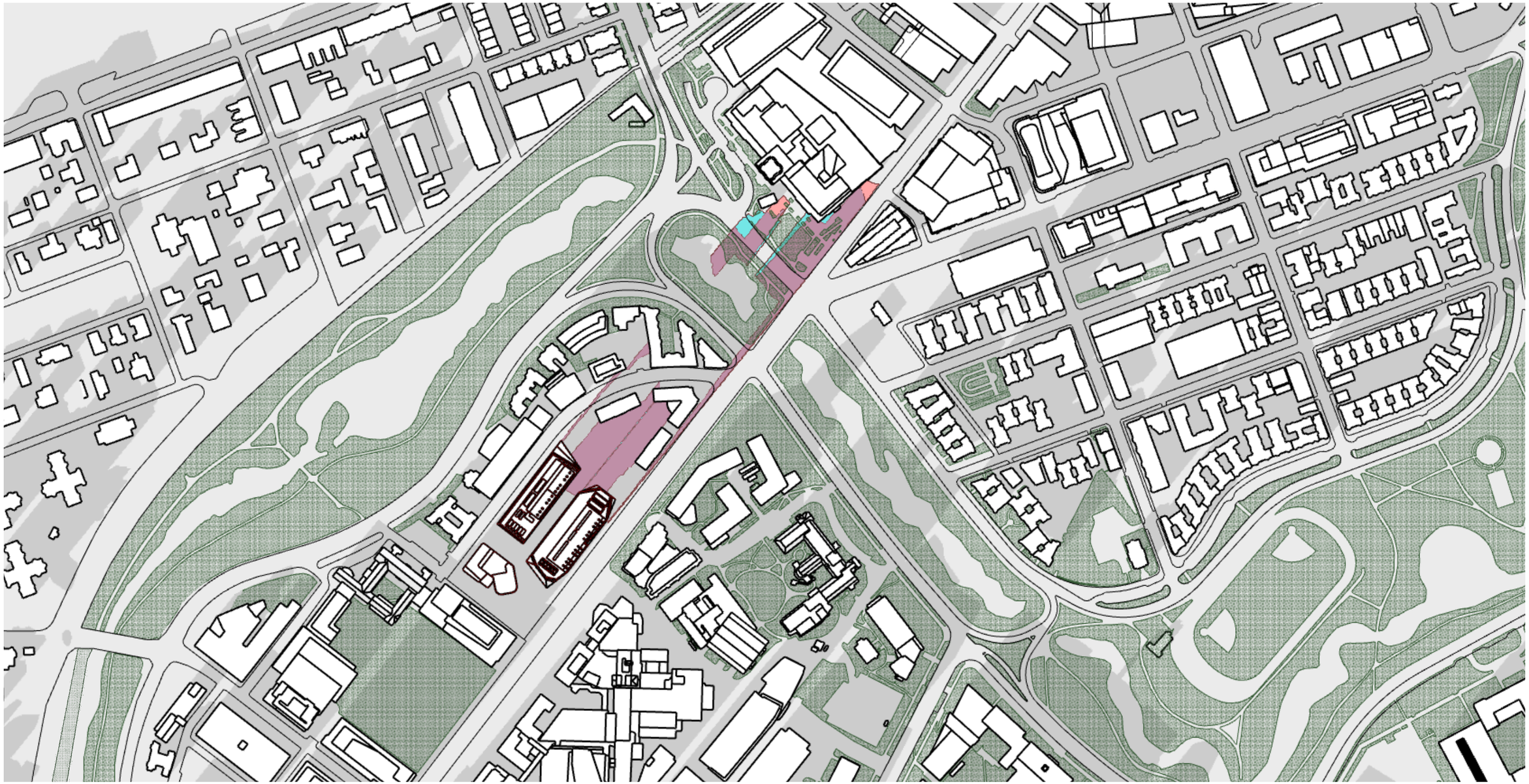


Figure 4.2c-195: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 2:45PM (ST)

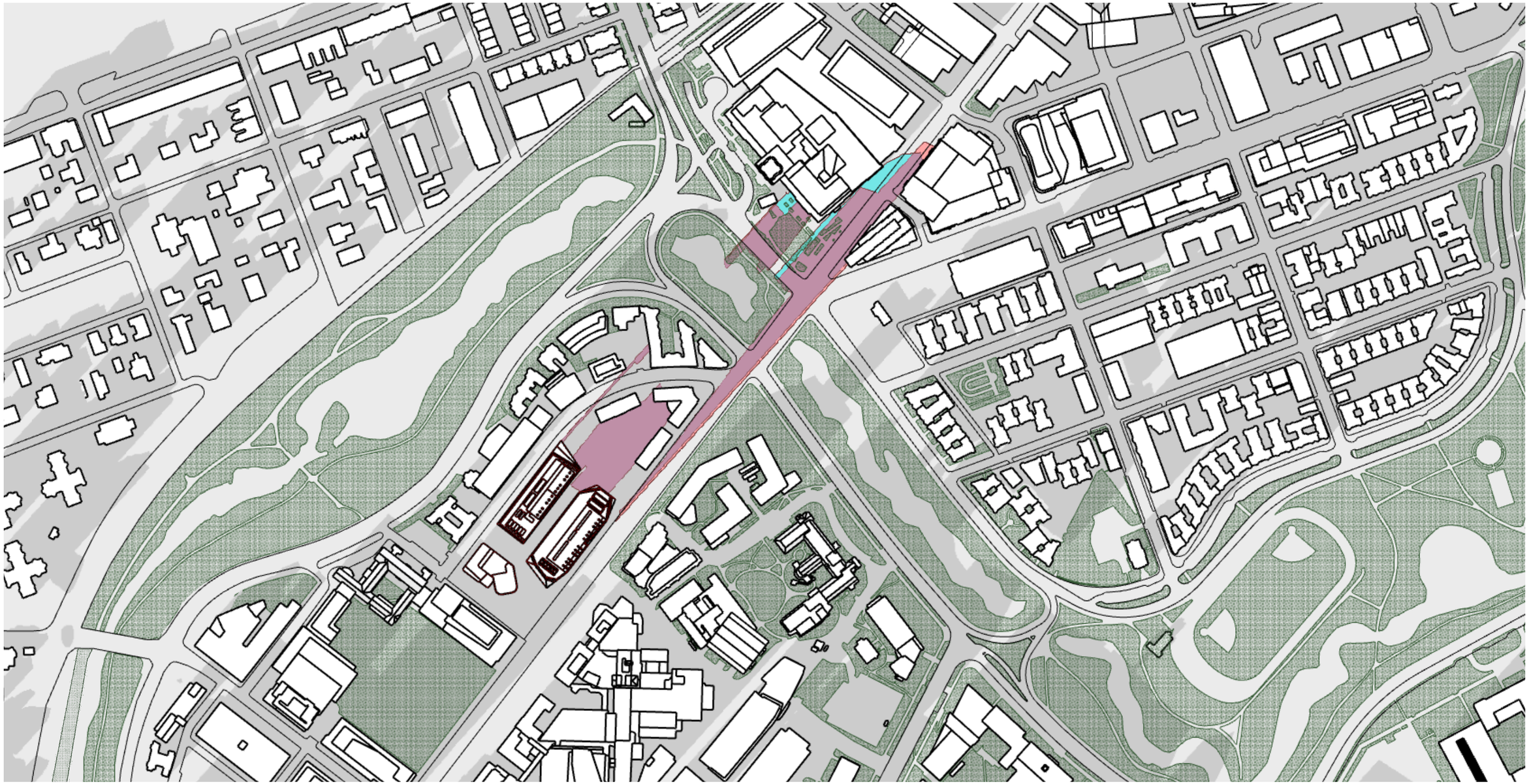


Figure 4.2c-196: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 3:00PM (ST)

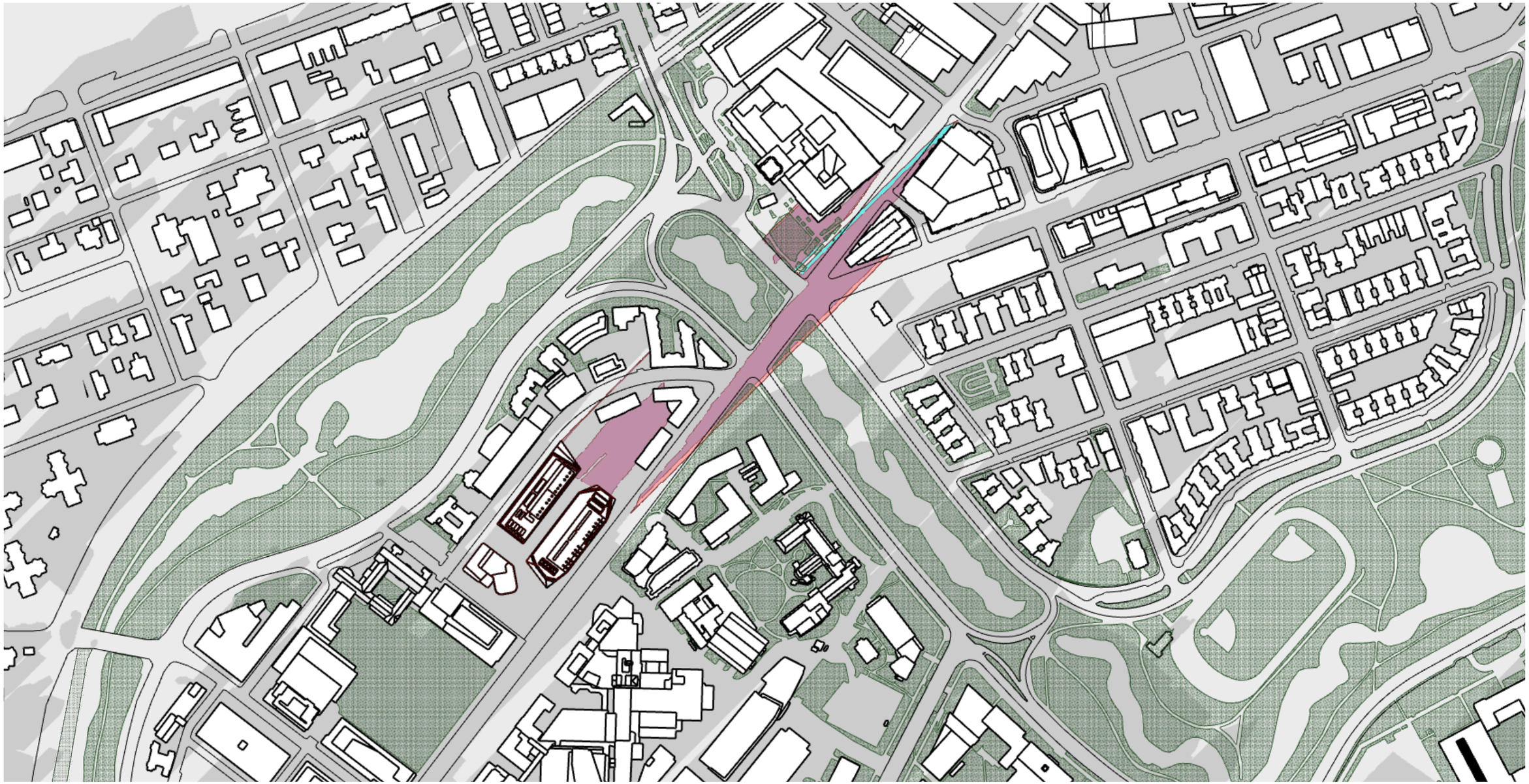


Figure 4.2c-197: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 3:15PM (ST)

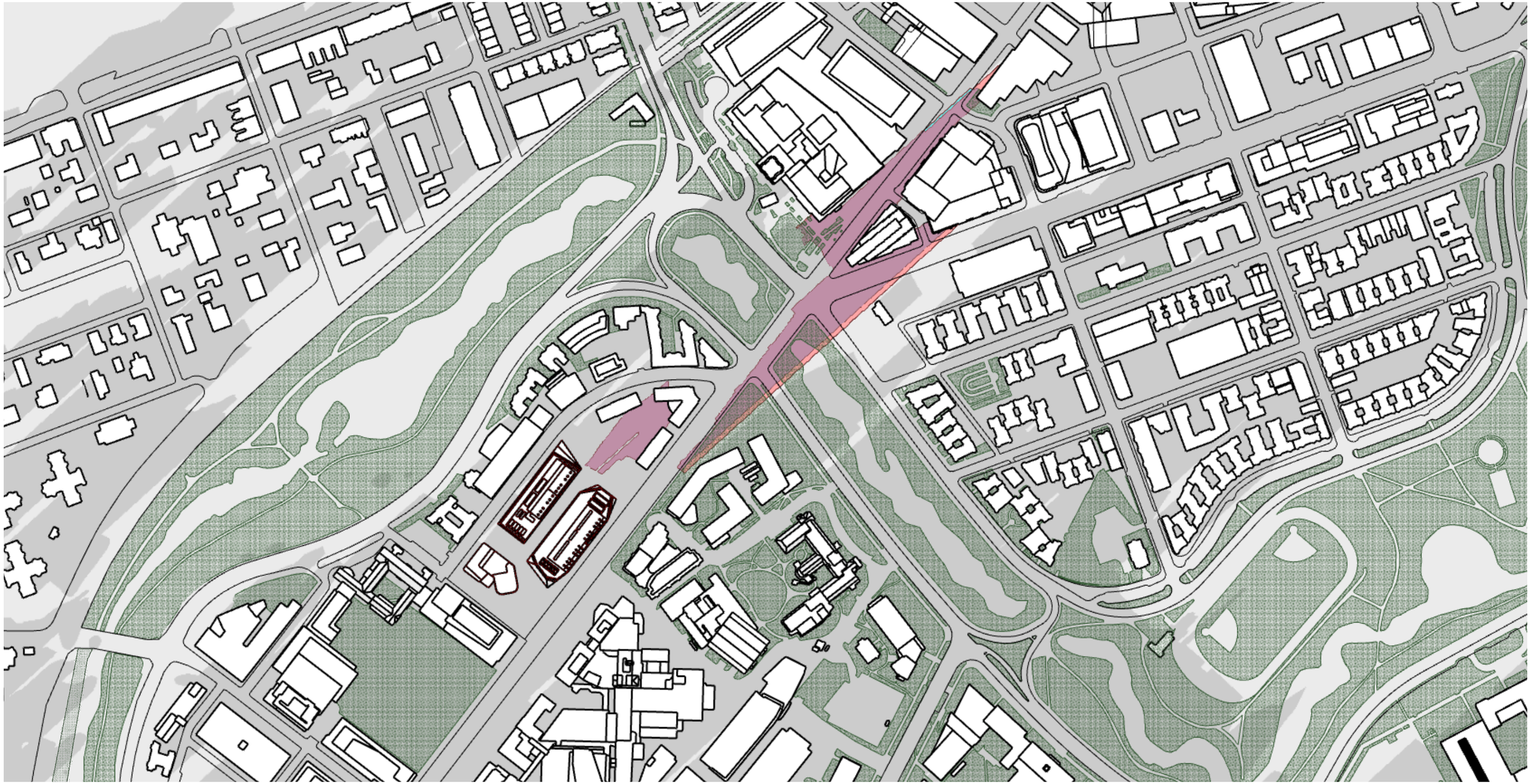


Figure 4.2c-198: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 3:30PM (ST)

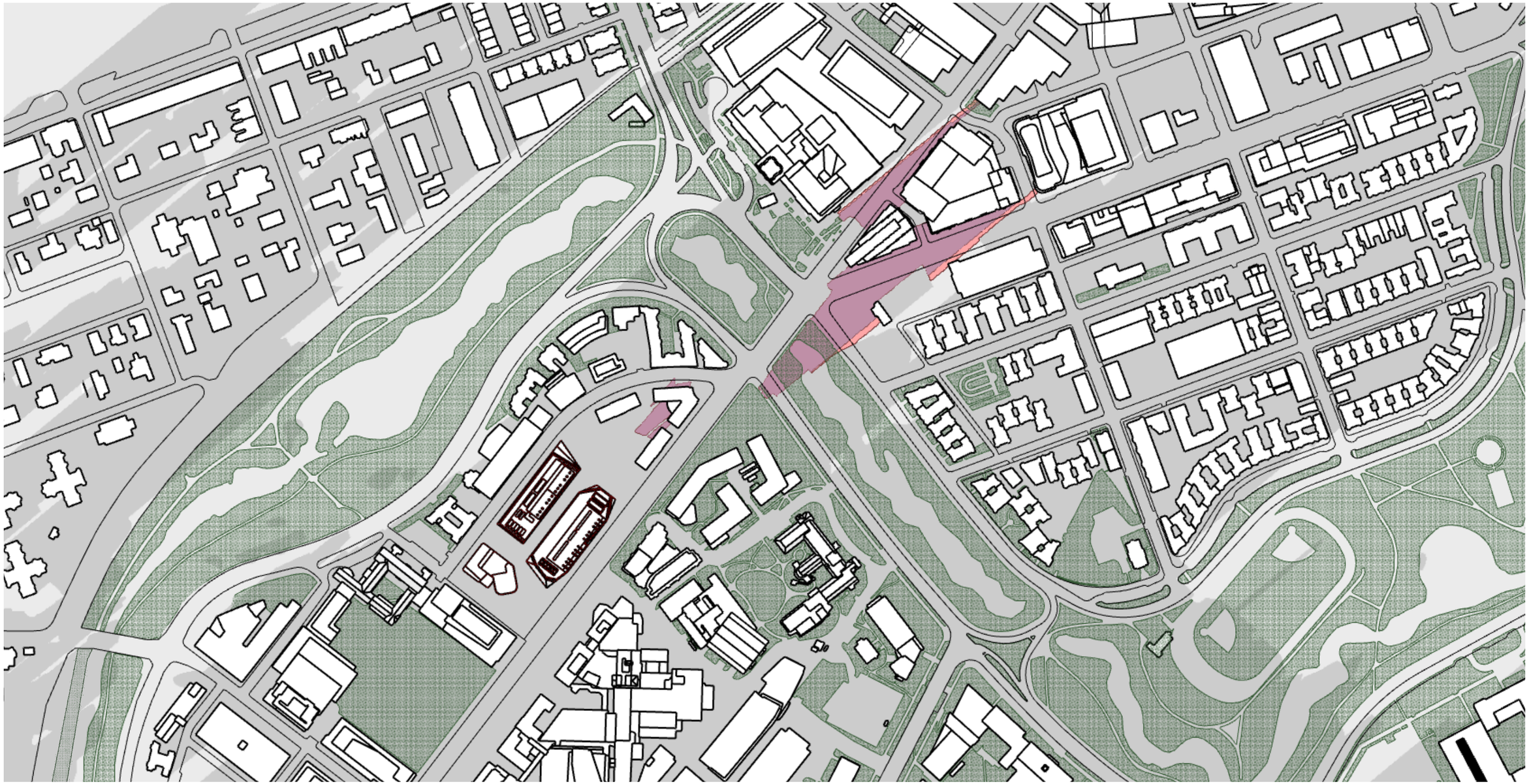


Figure 4.2c-199: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 3:45PM (ST)

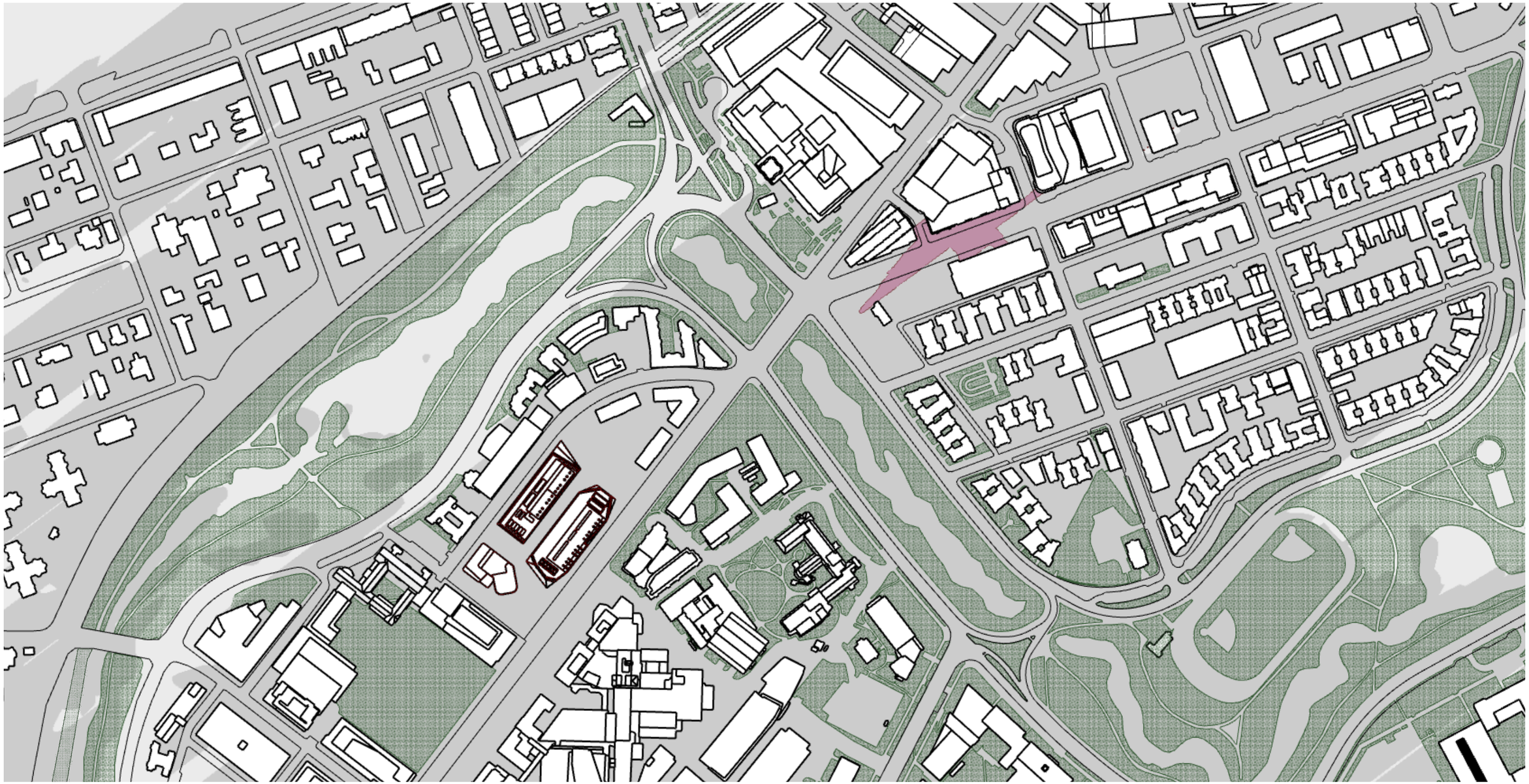


Figure 4.2c-200: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - 4:00PM (ST)

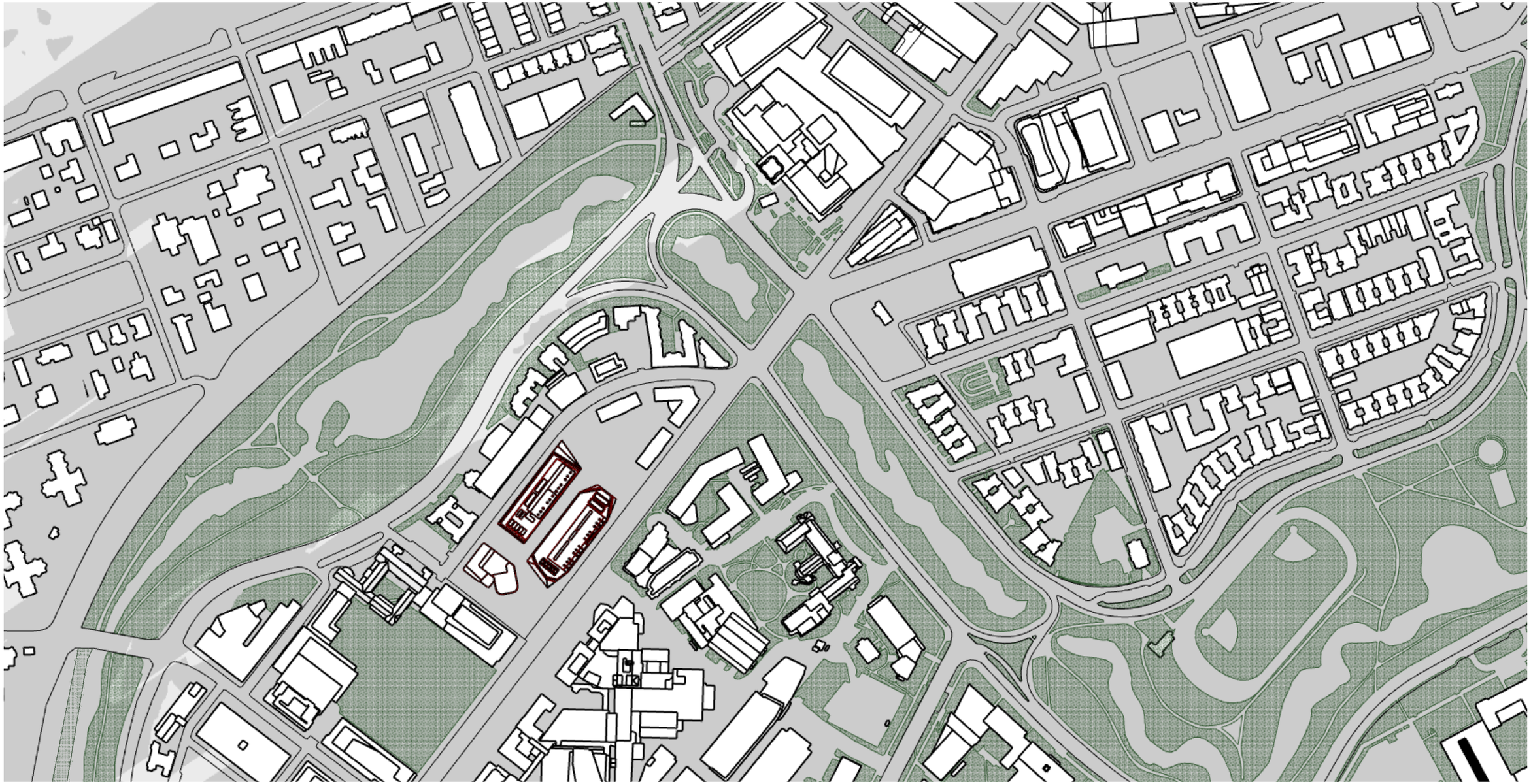


Figure 4.2c-201: Shadow Analysis

Longwood Place | Boston, MA

DECEMBER 21 (WINTER SOLSTICE) - SUNSET 4:15PM (ST)



Appendix E: Air Quality and Greenhouse Gases Supporting Documentation

- Stationary Source Analysis
- Mobile Source Analysis

Stationary Source Analysis



LONGWOOD PLACE

DOER ENERGY MODELING REPORT

JANUARY 12TH, 2026

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EXECUTIVE SUMMARY

Skanska is developing Longwood Place, a mixed use development consisting of five buildings in the Longwood Medical Area in Boston, MA. There will be three lab/office buildings and two residential buildings when completed, totaling around 1.65 million square feet. The first phase of the project will include two of the lab/office buildings (C1/C2) and one residential building (R1). The lab/office buildings are core and shell and are expected to be 60% lab and 40% office.

In March of 2024, the project team submitted the ENF for Longwood Place to the Department of Energy Resources (DOER). Once the project was reviewed by the state, a comment letter was sent back to the team that included design recommendations for the different building types that aim at reducing energy consumption and overall carbon emissions for the campus. The following scenarios were accepted by the project team and are incorporated in the **commercial building** design.

- Heat Recovery Chillers
- ESHP Space Heating at 25% of Peak Load
- Specialized Code: Mixed Fuel Pathway Solar PV + Electric Readiness
- Lab/Office: ASHP Hot Water for Core & Shell Spaces + Gas Hot Water for Tenant Spaces
- Retail Space Heating by 25% ASHP Plant
- Retail: Gas Hot Water and Gas Cooking Equipment for Potential Restaurant Tenant

The following scenarios were accepted by the project team and are incorporated in the **residential building** design.

- Residential and Retail: Passive House per C407.3.1
- Residential and Retail: Space Heating by ASHP
- Residential: In-Unit Electric Resistance Water Heating
- Retail: Electric Resistance Hot Water and Electric Cooking for Potential Restaurant Tenant

Since the project is still in conceptual design phase, the project team opted to use energy modeling to study the scenarios that were not already incorporated in the original basis of design. The purpose of this report is to summarize the modeling efforts completed for Longwood Place for each scenario tested. The results include impacts to system sizing, energy consumption, net operating costs, and cost effectiveness of carbon reduction for each scenario compared to the current basis of design for each building type. To minimize the number of models, the team developed one lab/office model based on C2, and one residential model based on R1. Specifically, the results of the C2 analysis are meant to be directly applicable for decision making for both C2 and C1. DOER has agreed that it is acceptable to use the C2 results regarding the decision making for C1 and C2. The C2 model was developed in eQuest while the R1 model was developed with the WUFI model.

Commercial Building (C2)

C2 is a 335,000 square foot lab office building and will be designed to accommodate a mix of 60% laboratory and 40% office space, and 2 penthouse-level MEP floors. C2 will also have a commercial retail space on the first floor. The following scenarios have been modeled for C2. Due to the different building use types throughout C2, the modeling has been broken out between Lab/Office (high ventilation use), Retail (normal ventilation), and Whole Building. Each scenario will be compared against the current basis of design for energy use as well as the construction premium over a 30 year period and overall cost effectiveness of carbon reduction.

Lab/Office:

- *Reduced Infiltration:* 0.20 cfm/sf at 75 Pa
- *Enhanced Envelope:* Maximum 50% Glazed Wall System with a weighted U-Value of U-0.1285.
- *Air Source Heat Pump Domestic Hot Water*: Both tenant and core spaces will be served by an electric air source heat pump domestic hot water system

Retail:

- *Reduced Infiltration*: 0.20 cfm/sf at 75 Pa
- *Enhanced Envelope:* Maximum 50% Glazed Wall System with a weighted U-Value of U-0.1285.
- *Air Source Heat Pump Domestic Hot Water:* Retail space will be served by an electric air source heat pump domestic hot water system
- *Electric Kitchen:* An all-electric kitchen for the retail space, assuming a restaurant tenant

Whole Building:

- *30% ESHP Plant + Enhanced Envelope + Reduced Infiltration + Central ASHP Water Heater (Lab/Office):* To increase electrification at the building, the capacity of the exhaust source heat pump system will increase to 30% of the building's peak heating load. For both retail and lab/office spaces, there will be a maximum 50% glazed wall system and reduced infiltration of 0.20 cfm/sf at 75 Pa. The lab/office space will have all electric domestic hot water for the tenant and core spaces.
- *30% ESHP Plant + Enhanced Envelope + Reduced Infiltration + ASHP Water Heater (Lab/Office & Retail) + Electric Kitchen:* To increase electrification at the building, the capacity of the exhaust source heat pump system will increase to 30% of the building's peak heating load. For both retail and lab/office spaces, there will be a maximum 50% glazed wall system and reduced infiltration of 0.20 cfm/sf at 75 Pa. The lab/office and retail space will have all electric domestic hot water for the tenant and core spaces. The retail space will assume an all-electric kitchen instead of gas.

Residential Building (R1)

R1 is a 205,000 square foot residential building that is anticipated to be all-electric and passive house certified through PHIUS. The following scenarios have been modeled for R1. Each scenario will be compared against the current basis of design for energy use as well as the construction premium over a 30 year period and overall cost effectiveness of carbon reduction.

Residential:

- *In Unit Hybrid ASHP + Restaurant ASHP Water Heater:* The hybrid air-source heat pump water heaters are assumed to operate in heat pump mode for six months of the year and in electric resistance mode for the remaining six months.
- *Central ASHP Water Heater:* Air-source heat pump water heating for both the residential and retail spaces.

Commercial Building Results

Based on the results for C2, the following list shows each scenario and the estimated $/ton compared against the current basis of design. The list goes from the most cost effective scenario to the least cost effective scenario. The "Net Operating + Amortized Investment Cost" includes the premium cost and annual energy cost savings for each scenario compared against the basis of design over a 30 year period. The amortized cost is an annual value and does not include any maintenance or replacement costs. It is important to note that maintenance and replacement costs can be significant for the scenarios that test ASHP for domestic hot water heating. The carbon emissions were calculated based on the 2050 emission factors outlined by the DOER:

2050 Cost Effectiveness of Carbon Reduction Strategies	Building Use Type	Net Operating + Amortized Investment Cost ($/year)	2050 Carbon Emissions Delta (metric tons)	Carbon Cost Effectiveness ($/year/metric ton)
Scenario 2 Maximum 50% Glazed Wall System	Retail	(7,650)	0.76	(10,089)
Scenario 4 All Electric Kitchen	Retail	(1,764)	6.22	(283)
Scenario 1 Reduced Infiltration	Lab/Office	(7,536)	37.84	(199)
Scenario 3 Central ASHP DHW	Lab/Office	199,109	114.43	1,740
Scenario 1 Reduced Infiltration	Retail	608	0.23	2,689
Scenario 2 30% Electrification + Lab/Office Scenarios + Retail ASHP + Electric Kitchen	Whole Building	1,334,634	152.06	8,777
Scenario 1 30% Electrification + Lab/Office Scenarios	Whole Building	1,294,131	144.58	8,951
Scenario 3 ASHP DHW	Retail	41,641	1.26	33,082
Scenario 2 Maximum 50% Glazed Wall System	Lab/Office	1,005,891	11.76	85,505

Residential Building Results

Based on the results for R1, the following list shows each scenario and the estimated $/ton compared against the current basis of design. The list goes from the most cost effective scenario to the least cost effective scenario. The "Net Operating + Amortized Investment Cost" includes the premium cost and annual energy cost savings for each scenario compared against the basis of design over a 30 year period. The amortized cost is an annual value and does not include any maintenance or replacement costs. It is important to note that the maintenance and replacement costs can be significant for the scenarios that test ASHP for domestic hot water heating. The carbon emissions were calculated based on the 2050 emission factors outlined by the DOER:

2050 Cost Effectiveness of Carbon Reduction Strategies	Net Operating + Amortized Investment Cost ($/year)	2050 Carbon Emissions Delta (metric tons)	Carbon Cost Effectiveness ($/year/metric ton)
Scenario 2: Central Heat Pump DHW (Combined Residential + Retail)	93,022	1.66	56,037
Scenario 1: Individual Hybrid Heat Pump DHW (Residential) + Retail Heat Pump DHW	91,197	0.23	396,509

Please note that all results are preliminary and only developed to a conceptual level. All results are subject to change as the design is refined. Assumptions are based on the latest basis of design, architectural drawings, and conversations with the project team.

C2 MODELING ASSUMPTIONS AND GAP ANALYSIS

The commercial building has been split into two different use types per DOER direction along with the whole building. The first building use type is the lab/office, the second is the retail portion. The whole building model includes both lab/office and retail building use types. The three tables below represent each of these three ways of dividing up the building for purpose of studying energy conservation measures.

The separate system descriptions summarize the key design changes that are needed for each scenario and were used to price their associated cost premium compared to the current basis of design. Detailed descriptions of each scenario can be found in Appendix B. The detailed descriptions are the basis for the cost estimates.

We have evaluated impact to system sizing and found that it is negligible for whole building systems and therefore does not have an impact on construction costs. To validate this, specific system impacts from the enhanced envelope scenarios (maximum 50% glazed wall system) at the retail and lab/office spaces were analyzed for space cooling and heating load reduction, and perimeter heat impacts. Those analyses are detailed in the following section, "C2 Envelope Impacts to System Sizing".

Based on the DOER comment letter, the following three scenarios were modeled and compared against the current basis of design for the lab/office portion of C2.

Lab/Office Gap Analysis	Current Basis of Design	Enhanced Scenarios
Scenario 1: C406.9 Reduced Infiltration	Assume infiltration rate of **0.35 cfm/sf at 75 Pa**	Follow guidelines for C406.9 to comply with an infiltration rate of **0.20 cfm/sf at 75 Pa**.
Scenario 2: Maximum 50% Glazed Wall System	Assume greater than a 50% glazed wall system. Per Massachusetts Stretch Code, an envelope that is greater than 50% glazed wall must have a weighted U-value of **U-0.1600**.	Assume a maximum 50% glazed wall system. Per Massachusetts Stretch Code, an envelope that is less than 50% glazed wall must have a weighted U-value of **U-0.1285**.
Scenario 3: Domestic Hot Water (Tenant)	**Gas water heaters** for tenant lab/office domestic hot water at 96% design efficiency Core spaces will have a separate ASHP system	Provide (3) **central ASHP domestic hot water heater** equipment packages with outdoor condensing units and heat exchangers inside the building. A design COP of approximately 3.5 is assumed for heat pump operation. The operational COP was derated based on the outside ambient temperature.

Based on the DOER comment letter, the following four scenarios were modeled and compared against the current basis of design for the retail portion of C2.

Retail Gap Analysis	Current Basis of Design	Enhanced Scenarios
Scenario 1: C406.9 Reduced Infiltration	Assume infiltration rate of **0.35 cfm/sf at 75 Pa**	Follow guidelines for C406.9 to comply with an infiltration rate of **0.20 cfm/sf at 75 Pa**.
Scenario 2: Maximum 50% Glazed Wall System	Assume greater than a 50% glazed wall system. Per Massachusetts Stretch Code, an envelope that is greater than 50% glazed wall must have a weighted U-value of **U-0.1600**. Vision area is 85% of façade	Assume a maximum 50% glazed wall system. Per Massachusetts Stretch Code, an envelope that is less than 50% glazed wall must have a weighted U-value of **U-0.1285**. Vision area is 50% of façade
Scenario 3: Domestic Hot Water (Retail)	**Gas water heaters** for tenant retail space domestic hot water at 96% design efficiency	Provide (1) central ASHP domestic hot water heater equipment package to serve retail spaces. A design COP of approximately 3.5 is assumed for heat pump operation. The operational COP was derated based on the outside ambient temperature.
Scenario 4: All Electric Kitchen	Install **gas equipment** for commercial kitchen	Install all **electric kitchen equipment** in lieu of gas equipment. No additional electrical service required per specialized-opt in requirement of capacity for fully electrified kitchen on day 1.

To see the impact of all scenarios for both the lab/office and retail spaces, the following scenarios were combined and modeled on a whole building level along with an increase in exhaust source heat pump capacity.

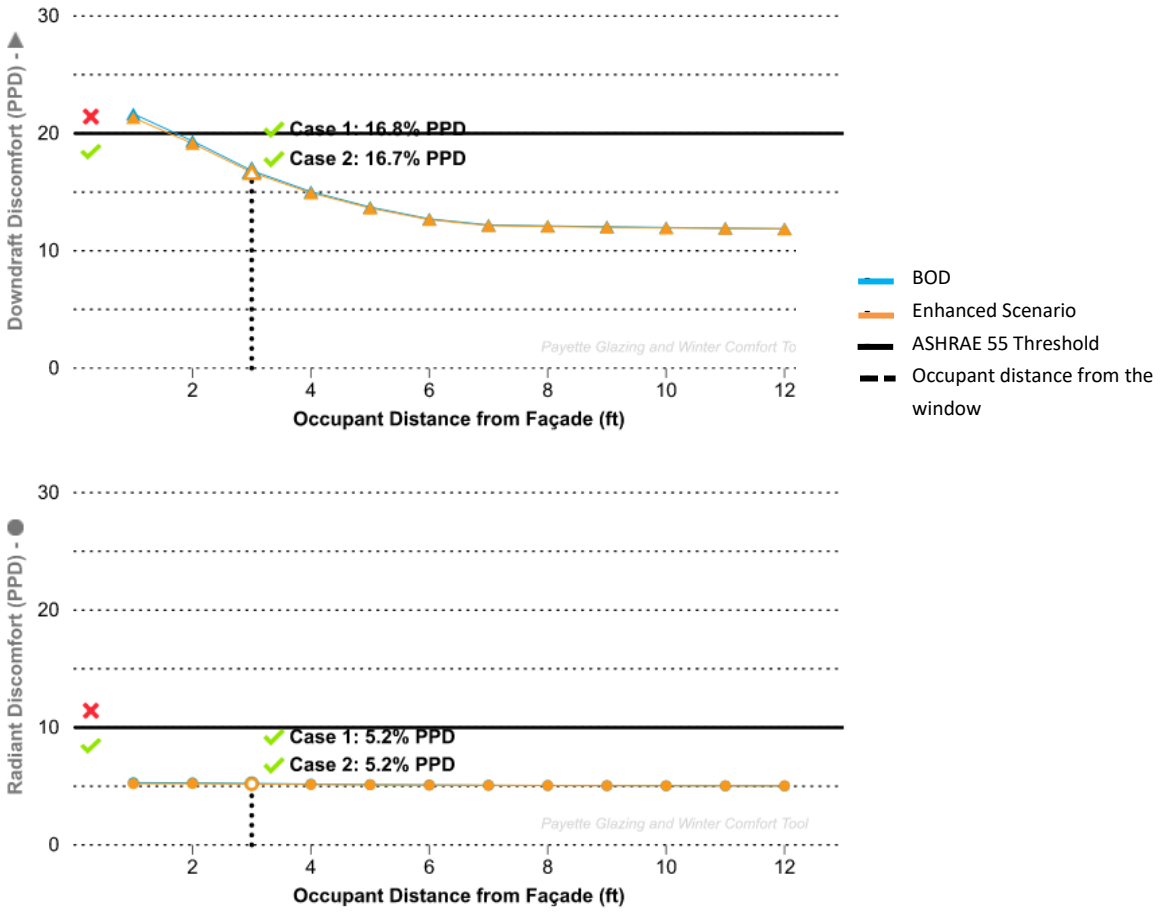
Whole Building Gap Analysis	Current Basis of Design	Enhanced Scenarios
Scenario 1: 30% Electrification + Reduced Infiltration + Maximum 50% Glazed Wall System + Lab/Office Central ASHP	**4 x 155 ton** exhaust source heat pumps The exhaust source heat pump capacity at ASHRAE 99.6% design condition is now equal to 25% of the peak heating load. Assume infiltration rate of **0.35 cfm/sf at 75 Pa** Per Massachusetts Stretch Code, an envelope that is greater than 50% glazed wall must have a weighted U-value of **U-0.1600**. **Gas water heaters** for tenant lab/office space domestic hot water at 96% design efficiency. Core spaces will have a separate ASHP system **Gas water heaters** for tenant retail space domestic hot water at 96% design efficiency. Core spaces will have a separate ASHP system	**5 x 155 ton** exhaust source heat pumps The exhaust source heat pump capacity at ASHRAE 99.6% design condition is now equal to 30% of the peak heating load. Follow guidelines for C406.9 to comply with an infiltration rate of **0.20 cfm/sf at 75 Pa**. Assume a maximum 50% glazed wall system. Per Massachusetts Stretch Code, an envelope that is less than 50% glazed wall must have a weighted U-value of **U-0.1285**. Provide (3) **central ASHP domestic hot water heater** equipment packages with outdoor condensing units and heat exchangers inside the building.
Scenario 2: 30% Electrification + Reduced Infiltration + Maximum 50% Glazed Wall System + Lab/Office Central ASHP+ Retail ASHP + Electric Kitchen	**4 x 155 ton** exhaust source heat pumps The exhaust source heat pump capacity at ASHRAE 99.6% design condition is now equal to 25% of the peak heating load. Assume infiltration rate of **0.35 cfm/sf at 75 Pa** Per Massachusetts Stretch Code, an envelope that is greater than 50% glazed wall must have a weighted U-value of **U-0.1600**. **Gas water heaters** for tenant lab/office space domestic hot water at 96% design efficiency. Core spaces will have a separate ASHP system **Gas water heaters** for tenant retail space domestic hot water at 96% design efficiency Install **gas equipment** for commercial kitchen	**5 x 155 ton** exhaust source heat pumps The exhaust source heat pump capacity at ASHRAE 99.6% design condition is now equal to 30% of the peak heating load. Follow guidelines for C406.9 to comply with an infiltration rate of **0.20 cfm/sf at 75 Pa**. Assume a maximum 50% glazed wall system. Per Massachusetts Stretch Code, an envelope that is less than 50% glazed wall must have a weighted U-value of **U-0.1285**. Provide (3) **central ASHP domestic hot water heater** equipment packages with outdoor condensing units and heat exchangers inside the building. Provide (1) central ASHP domestic hot water heater equipment package to serve retail spaces. Install all **electric kitchen equipment** in lieu of gas equipment. No additional electrical service required per specialized-opt in requirement of capacity for fully electrified kitchen on day 1.

C2 ENVELOPE IMPACTS TO SYSTEM SIZING

Additional analyses have been completed to show the overall system impact on C2 based on a maximum 50% glazed wall system. Compared to the current BOD, changing the glazed wall system results in improved performance of the opaque façade at the lab/office and a reduced vision glass area at the retail space. Thermal comfort and space load impacts were analyzed at both the lab/office and retail spaces.

Lab/Office Envelope Analysis – Thermal Comfort and Perimeter Heat

Improving envelope performance can have a positive impact on occupant comfort however the enhanced envelope scenario does not change whether the lab/office space will need perimeter heat and therefore there is no change in system cost. The following graphs show the percentage of people dissatisfied with downdraft and radiant discomfort for both the current basis of design and a 50% glazed wall system. Minimizing the glazed wall system does improve downdraft discomfort slightly, however the percentage of people dissatisfied does not reduce significantly and it can be assumed that there is no impact to the need for perimeter heat.



Lab/Office Envelope Analysis – Space Load Reduction

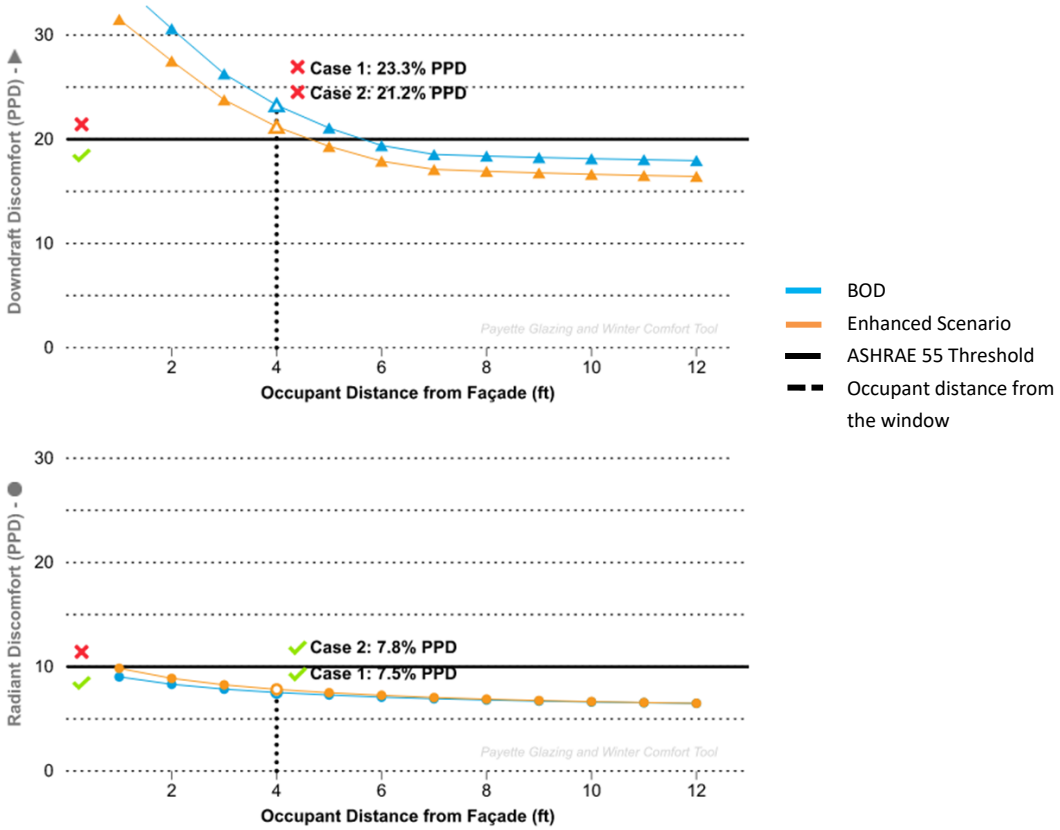
Individual space loads were also analyzed for a typical lab/office space using a simple Trane Trace model. The following table shows the impacts to the space load of a 225 sf private office with the basis of design and a maximum 50% glazed wall system. There is a 4% reduction in peak cooling space load for a typical perimeter office zone with an improved envelope. Note that the 4% reduction is for the envelope only and does not incorporate internal loads such as lighting, occupancy, and equipment loads. For the entire perimeter office peak load, this reduction becomes 2% and it is expected that there will be no change in system sizing for equipment in a private office. On an overall floor basis this peak load reduction is even smaller than 2%.

Private Office – Peak Cooling Loads (Envelope Only)	Current Basis of Design	Maximum 50% Glazed Wall	Savings
Glass Solar (btu/hr)	6,721	6,721	-%
Glass Conductance (btu/hr)	-164	-164	-%
Wall Conductance (btu/hr)	819	512	37%
Infiltration (btu/hr)	-47	-47	-%
Total (btu/hr)	7,329	7,022	**4%**

Private Office – Peak Heating Loads (Envelope Only)	Current Basis of Design	Maximum 50% Glazed Wall	Savings
Glass Conductance (btu/hr)	-1,940	-1,940	-%
Wall Conductance (btu/hr)	-404	-253	37%
Infiltration (btu/hr)	-956	-956	-%
Total (btu/hr)	-3,300	-3,149	**4.5%**

Retail Envelope Analysis – Thermal Comfort and Perimeter Heat

It was assumed that a typical occupant will be around 4 feet or less away from vision glass. Improving envelope performance and reducing vision glass can have a positive impact on occupant comfort however the enhanced envelope scenario does change the need for perimeter heating at the retail space. The following graphs show the percentage of people dissatisfied with downdraft and radiant discomfort for both the current basis of design and a 50% glazed wall system. Since the percent of people dissatisfied does not change compliance with ASHRAE 55, it assumed that both scenarios would require perimeter heat and there is no expected cost reduction.



Retail Envelope Analysis – Space Load Reduction

Individual space loads were also analyzed for a typical portion of the retail space. The following table shows the impacts to a 324 sf perimeter portion of the retail space on level 1. Due to the significant reduction in glass, there is a 35% reduction in the envelope cooling load, with 96% of this reduction being glass solar loads. Note that the 35% reduction is for the envelope only and does not incorporate internal loads such as lighting, occupancy, and equipment loads. For the entire perimeter area peak load, this reduction becomes 28%. Since the retail space is currently tied into the entire building system and is relatively small compared to the lab/office space (1.2% of total area), there will not be a change in whole building system sizing. However, this may have an impact on other system sizing for the space during a fit-out design. Peak heating envelope loads will also reduce by 11% with the enhanced envelope and lower vision glass.

Retail Peak Cooling Loads (Envelope Only)	Current Basis of Design	Maximum 50% Glazed Wall	Savings
Glass Solar (btu/hr)	22,587	13,861	38%
Glass Conductance (btu/hr)	-561	-287	48%
Wall Conductance (btu/hr)	311	1,079	-247%
Infiltration (btu/hr)	-257	-257	-%
Total (btu/hr)	22,080	14,396	**35%**

Retail Peak Heating Loads (Envelope Only)	Current Basis of Design	Maximum 50% Glazed Wall	Savings
Glass Conductance (btu/hr)	-4,599	-3,414	25%
Wall Conductance (btu/hr)	-176	-527	-199%
Infiltration (btu/hr)	-2,956	-2,956	-%
Total (btu/hr)	-7,731	-6,897	**11%**

C2 LAB/OFFICE ENERGY MODEL RESULTS

Based on current assumptions and the preliminary design documents for C2, the energy analysis results for the current basis of design and proposed scenarios for the lab/office spaces are shown in the table below.

While Scenarios 1& 2 reduce energy consumption and annual energy costs, Scenario 3 results in a significant decrease in natural gas consumption due to the electrified central domestic hot water system. This system has a higher COP than a conventional gas water heater however, due to the increase in electricity from the heat pump, annual energy costs will increase slightly.

Lab/Office Energy Metric	UNIT	BOD	Scenario 1: Reduced Infiltration	Scenario 2: Maximum 50% Glazed Wall System	Scenario 3: Central ASHP DHW
Total Electricity Consumption	MMBtu/yr	37,896	37,808	37,841	38,578
Total Natural Gas Consumption	MMBtu/yr	7,693	6,984	7,476	5,432
Total Energy Consumption	MMBtu/yr	45,589	44,792	45,316	44,010
Total Energy Cost	$/yr	$ 2,451,703	$ 2,435,265	$ 2,444,917	$ 2,458,596
Building Energy Use Intensity	kBtu/sf	136	134	135	131
Building Energy Cost per SF	$/sf	$ 7.32	$ 7.27	$ 7.30	$ 7.34

Lab/Office Energy Savings	Scenario 1: Reduced Infiltration	Scenario 2: Maximum 50% Glazed Wall System	Scenario 3: Central ASHP DHW
Total Electricity Consumption	0.23%	0.15%	-1.80%
Total Natural Gas Consumption	9.21%	2.82%	29.38%
Total Energy Consumption	1.75%	0.60%	3.46%
Total Energy Cost	0.67%	0.28%	-0.28%
Building Energy Use Intensity	1.75%	0.60%	3.46%
Building Energy Cost per SF	0.67%	0.28%	-0.28%

The following table was provided by DOER and highlights detailed results from the energy models. Based on the results below the models show:

- Scenario 1: Reduced infiltration reduces carbon emissions by 5.78% compared to the current basis of design by 2050
- Scenario 2: A maximum 50% glazed wall system reduces carbon emissions by 1.80% compared to the current basis of design by 2050
- Scenario 3: The central ASHP DHW system will reduce carbon emissions by 17.47% compared to the current basis of design by 2050

Commercial Building C2 – Lab/Office **Item**	**BOD**	**Scenario 1: Reduced Infiltration**	**Scenario 2: Maximum 50% Glazed Wall System**	**Scenario 3: Central ASHP DHW**
Roof R value	R-15/U-0.063	R-15/U-0.063	R-15/U-0.063	R-15/U-0.063
Wall U-value	U-0.055	U-0.055	U-0.039	U-0.055
% wall	62%	62%	62%	62%
Window U-value	U-0.25	U-0.25	U-0.25	U-0.25
% window	38%	38%	38%	38%
Area-weighted vertical above grade U-value	U-0.139	U-0.139	U-0.1285	U-0.139
Air Infiltration (cfm @ 75 Pa)	0.35 cfm/sf	0.20 cfm/sf	0.35 cfm/sf	0.35 cfm/sf
Ventilation energy recovery (% effectiveness)	70%	70%	70%	70%
Solar heat gain coefficient	0.28	0.28	0.28	0.28
Heating TEDI (kBtu/sf-yr)	37.34	36.02	36.09	37.34
Cooling TEDI (kBtu/sf-yr)	78.97	79.35	78.92	78.97
Peak annual space heating demand (MMBtu/yr)	17.05	17.91	16.68	17.05
Peak annual space cooling demand (MMBtu/yr)	23.62	23.42	23.57	23.62
Peak annual electric load (MW)	3.43	3.44	3.43	3.44
Peak annual electric load attributable to service water heating (MW)	0.023	0.023	0.023	0.125
Peak annual gas load (MBH)	16,884	15,136	16,644	16,884
Natural gas consumption (MMBtu/yr)	7,693	6,985	7,476	5,558
Electric power consumption (MMBtu/yr)	37,896	37,808	37,841	38,578
Fossil fuel emissions (tons/yr)	405	368	393	286
Electric emissions @ 2025 (tons/yr)	3,778	3,769	3,773	3,846
Total emissions @ 2025 (tons/yr)	4,183	4,137	4,166	4,132
Electric emissions @ 2050 (tons/yr)	250	250	250	255
Total emissions @ 2050 (tons/yr)	655	617	643	540
Space heating emissions @ 2025 (tons/yr)	465	416	452	465
Space heating emissions @ 2050 (tons/yr)	304	266	292	304
Water heating emissions @ 2025 (tons/yr)	133	133	133	68
Water heating emissions @ 2050 (tons/yr)	120	120	120	5

C2 RETAIL ENERGY MODEL RESULTS

Based on current assumptions and the preliminary design documents for C2, the energy analysis results for the current basis of design and proposed scenarios for the retail space are shown in the table below.

The most significant results for the retail space come from Scenario 4. This scenario reduces natural gas by 57.36% due to the all-electric equipment and the reduction in fan power at the kitchen space. This equipment is more efficient and produces a smaller amount of thermal output compared to gas equipment. There is a 5% increase in overall energy cost, however, because of the increase in electricity use.

In Scenario 2, the maximum 50% glazed wall system also results in a reduction in energy consumption and an annual cost savings of 8.1% which is the highest among the scenarios modeled. As mentioned previously, this scenario reduces peak cooling loads which results in lower ventilation rates and fan power.

Retail Energy Metric	UNIT	BOD	Scenario 1: Reduced Infiltration	Scenario 2: Maximum 50% Glazed Wall System	Scenario 3: Central ASHP DHW	Scenario 4: All Electric Kitchen
Total Electricity Consumption	MMBtu/yr	537	535	491	544	596
Total Natural Gas Consumption	MMBtu/yr	219	215	210	194	93
Total Energy Consumption	MMBtu/yr	756	754	701	738	689
Total Energy Cost	$/yr	$ 38,028	$ 37,851	$ 34,937	$ 38,126	$ 39,924
Building Energy Use Intensity	kBtu/sf	189	189	175	185	172
Building Energy Cost per SF	$/sf	$ 9.51	$ 9.46	$ 8.73	$ 9.53	$ 9.98

Retail Energy Savings	Scenario 1: Reduced Infiltration	Scenario 2: Maximum 50% Glazed Wall System	Scenario 3: Central ASHP DHW	Scenario 4: All Electric Kitchen
Total Electricity Consumption	0.33%	8.54%	-1.40%	-11.48%
Total Natural Gas Consumption	1.86%	3.95%	11.35%	57.36%
Total Energy Consumption	0.26%	7.28%	2.38%	8.86%
Total Energy Cost	0.47%	8.13%	-0.26%	-4.99%
Building Energy Use Intensity	0.26%	7.28%	2.38%	8.86%
Building Energy Cost per SF	0.47%	8.13%	-0.26%	-4.99%

The following table highlights detailed results from the energy models and was provided by DOER. Based on the results below the retail models show:

- Scenario 1: Reduced infiltration reduces carbon emissions by 1.50% compared to the current basis of design by 2050
- Scenario 2: A maximum 50% glazed wall system reduces carbon emissions by 5.03% compared to the current basis of design by 2050
- Scenario 3: The central ASHP DHW system will reduce carbon emissions by 8.97% compared to the current basis of design by 2050
- Scenario 4: An all-electric kitchen will reduce carbon emissions by 41.26% compared to the basis of design by 2050. Note that when viewed in the context of whole building carbon emissions this scenario results in a 0.91% reduction due to the limited retail area in comparison to the overall building area.

Commercial Building C2 – Retail **Item**	**BOD**	**Scenario 1: Reduced Infiltration**	**Scenario 2: Maximum 50% Glazed Wall System**	**Scenario 3: Central ASHP DHW**	**Scenario 4: All Electric Kitchen**
Roof R value	n/a	n/a	n/a	n/a	n/a
Wall U-value	U-0.038	U-0.038	U-0.038	U-0.038	U-0.038
% wall	15%	15%	50%	15%	15%
Window U-value	U-0.2	U-0.2	U-0.24	U-0.2	U-0.2
% window	85%	85%	50%	85%	85%
Area-weighted vertical above grade U-value	0.166	0.166	0.126	0.166	0.166
Air Infiltration (cfm @ 75 Pa)	0.35 cfm/sf	0.20 cfm/sf	0.35 cfm/sf	0.35 cfm/sf	0.35 cfm/sf
Ventilation energy recovery (% effectiveness)	70%	70%	70%	70%	70%
Solar heat gain coefficient	0.28	0.28	0.28	0.28	0.28
Heating TEDI (kBtu/sf-yr)	63.88	60.22	55.22	63.88	59.19
Cooling TEDI (kBtu/sf-yr)	92.43	92.77	70.25	92.43	123.48
Peak annual space heating demand (MMBtu/yr)	0.182	0.176	0.209	0.182	0.126
Peak annual space cooling demand (MMBtu/yr)	0.233	0.229	0.195	0.233	0.182
Peak annual electric load (MW)	0.047	0.046	0.043	0.047	0.052
Peak annual electric load attributable to service water heating (MW)	n/a	n/a	n/a	0.0014	n/a
Peak annual gas load (MBH)	84.16	81.81	96.76	76.57	67.84
Natural gas consumption (MMBtu/yr)	219.16	215.08	210.50	194.29	93.45
Electric power consumption (MMBtu/yr)	537.1	535.3	491.19	544.6	596.72
Fossil fuel emissions (tons/yr)	11.53	11.32	11.08	10.22	4.92
Electric emissions @ 2025 (tons/yr)	53.54	53.37	48.97	54.29	59.49
Total emissions @ 2025 (tons/yr)	65.08	64.68	60.05	64.52	64.41
Electric emissions @ 2050 (tons/yr)	3.54	3.53	3.24	3.59	3.94
Total emissions @ 2050 (tons/yr)	15.08	14.85	14.32	13.82	8.86
Space heating emissions @ 2025 (tons/yr)	6.71	6.31	5.83	6.71	6.71
Space heating emissions @ 2050 (tons/yr)	3.81	3.59	3.33	3.81	3.81
Water heating emissions @ 2025 (tons/yr)	1.31	1.31	1.31	0.75	1.31
Water heating emissions @ 2050 (tons/yr)	1.31	1.31	1.31	0.05	1.31

C2 WHOLE BUILDING ENERGY MODEL RESULTS

Based on current assumptions and the preliminary design documents for C2, the energy analysis results for the current basis of design and proposed scenarios for the whole building are shown in the table below.

Both scenarios show around a 6% reduction in energy consumption compared to the basis of design. The main factors contributing to this reduction are the increased capacity of the exhaust source heat pumps resulting in more efficient heating and cooling, improved envelope performance and a highly efficient centralized ASHP domestic hot water system for the lab/office spaces.

Scenario 2 shows slightly lower energy consumption and fossil fuel usage because of the addition of the DHW ASHP system and all electric kitchen at the retail space.

Whole Building Energy Metric	UNIT	BOD	Scenario 1: 30% Electrification + Lab/Office Scenarios	Scenario 2: 30% Electrification + Lab/Office Scenarios + Retail ASHP + Electric Kitchen
Total Electricity Consumption	MMBtu/yr	38,660	38,791	38,858
Total Natural Gas Consumption	MMBtu/yr	7,794	5,030	4,879
Total Energy Consumption	MMBtu/yr	46,454	43,821	43,738
Total Energy Cost	$/yr	$ 2,500,341	$ 2,465,466	$ 2,467,264
Building Energy Use Intensity	kBtu/sf	137	130	129
Building Energy Cost per SF	$/sf	$ 7.37	$ 7.27	$ 7.28

Whole Building Energy Savings	Scenario 1: 30% Electrification + Lab/Office Scenarios	Scenario 2: 30% Electrification + Lab/Office Scenarios + Retail ASHP + Electric Kitchen
Total Electricity Consumption	-0.34%	-0.51%
Total Natural Gas Consumption	35.46%	37.40%
Total Energy Consumption	5.67%	5.85%
Total Energy Cost	1.39%	1.32%
Building Energy Use Intensity	5.67%	5.85%
Building Energy Cost per SF	1.39%	1.32%

The following table was provided by DOER and highlights detailed results from the energy models. Based on the results below the whole building scenarios show:

- Scenario 1: Reduces carbon emissions by 21.73% compared to the current basis of design by 2050
- Scenario 2: Reduces carbon emissions by 22.86% compared to the current basis of design by 2050

Commercial Building C2 – Whole Building Item	BOD	Scenario 1: 30% Electrification + Lab/Office Scenarios	30% Electrification + Lab/Office Scenarios + Retail ASHP + Electric Kitchen
Roof R value	Lab/Office: R-15/U-0.063 Retail: N/A	Lab/Office: R-15/U-0.063 Retail: N/A	Lab/Office: R-15/U-0.063 Retail: N/A
Wall U-value	Lab/Office: U-0.055 Retail: U-0.038	Lab/Office: U-0.039 Retail: U-0.40	Lab/Office: U-0.039 Retail: U-0.40
% wall	Lab/Office: 62% Retail: 15%	Lab/Office: 62% Retail: 50%	Lab/Office: 62% Retail: 50%
Window U-value	Lab/Office: U-0.25 Retail: U-0.20	Lab/Office: U-0.25 Retail: U-0.24	Lab/Office: U-0.25 Retail: U-0.24
% window	Lab/Office: 38% Retail: 85%	Lab/Office: 38% Retail: 50%	Lab/Office: 38% Retail: 50%
Area-weighted vertical above grade U-value	Lab/Office: U-0.139 Retail: U-0.166	Lab/Office: U-0.1285 Retail: U-0.126	Lab/Office: U-0.1285 Retail: U-0.126
Air Infiltration (cfm @ 75 Pa)	0.35 cfm/sf	0.20 cfm/sf	0.20 cfm/sf
Ventilation energy recovery (% effectiveness)	70%	70%	70%
Solar heat gain coefficient	0.28	0.28	0.28
Heating TEDI (kBtu/sf-yr)	38.65	35.71	35.71
Cooling TEDI (kBtu/sf-yr)	78.81	77.99	77.99
Peak annual space heating demand (MMBtu/yr)	19.50	16.81	16.81
Peak annual space cooling demand (MMBtu/yr)	23.88	23.52	23.52
Peak annual electric load (MW)	3.48	3.45	3.45
Peak annual electric load attributable to service water heating (MW)	0.023	0.125	0.126
Peak annual gas load (MBH)	16,008	13,529	13,517
Natural gas consumption (MMBtu/yr)	7,794	5,030	4,879
Electric power consumption (MMBtu/yr)	38,660	38,791	38,858
Fossil fuel emissions (tons/yr)	410	265	257
Electric emissions @ 2025 (tons/yr)	3,854	3,867	3,874
Total emissions @ 2025 (tons/yr)	4,264	4,132	4,131
Electric emissions @ 2050 (tons/yr)	255	256	256
Total emissions @ 2050 (tons/yr)	665	521	513
Space heating emissions @ 2025 (tons/yr)	461	418	418
Space heating emissions @ 2050 (tons/yr)	295	267	267
Water heating emissions @ 2025 (tons/yr)	135	68	69
Water heating emissions @ 2050 (tons/yr)	121	4.50	4.55

C2 CONSTRUCTION COSTS AND INCENTIVES

The following table includes the estimated construction cost for each scenario modeled. These costs were priced based on the scope tables in Appendix B. The cost difference between the BOD and enhanced scenario is defined as a "premium". Potential incentives for each scenario were also incorporated into the premium calculation. Appendix C includes additional information on the potential incentives and how they were calculated. To compare the total cost of each scenario, the premium cost was calculated as an amortized value over a 30-year period, and the energy cost was either subtracted or added to that amortization. The following section outlines the final net operating cost for each scenario modeled. Negative values indicate there is a premium cost savings, that the scenario costs less to incorporate than the BOD.

The incentive values in the tables below are estimated based on the Mass Save New Construction program. Under this program, new construction projects have multiple pathway options for earning utility incentives for energy efficiency. This project, which is a larger complex building, is eligible to participate in Path 2: Whole Building Energy Use Intensity (EUI) Reduction approach. This pathway sets a target EUI based on the building type. If the as-designed EUI, which includes all the energy conservation measures incorporated into the design, is at least 20% lower than the target EIU the project would be eligible for an incentive of $0.50/ square foot. The incentives shown in the tables below are not based on the project area but rather as a standalone measure. The incentives are based on electric and natural gas savings or prescriptive rebates. This is done for the purpose of this study, actual incentives for the project will depend on the interactivity of the final design and individual measure program screening.

Commercial Building C2 Lab/Office Scenarios	BOD Cost	Scenario Cost	Incentive	Premium
Scenario 1: C406.9 Reduced Infiltration (Lab/Office)	-	$ 152,880	$ 23,000	$ 129,880
Scenario 2: Maximum 50% Glazed Wall (Lab/Office)	$ 50,399,181	$ 65,184,869	$ 10,000	$ 14,775,688
Scenario 3: All ASHP Hot Water (Lab Office Tenant + Core)	$ 816,228	$ 3,734,808	$ 114,000	$ 2,804,580

Commercial Building C2 Retail Scenarios	BOD Cost	Scenario Cost	Incentive	Premium
Scenario 1: C406.9 Reduced Infiltration (Retail)	-	$ 11,760	$ 300	$ 11,460
Scenario 2: Maximum 50% Glazed Wall (Retail)	$ 708,757	$ 647,231	$ 5,000	$ (66,527)
Scenario 3: All ASHP Hot Water (Retail)	$ 136,038	$ 751,184	$ 9,000	$ 606,146
Scenario 4 Electric Kitchen	$ 105,512	$ 55,105	$ 3,000	$ (53,407)

Commercial Building C2 Whole Building Scenarios	BOD Cost	Scenario Cost	Incentive	Premium
Scenario 1: 30% Electrification + Lab/Office Scenarios	$ 51,924,166	$ 71,338,328	$ 23,000	$ 19,391,162
Scenario 2: 30% Electrification + Lab/Office Scenarios + Retail ASHP + Electric Kitchen	$ 52,165,716	$ 72,144,617	$ 23,000	$ 19,955,901

*Costs include additional exhaust source heat pump equipment along with costs from previous scenarios. The additional exhaust source heat pump is $1,606,780.

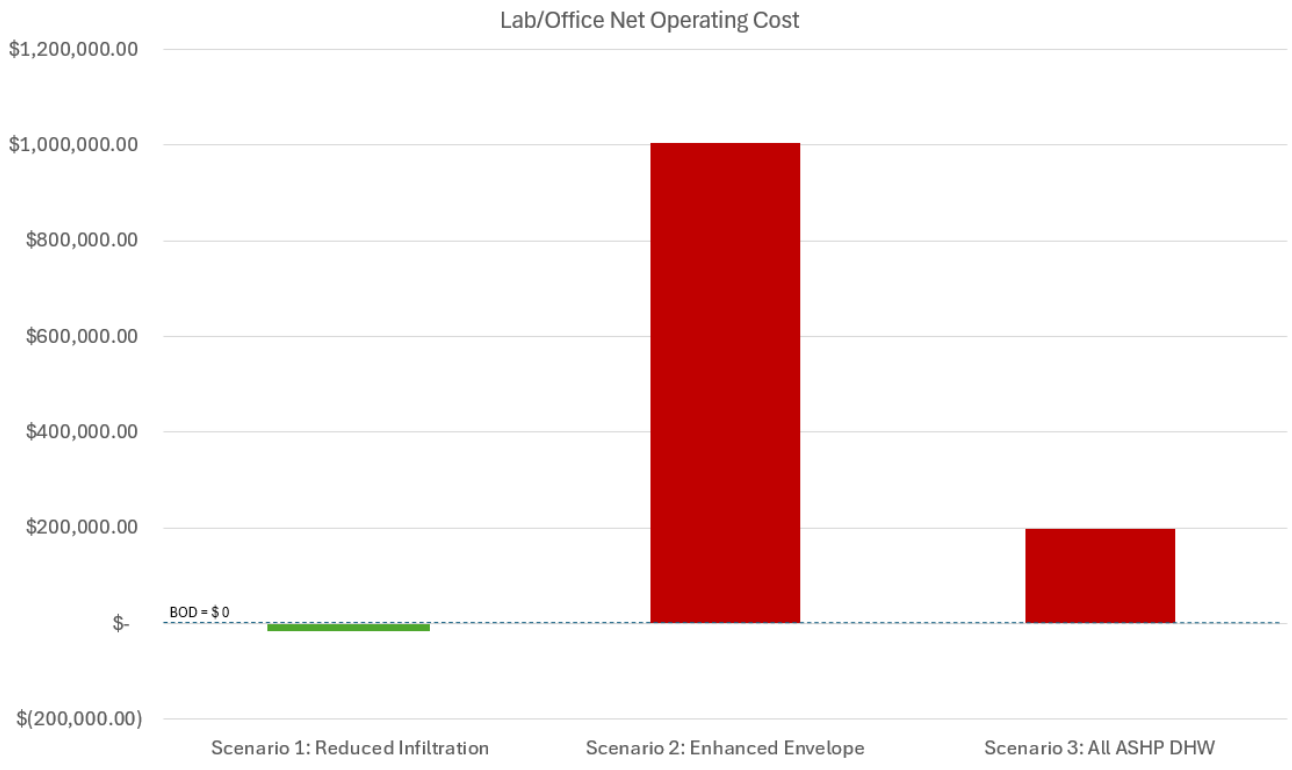
C2 NET OPERATING COSTS (OPERATING + AMORTIZED)

To calculate the net operating cost, the construction premiums for each scenario were converted to an amortized value to show an estimated annual cost over a 30-year period. The annual operating cost calculated from the energy model was then either added or subtracted the amortized cost depending on if there were energy cost savings associated with the scenario. The following tables show the net operating cost for the lab/office, retail, and whole building analyses. The basis of design assumes no cost because it serves as the comparison point between each scenario. The items highlighted in green are seen as savings compared to the current basis of design. The items highlighted in red are considered an additional cost compared to the current basis of design.

Each amortization calculation assumed a **principal interest of 6%** and a term length of **30 years**.

Lab/Office Cash Flow Analysis
Based on the results for the lab/office analysis, Scenario 1 reduced infiltration is seen as the most cost effective compared to enhanced envelope and a central ASHP DHW system. The operational cost savings for Scenario 2 and Scenario 3 do not make up for the higher construction premiums.

Lab/Office Net Operating Cost Calculation	BOD	Scenario 1: Reduced Infiltration	Scenario 2: Maximum 50% Glazed Wall	Scenario 3: Central ASHP DHW
Cost Premium	$ 0	$ 129,880	$ 14,775,688	$ 2,804,580
Amortized Cost (6% Interest, 30 Year Period)	$ 0	$ 8,901	$ 1,012,677	$ 192,216
Operating Cost Savings	$ 0	$ 16,438	$ 6,786	$ (6,893)
Net Operating + Amortized Investment Cost	$ 0	$ (7,536)	$ 1,005,891	$ 199,109

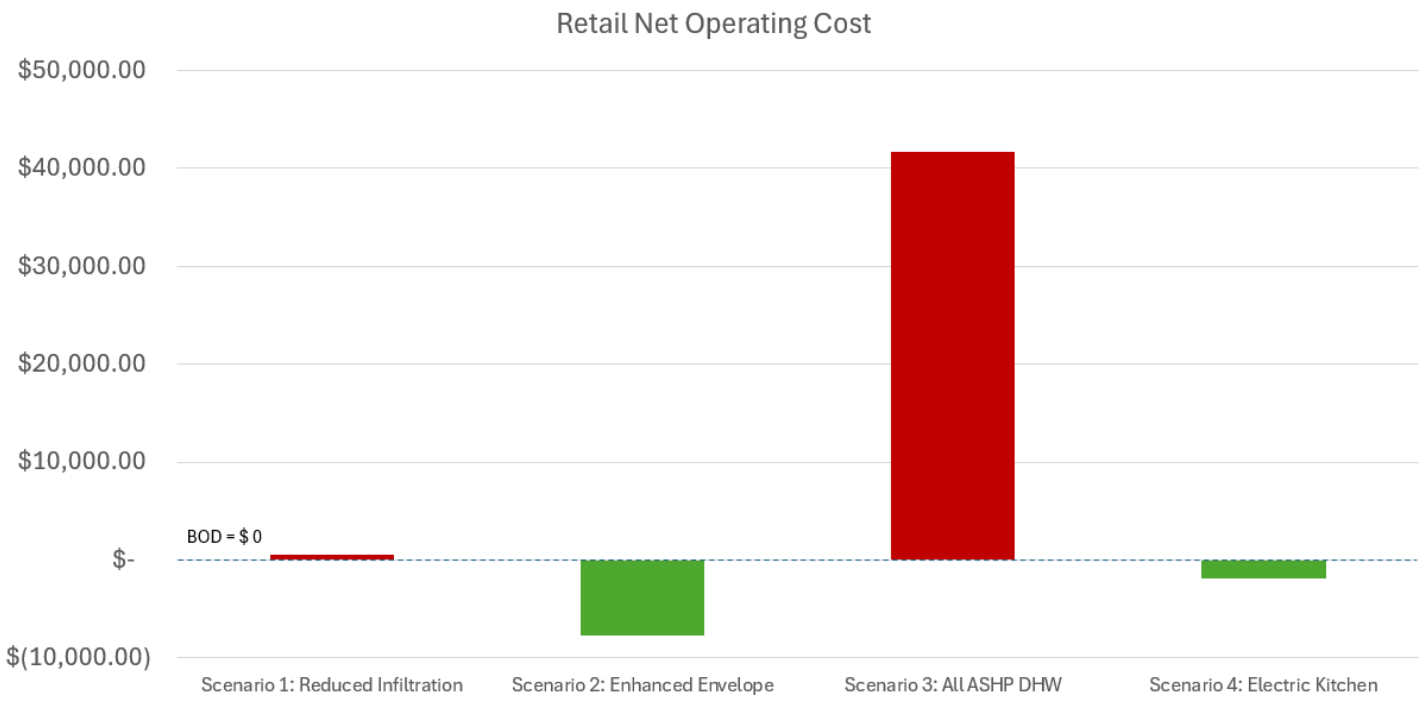


Retail Cash Flow Analysis

Based on the results for the retail analysis, Scenario 2 and Scenario 4 show a net operating cost savings when compared to the basis of design. Since Scenario 2 reduces the amount of glass, the construction premium is less than what the BOD carried. Similarly for Scenario 4, the equipment estimate for electric equipment was almost half the amount of gas equipment, primarily due to the cost of the added gas piping. Despite the higher operational costs, Scenario 4 will result in net operational savings.

Scenario 1 will add slightly higher costs to the project; however, these costs are relatively low compared to the central ASHP DHW system.

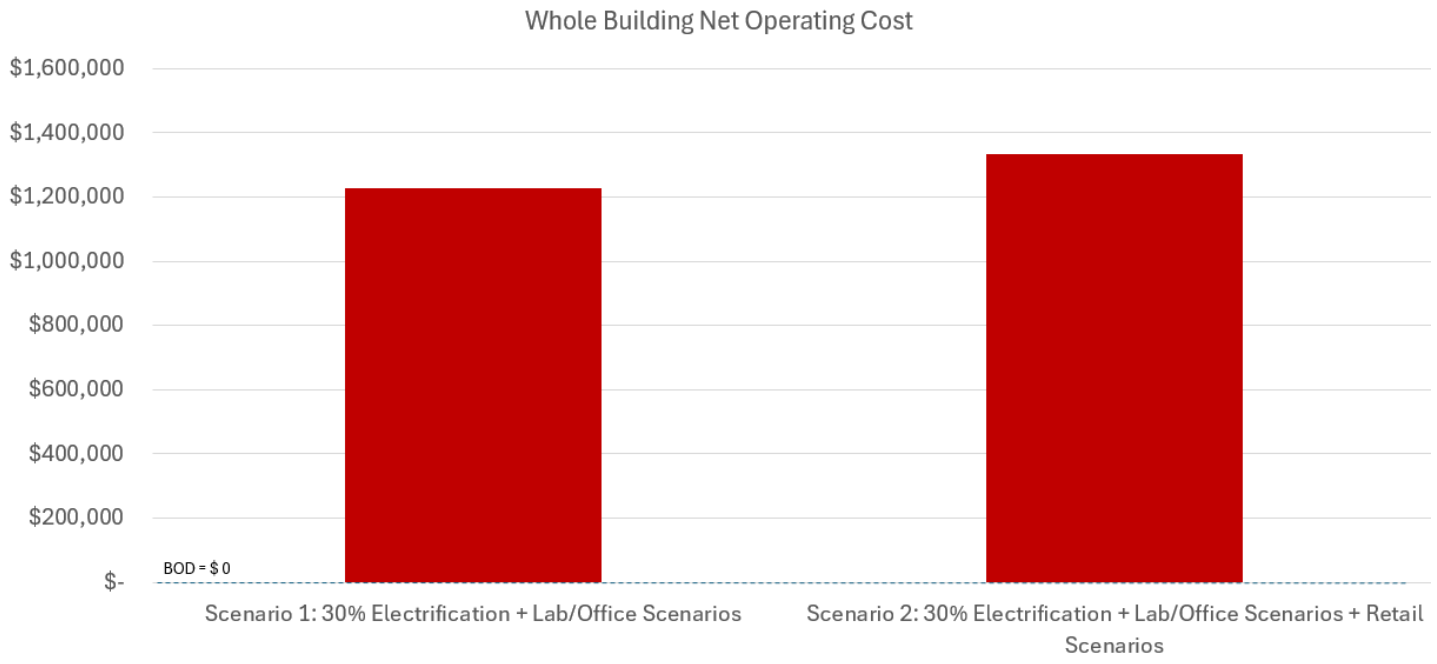
Retail Net Operating Cost Calculation	BOD	Scenario 1: Reduced Infiltration	Scenario 2: Maximum 50% Glazed Wall	Scenario 3: Central ASHP DHW	Scenario 4: All Electric Kitchen
Cost Premium	$ 0	$ 11,460	$ (66,527)	$ 606,146	$ (53,407)
Amortized Cost (6% Interest, 30 Year Period)	$ 0	$ 785	$ (4,559)	$ 41,543	$ (3,660)
Operating Cost Savings	$ 0	$ 177	$ 3,091	$ (98)	$ (1,896)
Net Operating + Amortized Investment Cost	$ 0	$ 608	$ (7,650)	$ 41,641	$ (1,764)



Whole Building Cash Flow Analysis

Since this analysis looks at the scenarios on a whole building basis, the construction premiums are significantly higher than the premiums above. Along with the exhaust source heat pump add, the premiums incorporate the infiltration, envelope performance, and ASHP domestic hot water systems costs for both the lab/office and retail spaces. Both scenarios show a net operating cost increase compared to the basis of design due to the higher construction premiums.

Whole Building Net Operating Cost Calculation	BOD	Scenario 1: 30% Electrification + Lab/Office Scenarios	Scenario 2: 30% Electrification + Lab/Office Scenarios + Retail ASHP + Electric Kitchen
Cost Premium	$ 0	$ 19,391,162	$ 19,955,501
Amortized Cost (6% Interest, 30 Year Period)	$ 0	$ 1,329,006	$ 1,367,711
Operating Cost Savings	$ 0	$ 34,874	$ 33,077
Net Operating + Amortized Investment Cost	$ 0	$ 1,294,131	$ 1,334,634



C2 COST EFFECTIVENESS OF CARBON REDUCTION STRATEGY

In addition to net operating cost, the team analyzed the cost effectiveness of carbon reduction for each scenario to determine which option results in the lowest $/ton. This calculation considers the net operating cost estimated for each scenario and the carbon emissions savings calculated from the energy model of each scenario compared to the current basis of design. The cost of carbon was determined using both the 2025 and the 2050 emission rates since the electric emission rate is expected to decrease significantly throughout the next 25 years. Note that ( ) represents a savings and the list is arranged from lowest carbon cost to highest.

In 2025, the most cost effective strategy for carbon reduction is Scenario 4, the all-electric kitchen at the retail space.

2025 Cost Effectiveness of Carbon Reduction Strategies	Building Use Type	Net Operating + Amortized Investment Cost ($/year)	2050 Carbon Emissions Delta (metric tons)	Carbon Cost Effectiveness ($/year/metric ton)
Scenario 4 All Electric Kitchen	Retail	(1,764)	0.66	(2,653)
Scenario 2 Maximum 50% Glazed Wall	Retail	(7,650)	5.03	(1,521)
Scenario 1 Reduced Infiltration	Lab/Office	(7,536)	46.09	(163)
Scenario 1 Reduced Infiltration	Retail	608	0.39	1,558
Scenario 3 Central ASHP DHW	Lab/Office	199,109	50.94	3,909
Scenario 1 30% Electrification + Lab/Office Scenarios	Whole Building	1,294,131	132.44	9,771
Scenario 2 30% Electrification + Lab/Office Scenarios + Retail ASHP + Electric Kitchen	Whole Building	1,334,634	133.66	9,984
Scenario 3 ASHP DHW	Retail	41,641	0.56	74,397
Scenario 2 Maximum 50% Glazed Wall	Lab/Office	1,005,891	16.94	59,366

In 2050, the most cost effective scenario becomes the enhanced envelope at the retail space. This scenario results in lower construction cost because of the reduction in vision glass and reduced energy consumption.

2050 Cost Effectiveness of Carbon Reduction Strategies	Building Use Type	Net Operating + Amortized Investment Cost ($/year)	2050 Carbon Emissions Delta (metric tons)	Carbon Cost Effectiveness ($/year/metric ton)
Scenario 2 Maximum 50% Glazed Wall System	Retail	(7,650)	0.76	(10,089)
Scenario 4 All Electric Kitchen	Retail	(1,764)	6.22	(283)
Scenario 1 Reduced Infiltration	Lab/Office	(7,536)	37.84	(199)
Scenario 3 Central ASHP DHW	Lab/Office	199,109	114.43	1,740
Scenario 1 Reduced Infiltration	Retail	608	0.23	2,689
Scenario 2 30% Electrification + Lab/Office Scenarios + Retail ASHP + Electric Kitchen	Whole Building	1,334,634	152.06	8,777
Scenario 1 30% Electrification + Lab/Office Scenarios	Whole Building	1,294,131	144.58	8,951
Scenario 3 ASHP DHW	Retail	41,641	1.26	33,082
Scenario 2 Maximum 50% Glazed Wall System	Lab/Office	1,005,891	11.76	85,505

R1 MODELING ASSUMPTIONS

In response to the DOER's request, RDH analyzed two alternative DHW scenarios to evaluate compliance and performance within the current design framework. The analysis assumed the base case detailed in RDH.30248.000 Longwood PI R1 WUFI Modeling Report issued December 18, 2024, which includes decentralized electric resistance water heaters. For this study, the non-residential Phius model has been revised to reflect the domestic hot water usage for the restaurant program.

The following assumptions were made for each scenario. It is assumed that only the systems impacted by the scenario outlined in the DOER letter were changed in the model. These system descriptions summarize the key design changes that are needed to go from the current basis of design to each scenario and were used to price their associated cost premium. Detailed descriptions of each scenario can be found in Appendix A which were used to price the associated cost premium.

Restaurant Specific DHW Assumptions:

- To model DHW use, occupancy is assumed to be 15 sf/person for front of house (2,000 sf) and 200 sf/person for back of house (2,000 sf).
- DHW usage is assumed to be 11gal/person/day**.**
- The restaurant utilization pattern was modeled following assumptions outlined in Phius Guidebook, Table N-8.0. Per the guidebook, the model accounts for 12 hours of operation at front of house, and 11 hours for back of house.
- DHW circulation pipes were modeled as a supply and return for the full height of the building, and horizontal distribution matching level 2.

Residential Gap Analysis	Current Basis of Design	Enhanced Scenarios
Scenario 1: BOD + In-Unit Hybrid ASHP + Restaurant ASHP Water Heater	Electric resistance water heaters are assumed to operate year-round, assuming one tank per unit. A COP of approximately 1.0 is assumed for electric resistance operation.	Hybrid air-source heat pump water heaters are assumed to operate in heat pump mode for six months of the year and in electric resistance mode for the remaining six months. Assume one unit per suite. Assume four storage tanks included within the system serving the restaurant. ASHP provides 89% of the restaurant hot water heating load at COP of 2.77. Electric resistance heating provides the remaining 11% coverage at a COP of 1.0.
Scenario 2: BOD + Central ASHP Water Heater	Electric resistance water heaters are assumed to operate year-round, assuming one tank per unit. A COP of approximately 1.0 is assumed for electric resistance operation.	ASHPs provide 94% of the hot water heating load at a COP of 2.77. Electric resistance heating provides the remaining 6% coverage at a COP of 1.0.

R1 ENERGY MODEL RESULTS

The energy model for this analysis was completed using WUFI Passive V3.5.0.1 and modeled in compliance with Phius 2024 v24.1. WUFI Passive Is an energy modeling software specifically designed to align with Phius' standards, protocols, and updates. It uses real-world data to predict how a building will perform, offering the design team insight to make informed design choices before construction begins and plays a central role in ensuring compliance during both the design phase and after construction.

The following table highlights the results from the WUFI model[1]. Based on the model, the centralized air source heat pump system (Scenario 2) results in the lowest source energy and shows a 4.91% savings against the basis of design. The hybrid ASHP system in Scenario 1 increases the overall cooling demand and load when compared to the basis of design.

Energy Metric	PHIUS Targets[2]	UNIT	BOD[3]	Scenario 1: Individual Hybrid Heat Pump DHW (Residential) + Retail Heat Pump DHW	Scenario 2: Central Heat Pump DHW (Combined Residential + Retail)
Heating Demand	**≤ 4.2**	kBtu/sf-yr	2.86	2.74	2.73
Cooling Demand	**≤ 9.8**	kBtu/sf-yr	3.81	3.89	3.72
Heating Load	**≤ 4.8**	Btu/hr-sf	3.36	3.36	3.36
Cooling Load	**≤ 3.8**	Btu/hr-sf	3.33	3.36	3.30
Source Energy (225 dwelling units, 203 bedrooms)	**45.5**	kWh/sf-yr	41.58	41.27	39.34
Source Energy Savings	**-**	-	-%	0.75%	4.91%

[1]Area normalized metrics are calculated using iCFA in accordance with Phius requirements

[2]Criteria based on Phius+ 2024 space conditioning calculator for Boston, MA, and are weighted averages of the residential and commercial models for all space conditioning criteria

[3]Current design based upon documentation listed above and assumptions indicated in RDH.30248.000 Longwood PI R1 WUFI Modeling Report issued December 18, 2024, and assumptions noted within this document.

The following table was provided by DOER and highlights detailed results from the energy models. Based on the results below the whole building scenarios show:

- Scenario 1: Reduces carbon emissions by 0.8% compared to the current basis of design by 2050
- Scenario 2: Reduces carbon emissions by 5.7% compared to the current basis of design by 2050

Residential Building R1 **Item**	**BOD**	**Scenario 1: Individual Hybrid Heat Pump DHW (Residential) + Retail Heat Pump DHW**	**Scenario 2: Central Heat Pump DHW (Combined Residential + Retail)**
Roof R value	R-60	R-60	R-60
Wall U-value	R-24	R-24	R-24
% wall		70%	
Window U-value	U-0.23	U-0.23	U-0.23
% window		30%	
Area-weighted vertical above grade U-value		0.093	
Air Infiltration (cfm @ 75 Pa)		0.11 cfm/sf @ 75 Pa	
Ventilation energy recovery (% effectiveness)		80%	
Solar heat gain coefficient	0.30	0.30	0.30
Heating TEDI (kBtu/sf-yr)	2.86	2.86	2.73
Cooling TEDI (kBtu/sf-yr)	3.81	3.89	3.72
Peak annual space heating demand (MMBtu/yr)	0.716	0.716	0.716
Peak annual space cooling demand (MMBtu/yr)	0.709	0.715	0.702
Peak annual electric load (MW)		n/a*	
Peak annual electric load attributable to service water heating (MW)	291	211	154
Peak annual gas load (MBH)		0	
Natural gas consumption (MMBtu/yr)		0	
Electric power consumption (MMBtu/yr)	4,611	4,576	4,362
Fossil fuel emissions (tons/yr)		0	
Electric emissions @ 2025 (tons/yr)	459.70	456.25	434.86
Total emissions @ 2025 (tons/yr)	459.70	456.25	434.86
Electric emissions @ 2050 (tons/yr)	30.65	30.42	28.99
Total emissions @ 2050 (tons/yr)	30.65	30.42	28.99
Space heating emissions @ 2025 (tons/yr)	24.50	28.90	28.85
Space heating emissions @ 2050 (tons/yr)	1.63	1.93	1.92
Water heating emissions @ 2025 (tons/yr)	99.99	72.85	53.29
Water heating emissions @ 2050 (tons/yr)	6.67	4.86	3.55

*The peak annual electric power consumption is not reported with the WUFI modeling software

R1 CONSTRUCTION COSTS AND INCENTIVES

The following table includes the estimated construction cost for each scenario modeled. The difference between the BOD and enhanced scenario is defined as a "premium". To compare the total cost of each scenario, the premium cost was calculated as an amortized value over a 30-year period, and the energy cost was either subtracted or added to that amortization. Incentives and rebates were also included in the calculation. Incentives are outlined in further detail below.

Residential Building R1 Scenarios	BOD Cost	Scenario Cost	Incentives	Premium
Scenario 1: Individual Hybrid Heat Pump DHW (Residential) + Retail Heat Pump DHW	$ 1,698,613	$ 3,117,086	$ 56,750	$ 1,361,723
Scenario 2: Central Heat Pump DHW (Combined Residential + Retail)	$ 1,698,613	$ 3,449,894	$ 170,250	$ 1,581,031

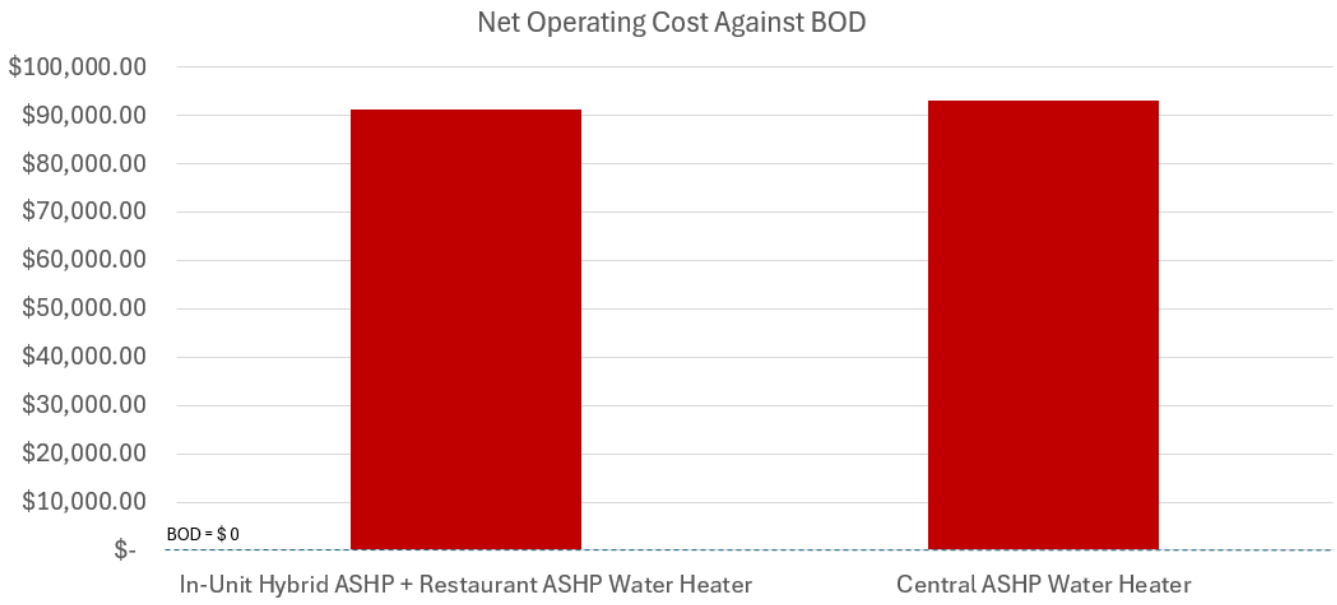
R1 NET OPERATING COSTS (OPERATING + AMORTIZED)

To calculate the net operating cost, the construction premiums for each scenario were converted to an amortized value to show an estimated annual cost over a 30-year period. The annual operating cost calculated from the energy model was then either added or subtracted the amortized cost depending on if there were cost savings associated with the scenario. The following tables show the net operating cost for the lab/office, retail, and whole building analyses. The basis of design assumes no cost because it serves as the comparison point between each scenario.

Each amortization calculation assumed a **principal interest of 6%** and a term length of **30 years**.

Residential Cash Flow Analysis

Residential Net Operating Cost Calculation	BOD	Individual Hybrid Heat Pump DHW (Residential) + Retail Heat Pump DHW	Central Heat Pump DHW (Combined Residential + Retail)
Cost Premium	$ 0	$ 1,361,723	$ 1,581,031
Amortized Cost (6% Interest, 30 Year Period)	$ 0	$ 93,328	$ 108,358
Operating Cost Savings	$ 0	$ 2,131	$ 15,336
Net Operating + Amortized Investment Cost	$ 0	$ 91,197	$ 93,022



R1 COST EFFECTIVENESS OF CARBON REDUCTION STRATEGY

In addition to net operating cost, the team analyzed the social cost of carbon for each scenario to determine which option results in the lowest $/ton. This calculation considers the construction premium estimated for each scenario and the overall carbon emissions calculated from the energy model. The cost of carbon was determined using both the 2025 emission rates and the 2050 emission rates since the electric emission rate is expected to decrease significantly throughout the next 25 years.

2025 Cost Effectiveness of Carbon Reduction Strategies	Net Operating + Amortized Investment Cost ($/year)	2025 Carbon Emissions Delta (metric tons)	Carbon Cost Effectiveness ($/year/metric ton)
Scenario 2: Central Heat Pump DHW (Combined Residential + Retail)	93,022	24.84	3,745
Scenario 1: Individual Hybrid Heat Pump DHW (Residential) + Retail Heat Pump DHW	91,197	3.45	26,434

2050 Cost Effectiveness of Carbon Reduction Strategies	Net Operating + Amortized Investment Cost ($/year)	2050 Carbon Emissions Delta (metric tons)	Carbon Cost Effectiveness ($/year/metric ton)
Scenario 2: Central Heat Pump DHW (Combined Residential + Retail)	93,022	1.66	56,037
Scenario 1: Individual Hybrid Heat Pump DHW (Residential) + Retail Heat Pump DHW	91,197	0.23	396,509

CONCLUSION

The purpose of this report was to summarize the modeling efforts completed for Longwood Place for each scenario tested. The results include impacts to system sizing, energy consumption, net operating costs, and cost effectiveness of carbon reduction for each scenario compared to the current basis of design for each building type.

Commercial Building Results

Based on the results for C2, the following list shows each scenario and the estimated $/ton compared against the current basis of design. The list goes from the most cost effective scenario to the least cost effective scenario. The carbon emissions were calculated based on the 2050 emission factors outlined by the DOER:

2025 Cost Effectiveness of Carbon Reduction Strategies	Building Use Type	Net Operating + Amortized Investment Cost ($/year)	2050 Carbon Emissions Delta (metric tons)	Carbon Cost Effectiveness ($/year/metric ton)
Scenario 2 Maximum 50% Glazed Wall System	Retail	(7,650)	0.76	(10,089)
Scenario 4 All Electric Kitchen	Retail	(1,764)	6.22	(283)
Scenario 1 Reduced Infiltration	Lab/Office	(7,536)	37.84	(199)
Scenario 3 Central ASHP DHW	Lab/Office	199,109	114.43	1,740
Scenario 1 Reduced Infiltration	Retail	608	0.23	2,689
Scenario 2 30% Electrification + Lab/Office Scenarios + Retail ASHP + Electric Kitchen	Whole Building	1,334,634	191.07	6,985
Scenario 1 30% Electrification + Lab/Office Scenarios	Whole Building	1,294,131	181.58	7,127
Scenario 3 ASHP DHW	Retail	41,641	1.26	33,082
Scenario 2 Maximum 50% Glazed Wall System	Lab/Office	1,005,891	11.76	85,505

Residential Building Results

Based on the results for C2, the following list shows each scenario and the estimated $/ton compared against the current basis of design. The list goes from the most cost effective scenario to the least cost effective scenario. The carbon emissions were calculated based on the 2050 emission factors outlined by the DOER:

2050 Cost Effectiveness of Carbon Reduction Strategies	Net Operating + Amortized Investment Cost ($/year)	2050 Carbon Emissions Delta (metric tons)	Carbon Cost Effectiveness ($/year/metric ton)
Scenario 2: Central Heat Pump DHW (Combined Residential + Retail)	93,022	1.66	56,037
Scenario 1: Individual Hybrid Heat Pump DHW (Residential) + Retail Heat Pump DHW	91,197	0.23	396,509

APPENDIX A: ENERGY MODELING PARAMETERS

General

C2 Energy model program: eQuest v3.65 DOE 2.2

R1 Energy model program: WUFI Passive V3.5.0.1

Weather data: ASHRAE climate zone 5A

Weather file: TMY3 weather file for Boston Logan Airport, MA

C2 Gross floor area: approx. 335,000 square feet

R1 Gross floor area: approx. 205,000 square feet

Utility Rates

Electricity: $0.21/kWh

Natural Gas: $15.52/MMBTU

Emission Factors (2025)

Electricity Emission Factor (2025): 750 lbs/MWhr (99.7 kg/MMBtu)

Natural Gas Emission Factor (2025): 116 lbs/MMBtu (52.62 kg/MMBtu)

Emission Factors (2050)

Electricity Emission Factor (2050): 50 lbs/MWhr (6.6 kg/MMBtu)

Natural Gas Emission Factor (2050): 116 lbs/MMBtu (52.62 kg/MMBtu)

APPENDIX B: DETAILED GAP ANALYSIS

The following tables show the detailed descriptions of each scenario defined by DOER that were used to create cost estimates. These cost estimates were incorporated into the net operating cost calculations.

Lab/Office Gap Analysis	Current Basis of Design	Enhanced
Reduced Infiltration	Perform whole building envelope leakage testing in accordance with the Municipal Opt-In Energy Code and achieve a measured air leakage not to exceed 0.35 cfm/sf at a pressure differential of 0.75 Pa	Perform whole building envelope leakage testing in accordance with the Municipal Opt-In Energy Code and achieve a measured air leakage not to exceed 0.35 cfm/sf at a pressure differential of 0.75 Pa As the reduced infiltration rate pathway has no exception for underperforming the test and complying via remediation, contractor should carry enough scope for component inspection and pre-testing to ensure the blower door testing will pass. Consideration should be given to carrying a full retest as well.
Maximum 50% Glazed Wall System	Building envelope is 100% curtainwall (i.e. 100% Glazed Wall System with a maximum overall area weighted U value of U-0.16	Building envelope to retain the same window-to-wall ratio and comparable exterior aesthetic. Opaque façade areas to be field fabricated utilizing metal studs with field installed punched windows for all glazed areas. Maximum overall area weighted U-value shall be U-0.1285
Domestic Hot Water (Tenant)	Gas Fired Condensing Domestic Water Heaters (3 water pressure zones): Three (3) Duplex (6 total) PVI Industries Power VTX 50 L 225A-PVX water heaters to serve each water pressure zone.	Central ASHP Domestic Water Heaters (3 water pressure zones): Three (3) Lync by Watts Water Heater Equipment Packages equal to: Model # HPL-0250A – Aegis 250A Air Source Heat Pump Water Heaters, Mark II Double Heat Exchanger skid (1) LC250S-250 Gal Storage Tank (1) LC250-R36 – 250 Gal Storage Tank w/ 36 kW elec. (1) 90 L 150A-VE – 150 Gal Storage w/ 18 kW elec. Swing Tank. Eliminate 3" gas distribution roughly 50' in penthouse to water heaters.

Retail Gap Analysis	Current Basis of Design	Enhanced
Reduced Infiltration	Perform whole building envelope leakage testing in accordance with the Municipal Opt-In Energy Code and achieve a measured air leakage not to exceed 0.35 cfm/sf at a pressure differential of 0.75 Pa	Perform whole building envelope leakage testing in accordance with the Municipal Opt-In Energy Code and achieve a measured air leakage not to exceed 0.35 cfm/sf at a pressure differential of 0.75 Pa As the reduced infiltration rate pathway has no exception for underperforming the test and complying via remediation, contractor should carry enough scope for component inspection and pre-testing to ensure the blower door testing will pass. Consideration should be given to carrying a full retest as well.
Maximum 50% Glazed Wall System	Building envelope at retail areas is 100% curtain wall (i.e. 100% Glazed Wall System) with approximately 85% vision area and 15% opaque area. Maximum U-value shall be U-0.16	Building envelope at retail areas is 50% curtain wall (i.e. 50% Glazed Wall System) with approximately 50% vision area and 50% opaque area. Maximum overall area weighted U-value shall be U-0.1285
Domestic Hot Water (Retail)	Gas Fired Condensing Domestic Water Heaters (1 water pressure zone): One (1) Duplex (2 total) PVI Industries Power VTX 50 L 225A-PVX water heater.	ASHP Domestic Water Heaters (1 water pressure zone): One (1) Lync by Watts Water Heater Equipment Package equal to: Model # HPL-0250A – Aegis 250A Air Source Heat Pump Water Heater, Mark II Double Heat Exchanger skid, (1) LC250S-250 Gal Storage Tank, (1) LC250-R36 – 250 Gal Storage Tank w/ 36 kW elec., (1) 90 L 150A-VE – 150 Gal Storage w/ 18 kW elec. Swing Tank. Eliminate 3" gas distribution roughly 50' in penthouse to water heaters.
Kitchen Equipment (Assuming 1,230 sf kitchen)	All gas kitchen equipment 1 x HD Range 12”, 2 open burners with gas connection 1 x HD Range, 24” charbroiler with gas connection 1 x HD Range, 24” manual griddle with gas connection 1 x Fryer with gas connection 1 x Tilt skillet with gas connection	1 x HD Range 12”, 2 electric burners 1 x HD Range, 24” charbroiler (electric) 1 x HD Range, 24” manual griddle (electric) 1 x Fryer (electric) 1 x Tilt skillet (electric) No additional electrical service required per specialized-opt in requirement of capacity for full electrified kitchen on day 1

Whole Building Gap Analysis	Current Basis of Design	Enhanced
Reduced Infiltration (Lab/Office + Retail)	Perform whole building envelope leakage testing in accordance with the Municipal Opt-In Energy Code and achieve a measured air leakage not to exceed 0.35 cfm/sf at a pressure differential of 0.75 Pa	Perform whole building envelope leakage testing in accordance with the Municipal Opt-In Energy Code and achieve a measured air leakage not to exceed 0.35 cfm/sf at a pressure differential of 0.75 Pa As the reduced infiltration rate pathway has no exception for underperforming the test and complying via remediation, contractor should carry enough scope for component inspection and pre-testing to ensure the blower door testing will pass. Consideration should be given to carrying a full retest as well.
Maximum 50% Glazed Wall System (Lab/Office)	Building envelope is 100% curtainwall (i.e. 100% Glazed Wall System with a maximum overall area weighted U value of U-0.16	Building envelope to retain the same window-to-wall ratio and comparable exterior aesthetic. Opaque façade areas to be field fabricated utilizing metal studs with field installed punched windows for all glazed areas. Maximum overall area weighted U-value shall be U-0.1285
Maximum 50% Glazed Wall System (Retail)	Building envelope at retail areas is 100% curtain wall (i.e. 100% Glazed Wall System) with approximately 85% vision area and 15% opaque area. Maximum U-value shall be U-0.16	Building envelope at retail areas is 50% curtain wall (i.e. 50% Glazed Wall System) with approximately 50% vision area and 50% opaque area. Maximum overall area weighted U-value shall be U-0.1285
Domestic Hot Water (Tenant)	Gas Fired Condensing Domestic Water Heaters (3 water pressure zones): Three (3) Duplex (6 total) PVI Industries Power VTX 50 L 225A-PVX water heaters to serve each water pressure zone.	Central ASHP Domestic Water Heaters (3 water pressure zones): Three (3) Lync by Watts Water Heater Equipment Packages equal to: Model # HPL-0250A – Aegis 250A Air Source Heat Pump Water Heaters, Mark II Double Heat Exchanger skid (1) LC250S-250 Gal Storage Tank (1) LC250-R36 – 250 Gal Storage Tank w/ 36 kW elec. (1) 90 L 150A-VE – 150 Gal Storage w/ 18 kW elec. Swing Tank. Eliminate 3" gas distribution roughly 50' in penthouse to water heaters.
Domestic Hot Water (Retail)	Gas Fired Condensing Domestic Water Heaters (1 water pressure zone): One (1) Duplex (2 total) PVI Industries Power VTX 50 L 225A-PVX water heater.	ASHP Domestic Water Heaters (1 water pressure zone): One (1) Lync by Watts Water Heater Equipment Package equal to: Model # HPL-0250A – Aegis 250A Air Source Heat Pump Water Heater, Mark II Double Heat Exchanger skid, (1) LC250S-250 Gal Storage Tank, (1) LC250-R36 – 250 Gal Storage Tank w/ 36 kW elec., (1) 90 L 150A-VE – 150 Gal Storage w/ 18 kW elec. Swing Tank. Eliminate 3" gas distribution roughly 50' in penthouse to water heaters.

Heating System	4 x 155-ton Multistack heat recovery screw chillers assembled as (1) skid (2) sets of 8 HP pumps on both the evaporator and condenser side of the HRCH, 6 pumps total	5 x 155-ton Multistack heat recovery screw chillers assembled as (1) skid (2) sets of 8 HP pumps on both the evaporator and condenser side of the HRCH, 6 pumps total
Kitchen Equipment	All gas kitchen equipment 1 x HD Range 12", 2 open burners with gas connection 1 x HD Range, 24" charbroiler with gas connection 1 x HD Range, 24" manual griddle with gas connection 1 x Fryer with gas connection 1 x Tilt skillet with gas connection	1 x HD Range 12", 2 electric burners 1 x HD Range, 24" charbroiler (electric) 1 x HD Range, 24" manual griddle (electric) 1 x Fryer (electric) 1 x Tilt skillet (electric) No additional electrical service required per specialized-opt in requirement of capacity for full electrified kitchen on day 1

Residential Gap Analysis	Current Basis of Design	Enhanced Scenarios
Scenario 1: BOD + In-Unit Hybrid ASHP + Restaurant ASHP Water Heater	Electric resistance water heaters are assumed to operate year-round, assuming one tank per unit. A COP of approximately 1.0 is assumed for electric resistance operation.	The hybrid air-source heat pump water heaters are assumed to operate in heat pump mode for six months of the year and in electric resistance mode for the remaining six months. A COP of approximately 3.0 is assumed for heat pump operation. A COP of approximately 1.0 is assumed for electric resistance operation. For modeling purposes, these operating periods result in an average COP of roughly 2.0 which has been applied in the analysis. DHW circulation pipes were modeled as a supply and return for the full height of the building, and horizontal distribution matching Level 2. ASHP provides 89% of the annual heating load at COP of 2.77. The data sheet provided for Aegis A ASHP indicates a COP of 3.5 which is derated to 2.77 using the Phius HPWH COP estimator. Electric resistance heating provides the remaining 11% coverage at a COP of 1.0. Four total storage tanks are included: (2) 250-gallon tanks, (1) 150-gallon tank, and (1) 30-gallon tank.
Scenario 2: BOD + Central ASHP Water Heater	Electric resistance water heaters are assumed to operate year-round, assuming one tank per unit. A COP of approximately 1.0 is assumed for electric resistance operation.	ASHPs provide 96% of the annual heating load at a COP of 3.5. The datasheet provided for Aegis A ASHP indicates a COP of 3.5 which is derated to 2.77 using the Phius HPWH COP estimator. Electric resistance heating provides the remaining 6% coverage at a COP of 1.0. High-level piping takeoffs were completed, including one main riser for the full building height, horizontal supply and return in corridors on levels 2, 10 and 17, as well as unit verticals. Assumed 4ft of pipe from the horizontal supply to each unit. This resulted in a total circulation length of 8,592 ft with an average assumed pipe diameter of 1.75 inches and R-12 insulation.

APPENDIX C: POTENTIAL INCENTIVES

Since C2 and R1 are highly efficient and have electrified equipment, they are eligible for Mass Save heat pump incentives. Please see below:

Residential Incentives

- $250 per Hybrid Heat Pump Water Heater; 227 total water heaters for $56,750
- $750 per unit served by Centralized Heat Pump Water Heater; 227 units for $170,250

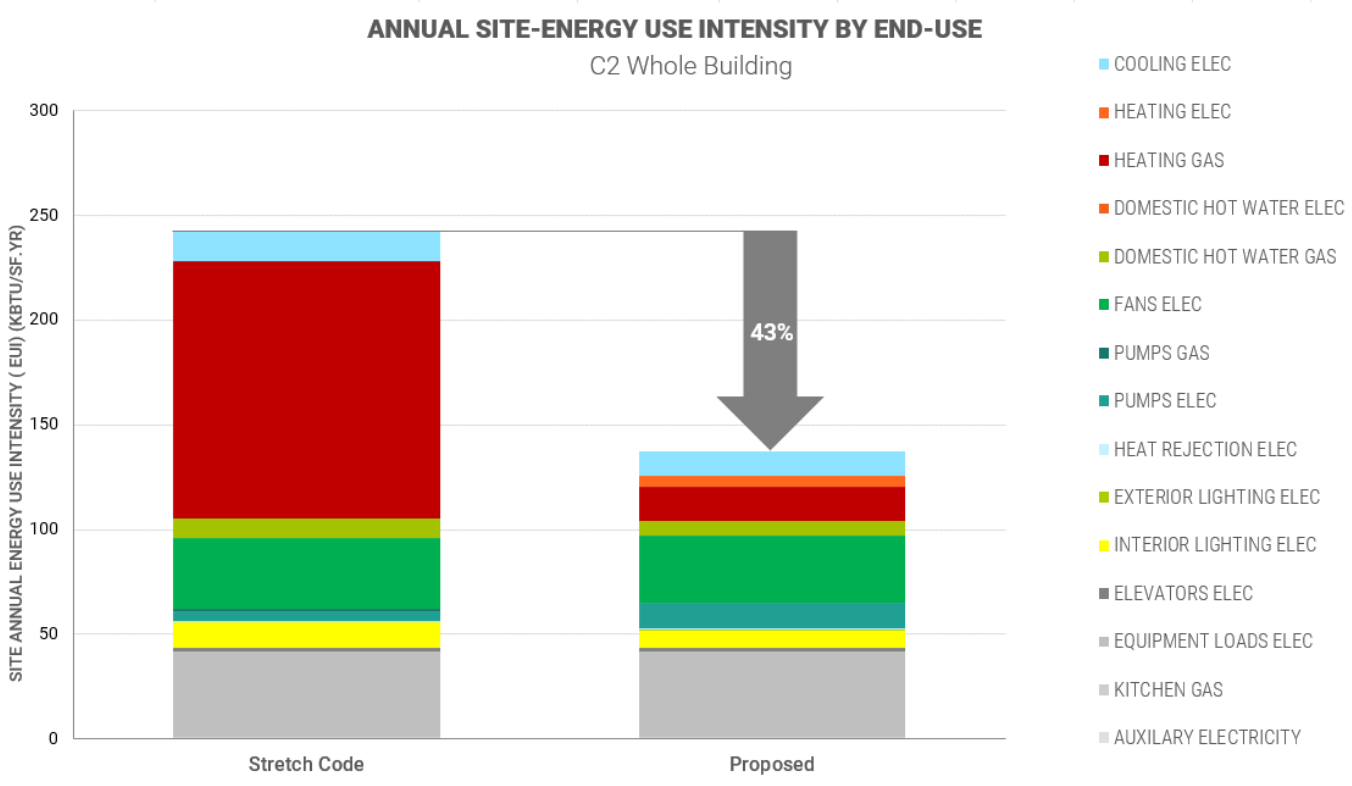
Commercial Incentives

- Mass Save New Construction Path 2
    - Energy modeling to show EUI reduction against EUI target baseline
    - $0.50/sf for a 20%-35% EUI reduction, $1.00/sf for a 35%+ EUI reduction

APPENDIX D: STRETCH CODE ENERGY MODELING RESULTS

Based on current assumptions and the preliminary design documents for C2 Longwood, the energy analysis results for the Proposed Design (current basis of design) indicate a PEI of **0.57**, which **complies** with the 2023 MA Stretch Code, and an energy use intensity of **137** kBtu/sf-yr. The main factor that drives energy consumption is main AHU airflow (minimum air-changes, hours of operation). The Massachusetts Stretch Code is based on ASHRAE 90.1-2019 Appendix G and uses the metric of site energy. The table below compares the results of the proposed design to the baselines.

Results		Baseline MA 2023 Stretch Code	Current Basis of Design
Total Electricity Consumption	MMBtu/yr	36,840	38,660
Total Gas Consumption	MMBtu/yr	44,100	7,795
Total Energy Consumption	MMBtu/yr	80,940	46,454
Building Energy Use Intensity	kBtu/sf	242	137
Total Energy Cost	$/yr	$2,951,741	$ 2,500,341
Energy Cost Savings vs Base	$/yr	-	15%
Performance Energy Index (PEI<PEI$_{target}$)	%	0.59	0.57



APPENDIX E: ENERGY MODELING ASSUMPTIONS

Architectural + Lighting	Baseline MA 2023 Stretch Code	Current Basis of Design
Program Area Assumption	60% Lab/ 40% Office	Same as Baseline
Roof	R-15 c.i. / U-0.063	Same as Baseline
Opaque Façade	U-0.084	Opaque Curtainwall: U-0.10 Framed Wall: U-0.055
Glazing	U-0.57/ SHGC -0.39	U-0.25 SHGC: 0.28
Window to Wall Ratio	40%	Retail: 50% Rest of Building: 38%
Airtightness	1.0 cfm/sf @ 75pa	0.35 cfm/sf @ 75pa
Lighting Power	Lab – 1.40 W/sf Office – 1.10 W/sf (90.1-2019 Appendix G Values)	Reduce IECC 2021 values by 10% (additional efficiency package – 7 points)
Lighting Control	Occ-sensor + daylight	Same as Baseline

Air Side	Baseline MA 2023 Stretch Code	Current Basis of Design
Plug Loads	Open Lab: 8 W/sf Lab Support: 14 W/sf Office: 2 W/sf	Same as Baseline
HVAC System Lab/Office	Lab: 100% OA all-air VAV with reheat Office: Return air VAV with reheat	100% OA DOAS Labs: FCUs or Chilled Beams Office: FCUs or Chilled Beams
AHU Total CFM	n/a	440,000 cfm
Lab CFM/SF Allowance	Based on cooling load or 2 cfm/sf (larger of two)	2 cfm/sf
Lab ACH Operation	8 ACH occ / 4 ACH unocc	8 ACH occ / 4 ACH unocc
Non-Lab CFM/SF	ASHRAE 62.1 minimum	0.35 cfm/sf occ / 0 cfm/sf unocc
Exhaust Energy Recovery	Lab: none (50% turn down required) Office: 50% enthalpy	High Performance Sensible Runaround

Water Side	Baseline MA 2023 Stretch Code	Current Basis of Design
Exhaust Source Heat Pumps	None	(4) 155 ton Exhaust Source Heat Pumps – 25% Electrification
Heating Plant	80% eff gas-fired boilers	(2) 300 ton reheat screw chillers (2) 300 ton preheat centrifugal chillers Gas-fired condensing boilers for supplemental and backup heating (4) 6,000 MBH boilers
Humidification	None	None
Cooling Plant	Water-cooled chillers	(2) 300 ton reheat screw chillers (2) 300 ton preheat centrifugal chillers (2) 725 ton centrifugal chillers
Domestic Hot Water	Gas Water Heater	Tenant: Gas Water Heaters Core: Air source heat pump water heaters

Longwood Place

DEIR Prototype Modeling

Commercial Prototype - 2025 Emission Factors

	Energy Consumption				2025 CO2 Emissions		
	Electricity (MWh/yr)	Natural Gas (MMBtu/yr)	Total (MMBtu/yr)	PEI	Electricity (tons/yr)	Natural Gas (tons/yr)	Total (tons/yr)
Base Case	10,797	44,100	80,940	0.59	4,049	2,558	6,607
Design Case	11,330	7,795	46,454	0.57	4,249	452	4,701
Energy Savings	-533	36,305	34,486	0.02	-200	2,106	1,906
Percent Savings			**43%**	**3%**			**29%**

Commercial Prototype - 2050 Emission Factors

	Energy Consumption				2050 CO2 Emissions		
	Electricity (MWh/yr)	Natural Gas (MMBtu/yr)	Total (MMBtu/yr)	PEI	Electricity (tons/yr)	Natural Gas (tons/yr)	Total (tons/yr)
Base Case	10,797	44,100	80,940	0.59	270	2,558	2,828
Design Case	11,330	7,795	46,454	0.57	283	452	735
Energy Savings	-533	36,305	34,486	0.02	-13	2,106	2,092
Percent Savings			**43%**	**3%**			**74%**

Residential Prototype - 2025 Emission Factors

	Energy Consumption			2025 CO2 Emissions		
	Electricity (MWh/yr)	Natural Gas (MMBtu/yr)	Total (MMBtu/yr)	Electricity (tons/yr)	Natural Gas (tons/yr)	Total (tons/yr)
Base Case	1,351	0	4,611	507	0	507
Design Case	1,351	0	4,611	507	0	507
Energy Savings	0	0	0	0	0	0
Percent Savings			**0%**			**0%**

1. Residential buildings must achieve Passive House to be code-compliant. The residential buildings are designed to achieve Passive House, and thus, the base case and design case yield similar results.

Residential Prototype - 2050 Emission Factors

	Energy Consumption			2050 CO2 Emissions		
	Electricity (MWh/yr)	Natural Gas (MMBtu/yr)	Total (MMBtu/yr)	Electricity (tons/yr)	Natural Gas (tons/yr)	Total (tons/yr)
Base Case	1,351	0	4,611	34	0	34
Design Case	1,351	0	4,611	34	0	34
Energy Savings	0	0	0	0	0	0
Percent Savings			**0%**			**0%**

1. Residential buildings must achieve Passive House to be code-compliant. The residential buildings are designed to achieve Passive House, and thus, the base case and design case yield similar results.

2025 Electricity Factor = 750 lbs/MWh
2050 Electricity Factor = 50 lbs/MWh
Natural Gas Factor = 116 lbs/MMBtu

Longwood Place

DEIR Prototype Modeling

			Energy Usage (MMBtu)			GHG Emissions (tpy)		
Building	Primary Uses	Size (gsf)	Base Case	Design Case	Savings	Base Case	Design Case	Savings
C1	Lab/Office & Retail	503,000	121,531	69,750	43%	9,920	7,058	29%
C2	Lab/Office & Retail	335,000	80,940	46,454	43%	6,607	4,701	29%
C3	Lab/Office & Retail	460,000	111,141	63,788	43%	9,072	6,455	29%
R1	Residential & Retail	205,000	4,611	4,611	-[1]	507	507	-[1]
R2	Residential & Retail	145,000	3,261	3,261	-[1]	358	358	-[1]
		Total	**321,485**	**187,864**	**42%**	**26,463**	**19,079**	**28%**

1. Residential buildings must achieve Passive House to be code-compliant. The residential buildings are designed to achieve Passive House, and thus, the base case and design case yield similar results.

2025 Electricity Factor = 750 lbs/MWh
2050 Electricity Factor = 50 lbs/MWh
Natural Gas Factor = 116 lbs/MMBtu

Meeting Notes

Date: 10/02/2025

Place: Teams Meeting

Re: Longwood Place
DEIR GHG Protocol

EOEA No.: 16948

This document is meant to provide a protocol for the DEIR energy modeling analysis after the DOER pre-filing meeting. The following analysis is based on the DOER Comment Letter on the ENF and the discussions had during the meeting on October 2, 2025.

Two Proposed Prototypes:

- Commercial Building (C2); Lab/office with ground floor retail/restaurant space; also representing C1 and C3
- Residential Building (R1); Residential with ground floor retail/restaurant space; also representing R2

Commercial Building (Lab/Office and Retail)

The **Basis of Design (BOD)** includes:

- Heat Recovery Chillers
- ASHP Space Heating at 25% of Peak Load
- Specialized Code: Mixed Fuel Pathway Solar PV + Electric Readiness
- Lab/Office: ASHP Hot Water for Core & Shell Spaces + Gas Hot Water for Tenant Spaces
- Retail Space Heating by 25% ASHP Plant
- Retail: Gas Hot Water and Gas Cooking Equipment for Potential Restaurant Tenant

The following **Alternatives Analysis Scenarios** will be modeled and compared to the current BOD:

Lab/Office Portion of Commercial Building

1. BOD + C406.9
2. BOD + C406.9 + Maximum 50% Glazed Wall System
3. BOD + C406.9 + Maximum 50% Glazed Wall System + All ASHP Hot Water

Retail Portion of Commercial Building

4. BOD + C406.9
5. BOD + C406.9 + Maximum 50% Glazed Wall System
6. BOD + C406.9 + Maximum 50% Glazed Wall System + All ASHP Hot Water
7. BOD + C406.9 + Maximum 50% Glazed Wall System + All ASHP Hot Water + Electric Kitchen

Lab/Office + Retail Commercial Building

8. BOD + C406.9 + Maximum 50% Glazed Wall System + 30% ASHP Plant
9. BOD + C406.9 + Maximum 50% Glazed Wall System + 30% ASHP Plant + All ASHP Hot Water (Retail and Lab/Office) + Electric Kitchen

Residential Building (Residential with Ground Floor Retail)

The **Basis of Design (BOD)** includes:

- Residential and Retail: Passive House per C407.3.1
- Residential and Retail: Space Heating by ASHP
- Residential: In-Unit Electric Resistance Water Heating
- Retail: Electric Resistance Hot Water and Electric Cooking Equipment for Potential Restaurant Tenant

The following **Alternatives Analysis Scenarios** will be modeled:

- BOD + In-Unit Hybrid ASHP Water Heating + Retail ASHP Water Heating
- BOD + Central ASHP Water Heating + Retail ASHP Water Heating

Gap/Cost Analysis

- "Gap Analysis Table" that shows what changes in building design are need for each scenario above
- Specific costs for each "Gap" in the table
- Cash-Flow Model
  - Estimate cost increase associated with improvement (amortize to 30 years with rebates and incentives)
  - Estimate operational costs/savings
  - Net operating Cost Increases/Decreases

Discussion Notes

- Analysis of solar water heating is not required for either prototype.
- Utility coordination requests are not required.

Mobile Source Analysis

Longwood Place
Mesoscale Analysis

	2025	2032	2032	2032	2032	2032
	Existing	No-Build	Build	Mitigation- Roadway Improvements	Mitigation- TDM Reduction	Build Mitigation
OXIDES OF NITROGEN (NOx)						
Emissions (short tons per year)	5.64	3.94	4.13	4.0		4.01
Project Contribution (short tons per year)			0.18	-0.12	-0.004	0.07
VOLATILE ORGANIC COMPOUNDS (VOC)						
Emissions (short tons per year)	1.62	1.27	1.33	1.3		1.30
Project Contribution (short tons per year)			0.06	-0.03	-0.001	0.02
GREENHOUSE GAS (CO_2)						
Emissions (short tons per year)	15,289	13,307	13,917	13,546		13534.1
Project Contribution (short tons per year)			610	-370	-12	227
Particulate Matter < 10 µm (PM10)						
Emissions (short tons per year)	0.926	0.789	0.815	0.81		0.810
Project Contribution (short tons per year)			0.026	-0.004	-0.0005	0.021
Particulate Matter < 2.5 µm (PM2.5)						
Emissions (short tons per year)	0.365	0.301	0.312	0.31		0.308
Project Contribution (short tons per year)			0.011	-0.004	-0.0002	0.007
Diesel Particulate (DPM)						
Emissions (short tons per year)	0.119	0.073	0.076	0.07		0.074
Project Contribution (short tons per year)			0.003	-0.002	-0.0001	0.001

Longwood Place

Build With Mitgation

Link No.	Description	Roadway Link Length Speed	Roadway Link Length (miles)	24 Emission Factor (g/mi) NOx	25 Emission Factor (g/mi) VOC	26 Emission Factor (g/mi) CO_2	27 Emission Factor (g/mi) PM10	28 Emission Factor (g/mi) PM2.5	29 Emission Factor (g/mi) DPM	Weekday AADT (veh/day)	Seasonally Adjusted ADT (veh/day)	VMT Peak (veh-miles)	VMT Off-Peak (veh-miles)	Annual Weekday Trips (veh/yr)	Peak Period Factor	Weekday Peak Traffic Data Period Volume (vehicles)	Average Delay (sec)	Adjusted Delay (veh-sec)	Off-Peak Traffic Data Period Volume (vehicles)	Average Delay (sec)	Adjusted Delay (veh-sec)	Annual Link Emissions NOx (grams)	VOC (grams)	CO_2 (grams)	PM10 (grams)	PM2.5 (grams)	DPM (grams)
1	Brookline Ave (Aspinwall/Riverway)	30	0.14	0.084	0.029	296.2	0.029	0.010	0.002	12,328	12,328	348,780	281,188	4,499,774	0.55	2,491,288	115	285,999,878	2,008,486	103	207,516,796	52,610	18,563	186,614,195	18,281	6,063	1,007
2	Riverway (Jamaicaway/Brookline)	30	0.18	0.081	0.029	291.1	0.029	0.010	0.002	36,088	36,088	1,312,690	1,058,296	13,172,147	0.55	7,292,724	71	519,606,591	5,879,423	64	377,017,975	192,976	68,985	690,312,684	69,635	22,950	3,673
3	Brookline Ave (Riverway/Francis)	30	0.06	0.114	0.035	373.0	0.027	0.010	0.002	20,146	20,146	244,273	196,934	7,353,457	0.55	4,071,222	133	540,251,191	3,282,235	119	391,997,356	50,248	15,483	164,588,034	11,839	4,400	1,018
4	Riverway (Brookline/Netherlands)	30	0.09	0.084	0.029	296.7	0.029	0.010	0.002	28,531	28,531	518,906	418,344	10,413,889	0.55	5,765,622	63	364,675,598	4,648,267	57	264,602,601	78,412	27,642	278,068,534	27,140	9,005	1,501
5	Nertherlands Rd (Aspinwall/Riverway)	25	0.19	0.090	0.033	323.8	0.035	0.011	0.002	1,569	1,569	60,229	48,557	572,553	0.55	316,993	36	11,348,339	255,561	32	8,234,168	9,825	3,589	35,222,346	3,761	1,245	182
6	Francis St (Riverway/Brookline)	25	0.09	0.106	0.036	360.7	0.033	0.011	0.002	3,987	3,987	72,512	58,460	1,455,240	0.55	805,690	63	50,677,888	649,550	57	36,771,040	13,929	4,699	47,242,041	4,315	1,503	266
7	Francis St (Brookline/ Binney)	25	0.07	0.105	0.036	357.4	0.033	0.011	0.002	9,346	9,346	132,212	106,590	3,411,464	0.55	1,888,748	49	92,454,225	1,522,716	44	67,083,262	25,019	8,504	85,339,484	7,881	2,731	475
8	Brookline Ave (Francis/Deaconess)	30	0.08	0.102	0.033	342.2	0.028	0.010	0.002	19,362	19,362	313,018	252,356	7,067,181	0.55	3,912,726	18	69,255,248	3,154,455	16	50,250,466	57,645	18,555	193,447,821	15,590	5,520	1,139
9	Deaconess Rd (Pilgrim/Brookline)	15	0.06	0.095	0.040	370.0	0.055	0.018	0.002	3,007	3,007	36,454	29,389	1,097,394	0.55	607,569	27	16,525,887	489,825	24	11,990,911	6,279	2,657	24,364,125	3,600	1,177	117
10	Jimmy Fund Way (Brookline/Binney)	25	0.08	0.097	0.034	338.1	0.034	0.011	0.002	4,902	4,902	79,248	63,890	1,789,230	0.55	990,602	40	39,326,908	798,627	36	28,534,956	13,822	4,882	48,395,261	4,816	1,622	259
11	Brookline Ave (Deaconess/Longwood)	30	0.09	0.091	0.031	316.0	0.028	0.010	0.002	18,643	18,643	339,069	273,359	6,804,760	0.55	3,767,438	40	152,016,105	3,037,323	36	110,300,380	55,936	18,916	193,516,493	17,209	5,848	1,081
12	Longwood Ave (Brookline/Binney)	30	0.08	0.111	0.035	365.3	0.027	0.010	0.002	13,262	13,262	214,398	172,848	4,840,577	0.55	2,679,973	28	73,967,245	2,160,604	25	53,669,413	42,928	13,364	141,460,541	10,462	3,840	864
13	Brookline Ave (Longwood/Short)	30	0.11	0.089	0.030	310.4	0.028	0.010	0.002	21,245	21,245	472,257	380,735	7,754,474	0.55	4,293,244	29	126,436,036	3,461,230	27	91,739,903	75,967	25,995	264,731,530	24,144	8,139	1,466
14	Longwood Ave (Autumn/Brookline)	30	0.12	0.100	0.032	337.5	0.028	0.010	0.002	8,758	8,758	212,385	171,226	3,196,757	0.55	1,769,876	31	55,574,105	1,426,881	28	40,323,654	38,355	12,445	129,483,045	10,609	3,725	755
15	Autumn St (Crossover/Longwood)	15	0.04	0.095	0.040	370.0	0.055	0.018	0.002	654	654	5,283	4,259	238,564	0.55	132,080	18	2,364,237	106,484	16	1,715,452	910	385	3,531,033	522	171	17
16	Nessel Way (Longwood/Riverway)	15	0.1	0.099	0.041	377.5	0.053	0.017	0.002	196	196	3,962	3,195	71,569	0.55	39,624	27	1,057,963	31,945	24	767,641	710	294	2,701,651	380	125	13
17	Longwood Ave (Riverway/Autumn)	30	0.05	0.102	0.033	342.2	0.028	0.010	0.002	10,588	10,588	106,985	86,252	3,864,736	0.55	2,139,701	29	62,051,323	1,725,035	26	45,023,417	19,702	6,342	66,117,517	5,328	1,887	389
18	Riverway (Netherlands/Longwood)	30	0.2	0.097	0.032	330.5	0.028	0.010	0.002	31,799	31,799	1,285,205	1,036,137	11,606,709	0.55	6,426,024	25	162,257,095	5,180,685	23	117,731,073	225,618	74,128	767,199,972	64,565	22,424	4,419
19	Longwood Ave (Chapel/Riverway)	30	0.07	0.085	0.030	300.7	0.029	0.010	0.002	16,922	16,922	239,374	192,984	6,176,535	0.55	3,419,622	28	94,039,613	2,756,913	25	68,233,593	36,813	12,875	130,021,619	12,434	4,142	707
20	Riverway (Longwood/Nessel)	30	0.1	0.085	0.030	301.3	0.029	0.010	0.002	27,545	27,545	556,624	448,753	10,053,772	0.55	5,566,244	27	151,958,469	4,487,528	25	110,258,560	85,898	29,994	302,963,384	28,882	9,629	1,651
21	Riverway (Nessel/Short)	30	0.04	0.096	0.032	327.5	0.028	0.010	0.002	27,610	27,610	223,178	179,927	10,077,629	0.55	5,579,452	4	23,712,672	4,498,176	4	17,205,524	38,690	12,776	131,999,805	11,225	3,881	756
22	Riverway (Short/Park Drive Fork)	30	0.17	0.089	0.031	311.3	0.028	0.010	0.002	28,606	28,606	982,723	792,275	10,441,162	0.55	5,780,722	5	26,013,249	4,660,441	4	18,874,784	158,719	54,216	552,612,092	50,161	16,928	3,065
23	Short St (Riverway/Pilgrim)	15	0.05	0.117	0.044	415.3	0.045	0.015	0.002	2,319	2,319	23,429	18,889	846,350	0.55	468,579	40	18,602,599	377,770	36	13,497,739	4,958	1,857	17,572,506	1,902	638	92
24	Pilgrim Rd (Short/Brookline) [EX/NB]	15	0.22	0.133	0.046	447.5	0.041	0.014	0.002	131	131	5,809	4,683	47,692	0.55	26,405	0	0	21,287	0	0	1,392	486	4,695,034	430	148	26
25	BIDMC Entrance (End/ Brookline)	15	0.05	0.127	0.045	434.5	0.042	0.014	0.002	4,183	4,183	42,266	34,075	1,526,809	0.55	845,314	27	22,992,538	681,495	24	16,683,006	9,664	3,461	33,173,137	3,219	1,097	180
26	Brookline Ave (BIDMC/Pilgrim)) [EX/NB]	30	0.2	0.089	0.030	310.2	0.028	0.010	0.002	2,072	2,072	83,740	67,512	756,260	0.55	418,701	0	0	337,558	0	0	13,456	4,608	46,911,232	4,281	1,443	260
27	Brookline Ave (Pilgrim/Fenway)	30	0.02	0.079	0.029	285.6	0.030	0.010	0.001	25,257	25,257	102,079	82,297	9,218,819	0.55	5,103,975	2	11,483,943	4,114,844	2	8,332,560	14,566	5,288	52,663,794	5,481	1,794	276
28	Fenway (Riverway Park Merge/Brookline)	30	0.06	0.076	0.028	277.6	0.030	0.010	0.001	15,285	15,285	185,328	149,412	5,579,000	0.55	3,088,799	39	121,698,665	2,490,201	35	88,302,545	25,308	9,383	92,908,207	10,110	3,279	479
29	Fenway (Brookline/Park)	30	0.19	0.076	0.028	277.8	0.030	0.010	0.001	8,677	8,677	333,171	268,604	3,167,233	0.55	1,753,530	0	0	1,413,703	0	0	45,591	16,882	167,189,692	18,159	5,892	863
30	Brookline Ave (Fenway/Park)	30	0.05	0.079	0.029	285.6	0.030	0.010	0.001	27,968	27,968	282,590	227,825	10,208,287	0.55	5,651,791	20	115,013,942	4,556,496	18	83,452,220	40,323	14,638	145,790,663	15,172	4,967	764
31	Park Dr (Peterborough/Brookline)	30	0.07	0.076	0.028	278.6	0.030	0.010	0.001	13,112	13,112	185,485	149,539	4,786,051	0.55	2,649,784	54	143,618,319	2,136,267	49	104,207,085	25,485	9,419	93,339,963	10,098	3,280	482
32	Boylston St (Brookline/Kilmarnock)	30	0.14	0.081	0.029	289.0	0.029	0.010	0.002	21,220	21,220	600,350	484,005	7,745,390	0.55	4,288,215	38	163,809,797	3,457,175	34	118,857,688	87,293	31,377	313,343,632	31,975	10,508	1,657
33	Brookline Ave (Park/Kilmarnock)	30	0.14	0.079	0.029	285.6	0.030	0.010	0.001	10,760	10,760	304,401	245,410	3,927,221	0.55	2,174,295	28	59,901,839	1,752,925	25	43,463,787	43,436	15,768	157,043,277	16,343	5,351	823
34	Park Dr (Landmark/Brookline)	30	0.06	0.082	0.029	293.7	0.029	0.010	0.002	15,033	15,033	182,271	146,947	5,486,971	0.55	3,037,847	12	36,757,946	2,449,124	11	26,670,960	27,146	9,637	96,680,975	9,610	3,178	519
35	Landmark S Drive (Park/End)	15	0.07	0.120	0.044	421.5	0.044	0.015	0.002	1,830	1,830	25,888	20,871	667,979	0.55	369,825	16	5,954,180	298,154	14	4,320,255	5,624	2,075	19,710,859	2,059	694	105
36	Park Drive NB LT (Riverway/Landmark)	30	0.04	0.096	0.032	327.5	0.028	0.010	0.002	10,196	10,196	82,418	66,446	3,721,598	0.55	2,060,453	24	48,420,636	1,661,145	21	35,133,215	14,288	4,718	48,746,602	4,145	1,433	279
37	Park Drive Thru (Riverside/Landmark)	30	0.04	0.108	0.034	357.4	0.027	0.010	0.002	5,621	5,621	45,436	36,630	2,051,650	0.55	1,135,891	3	2,953,315	915,759	2	2,142,877	8,852	2,785	29,328,336	2,233	810	177
38	Park Drive NB (Beacon/Riverway)	30	0.16	0.074	0.028	273.4	0.031	0.010	0.001	12,334	12,334	398,807	321,520	4,502,045	0.55	2,492,545	0	0	2,009,500	0	0	53,223	19,982	196,967,651	22,014	7,115	1,005
39	Park Drive SB (Beacon/Riverway)	30	0.18	0.082	0.029	293.7	0.029	0.010	0.002	12,739	12,739	463,376	373,575	4,649,726	0.55	2,574,308	13	33,208,578	2,075,417	12	24,095,597	69,011	24,500	245,785,425	24,432	8,079	1,319
40	Riverway EB LT (Riverway/Park)	30	0.03	0.086	0.030	303.1	0.029	0.010	0.002	6,975	6,975	42,285	34,090	2,545,821	0.55	1,409,487	27	37,633,305	1,136,334	24	27,306,106	6,578	2,287	23,148,871	2,185	730	127
41	Riverway (Fork/Park)	30	0.12	0.092	0.031	317.7	0.028	0.010	0.002	19,714	19,714	478,055	385,410	7,195,547	0.55	3,983,795	20	79,875,099	3,211,751	18	57,956,055	79,465	26,772	274,299,298	24,229	8,251	1,538
42	Fenway SB (Park/Riverway/Merge)	30	0.07	0.070	0.027	265.2	0.031	0.010	0.001	8,033	8,033	113,633	91,611	2,932,065	0.55	1,623,330	23	36,849,597	1,308,735	20	26,737,460	14,422	5,573	54,436,140	6,410	2,055	271
43	Riverway EB RT (Fork/Merge)	30	0.11	0.061	0.026	244.1	0.034	0.011	0.001	7,252	7,252	161,202	129,961	2,646,935	0.55	1,465,468	40	58,765,280	1,181,466	36	42,639,119	17,854	7,457	71,063,845	9,913	3,123	332
44	Brookline Ave (BIDMC/MID) [BD/BDMIT]	30	0.11	0.089	0.030	310.2	0.028	0.010	0.002	20,698	20,698	460,101	370,935	7,554,871	0.55	4,182,734	14	59,603,961	3,372,137	13	43,247,651	73,931	25,317	257,748,002	23,524	7,929	1,427
45	Brookline Ave (MID/Pilgrim) [BD/BDMIT]	30	0.09	0.089	0.030	310.2	0.028	0.010	0.002	22,118	22,118	402,260	324,303	8,072,919	0.55	4,469,550	3	14,302,561	3,603,369	3	10,377,702	64,637	22,134	225,345,030	20,566	6,932	1,248
46	Mid Block Rd (Pilgrim/Brookline) [BD/BDMIT]	15	0.07	0.146	0.049	475.5	0.040	0.014	0.003	2,129	2,129	30,116	24,279	777,072	0.55	430,224	27	11,723,606	346,848	25	8,506,455	7,921	2,653	25,864,855	2,160	767	149
47	Pilgrim Rd (Short/Mid) [BD/BDMIT]	15	0.09	0.133	0.046	447.5	0.041	0.014	0.002	2,188	2,188	39,796	32,083	798,658	0.55	442,175	11	4,642,835	356,483	9	3,368,764	9,537	3,327	32,164,262	2,948	1,015	178
48	Pilgrim Rd (Mid/Brookline) [BD/BDMIT]	15	0.13	0.133	0.046	447.5	0.041	0.014	0.002	887	887	23,304	18,788	323,780	0.55	179,260	0	0	144,520	0	0	5,584	1,948	18,834,909	1,726	595	104

VMT (per year) 12,857,360 10,365,654

######## Arterial 4,009,382,408 #########

Emissions Summary (tpy)

	Weekday	Weekend	Total	NOx	VOC	CO_2	PM10	PM2.5	DPM	
VMT per year	**23,223,014**	**0**	**23,223,014**	2.3	0.8	7,919.63	0.75	0.25	0.04	Moving Emissions
Delay per year (hr)	**1,921,812**	**0**	**1,921,812**	1.8	0.5	5,626.71	0.06	0.06	0.03	Idle Emissions
				4.0	**1.3**	**13,546.34**	**0.81**	**0.31**	**0.07**	**Total Emissions**

Idle Factor (g/hr)

NOx	VOC	CO_2	PM10	PM2.5	DPM
0.83	0.24	2,656.07	0.030	0.027	0.015

Longwood Place

Build

Link No.	Description	Roadway Link Length Speed	Roadway Link Length (miles)	17 Emission Factor (g/mi) NOx	18 Emission Factor (g/mi) VOC	19 Emission Factor (g/mi) CO_2	20 Emission Factor (g/mi) PM10	21 Emission Factor (g/mi) PM2.5	22 Emission Factor (g/mi) DPM	Weekday AADT (veh/day)	Seasonally Adjusted ADT (veh/day)	VMT Peak (veh-miles)	VMT Off-Peak (veh-miles)	Annual Weekday Trips (veh/yr)	Peak Period Factor	Weekday Peak Traffic Data Period Volume (vehicles)	Peak Average Delay (sec)	Peak Adjusted Delay (veh-sec)	Off-Peak Traffic Data Period Volume (vehicles)	Off-Peak Average Delay (sec)	Off-Peak Adjusted Delay (veh-sec)	Annual Link Emissions NOx (grams)	VOC (grams)	CO_2 (grams)	PM10 (grams)	PM2.5 (grams)	DPM (grams)
1	Brookline Ave (Aspinwall/Riverway)	30	0.14	0.084	0.029	296.2	0.029	0.010	0.002	12,328	12,328	348,780	281,188	4,499,774	0.55	2,491,288	115	285,999,878	2,008,486	103	207,516,796	52,610	18,563	186,614,195	18,281	6,063	1,007
2	Riverway (Jamaicaway/Brookline)	30	0.18	0.081	0.029	291.1	0.029	0.010	0.002	36,088	36,088	1,312,690	1,058,296	13,172,147	0.55	7,292,724	71	519,606,591	5,879,423	64	377,017,975	192,976	68,985	690,312,684	69,635	22,950	3,673
3	Brookline Ave (Riverway/Francis)	30	0.06	0.114	0.035	373.0	0.027	0.010	0.002	20,146	20,146	244,273	196,934	7,353,457	0.55	4,071,222	133	541,065,435	3,282,235	120	392,588,158	50,248	15,483	164,588,034	11,839	4,400	1,018
4	Riverway (Brookline/Netherlands)	30	0.09	0.084	0.029	296.7	0.029	0.010	0.002	28,531	28,531	518,906	418,344	10,413,889	0.55	5,765,622	63	364,675,598	4,648,267	57	264,602,601	78,412	27,642	278,068,534	27,140	9,005	1,501
5	Nertherlands Rd (Aspinwall/Riverway)	25	0.19	0.090	0.033	323.8	0.035	0.011	0.002	1,569	1,569	60,229	48,557	572,553	0.55	316,993	36	11,348,339	255,561	32	8,234,168	9,825	3,589	35,222,346	3,761	1,245	182
6	Francis St (Riverway/Brookline)	25	0.09	0.106	0.036	360.7	0.033	0.011	0.002	3,987	3,987	72,512	58,460	1,455,240	0.55	805,690	63	50,677,888	649,550	57	36,771,040	13,929	4,699	47,242,041	4,315	1,503	266
7	Francis St (Brookline/ Binney)	25	0.07	0.105	0.036	357.4	0.033	0.011	0.002	9,346	9,346	132,212	106,590	3,411,464	0.55	1,888,748	49	92,454,225	1,522,716	44	67,083,262	25,019	8,504	85,339,484	7,881	2,731	475
8	Brookline Ave (Francis/Deaconess)	30	0.08	0.102	0.033	342.2	0.028	0.010	0.002	19,362	19,362	313,018	252,356	7,067,181	0.55	3,912,726	18	68,472,703	3,154,455	16	49,682,664	57,645	18,555	193,447,821	15,590	5,520	1,139
9	Deaconess Rd (Pilgrim/Brookline)	15	0.06	0.095	0.040	370.0	0.055	0.018	0.002	3,007	3,007	36,454	29,389	1,097,394	0.55	607,569	42	25,760,941	489,825	38	18,691,714	6,279	2,657	24,364,125	3,600	1,177	117
10	Jimmy Fund Way (Brookline/Binney)	25	0.08	0.097	0.034	338.1	0.034	0.011	0.002	4,902	4,902	79,248	63,890	1,789,230	0.55	990,602	36	36,057,921	798,627	33	26,163,033	13,822	4,882	48,395,261	4,816	1,622	259
11	Brookline Ave (Deaconess/Longwood)	30	0.09	0.091	0.031	316.0	0.028	0.010	0.002	18,643	18,643	339,069	273,359	6,804,760	0.55	3,767,438	40	151,074,246	3,037,323	36	109,616,982	55,936	18,916	193,516,493	17,209	5,848	1,081
12	Longwood Ave (Brookline/Binney)	30	0.08	0.111	0.035	365.3	0.027	0.010	0.002	13,262	13,262	214,398	172,848	4,840,577	0.55	2,679,973	29	77,049,213	2,160,604	26	55,905,639	42,928	13,364	141,460,541	10,462	3,840	864
13	Brookline Ave (Longwood/Short)	30	0.11	0.089	0.030	310.4	0.028	0.010	0.002	21,245	21,245	472,257	380,735	7,754,474	0.55	4,293,244	26	112,697,655	3,461,230	24	81,771,561	75,967	25,995	264,731,530	24,144	8,139	1,466
14	Longwood Ave (Autumn/Brookline)	30	0.12	0.100	0.032	337.5	0.028	0.010	0.002	8,758	8,758	212,385	171,226	3,196,757	0.55	1,769,876	34	60,087,289	1,426,881	31	43,598,346	38,355	12,445	129,483,045	10,609	3,725	755
15	Autumn St (Crossover/Longwood)	15	0.04	0.095	0.040	370.0	0.055	0.018	0.002	654	654	5,283	4,259	238,564	0.55	132,080	18	2,364,237	106,484	16	1,715,452	910	385	3,531,033	522	171	17
16	Nessel Way (Longwood/Riverway)	15	0.1	0.099	0.041	377.5	0.053	0.017	0.002	196	196	3,962	3,195	71,569	0.55	39,624	27	1,057,963	31,945	24	767,641	710	294	2,701,651	380	125	13
17	Longwood Ave (Riverway/Autumn)	30	0.05	0.102	0.033	342.2	0.028	0.010	0.002	10,588	10,588	106,985	86,252	3,864,736	0.55	2,139,701	29	62,800,218	1,725,035	26	45,566,803	19,702	6,342	66,117,517	5,328	1,887	389
18	Riverway (Netherlands/Longwood)	30	0.2	0.097	0.032	330.5	0.028	0.010	0.002	31,799	31,799	1,285,205	1,036,137	11,606,709	0.55	6,426,024	25	162,257,095	5,180,685	23	117,731,073	225,618	74,128	767,199,972	64,565	22,424	4,419
19	Longwood Ave (Chapel/Riverway)	30	0.07	0.085	0.030	300.7	0.029	0.010	0.002	16,922	16,922	239,374	192,984	6,176,535	0.55	3,419,622	28	94,039,613	2,756,913	25	68,233,593	36,813	12,875	130,021,619	12,434	4,142	707
20	Riverway (Longwood/Nessel)	30	0.1	0.085	0.030	301.3	0.029	0.010	0.002	27,545	27,545	556,624	448,753	10,053,772	0.55	5,566,244	27	151,958,469	4,487,528	25	110,258,560	85,898	29,994	302,963,384	28,882	9,629	1,651
21	Riverway (Nessel/Short)	30	0.04	0.096	0.032	327.5	0.028	0.010	0.002	27,610	27,610	223,178	179,927	10,077,629	0.55	5,579,452	4	23,712,672	4,498,176	4	17,205,524	38,690	12,776	131,999,805	11,225	3,881	756
22	Riverway (Short/Park Drive Fork)	30	0.17	0.089	0.031	311.3	0.028	0.010	0.002	28,606	28,606	982,723	792,275	10,441,162	0.55	5,780,722	5	26,013,249	4,660,441	4	18,874,784	158,719	54,216	552,612,092	50,161	16,928	3,065
23	Short St (Riverway/Pilgrim)	15	0.05	0.117	0.044	415.3	0.045	0.015	0.002	2,319	2,319	23,429	18,889	846,350	0.55	468,579	40	18,602,599	377,770	36	13,497,739	4,958	1,857	17,572,506	1,902	638	92
24	Pilgrim Rd (Short/Brookline) [EX/NB]	15	0.22	0.133	0.046	447.5	0.041	0.014	0.002	131	131	5,809	4,683	47,692	0.55	26,405	0	0	21,287	0	0	1,392	486	4,695,034	430	148	26
25	BIDMC Entrance (End/ Brookline)	15	0.05	0.127	0.045	434.5	0.042	0.014	0.002	4,183	4,183	42,266	34,075	1,526,809	0.55	845,314	28	23,922,383	681,495	25	17,357,687	9,664	3,461	33,173,137	3,219	1,097	180
26	Brookline Ave (BIDMC/Pilgrim)) [EX/NB]	30	0.2	0.089	0.030	310.2	0.028	0.010	0.002	2,072	2,072	83,740	67,512	756,260	0.55	418,701	0	0	337,558	0	0	13,456	4,608	46,911,232	4,281	1,443	260
27	Brookline Ave (Pilgrim/Fenway)	30	0.02	0.079	0.029	285.6	0.030	0.010	0.001	25,257	25,257	102,079	82,297	9,218,819	0.55	5,103,975	5	25,264,675	4,114,844	4	18,331,632	14,566	5,288	52,663,794	5,481	1,794	276
28	Fenway (Riverway Park Merge/Brookline)	30	0.06	0.076	0.028	277.6	0.030	0.010	0.001	15,285	15,285	185,328	149,412	5,579,000	0.55	3,088,799	39	121,698,665	2,490,201	35	88,302,545	25,308	9,383	92,908,207	10,110	3,279	479
29	Fenway (Brookline/Park)	30	0.19	0.076	0.028	277.8	0.030	0.010	0.001	8,677	8,677	333,171	268,604	3,167,233	0.55	1,753,530	0	0	1,413,703	0	0	45,591	16,882	167,189,692	18,159	5,892	863
30	Brookline Ave (Fenway/Park)	30	0.05	0.079	0.029	285.6	0.030	0.010	0.001	27,968	27,968	282,590	227,825	10,208,287	0.55	5,651,791	20	113,318,405	4,556,496	18	82,221,966	40,323	14,638	145,790,663	15,172	4,967	764
31	Park Dr (Peterborough/Brookline)	30	0.07	0.076	0.028	278.6	0.030	0.010	0.001	13,112	13,112	185,485	149,539	4,786,051	0.55	2,649,784	54	143,618,319	2,136,267	49	104,207,085	25,485	9,419	93,339,963	10,098	3,280	482
32	Boylston St (Brookline/Kilmarnock)	30	0.14	0.081	0.029	289.0	0.029	0.010	0.002	21,220	21,220	600,350	484,005	7,745,390	0.55	4,288,215	38	163,809,797	3,457,175	34	118,857,688	87,293	31,377	313,343,632	31,975	10,508	1,657
33	Brookline Ave (Park/Kilmarnock)	30	0.14	0.079	0.029	285.6	0.030	0.010	0.001	10,760	10,760	304,401	245,410	3,927,221	0.55	2,174,295	28	59,901,839	1,752,925	25	43,463,787	43,436	15,768	157,043,277	16,343	5,351	823
34	Park Dr (Landmark/Brookline)	30	0.06	0.082	0.029	293.7	0.029	0.010	0.002	15,033	15,033	182,271	146,947	5,486,971	0.55	3,037,847	12	36,757,946	2,449,124	11	26,670,960	27,146	9,637	96,680,975	9,610	3,178	519
35	Landmark S Drive (Park/End)	15	0.07	0.120	0.044	421.5	0.044	0.015	0.002	1,830	1,830	25,888	20,871	667,979	0.55	369,825	16	5,954,180	298,154	14	4,320,255	5,624	2,075	19,710,859	2,059	694	105
36	Park Drive NB LT (Riverway/Landmark)	30	0.04	0.096	0.032	327.5	0.028	0.010	0.002	10,196	10,196	82,418	66,446	3,721,598	0.55	2,060,453	24	48,420,636	1,661,145	21	35,133,215	14,288	4,718	48,746,602	4,145	1,433	279
37	Park Drive Thru (Riverside/Landmark)	30	0.04	0.108	0.034	357.4	0.027	0.010	0.002	5,621	5,621	45,436	36,630	2,051,650	0.55	1,135,891	3	2,953,315	915,759	2	2,142,877	8,852	2,785	29,328,336	2,233	810	177
38	Park Drive NB (Beacon/Riverway)	30	0.16	0.074	0.028	273.4	0.031	0.010	0.001	12,334	12,334	398,807	321,520	4,502,045	0.55	2,492,545	0	0	2,009,500	0	0	53,223	19,982	196,967,651	22,014	7,115	1,005
39	Park Drive SB (Beacon/Riverway)	30	0.18	0.082	0.029	293.7	0.029	0.010	0.002	12,739	12,739	463,376	373,575	4,649,726	0.55	2,574,308	118	303,510,960	2,075,417	106	220,222,548	69,011	24,500	245,785,425	24,432	8,079	1,319
40	Riverway EB LT (Riverway/Park)	30	0.03	0.086	0.030	303.1	0.029	0.010	0.002	6,975	6,975	42,285	34,090	2,545,821	0.55	1,409,487	27	37,633,305	1,136,334	24	27,306,106	6,578	2,287	23,148,871	2,185	730	127
41	Riverway (Fork/Park)	30	0.12	0.092	0.031	317.7	0.028	0.010	0.002	19,714	19,714	478,055	385,410	7,195,547	0.55	3,983,795	20	79,875,099	3,211,751	18	57,956,055	79,465	26,772	274,299,298	24,229	8,251	1,538
42	Fenway SB (Park/Riverway/Merge)	30	0.07	0.070	0.027	265.2	0.031	0.010	0.001	8,033	8,033	113,633	91,611	2,932,065	0.55	1,623,330	23	36,849,597	1,308,735	20	26,737,460	14,422	5,573	54,436,140	6,410	2,055	271
43	Riverway EB RT (Fork/Merge)	30	0.11	0.061	0.026	244.1	0.034	0.011	0.001	7,252	7,252	161,202	129,961	2,646,935	0.55	1,465,468	40	58,765,280	1,181,466	36	42,639,119	17,854	7,457	71,063,845	9,913	3,123	332
44	Brookline Ave (BIDMC/MID) [BD/BDMIT]	30	0.11	0.089	0.030	310.2	0.028	0.010	0.002	20,698	20,698	460,101	370,935	7,554,871	0.55	4,182,734	11	44,336,982	3,372,137	10	32,170,183	73,931	25,317	257,748,002	23,524	7,929	1,427
45	Brookline Ave (MID/Pilgrim) [BD/BDMIT]	30	0.09	0.089	0.030	310.2	0.028	0.010	0.002	22,118	22,118	402,260	324,303	8,072,919	0.55	4,469,550	0	0	3,603,369	0	0	64,637	22,134	225,345,030	20,566	6,932	1,248
46	Mid Block Rd (Pilgrim/Brookline) [BD/BDMIT]	15	0.07	0.146	0.049	475.5	0.040	0.014	0.003	2,129	2,129	30,116	24,279	777,072	0.55	430,224	52	22,178,051	346,848	46	16,092,028	7,921	2,653	25,864,855	2,160	767	149
47	Pilgrim Rd (Short/Mid) [BD/BDMIT]	15	0.09	0.133	0.046	447.5	0.041	0.014	0.002	2,188	2,188	39,796	32,083	798,658	0.55	442,175	11	4,642,835	356,483	9	3,368,764	9,537	3,327	32,164,262	2,948	1,015	178
48	Pilgrim Rd (Mid/Brookline) [BD/BDMIT]	15	0.13	0.133	0.046	447.5	0.041	0.014	0.002	887	887	23,304	18,788	323,780	0.55	179,260	0	0	144,520	0	0	5,584	1,948	18,834,909	1,726	595	104
											VMT (per year)	12,857,360	10,365,654													
														227,696,323		Arterial		4,273,246,307			3,100,597,062						

Emissions Summary (tpy)

	Weekday	Weekend	Total	NO_x	VOC	CO_2	PM10	PM2.5	DPM	
VMT per year	**23,223,014**	**0**	**23,223,014**	2.3	0.8	7,919.63	0.75	0.25	0.04	Moving Emissions
Delay per year (hr)	**2,048,290**	**0**	**2,048,290**	1.9	0.5	5,997.01	0.07	0.06	0.03	Idle Emissions
				4.1	**1.3**	**13,916.65**	**0.82**	**0.31**	**0.08**	**Total Emissions**

Idle Factor (g/hr)

NO_x	VOC	CO_2	PM10	PM2.5	DPM
0.83	0.24	2,656.07	0.030	0.027	0.015

Longwood Place

No Build

Link No.	Description	Roadway Link Length Speed	Roadway Link Length (miles)	10 Emission Factor (g/mi) NOx	11 Emission Factor (g/mi) VOC	12 Emission Factor (g/mi) CO_2	13 Emission Factor (g/mi) PM10	14 Emission Factor (g/mi) PM2.5	15 Emission Factor (g/mi) DPM	Weekday AADT (veh/day)	Weekday Seasonally Adjusted ADT (veh/day)	Weekday VMT Peak (veh-miles)	Weekday VMT Off-Peak (veh-miles)	Weekday Annual Weekday Trips (veh/yr)	Weekday Peak Period Factor	Weekday Peak Traffic Data Period Volume (vehicles)	Weekday Peak Traffic Data Average Delay (sec)	Weekday Peak Traffic Data Adjusted Delay (veh-sec)	Weekday Off-Peak Traffic Data Period Volume (vehicles)	Weekday Off-Peak Traffic Data Average Delay (sec)	Weekday Off-Peak Traffic Data Adjusted Delay (veh-sec)	Annual Link Emissions NOx (grams)	Annual Link Emissions VOC (grams)	Annual Link Emissions CO_2 (grams)	Annual Link Emissions PM10 (grams)	Annual Link Emissions PM2.5 (grams)	Annual Link Emissions DPM (grams)
1	Brookline Ave (Aspinwall/Riverway)	30	0.14	0.084	0.029	296.2	0.029	0.010	0.002	12,092	12,092	342,088	275,793	4,413,433	0.55	2,443,485	115	281,367,351	1,969,948	104	204,155,510	51,601	18,207	183,033,454	17,930	5,947	988
2	Riverway (Jamaicaway/Brookline)	30	0.18	0.081	0.029	291.1	0.029	0.010	0.002	35,556	35,556	1,293,330	1,042,688	12,977,879	0.55	7,185,168	65	469,909,991	5,792,711	59	340,958,941	190,130	67,968	680,131,675	68,608	22,611	3,618
3	Brookline Ave (Riverway/Francis)	30	0.06	0.114	0.035	373.0	0.027	0.010	0.002	19,673	19,673	238,537	192,309	7,180,775	0.55	3,975,617	123	489,994,781	3,205,158	111	355,532,134	49,068	15,119	160,722,980	11,561	4,296	994
4	Riverway (Brookline/Netherlands)	30	0.09	0.084	0.029	296.7	0.029	0.010	0.002	28,236	28,236	513,528	414,008	10,305,962	0.55	5,705,869	60	344,063,886	4,600,094	54	249,647,082	77,599	27,355	275,186,708	26,859	8,912	1,485
5	Nertherlands Rd (Aspinwall/Riverway)	25	0.19	0.090	0.033	323.8	0.035	0.011	0.002	1,569	1,569	60,229	48,557	572,553	0.55	316,993	36	11,348,339	255,561	32	8,234,168	9,825	3,589	35,222,346	3,761	1,245	182
6	Francis St (Riverway/Brookline)	25	0.09	0.106	0.036	360.7	0.033	0.011	0.002	3,987	3,987	72,512	58,460	1,455,240	0.55	805,690	63	50,677,888	649,550	57	36,771,040	13,929	4,699	47,242,041	4,315	1,503	266
7	Francis St (Brookline/ Binney)	25	0.07	0.105	0.036	357.4	0.033	0.011	0.002	9,346	9,346	132,212	106,590	3,411,464	0.55	1,888,748	49	92,454,225	1,522,716	44	67,083,262	25,019	8,504	85,339,484	7,881	2,731	475
8	Brookline Ave (Francis/Deaconess)	30	0.08	0.102	0.033	342.2	0.028	0.010	0.002	18,889	18,889	305,370	246,190	6,894,498	0.55	3,817,121	17	65,081,905	3,077,377	15	47,222,357	56,236	18,102	188,721,028	15,209	5,385	1,112
9	Deaconess Rd (Pilgrim/Brookline)	15	0.06	0.095	0.040	370.0	0.055	0.018	0.002	3,007	3,007	36,454	29,389	1,097,394	0.55	607,569	42	25,760,941	489,825	38	18,691,714	6,279	2,657	24,364,125	3,600	1,177	117
10	Jimmy Fund Way (Brookline/Binney)	25	0.08	0.097	0.034	338.1	0.034	0.011	0.002	4,902	4,902	79,248	63,890	1,789,230	0.55	990,602	36	36,057,921	798,627	33	26,163,033	13,822	4,882	48,395,261	4,816	1,622	259
11	Brookline Ave (Deaconess/Longwood)	30	0.09	0.091	0.031	316.0	0.028	0.010	0.002	18,170	18,170	330,465	266,422	6,632,078	0.55	3,671,832	38	138,611,666	2,960,245	34	100,574,339	54,517	18,436	188,605,672	16,773	5,700	1,054
12	Longwood Ave (Brookline/Binney)	30	0.08	0.111	0.035	365.3	0.027	0.010	0.002	13,203	13,203	213,442	172,078	4,818,992	0.55	2,668,022	28	73,637,406	2,150,970	25	53,430,088	42,737	13,304	140,829,733	10,415	3,823	860
13	Brookline Ave (Longwood/Short)	30	0.11	0.089	0.030	310.4	0.028	0.010	0.002	20,654	20,654	459,111	370,137	7,538,621	0.55	4,173,737	26	107,682,423	3,364,883	23	78,132,591	73,852	25,271	257,362,467	23,472	7,913	1,426
14	Longwood Ave (Autumn/Brookline)	30	0.12	0.100	0.032	337.5	0.028	0.010	0.002	8,758	8,758	212,385	171,226	3,196,757	0.55	1,769,876	31	55,574,105	1,426,881	28	40,323,654	38,355	12,445	129,483,045	10,609	3,725	755
15	Autumn St (Crossover/Longwood)	15	0.04	0.095	0.040	370.0	0.055	0.018	0.002	654	654	5,283	4,259	238,564	0.55	132,080	18	2,364,237	106,484	16	1,715,452	910	385	3,531,033	522	171	17
16	Nessel Way (Longwood/Riverway)	15	0.1	0.099	0.041	377.5	0.053	0.017	0.002	196	196	3,962	3,195	71,569	0.55	39,624	26	1,038,151	31,945	24	753,265	710	294	2,701,651	380	125	13
17	Longwood Ave (Riverway/Autumn)	30	0.05	0.102	0.033	342.2	0.028	0.010	0.002	10,588	10,588	106,985	86,252	3,864,736	0.55	2,139,701	29	63,014,188	1,725,035	27	45,722,056	19,702	6,342	66,117,517	5,328	1,887	389
18	Riverway (Netherlands/Longwood)	30	0.2	0.097	0.032	330.5	0.028	0.010	0.002	31,504	31,504	1,273,254	1,026,502	11,498,782	0.55	6,366,270	25	158,201,815	5,132,512	22	114,788,629	223,520	73,439	760,066,048	63,964	22,216	4,377
19	Longwood Ave (Chapel/Riverway)	30	0.07	0.085	0.030	300.7	0.029	0.010	0.002	16,863	16,863	238,537	192,309	6,154,950	0.55	3,407,672	28	93,710,969	2,747,278	25	67,995,134	36,685	12,830	129,567,228	12,390	4,127	704
20	Riverway (Longwood/Nessel)	30	0.1	0.085	0.030	301.3	0.029	0.010	0.002	27,190	27,190	549,454	442,972	9,924,260	0.55	5,494,540	26	143,407,501	4,429,720	23	104,054,118	84,792	29,608	299,060,629	28,510	9,505	1,630
21	Riverway (Nessel/Short)	30	0.04	0.096	0.032	327.5	0.028	0.010	0.002	27,255	27,255	220,310	177,615	9,948,116	0.55	5,507,748	4	22,581,768	4,440,368	4	16,384,959	38,193	12,611	130,303,417	11,081	3,831	746
22	Riverway (Short/Park Drive Fork)	30	0.17	0.089	0.031	311.3	0.028	0.010	0.002	27,778	27,778	954,280	769,344	10,138,968	0.55	5,613,413	4	24,418,345	4,525,555	4	17,717,548	154,125	52,647	536,618,038	48,709	16,438	2,976
23	Short St (Riverway/Pilgrim)	15	0.05	0.117	0.044	415.3	0.045	0.015	0.002	1,373	1,373	13,868	11,181	500,984	0.55	277,369	38	10,456,797	223,616	34	7,587,279	2,935	1,099	10,401,786	1,126	377	55
24	Pilgrim Rd (Short/Brookline) [EX/NB]	15	0.22	0.133	0.046	447.5	0.041	0.014	0.002	1,373	1,373	61,021	49,195	500,984	0.55	277,369	10	2,635,002	223,616	9	1,911,914	14,623	5,102	49,319,299	4,520	1,557	273
25	BIDMC Entrance (End/ Brookline)	15	0.05	0.127	0.045	434.5	0.042	0.014	0.002	4,183	4,183	42,266	34,075	1,526,809	0.55	845,314	28	23,922,383	681,495	25	17,357,687	9,664	3,461	33,173,137	3,219	1,097	180
26	Brookline Ave (BIDMC/Pilgrim)) [EX/NB]	30	0.2	0.089	0.030	310.2	0.028	0.010	0.002	21,765	21,765	879,655	709,181	7,944,179	0.55	4,398,274	11	47,061,530	3,545,906	10	34,147,070	141,347	48,403	492,782,216	44,974	15,158	2,728
27	Brookline Ave (Pilgrim/Fenway)	30	0.02	0.079	0.029	285.6	0.030	0.010	0.001	23,660	23,660	95,626	77,094	8,636,015	0.55	4,781,307	4	18,168,965	3,854,708	3	13,183,102	13,645	4,953	49,334,443	5,134	1,681	259
28	Fenway (Riverway Park Merge/Brookline)	30	0.06	0.076	0.028	277.6	0.030	0.010	0.001	14,575	14,575	176,723	142,475	5,319,976	0.55	2,945,391	38	110,452,147	2,374,585	34	80,142,257	24,133	8,948	88,594,626	9,640	3,127	457
29	Fenway (Brookline/Park)	30	0.19	0.076	0.028	277.8	0.030	0.010	0.001	7,909	7,909	303,653	244,806	2,886,624	0.55	1,598,172	0	0	1,288,452	0	0	41,552	15,386	152,377,075	16,551	5,370	786
30	Brookline Ave (Fenway/Park)	30	0.05	0.079	0.029	285.6	0.030	0.010	0.001	26,667	26,667	269,444	217,227	9,733,409	0.55	5,388,876	20	107,508,077	4,344,533	18	78,006,088	38,447	13,957	139,008,651	14,466	4,736	729
31	Park Dr (Peterborough/Brookline)	30	0.07	0.076	0.028	278.6	0.030	0.010	0.001	12,876	12,876	182,139	146,841	4,699,710	0.55	2,601,982	53	136,864,243	2,097,728	47	99,306,438	25,025	9,249	91,656,091	9,916	3,220	474
32	Boylston St (Brookline/Kilmarnock)	30	0.14	0.081	0.029	289.0	0.029	0.010	0.002	20,392	20,392	576,927	465,121	7,443,195	0.55	4,120,905	36	147,322,361	3,322,290	32	106,894,676	83,887	30,153	301,118,188	30,727	10,098	1,593
33	Brookline Ave (Park/Kilmarnock)	30	0.14	0.079	0.029	285.6	0.030	0.010	0.001	10,523	10,523	297,709	240,014	3,840,880	0.55	2,126,493	27	56,564,707	1,714,387	24	41,042,419	42,481	15,421	153,590,623	15,984	5,233	805
34	Park Dr (Landmark/Brookline)	30	0.06	0.082	0.029	293.7	0.029	0.010	0.002	15,033	15,033	182,271	146,947	5,486,971	0.55	3,037,847	12	36,757,946	2,449,124	11	26,670,960	27,146	9,637	96,680,975	9,610	3,178	519
35	Landmark S Drive (Park/End)	15	0.07	0.120	0.044	421.5	0.044	0.015	0.002	1,830	1,830	25,888	20,871	667,979	0.55	369,825	16	5,954,180	298,154	14	4,320,255	5,624	2,075	19,710,859	2,059	694	105
36	Park Drive NB LT (Riverway/Landmark)	30	0.04	0.096	0.032	327.5	0.028	0.010	0.002	10,196	10,196	82,418	66,446	3,721,598	0.55	2,060,453	24	48,420,636	1,661,145	21	35,133,215	14,288	4,718	48,746,602	4,145	1,433	279
37	Park Drive Thru (Riverside/Landmark)	30	0.04	0.108	0.034	357.4	0.027	0.010	0.002	5,621	5,621	45,436	36,630	2,051,650	0.55	1,135,891	3	2,953,315	915,759	2	2,142,877	8,852	2,785	29,328,336	2,233	810	177
38	Park Drive NB (Beacon/Riverway)	30	0.16	0.074	0.028	273.4	0.031	0.010	0.001	12,157	12,157	393,071	316,895	4,437,289	0.55	2,456,693	0	0	1,980,596	0	0	52,457	19,695	194,134,529	21,697	7,012	991
39	Park Drive SB (Beacon/Riverway)	30	0.18	0.082	0.029	293.7	0.029	0.010	0.002	12,680	12,680	461,224	371,841	4,628,141	0.55	2,562,358	117	299,923,972	2,065,783	105	217,619,889	68,691	24,386	244,644,419	24,318	8,041	1,313
40	Riverway EB LT (Riverway/Park)	30	0.03	0.086	0.030	303.1	0.029	0.010	0.002	6,797	6,797	41,209	33,223	2,481,065	0.55	1,373,635	23	31,868,334	1,107,430	21	23,123,137	6,411	2,229	22,560,051	2,129	711	123
41	Riverway (Fork/Park)	30	0.12	0.092	0.031	317.7	0.028	0.010	0.002	19,477	19,477	472,319	380,786	7,109,206	0.55	3,935,993	20	77,145,459	3,173,213	18	55,975,473	78,512	26,450	271,007,904	23,938	8,152	1,520
42	Fenway SB (Park/Riverway/Merge)	30	0.07	0.070	0.027	265.2	0.031	0.010	0.001	7,974	7,974	112,797	90,937	2,910,480	0.55	1,611,380	23	36,417,179	1,299,101	20	26,423,705	14,316	5,532	54,035,391	6,363	2,040	269
43	Riverway EB RT (Fork/Merge)	30	0.11	0.061	0.026	244.1	0.034	0.011	0.001	6,601	6,601	146,741	118,303	2,409,496	0.55	1,334,011	36	48,558,000	1,075,485	33	35,232,884	16,253	6,788	64,689,183	9,024	2,843	302
44	Brookline Ave (BIDMC/MID) [BD/BDMIT]	30	0.11	0.089	0.030	310.2	0.028	0.010	0.002	0	0	0	0	0	0.55	0	0	0	0	0	0	0	0	0	0	0	0
45	Brookline Ave (MID/Pilgrim) [BD/BDMIT]	30	0.09	0.089	0.030	310.2	0.028	0.010	0.002	0	0	0	0	0	0.55	0	0	0	0	0	0	0	0	0	0	0	0
46	Mid Block Rd (Pilgrim/Brookline) [BD/BDMIT]	15	0.07	0.146	0.049	475.5	0.040	0.014	0.003	0	0	0	0	0	0.55	0	0	0	0	0	0	0	0	0	0	0	0
47	Pilgrim Rd (Short/Mid) [BD/BDMIT]	15	0.09	0.133	0.046	447.5	0.041	0.014	0.002	0	0	0	0	0	0.55	0	0	0	0	0	0	0	0	0	0	0	0
48	Pilgrim Rd (Mid/Brookline) [BD/BDMIT]	15	0.13	0.133	0.046	447.5	0.041	0.014	0.002	0	0	0	0	0	0.55	0	0	0	0	0	0	0	0	0	0	0	0
											VMT (per year)	12,503,381	10,080,275														
												########				Arterial	3,999,915,036				2,902,272,398						

Emissions Summary (tpy)

	Weekday	Weekend	Total	NOx	VOC	CO_2	PM10	PM2.5	DPM	
VMT per year	22,583,656	0	22,583,656	2.2	0.8	7,693.45	0.73	0.24	0.04	Moving Emissions
Delay per year (hr)	1,917,274	0	1,917,274	1.7	0.5	5,613.42	0.06	0.06	0.03	Idle Emissions
				3.9	**1.3**	**13,306.88**	**0.79**	**0.30**	**0.07**	**Total Emissions**

Idle Factor (g/hr)

NOx	VOC	CO_2	PM10	PM2.5	DPM
0.83	0.24	2,656.07	0.030	0.027	0.015

Existing

Link No.	Description	Roadway Type	Link Length (miles)	3 Emission Factor (g/mi) NOx	4 Emission Factor (g/mi) VOC	5 Emission Factor (g/mi) CO_2	6 Emission Factor (g/mi) PM10	7 Emission Factor (g/mi) PM2.5	8 Emission Factor (g/mi) DPM	Weekday AADT (veh/day)	Seasonally Adjusted ADT (veh/day)	VMT Peak (veh-miles)	VMT Off-Peak (veh-miles)	Annual Weekday Trips (veh/yr)	Peak Period Factor	Weekday Peak Traffic Data Period Volume (vehicles)	Average Delay (sec)	Adjusted Delay (veh-sec)	Weekday Off-Peak Traffic Data Period Volume (vehicles)	Average Delay (sec)	Adjusted Delay (veh-sec)	Annual Link Emissions NOx (grams)	VOC (grams)	CO_2 (grams)	PM10 (grams)	PM2.5 (grams)	DPM (grams)
1	Brookline Ave (Aspinwall/Riverway)	30	0.14	0.133	0.040	378.1	0.036	0.012	0.003	11,177	11,177	316,200	254,922	4,079,443	0.55	2,258,573	117	265,043,547	1,820,870	106	192,311,228	76,053	22,943	215,931,463	20,308	6,811	1,529
2	Riverway (Jamaicaway/Brookline)	30	0.18	0.130	0.040	371.7	0.036	0.012	0.003	34,118	34,118	1,241,026	1,000,520	12,453,038	0.55	6,894,591	44	301,638,374	5,558,446	39	218,863,831	290,968	88,969	833,124,373	80,662	26,759	5,822
3	Brookline Ave (Riverway/Francis)	30	0.06	0.182	0.047	475.8	0.033	0.013	0.004	18,758	18,758	227,442	183,365	6,846,785	0.55	3,790,704	118	446,924,057	3,056,081	106	324,280,727	74,562	19,485	195,442,860	13,609	5,351	1,570
4	Riverway (Brookline/Netherlands)	30	0.09	0.133	0.040	378.6	0.035	0.012	0.003	26,798	26,798	487,376	392,925	9,781,122	0.55	5,415,292	31	170,310,937	4,365,830	28	123,574,807	117,422	35,391	333,324,962	31,227	10,482	2,360
5	Nertherlands Rd (Aspinwall/Riverway)	25	0.19	0.144	0.045	413.7	0.043	0.014	0.003	1,569	1,569	60,229	48,557	572,553	0.55	316,993	541	171,461,356	255,561	487	124,409,533	15,612	4,920	45,009,403	4,642	1,523	306
6	Francis St (Riverway/Brookline)	25	0.09	0.169	0.049	460.7	0.041	0.014	0.003	3,856	3,856	70,135	56,543	1,407,527	0.55	779,274	60	46,834,352	628,254	54	33,982,233	21,382	6,209	58,354,810	5,166	1,825	430
7	Francis St (Brookline/ Binney)	25	0.07	0.166	0.049	456.4	0.041	0.014	0.003	9,281	9,281	131,288	105,845	3,387,608	0.55	1,875,540	61	114,783,060	1,512,068	55	83,284,696	39,426	11,536	108,231,707	9,678	3,396	789
8	Brookline Ave (Francis/Deaconess)	30	0.08	0.163	0.045	436.5	0.034	0.012	0.003	17,974	17,974	290,577	234,264	6,560,508	0.55	3,632,208	15	53,211,849	2,928,300	13	38,609,640	85,296	23,357	229,104,761	17,814	6,560	1,759
9	Deaconess Rd (Pilgrim/Brookline)	15	0.06	0.150	0.056	473.4	0.068	0.021	0.003	2,614	2,614	31,699	25,556	954,256	0.55	528,321	42	22,189,490	425,935	38	16,100,328	8,592	3,218	27,102,965	3,896	1,206	174
10	Jimmy Fund Way (Brookline/Binney)	25	0.08	0.153	0.047	431.9	0.042	0.014	0.003	4,902	4,902	79,248	63,890	1,789,230	0.55	990,602	33	33,086,114	798,627	30	24,006,739	21,945	6,683	61,816,271	5,946	2,005	434
11	Brookline Ave (Deaconess/Longwood)	30	0.09	0.146	0.042	403.2	0.034	0.012	0.003	17,190	17,190	312,634	252,047	6,274,232	0.55	3,473,712	27	94,311,274	2,800,520	24	68,430,706	82,183	23,722	227,659,866	19,455	6,775	1,664
12	Longwood Ave (Brookline/Binney)	30	0.08	0.177	0.047	465.9	0.033	0.013	0.004	13,007	13,007	210,272	169,522	4,747,422	0.55	2,628,398	29	75,303,599	2,119,025	26	54,639,050	67,120	17,726	176,963,028	12,660	4,894	1,405
13	Brookline Ave (Longwood/Short)	30	0.11	0.142	0.041	396.0	0.035	0.012	0.003	19,739	19,739	438,771	353,739	7,204,631	0.55	3,988,825	19	75,588,232	3,215,806	17	54,845,575	112,523	32,871	313,867,603	27,499	9,468	2,276
14	Longwood Ave (Autumn/Brookline)	30	0.12	0.159	0.044	430.6	0.034	0.012	0.003	8,693	8,693	210,800	169,948	3,172,900	0.55	1,756,668	32	56,213,374	1,416,233	29	40,787,497	60,685	16,760	163,958,047	12,949	4,716	1,247
15	Autumn St (Crossover/Longwood)	15	0.04	0.150	0.056	473.4	0.068	0.021	0.003	654	654	5,283	4,259	238,564	0.55	132,080	18	2,337,821	106,484	16	1,696,285	1,432	536	4,517,160	649	201	29
16	Nessel Way (Longwood/Riverway)	15	0.1	0.156	0.057	482.9	0.066	0.021	0.003	196	196	3,962	3,195	71,569	0.55	39,624	24	958,903	31,945	22	695,764	1,118	409	3,455,804	473	148	23
17	Longwood Ave (Riverway/Autumn)	30	0.05	0.163	0.045	436.5	0.034	0.012	0.003	10,458	10,458	105,664	85,187	3,817,023	0.55	2,113,285	28	59,594,629	1,703,738	25	43,240,880	31,017	8,494	83,310,725	6,478	2,385	640
18	Riverway (Netherlands/Longwood)	30	0.2	0.155	0.043	421.7	0.034	0.012	0.003	30,131	30,131	1,217,780	981,779	10,997,798	0.55	6,088,902	15	90,115,744	4,908,896	13	65,386,498	340,781	95,385	927,520,150	75,163	26,970	6,972
19	Longwood Ave (Chapel/Riverway)	30	0.07	0.136	0.041	383.8	0.035	0.012	0.003	16,732	16,732	236,688	190,819	6,107,237	0.55	3,381,256	27	90,110,461	2,725,981	24	65,382,664	58,032	17,345	164,073,971	15,065	5,089	1,169
20	Riverway (Longwood/Nessel)	30	0.1	0.136	0.041	384.6	0.035	0.012	0.003	25,883	25,883	523,038	421,675	9,447,132	0.55	5,230,380	22	115,068,353	4,216,753	20	83,491,700	128,701	38,404	363,313,086	33,257	11,250	2,596
21	Riverway (Nessel/Short)	30	0.04	0.153	0.043	417.8	0.034	0.012	0.003	25,948	25,948	209,744	169,096	9,470,989	0.55	5,243,588	4	21,236,530	4,227,401	4	15,408,876	57,955	16,310	158,268,741	12,955	4,621	1,184
22	Riverway (Short/Park Drive Fork)	30	0.17	0.143	0.042	397.3	0.035	0.012	0.003	26,405	26,405	907,127	731,330	9,637,983	0.55	5,336,044	4	22,411,384	4,301,939	4	16,261,331	233,564	68,106	650,951,310	56,752	19,575	4,725
23	Short St (Riverway/Pilgrim)	15	0.05	0.184	0.061	530.8	0.056	0.018	0.004	1,373	1,373	13,868	11,181	500,984	0.55	277,369	38	10,456,797	223,616	34	7,587,279	4,615	1,527	13,296,724	1,393	459	93
24	Pilgrim Rd (Short/Brookline) [EX/NB]	15	0.22	0.208	0.064	571.7	0.051	0.018	0.004	1,373	1,373	61,021	49,195	500,984	0.55	277,369	10	2,635,002	223,616	9	1,911,914	22,950	7,073	63,007,290	5,585	1,932	458
25	BIDMC Entrance (End/ Brookline)	15	0.05	0.199	0.063	555.2	0.052	0.018	0.004	4,183	4,183	42,266	34,075	1,526,809	0.55	845,314	28	23,922,383	681,495	25	17,357,687	15,179	4,802	42,387,736	3,978	1,351	303
26	Brookline Ave (BIDMC/Pilgrim)) [EX/NB]	30	0.2	0.142	0.041	395.8	0.035	0.012	0.003	20,850	20,850	842,672	679,366	7,610,190	0.55	4,213,361	11	45,293,635	3,396,828	10	32,864,315	215,881	63,107	602,406,621	52,813	18,178	4,366
27	Brookline Ave (Pilgrim/Fenway)	30	0.02	0.126	0.039	364.7	0.036	0.012	0.003	22,745	22,745	91,928	74,113	8,302,025	0.55	4,596,394	3	15,397,921	3,705,631	3	11,172,477	20,924	6,500	60,547,335	6,044	1,984	417
28	Fenway (Riverway Park Merge/Brookline)	30	0.06	0.121	0.038	354.4	0.037	0.012	0.002	12,811	12,811	155,326	125,225	4,675,853	0.55	2,588,774	34	89,053,818	2,087,080	31	64,615,982	33,831	10,746	99,420,801	10,372	3,350	675
29	Fenway (Brookline/Park)	30	0.19	0.121	0.038	354.7	0.037	0.012	0.002	6,536	6,536	250,953	202,319	2,385,639	0.55	1,320,803	0	0	1,064,836	0	0	54,775	17,375	160,787,099	16,744	5,412	1,093
30	Brookline Ave (Fenway/Park)	30	0.05	0.126	0.039	364.7	0.036	0.012	0.003	25,621	25,621	258,877	208,708	9,351,707	0.55	5,177,548	19	100,185,545	4,174,159	17	72,692,980	58,923	18,306	170,506,862	17,021	5,586	1,175
31	Park Dr (Peterborough/Brookline)	30	0.07	0.121	0.038	355.7	0.037	0.012	0.002	12,680	12,680	179,365	144,605	4,628,141	0.55	2,562,358	52	133,242,602	2,065,783	47	96,678,635	39,308	12,443	115,242,551	11,956	3,870	784
32	Boylston St (Brookline/Kilmarnock)	30	0.14	0.128	0.039	368.9	0.036	0.012	0.003	20,392	20,392	576,927	465,121	7,443,195	0.55	4,120,905	36	146,704,225	3,322,290	32	106,446,167	133,771	41,144	384,398,587	37,643	12,434	2,672
33	Brookline Ave (Park/Kilmarnock)	30	0.14	0.126	0.039	364.7	0.036	0.012	0.003	9,412	9,412	266,274	214,671	3,435,321	0.55	1,901,956	24	46,312,635	1,533,365	22	33,603,684	60,607	18,829	175,378,627	17,508	5,746	1,209
34	Park Dr (Landmark/Brookline)	30	0.06	0.131	0.040	374.8	0.036	0.012	0.003	14,837	14,837	179,893	145,031	5,415,402	0.55	2,998,223	12	36,278,495	2,417,179	11	26,323,078	42,724	12,972	121,793,467	11,623	3,878	858
35	Landmark S Drive (Park/End)	15	0.07	0.189	0.062	538.8	0.054	0.018	0.004	654	654	9,246	7,454	238,564	0.55	132,080	15	1,981,204	106,484	14	1,437,529	3,158	1,029	8,997,272	910	303	63
36	Park Drive NB LT (Riverway/Landmark)	30	0.04	0.153	0.043	417.8	0.034	0.012	0.003	9,281	9,281	75,022	60,483	3,387,608	0.55	1,875,540	18	32,821,953	1,512,068	16	23,815,068	20,730	5,834	56,609,978	4,634	1,653	424
37	Park Drive Thru (Riverside/Landmark)	30	0.04	0.172	0.046	455.8	0.034	0.013	0.004	5,556	5,556	44,907	36,204	2,027,794	0.55	1,122,683	3	2,806,706	905,111	2	2,036,500	13,947	3,725	36,974,384	2,722	1,035	291
38	Park Drive NB (Beacon/Riverway)	30	0.16	0.118	0.038	349.1	0.037	0.012	0.002	11,896	11,896	384,618	310,080	4,341,864	0.55	2,403,861	0	0	1,938,002	0	0	81,878	26,343	242,543,029	25,991	8,336	1,631
39	Park Drive SB (Beacon/Riverway)	30	0.18	0.131	0.040	374.8	0.036	0.012	0.003	10,523	10,523	382,769	308,590	3,840,880	0.55	2,126,493	73	155,978,243	1,714,387	66	113,175,242	90,906	27,600	259,147,212	24,732	8,251	1,826
40	Riverway EB LT (Riverway/Park)	30	0.03	0.137	0.041	386.8	0.035	0.012	0.003	6,340	6,340	38,435	30,987	2,314,070	0.55	1,281,179	21	26,520,402	1,032,891	19	19,242,767	9,533	2,833	26,851,316	2,433	826	192
41	Riverway (Fork/Park)	30	0.12	0.147	0.042	405.3	0.034	0.012	0.003	16,863	16,863	408,921	329,673	6,154,950	0.55	3,407,672	19	63,893,843	2,747,278	17	46,360,319	108,324	31,138	299,371,219	25,422	8,881	2,195
42	Fenway SB (Park/Riverway/Merge)	30	0.07	0.112	0.037	338.7	0.038	0.012	0.002	6,275	6,275	88,758	71,557	2,290,214	0.55	1,267,971	21	26,373,793	1,022,243	19	19,136,390	17,960	5,955	54,302,344	6,121	1,935	357
43	Riverway EB RT (Fork/Merge)	30	0.11	0.098	0.035	311.8	0.042	0.013	0.002	6,536	6,536	145,288	117,132	2,385,639	0.55	1,320,803	36	47,680,987	1,064,836	32	34,596,538	25,636	9,223	81,835,540	10,952	3,329	508
44	Brookline Ave (BIDMC/MID) [BD/BDMIT]	30	0.11	0.000	0.000	0.0	0.000	0.000	0.000	0	0	0	0	0	0.55	0	0	0	0	0	0	0	0	0	0	0	0
45	Brookline Ave (MID/Pilgrim) [BD/BDMIT]	30	0.09	0.000	0.000	0.0	0.000	0.000	0.000	0	0	0	0	0	0.55	0	0	0	0	0	0	0	0	0	0	0	0
46	Mid Block Rd (Pilgrim/Brookline) [BD/BDMIT]	15	0.07	0.000	0.000	0.0	0.000	0.000	0.000	0	0	0	0	0	0.55	0	0	0	0	0	0	0	0	0	0	0	0
47	Pilgrim Rd (Short/Mid) [BD/BDMIT]	15	0.09	0.000	0.000	0.0	0.000	0.000	0.000	0	0	0	0	0	0.55	0	0	0	0	0	0	0	0	0	0	0	0
48	Pilgrim Rd (Mid/Brookline) [BD/BDMIT]	15	0.13	0.000	0.000	0.0	0.000	0.000	0.000	0	0	0	0	0	0.55	0	0	0	0	0	0	0	0	0	0	0	0
	VMT (per year)											11,814,318	9,524,749														
														201,777,384			Arterial	3,336,273,631			2,420,745,137						

Emissions Summary (tpy)

	Weekday	Weekend	Total	NO_x	VOC	CO_2	PM10	PM2.5	DPM	
VMT per year	21,339,068	0	21,339,068	3.3	1.0	9,282.53	0.84	0.29	0.07	Moving Emissions
Delay per year (hr)	1,599,172	0	1,599,172	2.3	0.6	6,006.55	0.09	0.08	0.05	Idle Emissions
				5.6	**1.6**	**15,289.08**	**0.93**	**0.36**	**0.12**	**Total Emissions**

Idle Factor (g/hr)

NO_x	VOC	CO_2	PM10	PM2.5	DPM
1.32	0.36	3,407.42	0.048	0.044	0.029

Longwood Place

Weekday Traffic

Link No.	Roadway Description	Existing			No Build			Build				Build with Mitigation			
		Roadway S.A.F.	Roadway ADT (veh/day)	Seasonal ADT (veh/day)	Roadway ADT (veh/day)	Seasonal ADT (veh/day)	Traffic Increase (existing)	Roadway ADT (veh/day)	Seasonal ADT (veh/day)	Traffic Increase (existing)	Traffic Increase (no-build)	Roadway ADT (veh/day)	Seasonal ADT (veh/day)	Traffic Increase (existing)	Traffic Increase (no-build)
1	Brookline Ave (Aspinwall/Riverway)	100%	11,177	11,177	12,092	12,092	8%	12,328	12,328	10%	2%	12,328	12,328	10%	2%
2	Riverway (Jamaicaway/Brookline)	100%	34,118	34,118	35,556	35,556	4%	36,088	36,088	6%	1%	36,088	36,088	6%	1%
3	Brookline Ave (Riverway/Francis)	100%	18,758	18,758	19,673	19,673	5%	20,146	20,146	7%	2%	20,146	20,146	7%	2%
4	Riverway (Brookline/Netherlands)	100%	26,798	26,798	28,236	28,236	5%	28,531	28,531	6%	1%	28,531	28,531	6%	1%
5	Nertherlands Rd (Aspinwall/Riverway)	100%	1,569	1,569	1,569	1,569	0%	1,569	1,569	0%	0%	1,569	1,569	0%	0%
6	Francis St (Riverway/Brookline)	100%	3,856	3,856	3,987	3,987	3%	3,987	3,987	3%	0%	3,987	3,987	3%	0%
7	Francis St (Brookline/ Binney)	100%	9,281	9,281	9,346	9,346	1%	9,346	9,346	1%	0%	9,346	9,346	1%	0%
8	Brookline Ave (Francis/Deaconess)	100%	17,974	17,974	18,889	18,889	5%	19,362	19,362	8%	3%	19,362	19,362	8%	3%
9	Deaconess Rd (Pilgrim/Brookline)	100%	2,614	2,614	3,007	3,007	15%	3,007	3,007	15%	0%	3,007	3,007	15%	0%
10	Jimmy Fund Way (Brookline/Binney)	100%	4,902	4,902	4,902	4,902	0%	4,902	4,902	0%	0%	4,902	4,902	0%	0%
11	Brookline Ave (Deaconess/Longwood)	100%	17,190	17,190	18,170	18,170	6%	18,643	18,643	8%	3%	18,643	18,643	8%	3%
12	Longwood Ave (Brookline/Binney)	100%	13,007	13,007	13,203	13,203	2%	13,262	13,262	2%	0%	13,262	13,262	2%	0%
13	Brookline Ave (Longwood/Short)	100%	19,739	19,739	20,654	20,654	5%	21,245	21,245	8%	3%	21,245	21,245	8%	3%
14	Longwood Ave (Autumn/Brookline)	100%	8,693	8,693	8,758	8,758	1%	8,758	8,758	1%	0%	8,758	8,758	1%	0%
15	Autumn St (Crossover/Longwood)	100%	654	654	654	654	0%	654	654	0%	0%	654	654	0%	0%
16	Nessel Way (Longwood/Riverway)	100%	196	196	196	196	0%	196	196	0%	0%	196	196	0%	0%
17	Longwood Ave (Riverway/Autumn)	100%	10,458	10,458	10,588	10,588	1%	10,588	10,588	1%	0%	10,588	10,588	1%	0%
18	Riverway (Netherlands/Longwood)	100%	30,131	30,131	31,504	31,504	5%	31,799	31,799	6%	1%	31,799	31,799	6%	1%
19	Longwood Ave (Chapel/Riverway)	100%	16,732	16,732	16,863	16,863	1%	16,922	16,922	1%	0%	16,922	16,922	1%	0%
20	Riverway (Longwood/Nessel)	100%	25,883	25,883	27,190	27,190	5%	27,545	27,545	6%	1%	27,545	27,545	6%	1%
21	Riverway (Nessel/Short)	100%	25,948	25,948	27,255	27,255	5%	27,610	27,610	6%	1%	27,610	27,610	6%	1%
22	Riverway (Short/Park Drive Fork)	100%	26,405	26,405	27,778	27,778	5%	28,606	28,606	8%	3%	28,606	28,606	8%	3%
23	Short St (Riverway/Pilgrim)	100%	1,373	1,373	1,373	1,373	0%	2,319	2,319	69%	69%	2,319	2,319	69%	69%
24	Pilgrim Rd (Short/Brookline) [EX/NB]	100%	1,373	1,373	1,373	1,373	0%	131	131	-90%	-90%	131	131	-90%	-90%
25	BIDMC Entrance (End/ Brookline)	100%	4,183	4,183	4,183	4,183	0%	4,183	4,183	0%	0%	4,183	4,183	0%	0%
26	Brookline Ave (BIDMC/Pilgrim)) [EX/NB]	100%	20,850	20,850	21,765	21,765	4%	2,072	2,072	-90%	-90%	2,072	2,072	-90%	-90%
27	Brookline Ave (Pilgrim/Fenway)	100%	22,745	22,745	23,660	23,660	4%	25,257	25,257	11%	7%	25,257	25,257	11%	7%
28	Fenway (Riverway Park Merge/Brookline)	100%	12,811	12,811	14,575	14,575	14%	15,285	15,285	19%	5%	15,285	15,285	19%	5%
29	Fenway (Brookline/Park)	100%	6,536	6,536	7,909	7,909	21%	8,677	8,677	33%	10%	8,677	8,677	33%	10%
30	Brookline Ave (Fenway/Park)	100%	25,621	25,621	26,667	26,667	4%	27,968	27,968	9%	5%	27,968	27,968	9%	5%
31	Park Dr (Peterborough/Brookline)	100%	12,680	12,680	12,876	12,876	2%	13,112	13,112	3%	2%	13,112	13,112	3%	2%
32	Boylston St (Brookline/Kilmarnock)	100%	20,392	20,392	20,392	20,392	0%	21,220	21,220	4%	4%	21,220	21,220	4%	4%
33	Brookline Ave (Park/Kilmarnock)	100%	9,412	9,412	10,523	10,523	12%	10,760	10,760	14%	2%	10,760	10,760	14%	2%
34	Park Dr (Landmark/Brookline)	100%	14,837	14,837	15,033	15,033	1%	15,033	15,033	1%	0%	15,033	15,033	1%	0%
35	Landmark S Drive (Park/End)	100%	654	654	1,830	1,830	180%	1,830	1,830	180%	0%	1,830	1,830	180%	0%
36	Park Drive NB LT (Riverway/Landmark)	100%	9,281	9,281	10,196	10,196	10%	10,196	10,196	10%	0%	10,196	10,196	10%	0%
37	Park Drive Thru (Riverside/Landmark)	100%	5,556	5,556	5,621	5,621	1%	5,621	5,621	1%	0%	5,621	5,621	1%	0%
38	Park Drive NB (Beacon/Riverway)	100%	11,896	11,896	12,157	12,157	2%	12,334	12,334	4%	1%	12,334	12,334	4%	1%
39	Park Drive SB (Beacon/Riverway)	100%	10,523	10,523	12,680	12,680	20%	12,739	12,739	21%	0%	12,739	12,739	21%	0%
40	Riverway EB LT (Riverway/Park)	100%	6,340	6,340	6,797	6,797	7%	6,975	6,975	10%	3%	6,975	6,975	10%	3%
41	Riverway (Fork/Park)	100%	16,863	16,863	19,477	19,477	16%	19,714	19,714	17%	1%	19,714	19,714	17%	1%
42	Fenway SB (Park/Riverway/Merge)	100%	6,275	6,275	7,974	7,974	27%	8,033	8,033	28%	1%	8,033	8,033	28%	1%
43	Riverway EB RT (Fork/Merge)	100%	6,536	6,536	6,601	6,601	1%	7,252	7,252	11%	10%	7,252	7,252	11%	10%
44	Brookline Ave (BIDMC/MID) [BD/BDMIT]	100%	0	0	0	0	#DIV/0!	20,698	20,698	#DIV/0!	#DIV/0!	20,698	20,698	#DIV/0!	#DIV/0!
45	Brookline Ave (MID/Pilgrim) [BD/BDMIT]	100%	0	0	0	0	#DIV/0!	22,118	22,118	#DIV/0!	#DIV/0!	22,118	22,118	#DIV/0!	#DIV/0!
46	Mid Block Rd (Pilgrim/Brookline) [BD/BDMIT]	100%	0	0	0	0	#DIV/0!	2,129	2,129	#DIV/0!	#DIV/0!	2,129	2,129	#DIV/0!	#DIV/0!
47	Pilgrim Rd (Short/Mid) [BD/BDMIT]	100%	0	0	0	0	#DIV/0!	2,188	2,188	#DIV/0!	#DIV/0!	2,188	2,188	#DIV/0!	#DIV/0!
48	Pilgrim Rd (Mid/Brookline) [BD/BDMIT]	100%	0	0	0	0	#DIV/0!	887	887	#DIV/0!	#DIV/0!	887	887	#DIV/0!	#DIV/0!

Longwood Place

Emissions Factors By Link (g/mi)

Emission Factors From MOVES

	Roadway Segments	2025 Existing						2032 No Build						2032 Build						2032 Build-Mit					
		NO_x	VOC	CO_2	PM10	PM2.5	DPM	NO_x	VOC	CO_2	PM10	PM2.5	DPM	NO_x	VOC	CO_2	PM10	PM2.5	DPM	NO_x	VOC	CO_2	PM10	PM2.5	DPM
1	Brookline Ave (Aspinwall/Riverway)	0.13	0.04	378.08	0.036	0.012	0.003	0.08	0.03	296.23	0.03	0.01	0.002	0.08	0.03	296.23	0.03	0.01	0.002	0.08	0.03	296.23	0.03	0.01	0.002
2	Riverway (Jamaicaway/Brookline)	0.13	0.04	371.67	0.036	0.012	0.003	0.08	0.03	291.15	0.03	0.01	0.002	0.08	0.03	291.15	0.03	0.01	0.002	0.08	0.03	291.15	0.03	0.01	0.002
3	Brookline Ave (Riverway/Francis)	0.18	0.05	475.75	0.033	0.013	0.004	0.11	0.04	373.04	0.03	0.01	0.002	0.11	0.04	373.04	0.03	0.01	0.002	0.11	0.04	373.04	0.03	0.01	0.002
4	Riverway (Brookline/Netherlands)	0.13	0.04	378.65	0.035	0.012	0.003	0.08	0.03	296.69	0.03	0.01	0.002	0.08	0.03	296.69	0.03	0.01	0.002	0.08	0.03	296.69	0.03	0.01	0.002
5	Nertherlands Rd (Aspinwall/Riverway)	0.14	0.05	413.75	0.043	0.014	0.003	0.09	0.03	323.78	0.03	0.01	0.002	0.09	0.03	323.78	0.03	0.01	0.002	0.09	0.03	323.78	0.03	0.01	0.002
6	Francis St (Riverway/Brookline)	0.17	0.05	460.66	0.041	0.014	0.003	0.11	0.04	360.70	0.03	0.01	0.002	0.11	0.04	360.70	0.03	0.01	0.002	0.11	0.04	360.70	0.03	0.01	0.002
7	Francis St (Brookline/ Binney)	0.17	0.05	456.42	0.041	0.014	0.003	0.10	0.04	357.36	0.03	0.01	0.002	0.10	0.04	357.36	0.03	0.01	0.002	0.10	0.04	357.36	0.03	0.01	0.002
8	Brookline Ave (Francis/Deaconess)	0.16	0.04	436.52	0.034	0.012	0.003	0.10	0.03	342.16	0.03	0.01	0.002	0.10	0.03	342.16	0.03	0.01	0.002	0.10	0.03	342.16	0.03	0.01	0.002
9	Deaconess Rd (Pilgrim/Brookline)	0.15	0.06	473.37	0.068	0.021	0.003	0.10	0.04	370.03	0.05	0.02	0.002	0.10	0.04	370.03	0.05	0.02	0.002	0.10	0.04	370.03	0.05	0.02	0.002
10	Jimmy Fund Way (Brookline/Binney)	0.15	0.05	431.86	0.042	0.014	0.003	0.10	0.03	338.10	0.03	0.01	0.002	0.10	0.03	338.10	0.03	0.01	0.002	0.10	0.03	338.10	0.03	0.01	0.002
11	Brookline Ave (Deaconess/Longwood)	0.15	0.04	403.17	0.034	0.012	0.003	0.09	0.03	315.98	0.03	0.01	0.002	0.09	0.03	315.98	0.03	0.01	0.002	0.09	0.03	315.98	0.03	0.01	0.002
12	Longwood Ave (Brookline/Binney)	0.18	0.05	465.95	0.033	0.013	0.004	0.11	0.03	365.30	0.03	0.01	0.002	0.11	0.03	365.30	0.03	0.01	0.002	0.11	0.03	365.30	0.03	0.01	0.002
13	Brookline Ave (Longwood/Short)	0.14	0.04	396.04	0.035	0.012	0.003	0.09	0.03	310.36	0.03	0.01	0.002	0.09	0.03	310.36	0.03	0.01	0.002	0.09	0.03	310.36	0.03	0.01	0.002
14	Longwood Ave (Autumn/Brookline)	0.16	0.04	430.62	0.034	0.012	0.003	0.10	0.03	337.54	0.03	0.01	0.002	0.10	0.03	337.54	0.03	0.01	0.002	0.10	0.03	337.54	0.03	0.01	0.002
15	Autumn St (Crossover/Longwood)	0.15	0.06	473.37	0.068	0.021	0.003	0.10	0.04	370.03	0.05	0.02	0.002	0.10	0.04	370.03	0.05	0.02	0.002	0.10	0.04	370.03	0.05	0.02	0.002
16	Nessel Way (Longwood/Riverway)	0.16	0.06	482.86	0.066	0.021	0.003	0.10	0.04	377.49	0.05	0.02	0.002	0.10	0.04	377.49	0.05	0.02	0.002	0.10	0.04	377.49	0.05	0.02	0.002
17	Longwood Ave (Riverway/Autumn)	0.16	0.04	436.52	0.034	0.012	0.003	0.10	0.03	342.16	0.03	0.01	0.002	0.10	0.03	342.16	0.03	0.01	0.002	0.10	0.03	342.16	0.03	0.01	0.002
18	Riverway (Netherlands/Longwood)	0.15	0.04	421.68	0.034	0.012	0.003	0.10	0.03	330.50	0.03	0.01	0.002	0.10	0.03	330.50	0.03	0.01	0.002	0.10	0.03	330.50	0.03	0.01	0.002
19	Longwood Ave (Chapel/Riverway)	0.14	0.04	383.79	0.035	0.012	0.003	0.09	0.03	300.73	0.03	0.01	0.002	0.09	0.03	300.73	0.03	0.01	0.002	0.09	0.03	300.73	0.03	0.01	0.002
20	Riverway (Longwood/Nessel)	0.14	0.04	384.57	0.035	0.012	0.003	0.09	0.03	301.34	0.03	0.01	0.002	0.09	0.03	301.34	0.03	0.01	0.002	0.09	0.03	301.34	0.03	0.01	0.002
21	Riverway (Nessel/Short)	0.15	0.04	417.77	0.034	0.012	0.003	0.10	0.03	327.46	0.03	0.01	0.002	0.10	0.03	327.46	0.03	0.01	0.002	0.10	0.03	327.46	0.03	0.01	0.002
22	Riverway (Short/Park Drive Fork)	0.14	0.04	397.30	0.035	0.012	0.003	0.09	0.03	311.33	0.03	0.01	0.002	0.09	0.03	311.33	0.03	0.01	0.002	0.09	0.03	311.33	0.03	0.01	0.002
23	Short St (Riverway/Pilgrim)	0.18	0.06	530.82	0.056	0.018	0.004	0.12	0.04	415.25	0.04	0.02	0.002	0.12	0.04	415.25	0.04	0.02	0.002	0.12	0.04	415.25	0.04	0.02	0.002
24	Pilgrim Rd (Short/Brookline) [EX/NB]	0.21	0.06	571.67	0.051	0.018	0.004	0.13	0.05	447.48	0.04	0.01	0.002	0.13	0.05	447.48	0.04	0.01	0.002	0.13	0.05	447.48	0.04	0.01	0.002
25	BIDMC Entrance (End/ Brookline)	0.20	0.06	555.25	0.052	0.018	0.004	0.13	0.05	434.54	0.04	0.01	0.002	0.13	0.05	434.54	0.04	0.01	0.002	0.13	0.05	434.54	0.04	0.01	0.002
26	Brookline Ave (BIDMC/Pilgrim)) [EX/NB]	0.14	0.04	395.79	0.035	0.012	0.003	0.09	0.03	310.15	0.03	0.01	0.002	0.09	0.03	310.15	0.03	0.01	0.002	0.09	0.03	310.15	0.03	0.01	0.002
27	Brookline Ave (Pilgrim/Fenway)	0.13	0.04	364.65	0.036	0.012	0.003	0.08	0.03	285.63	0.03	0.01	0.001	0.08	0.03	285.63	0.03	0.01	0.001	0.08	0.03	285.63	0.03	0.01	0.001
28	Fenway (Riverway Park Merge/Brookline)	0.12	0.04	354.38	0.037	0.012	0.002	0.08	0.03	277.55	0.03	0.01	0.001	0.08	0.03	277.55	0.03	0.01	0.001	0.08	0.03	277.55	0.03	0.01	0.001
29	Fenway (Brookline/Park)	0.12	0.04	354.73	0.037	0.012	0.002	0.08	0.03	277.83	0.03	0.01	0.001	0.08	0.03	277.83	0.03	0.01	0.001	0.08	0.03	277.83	0.03	0.01	0.001
30	Brookline Ave (Fenway/Park)	0.13	0.04	364.65	0.036	0.012	0.003	0.08	0.03	285.63	0.03	0.01	0.001	0.08	0.03	285.63	0.03	0.01	0.001	0.08	0.03	285.63	0.03	0.01	0.001
31	Park Dr (Peterborough/Brookline)	0.12	0.04	355.72	0.037	0.012	0.002	0.08	0.03	278.61	0.03	0.01	0.001	0.08	0.03	278.61	0.03	0.01	0.001	0.08	0.03	278.61	0.03	0.01	0.001
32	Boylston St (Brookline/Kilmarnock)	0.13	0.04	368.89	0.036	0.012	0.003	0.08	0.03	288.97	0.03	0.01	0.002	0.08	0.03	288.97	0.03	0.01	0.002	0.08	0.03	288.97	0.03	0.01	0.002
33	Brookline Ave (Park/Kilmarnock)	0.13	0.04	364.65	0.036	0.012	0.003	0.08	0.03	285.63	0.03	0.01	0.001	0.08	0.03	285.63	0.03	0.01	0.001	0.08	0.03	285.63	0.03	0.01	0.001
34	Park Dr (Landmark/Brookline)	0.13	0.04	374.84	0.036	0.012	0.003	0.08	0.03	293.67	0.03	0.01	0.002	0.08	0.03	293.67	0.03	0.01	0.002	0.08	0.03	293.67	0.03	0.01	0.002
35	Landmark S Drive (Park/End)	0.19	0.06	538.78	0.054	0.018	0.004	0.12	0.04	421.55	0.04	0.01	0.002	0.12	0.04	421.55	0.04	0.01	0.002	0.12	0.04	421.55	0.04	0.01	0.002
36	Park Drive NB LT (Riverway/Landmark)	0.15	0.04	417.77	0.034	0.012	0.003	0.10	0.03	327.46	0.03	0.01	0.002	0.10	0.03	327.46	0.03	0.01	0.002	0.10	0.03	327.46	0.03	0.01	0.002
37	Park Drive Thru (Riverside/Landmark)	0.17	0.05	455.85	0.034	0.013	0.004	0.11	0.03	357.38	0.03	0.01	0.002	0.11	0.03	357.38	0.03	0.01	0.002	0.11	0.03	357.38	0.03	0.01	0.002
38	Park Drive NB (Beacon/Riverway)	0.12	0.04	349.13	0.037	0.012	0.002	0.07	0.03	273.44	0.03	0.01	0.001	0.07	0.03	273.44	0.03	0.01	0.001	0.07	0.03	273.44	0.03	0.01	0.001
39	Park Drive SB (Beacon/Riverway)	0.13	0.04	374.84	0.036	0.012	0.003	0.08	0.03	293.67	0.03	0.01	0.002	0.08	0.03	293.67	0.03	0.01	0.002	0.08	0.03	293.67	0.03	0.01	0.002
40	Riverway EB LT (Riverway/Park)	0.14	0.04	386.78	0.035	0.012	0.003	0.09	0.03	303.10	0.03	0.01	0.002	0.09	0.03	303.10	0.03	0.01	0.002	0.09	0.03	303.10	0.03	0.01	0.002
41	Riverway (Fork/Park)	0.15	0.04	405.33	0.034	0.012	0.003	0.09	0.03	317.67	0.03	0.01	0.002	0.09	0.03	317.67	0.03	0.01	0.002	0.09	0.03	317.67	0.03	0.01	0.002
42	Fenway SB (Park/Riverway/Merge)	0.11	0.04	338.72	0.038	0.012	0.002	0.07	0.03	265.23	0.03	0.01	0.001	0.07	0.03	265.23	0.03	0.01	0.001	0.07	0.03	265.23	0.03	0.01	0.001
43	Riverway EB RT (Fork/Merge)	0.10	0.04	311.85	0.042	0.013	0.002	0.06	0.03	244.07	0.03	0.01	0.001	0.06	0.03	244.07	0.03	0.01	0.001	0.06	0.03	244.07	0.03	0.01	0.001
44	Brookline Ave (BIDMC/MID) [BD/BDMIT]							0.09	0.03	310.15	0.03	0.01	0.002	0.09	0.03	310.15	0.03	0.01	0.002	0.09	0.03	310.15	0.03	0.01	0.002
45	Brookline Ave (MID/Pilgrim) [BD/BDMIT]							0.09	0.03	310.15	0.03	0.01	0.002	0.09	0.03	310.15	0.03	0.01	0.002	0.09	0.03	310.15	0.03	0.01	0.002
46	Mid Block Rd (Pilgrim/Brookline) [BD/BDMIT]							0.15	0.05	475.50	0.04	0.01	0.003	0.15	0.05	475.50	0.04	0.01	0.003	0.15	0.05	475.50	0.04	0.01	0.003
47	Pilgrim Rd (Short/Mid) [BD/BDMIT]							0.13	0.05	447.48	0.04	0.01	0.002	0.13	0.05	447.48	0.04	0.01	0.002	0.13	0.05	447.48	0.04	0.01	0.002
48	Pilgrim Rd (Mid/Brookline) [BD/BDMIT]							0.13	0.05	447.48	0.04	0.01	0.002	0.13	0.05	447.48	0.04	0.01	0.002	0.13	0.05	447.48	0.04	0.01	0.002

Longwood Place
Weekday Vehicle Delay

Link No.	Description	Directions	Existing					No Build					Build					Build-Mit				
			Delay By Approach		Adjusted Delay *		Combined	Delay By Approach		Adjusted Delay *		Combined	Delay By Approach		Adjusted Delay *		Combined	Delay By Approach		Adjusted Delay *		Combined
			NB or EB (sec)	SB or WB (sec)	NB or EB (sec)	SB or WB (sec)	Delay (sec)	NB or EB (sec)	SB or WB (sec)	NB or EB (sec)	SB or WB (sec)	Delay (sec)	NB or EB (sec)	SB or WB (sec)	NB or EB (sec)	SB or WB (sec)	Delay (sec)	NB or EB (sec)	SB or WB (sec)	NB or EB (sec)	SB or WB (sec)	Delay (sec)
1	Brookline Ave (Aspinwall/Riverway)	2	234.7	0.0	234.7	0	117.35	230.3	0.0	230.3	0	115.15	229.6	0.0	229.6	0	114.8	229.6	0.0	229.6	0	114.8
2	Riverway (Jamaicaway/Brookline)	2	0.0	87.5	0	87.5	43.75	0.0	130.8	0	130.8	65.4	0.0	142.5	0	142.5	71.25	0.0	142.5	0	142.5	71.25
3	Brookline Ave (Riverway/Francis)	2	38.3	197.5	38.3	197.5	117.9	40.6	205.9	40.6	205.9	123.25	41.4	224.4	41.4	224.4	132.9	41.4	224.0	41.4	224	132.7
4	Riverway (Brookline/Netherlands)	2	62.7	0.2	62.7	0.2	31.45	112.7	7.9	112.7	7.9	60.3	118.5	8.0	118.5	8	63.25	118.5	8.0	118.5	8	63.25
5	Netherlands Rd (Aspinwall/Riverway)	2	1081.8	0.0	1081.8	0	540.9	71.6	0.0	71.6	0	35.8	71.6	0.0	71.6	0	35.8	71.6	0.0	71.6	0	35.8
6	Francis St (Riverway/Brookline)	2	0.0	120.2	0	120.2	60.1	0.0	125.8	0	125.8	62.9	0.0	125.8	0	125.8	62.9	0.0	125.8	0	125.8	62.9
7	Francis St (Brookline/ Binney)	2	41.6	80.8	41.6	80.8	61.2	42.1	55.8	42.1	55.8	48.95	42.1	55.8	42.1	55.8	48.95	42.1	55.8	42.1	55.8	48.95
8	Brookline Ave (Francis/Deaconess)	2	18.4	10.9	18.4	10.9	14.65	18.3	15.8	18.3	15.8	17.05	18.1	16.9	18.1	16.9	17.5	18.6	16.8	18.6	16.8	17.7
9	Deaconess Rd (Pilgrim/Brookline)	1	42.0	0.0	42	0	42	42.4	0.0	42.4	0	42.4	42.4	0.0	42.4	0	42.4	27.2	0.0	27.2	0	27.2
10	Jimmy Fund Way (Brookline/Binney)	2	0.0	66.8	0	66.8	33.4	0.0	72.8	0	72.8	36.4	0.0	72.8	0	72.8	36.4	0.0	79.4	0	79.4	39.7
11	Brookline Ave (Deaconess/Longwood)	2	41.6	12.7	41.6	12.7	27.15	56.3	19.2	56.3	19.2	37.75	60.8	19.4	60.8	19.4	40.1	60.5	20.2	60.5	20.2	40.35
12	Longwood Ave (Brookline/Binney)	2	0.0	57.3	0	57.3	28.65	0.0	55.2	0	55.2	27.6	0.0	57.5	0	57.5	28.75	0.0	55.2	0	55.2	27.6
13	Brookline Ave (Longwood/Short)	2	18.7	19.2	18.7	19.2	18.95	23.6	28.0	23.6	28	25.8	24.0	28.5	24	28.5	26.25	13.6	45.3	13.6	45.3	29.45
14	Longwood Ave (Autumn/Brookline)	2	64.0	0.0	64	0	32	62.8	0.0	62.8	0	31.4	67.9	0.0	67.9	0	33.95	62.8	0.0	62.8	0	31.4
15	Autumn St (Crossover/Longwood)	1	17.7	0.0	17.7	0	17.7	17.9	0.0	17.9	0	17.9	17.9	0.0	17.9	0	17.9	17.9	0.0	17.9	0	17.9
16	Nessel Way (Longwood/Riverway)	1	24.2	0.0	24.2	0	24.2	26.2	0.0	26.2	0	26.2	26.7	0.0	26.7	0	26.7	26.7	0.0	26.7	0	26.7
17	Longwood Ave (Riverway/Autumn)	2	0.1	56.3	0.1	56.3	28.2	0.1	58.8	0.1	58.8	29.45	0.1	58.6	0.1	58.6	29.35	0.1	57.9	0.1	57.9	29
18	Riverway (Netherlands/Longwood)	2	27.4	2.2	27.4	2.2	14.8	30.9	18.8	30.9	18.8	24.85	31.2	19.3	31.2	19.3	25.25	31.2	19.3	31.2	19.3	25.25
19	Longwood Ave (Chapel/Riverway)	2	53.3	0.0	53.3	0	26.65	55.0	0.0	55	0	27.5	55.0	0.0	55	0	27.5	55.0	0.0	55	0	27.5
20	Riverway (Longwood/Nessel)	2	0.0	44.0	0	44	22	0.0	52.2	0	52.2	26.1	0.0	54.6	0	54.6	27.3	0.0	54.6	0	54.6	27.3
21	Riverway (Nessel/Short)	2	8.1	0.0	8.1	0	4.05	8.2	0.0	8.2	0	4.1	8.5	0.0	8.5	0	4.25	8.5	0.0	8.5	0	4.25
22	Riverway (Short/Park Drive Fork)	2	0.0	8.4	0	8.4	4.2	0.0	8.7	0	8.7	4.35	0.0	9.0	0	9	4.5	0.0	9.0	0	9	4.5
23	Short St (Riverway/Pilgrim)	1	0.0	37.7	0	37.7	37.7	0.0	37.7	0	37.7	37.7	0.0	39.7	0	39.7	39.7	0.0	39.7	0	39.7	39.7
24	Pilgrim Rd (Short/Brookline) [EX/NB]	1	0.0	9.5	0	9.5	9.5	0.0	9.5	0	9.5	9.5			0	0	0			0	0	0
25	BIDMC Entrance (End/ Brookline)	2	0.0	56.6	0	56.6	28.3	0.0	56.6	0	56.6	28.3	0.0	56.6	0	56.6	28.3	0.0	54.4	0	54.4	27.2
26	Brookline Ave (BIDMC/Pilgrim)) [EX/NB]	2	0.0	21.5	0	21.5	10.75	0.0	21.4	0	21.4	10.7			0	0	0			0	0	0
27	Brookline Ave (Pilgrim/Fenway)	2	6.7	0.0	6.7	0	3.35	7.6	0.0	7.6	0	3.8	9.9	0.0	9.9	0	4.95	4.5	0.0	4.5	0	2.25
28	Fenway (Riverway Park Merge/Brookline)	1	34.4	0.0	34.4	0	34.4	37.5	0.0	37.5	0	37.5	39.4	0.0	39.4	0	39.4	39.4	0.0	39.4	0	39.4
29	Fenway (Brookline/Park)	1	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0
30	Brookline Ave (Fenway/Park)	2	18.5	20.2	18.5	20.2	19.35	20.2	19.7	20.2	19.7	19.95	19.2	20.9	19.2	20.9	20.05	19.8	20.9	19.8	20.9	20.35
31	Park Dr (Peterborough/Brookline)	1	0.0	52.0	0	52	52	0.0	52.6	0	52.6	52.6	0.0	54.2	0	54.2	54.2	0.0	54.2	0	54.2	54.2
32	Boylston St (Brookline/Kilmarnock)	2	0.0	71.2	0	71.2	35.6	0.0	71.5	0	71.5	35.75	0.0	76.4	0	76.4	38.2	0.0	76.4	0	76.4	38.2
33	Brookline Ave (Park/Kilmarnock)	2	0.0	48.7	0	48.7	24.35	0.0	53.2	0	53.2	26.6	0.0	55.1	0	55.1	27.55	0.0	55.1	0	55.1	27.55
34	Park Dr (Landmark/Brookline)	1	0.0	12.1	0	12.1	12.1	0.0	12.1	0	12.1	12.1	0.0	12.1	0	12.1	12.1	0.0	12.1	0	12.1	12.1
35	Landmark S Drive (Park/End)	2	0.0	30.0	0	30	15	0.0	32.2	0	32.2	16.1	0.0	32.2	0	32.2	16.1	0.0	32.2	0	32.2	16.1
36	Park Drive NB LT (Riverway/Landmark)	1	0.0	17.5	0	17.5	17.5	0.0	23.5	0	23.5	23.5	0.0	23.5	0	23.5	23.5	0.0	23.5	0	23.5	23.5
37	Park Drive Thru (Riverside/Landmark)	1	0.0	2.5	0	2.5	2.5	0.0	2.6	0	2.6	2.6	0.0	2.6	0	2.6	2.6	0.0	2.6	0	2.6	2.6
38	Park Drive NB (Beacon/Riverway)	1	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0
39	Park Drive SB (Beacon/Riverway)	2	146.7	0.0	146.7	0	73.35	234.1	0.0	234.1	0	117.05	235.8	0.0	235.8	0	117.9	25.8	0.0	25.8	0	12.9
40	Riverway EB LT (Riverway/Park)	1	20.7	0.0	20.7	0	20.7	23.2	0.0	23.2	0	23.2	26.7	0.0	26.7	0	26.7	26.7	0.0	26.7	0	26.7
41	Riverway (Fork/Park)	2	37.5	0.0	37.5	0	18.75	39.2	0.0	39.2	0	19.6	40.1	0.0	40.1	0	20.05	40.1	0.0	40.1	0	20.05
42	Fenway SB (Park/Riverway/Merge)	1	0.0	20.8	0	20.8	20.8	0.0	22.6	0	22.6	22.6	0.0	22.7	0	22.7	22.7	0.0	22.7	0	22.7	22.7
43	Riverway EB RT (Fork/Merge)	1	36.1	0.0	36.1	0	36.1	36.4	0.0	36.4	0	36.4	40.1	0.0	40.1	0	40.1	40.1	0.0	40.1	0	40.1
44	Brookline Ave (BIDMC/MID) [BD/BDMIT]	2			0	0	0			0	0	0	0.3	20.9	0.3	20.9	10.6	3.6	24.9	3.6	24.9	14.25
45	Brookline Ave (MID/Pilgrim) [BD/BDMIT]	2			0	0	0			0	0	0	0.0	0.0	0	0	0	0.0	6.4	0	6.4	3.2
46	Mid Block Rd (Pilgrim/Brookline) [BD/BDMIT]	2			0	0	0			0	0	0	93.8	9.3	93.8	9.3	51.55	45.2	9.3	45.2	9.3	27.25
47	Pilgrim Rd (Short/Mid) [BD/BDMIT]	1			0	0	0			0	0	0	0.0	10.5	0	10.5	10.5	0.0	10.5	0	10.5	10.5
48	Pilgrim Rd (Mid/Brookline) [BD/BDMIT]	1			0	0	0			0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0

PM PEAK CONDITION
DELAY BY APPROACH (seconds)

		Existing				No Build				Build				Build-Mit			
		EB	WB	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB
1	1: Riverway /Riverway Ext & Park Dr & Fenway	146.7		37.5	17.5	234.1		39.2	23.5	235.8		40.1	23.5	25.8		40.1	23.5
2	2: Riverway & Fenway	20.8	0.0	36.1		22.6	0.0	36.4		22.7	0.0	40.1		22.7	0.0	40.1	
3	3: Brookline Ave & Fenway	34.4	0.0	6.7	20.2	37.5	0.0	7.6	19.7	39.4	0.0	9.9	20.9	39.4	0.0	4.5	20.9
4	4: Brookline Ave & Park Dr & Boylston St	71.2	52.0	18.5	48.7	71.5	52.6	20.2	53.2	76.4	54.2	19.2	55.1	76.4	54.2	19.8	55.1
5	5: Park Dr & Landmark Center South Drive	0.0	12.1	0.0	30.0	0.0	12.1	0.0	32.2	0.0	12.1	0.0	32.2	0.0	12.1	0.0	32.2
6	6: Riverway Ext/Landmark Center North Drive & Park Dr	0.0	2.5	20.7	0.0	0.0	2.6	23.2	0.0	0.0	2.6	26.7	0.0	0.0	2.6	26.7	
7	7: Brookline Ave & Pilgrim Rd	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
8	8: Brookline Ave & BIDMC East Campus Entrance		56.6	18.7	21.5		56.6	23.6	21.4		56.6	24.0	20.9		54.4	13.6	24.9
9	9: Brookline Ave & Longwood Ave	64.0	57.3	41.6	19.2	62.8	55.2	56.3	28.0	67.9	57.5	60.8	28.5	62.8	55.2	60.5	45.3
10	10: Brookline Ave & Deaconess Rd/Jimmy Fund Way	42.0	66.8	18.4	12.7	42.4	72.8	18.3	19.2	42.4	72.8	18.1	19.4	27.2	79.4	18.6	20.2
11	11: Brookline Ave & Francis St	41.6	120.2	38.3	10.9	42.1	125.8	40.6	15.8	42.1	125.8	41.4	16.9	42.1	125.8	41.4	16.8
12	12: Brookline Ave & Riverway	62.7	87.5	234.7	197.5	112.7	130.8	230.3	205.9	118.5	142.5	229.6	224.4	118.5	142.5	229.6	224.0
13	13: Riverway & Netherlands Rd/Pilgrim Rd	1081.8	80.8	0.2	2.2	71.6	55.8	7.9	18.8	71.6	55.8	8.0	19.3	71.6	55.8	8.0	19.3
14	14: Riverway & Longwood Ave	53.3	56.3	27.4	44.0	55.0	58.8	30.9	52.2	55.0	58.6	31.2	54.6	55.0	57.9	31.2	54.6
15	15: Riverway & Short St Ext		37.7	8.1	8.4		37.7	8.2	8.7		39.7	8.5	9.0		39.7	8.5	9.0
16	17: Winsor School Driveway/Pilgrim Rd & Short St Ext			0.0	9.5			0.0	9.5			0.0	10.5			0.0	10.5
17	18: Autumn St/Nessel Way & Longwood Ave	0.1	0.0	17.7		0.1	0.0	17.9		0.1	0.0	17.9		0.1	0.0	17.9	
18	19: Riverway & Nessel Way		24.2	0.0	0.0		26.2	0.0	0.0		26.7	0.0	0.0		26.7	0.0	0.0
19	28: Park Dr																
20	49: Riverway & Riverway																
21	16: Brookline Ave & Mid-Block Rd									93.8		0.3	0.0		45.2		3.6	6.4
22	20: Pilgrim Rd & Mid-Block Rd										9.3		0.0			9.3		0.0

Longwood Place

Weekday Average Daily Traffic (ADT) for Mesoscale Roadway Network

	Roadway Segments	Speed (mph)	2025 Existing Volume (ADT)	2032 No-Build Volume (ADT)	2032 Build Volume (ADT)	2032 Build-Mit Volume (ADT)	K Factor	S.A.F.	Trip Factor	Unadjusted PM Peak Hour			
										Existing	No-Build	Build	Build-Mit
							7.6%	1.00	*8.5%*				
1	Brookline Ave (Aspinwall/Riverway)	30	11,177	12,092	12,328	12,328				855	925	945	945
2	Riverway (Jamaicaway/Brookline)	30	34,118	35,556	36,088	36,088				2,610	2,720	2,765	2,765
3	Brookline Ave (Riverway/Francis)	30	18,758	19,673	20,146	20,146				1,435	1,505	1,545	1,545
4	Riverway (Brookline/Netherlands)	30	26,798	28,236	28,531	28,531				2,050	2,160	2,185	2,185
5	Nertherlands Rd (Aspinwall/Riverway)	25	1,569	1,569	1,569	1,569				120	120	120	120
6	Francis St (Riverway/Brookline)	25	3,856	3,987	3,987	3,987				295	305	305	305
7	Francis St (Brookline/ Binney)	25	9,281	9,346	9,346	9,346				710	715	715	715
8	Brookline Ave (Francis/Deaconess)	30	17,974	18,889	19,362	19,362				1,375	1,445	1,485	1,485
9	Deaconess Rd (Pilgrim/Brookline)	15	2,614	3,007	3,007	3,007				200	230	230	230
10	Jimmy Fund Way (Brookline/Binney)	25	4,902	4,902	4,902	4,902				375	375	375	375
11	Brookline Ave (Deaconess/Longwood)	30	17,190	18,170	18,643	18,643				1,315	1,390	1,430	1,430
12	Longwood Ave (Brookline/Binney)	30	13,007	13,203	13,262	13,262				995	1,010	1,015	1,015
13	Brookline Ave (Longwood/Short)	30	19,739	20,654	21,245	21,245				1,510	1,580	1,630	1,630
14	Longwood Ave (Autumn/Brookline)	30	8,693	8,758	8,758	8,758				665	670	670	670
15	Autumn St (Crossover/Longwood)	15	654	654	654	654				50	50	50	50
16	Nessel Way (Longwood/Riverway)	15	196	196	196	196				15	15	15	15
17	Longwood Ave (Riverway/Autumn)	30	10,458	10,588	10,588	10,588				800	810	810	810
18	Riverway (Netherlands/Longwood)	30	30,131	31,504	31,799	31,799				2305	2410	2435	2435
19	Longwood Ave (Chapel/Riverway)	30	16,732	16,863	16,922	16,922				1280	1290	1295	1295
20	Riverway (Longwood/Nessel)	30	25,883	27,190	27,545	27,545				1980	2080	2110	2110
21	Riverway (Nessel/Short)	30	25,948	27,255	27,610	27,610				1985	2085	2115	2115
22	Riverway (Short/Park Drive Fork)	30	26,405	27,778	28,606	28,606				2020	2125	2195	2195
23	Short St (Riverway/Pilgrim)	15	1,373	1,373	2,319	2,319				105	105	185	185
24	Pilgrim Rd (Short/Brookline) [EX/NB]	15	1,373	1,373	131	131				105	105	0	0
25	BIDMC Entrance (End/ Brookline)	15	4,183	4,183	4,183	4,183				320	320	320	320
26	Brookline Ave (BIDMC/Pilgrim)) [EX/NB]	30	20,850	21,765	2,072	2,072				1595	1665	0	0
27	Brookline Ave (Pilgrim/Fenway)	30	22,745	23,660	25,257	25,257				1740	1810	1945	1945
28	Fenway (Riverway Park Merge/Brookline)	30	12,811	14,575	15,285	15,285				980	1115	1175	1175
29	Fenway (Brookline/Park)	30	6,536	7,909	8,677	8,677				500	605	670	670
30	Brookline Ave (Fenway/Park)	30	25,621	26,667	27,968	27,968				1960	2040	2150	2150
31	Park Dr (Peterborough/Brookline)	30	12,680	12,876	13,112	13,112				970	985	1005	1005
32	Boylston St (Brookline/Kilmarnock)	30	20,392	20,392	21,220	21,220				1560	1560	1630	1630
33	Brookline Ave (Park/Kilmarnock)	30	9,412	10,523	10,760	10,760				720	805	825	825
34	Park Dr (Landmark/Brookline)	30	14,837	15,033	15,033	15,033				1135	1150	1150	1150
35	Landmark S Drive (Park/End)	15	654	1,830	1,830	1,830				50	140	140	140
36	Park Drive NB LT (Riverway/Landmark)	30	9,281	10,196	10,196	10,196				710	780	780	780
37	Park Drive Thru (Riverside/Landmark)	30	5,556	5,621	5,621	5,621				425	430	430	430
38	Park Drive NB (Beacon/Riverway)	30	11,896	12,157	12,334	12,334				910	930	945	945
39	Park Drive SB (Beacon/Riverway)	30	10,523	12,680	12,739	12,739				805	970	975	975
40	Riverway EB LT (Riverway/Park)	30	6,340	6,797	6,975	6,975				485	520	535	535
41	Riverway (Fork/Park)	30	16,863	19,477	19,714	19,714				1290	1490	1510	1510
42	Fenway SB (Park/Riverway/Merge)	30	6,275	7,974	8,033	8,033				480	610	615	615
43	Riverway EB RT (Fork/Merge)	30	6,536	6,601	7,252	7,252				500	505	560	560
44	Brookline Ave (BIDMC/MID) [BD/BDMIT]	30	0	0	20,698	20,698						1750	1750
45	Brookline Ave (MID/Pilgrim) [BD/BDMIT]	30	0	0	22,118	22,118						1870	1870
46	Mid Block Rd (Pilgrim/Brookline) [BD/BDMIT]	15	0	0	2,129	2,129						180	180
47	Pilgrim Rd (Short/Mid) [BD/BDMIT]	15	0	0	2,188	2,188						185	185
48	Pilgrim Rd (Mid/Brookline) [BD/BDMIT]	15	0	0	887	887						75	75

Longwood Place

Weekday ATR Volumes

Brookline Ave (W of Pilgrim)

Thursday, May 9, 2024

Begin Time	Volume	V/C Ratio	Peak Period Data Hours	Peak Period Data Volume
12:00 AM	274	0.09	0	0
1:00 AM	177	0.06	0	0
2:00 AM	136	0.04	0	0
3:00 AM	105	0.03	0	0
4:00 AM	235	0.07	0	0
5:00 AM	647	0.21	0	0
6:00 AM	1,416	0.45	1	1,416
7:00 AM	1,672	0.53	1	1,672
8:00 AM	1,504	0.48	1	1,504
9:00 AM	1,372	0.44	1	1,372
10:00 AM	1,318	0.42	1	1,318
11:00 AM	1,280	0.41	0	0
12:00 PM	1,296	0.41	1	1,296
1:00 PM	1,342	0.43	1	1,342
2:00 PM	1,402	0.45	1	1,402
3:00 PM	1,311	0.42	1	1,311
4:00 PM	1,184	0.38	0	0
5:00 PM	1,160	0.37	0	0
6:00 PM	1,397	0.44	1	1,397
7:00 PM	1,173	0.37	0	0
8:00 PM	983	0.31	0	0
9:00 PM	925	0.29	0	0
10:00 PM	885	0.28	0	0
11:00 PM	670	0.21	0	0
Total	**23,864**		**10**	**14,030**

Roadway Capacity	Crit. V/C	Critical Capacity
3,140	41%	1,287

Peak Hour (K) Factor 0.070

Peak Period Volume Factor 0.588

Longwood Ave (W of Brookline)

Tuesday, December 12, 2023

Begin Time	Volume	V/C Ratio	Peak Period Data Hours	Peak Period Data Volume
12:00 AM	71	0.05	0	0
1:00 AM	51	0.03	0	0
2:00 AM	33	0.02	0	0
3:00 AM	23	0.01	0	0
4:00 AM	57	0.04	0	0
5:00 AM	213	0.14	0	0
6:00 AM	559	0.36	0	0
7:00 AM	781	0.50	1	781
8:00 AM	632	0.41	1	632
9:00 AM	581	0.37	1	581
10:00 AM	506	0.32	0	0
11:00 AM	465	0.30	0	0
12:00 PM	502	0.32	0	0
1:00 PM	566	0.36	1	566
2:00 PM	587	0.38	1	587
3:00 PM	557	0.36	0	0
4:00 PM	573	0.37	1	573
5:00 PM	580	0.37	1	580
6:00 PM	591	0.38	1	591
7:00 PM	557	0.36	0	0
8:00 PM	296	0.19	0	0
9:00 PM	237	0.15	0	0
10:00 PM	223	0.14	0	0
11:00 PM	176	0.11	0	0
Total	**9,417**		**8**	**4,891**

Roadway Capacity	Crit. V/C	Critical Capacity
1,560	36%	562

Peak Hour (K) Factor 0.083

Peak Period Volume Factor 0.519

Average Data

Peak Hour (K) Factor 0.076

Peak Period Volume Factor 0.554

Longwood Place

Mesoscale Roadway Data

Link No.	Description	Speed (mph)	Link Length (miles)	Start Elev (ft)	Finish Elev (ft)	Grade (%)	Directions
1	Brookline Ave (Aspinwall/Riverway)	30	0.14	11	14	0.4	2
2	Riverway (Jamaicaway/Brookline)	30	0.18	16	14	0.2	2
3	Brookline Ave (Riverway/Francis)	30	0.06	14	23	2.8	2
4	Riverway (Brookline/Netherlands)	30	0.09	14	16	0.4	2
5	Nertherlands Rd (Aspinwall/Riverway)	25	0.19	16	18	0.2	2
6	Francis St (Riverway/Brookline)	25	0.09	16	23	1.5	2
7	Francis St (Brookline/ Binney)	25	0.07	23	28	1.4	2
8	Brookline Ave (Francis/Deaconess)	30	0.08	23	31	1.9	2
9	Deaconess Rd (Pilgrim/Brookline)	15	0.06	37	31	-1.9	1
10	Jimmy Fund Way (Brookline/Binney)	25	0.08	34	31	0.7	2
11	Brookline Ave (Deaconess/Longwood)	30	0.09	31	26	1.1	2
12	Longwood Ave (Brookline/Binney)	30	0.08	15	26	2.6	2
13	Brookline Ave (Longwood/Short)	30	0.11	26	21	0.9	2
14	Longwood Ave (Autumn/Brookline)	30	0.12	26	37	1.7	2
15	Autumn St (Crossover/Longwood)	15	0.04	40	36	-1.9	1
16	Nessel Way (Longwood/Riverway)	15	0.10	37	29	-1.5	1
17	Longwood Ave (Riverway/Autumn)	30	0.05	32	37	1.9	2
18	Riverway (Netherlands/Longwood)	30	0.20	16	32	1.5	2
19	Longwood Ave (Chapel/Riverway)	30	0.07	30	32	0.5	2
20	Riverway (Longwood/Nessel)	30	0.10	29	32	0.6	2
21	Riverway (Nessel/Short)	30	0.04	29	26	1.4	2
22	Riverway (Short/Park Drive Fork)	30	0.17	26	18	0.9	2
23	Short St (Riverway/Pilgrim)	15	0.05	26	26	0.0	1
24	Pilgrim Rd (Short/Brookline) [EX/NB]	15	0.22	12	26	1.2	1
25	BIDMC Entrance (End/ Brookline)	15	0.05	19	21	0.8	2
26	Brookline Ave (BIDMC/Pilgrim)) [EX/NB]	30	0.20	21	12	0.9	2
27	Brookline Ave (Pilgrim/Fenway)	30	0.02	12	12	0.0	2
28	Fenway (Riverway Park Merge/Brookline)	30	0.06	13	12	-0.3	1
29	Fenway (Brookline/Park)	30	0.19	12	9	-0.3	1
30	Brookline Ave (Fenway/Park)	30	0.05	12	12	0.0	2
31	Park Dr (Peterborough/Brookline)	30	0.07	13	12	-0.3	1
32	Boylston St (Brookline/Kilmarnock)	30	0.14	12	11	0.1	2
33	Brookline Ave (Park/Kilmarnock)	30	0.14	12	12	0.0	2
34	Park Dr (Landmark/Brookline)	30	0.06	12	13	0.3	1
35	Landmark S Drive (Park/End)	15	0.07	13	14	0.3	2
36	Park Drive NB LT (Riverway/Landmark)	30	0.04	13	16	1.4	1
37	Park Drive Thru (Riverside/Landmark)	30	0.04	13	18	2.4	1
38	Park Drive NB (Beacon/Riverway)	30	0.16	18	14	-0.5	1
39	Park Drive SB (Beacon/Riverway)	30	0.18	14	17	0.3	2
40	Riverway EB LT (Riverway/Park)	30	0.03	17	18	0.6	1
41	Riverway (Fork/Park)	30	0.12	23	16	1.1	2
42	Fenway SB (Park/Riverway/Merge)	30	0.07	16	13	-0.8	1
43	Riverway EB RT (Fork/Merge)	30	0.11	23	13	-1.7	1
44	Brookline Ave (BIDMC/MID) [BD/BDMIT]	30	0.11	21	15	0.9	2
45	Brookline Ave (MID/Pilgrim) [BD/BDMIT]	30	0.09	15	12	0.9	2
46	Mid Block Rd (Pilgrim/Brookline) [BD/BDMIT]	15	0.07	15	23	2.2	2
47	Pilgrim Rd (Short/Mid) [BD/BDMIT]	15	0.09	23	25	1.2	1
48	Pilgrim Rd (Mid/Brookline) [BD/BDMIT]	15	0.13	12	23	1.2	1

Project Data

TRAFFIC DATA			
Project Name	Longwood Place	**PM Peak Generation**	261
Project County	Suffolk	**Daily Generation**	3,087
Existing Year	2025	**Daily Factor**	8.5%
No-Build Year	2032		
Build Year	2032		
Build with Mitigation Year	2032		
Seasonal Adjustment Factor	1.00		
K-Factor	7.6%		
TDM Reduction	2.0%		

Idle Emission Factors

Year	NOx (g/hr)	VOC (g/hr)	CO2 (g/hr)
2025	1.32	0.36	3,407.42
2032	0.83	0.24	2,656.07
2032 Truck	13.53	1.33	5,322.63

Year	PM10 (g/hr)	PM2.5 (g/hr)	DPM (g/hr)
2025	0.048	0.044	0.029
2032	0.030	0.027	0.015
2032 Truck	0.417	0.383	0.371

Appendix F: Alternatives Analysis Submitted to MHC

SCD Pilgrim Road Master Planner LLC
c/o Skanska USA Commercial Development Inc.
101 Seaport Boulevard, Suite 200
Boston, MA 02210

March 12, 2026

Brona Simon, Executive Director
Massachusetts Historical Commission
220 William T Morrissey Boulevard
Dorchester, Massachusetts 02125
c/o Joshua Dorin

RE: Longwood Place, 305 Brookline Avenue (Fenway), MHC# RC76716; EEA# 16948

Dear Ms. Simon,

This letter and accompanying attachments are submitted in response to your letter to Secretary Tepper dated June 2, 2025, regarding the Environmental Notification Form (ENF) for the Longwood Place Project in Boston ("Project"). As the Proponent, SCD Pilgrim Road Master Planner LLC, c/o Skanska USA Commercial Development Inc. proposes the phased redevelopment of an approximately 5.89-acre site located at 259, 275, 291, 305, 321 Brookline Avenue and 38, 46, 62 Pilgrim Road in the Fenway/Longwood Medical and Academic Area ("LMA") neighborhood of Boston, referred to as the Simmons University Residence Campus ("Residence Campus") in accordance with Planned Development Area No. 134, approved by the Boston Planning and Development Authority in January 2023, the Boston Zoning Commission in March 2023, and the Mayor of the City of Boston in April 2023 (PDA). The Project includes the proposed demolition of the existing buildings in the Residence Campus and the construction of up to 1.65 million square feet (SF) of gross floor area (GFA) across five buildings of new residential (including affordable housing), laboratory/office, medical/clinic uses, community space, retail, below-grade parking and loading, and associated landscape and public realm improvements (Attachment A). The Project requires a National Pollutant Discharge Elimination System Construction General Permit (NPDES CGP) from the Environmental Project Agency (EPA) and may require a Sewer Use Discharge Permit from the Massachusetts Water Resources Authority (MWRA) to the extent it is required for specific waste discharges by future tenants/users. The MHC is reviewing the Project in compliance with M.G.L. Chapter 9, sections 26-27C (950 CMR 71.00) and MEPA (301 CMR 11) and Section 106 of the National Historic Preservation Act (36 CRF 800). Secretary Tepper, the Executive Office of Energy and Environmental Affairs, issued an ENF certificate on June 13, 2025.

The MHC letter noted that the Project site consists of the inventoried Residence Campus ("Simmons College Residence Campus," BOS.AEM), considered eligible for listing in the National Register, and its demolition as part of the Project would constitute an adverse effect (950 CMR 71.05(a) and 950 CMR 71.07(2)(b)(3)). The MHC initiated consultation to identify potential strategies to avoid, minimize, or mitigate the adverse effect to the Residence Campus. As part of the consultation process with the MHC pursuant to 950 CMR 71.07(3), the Project team respectfully submits the discussion below and supplemental attachments regarding the feasibility of alternatives that would avoid or minimize the adverse effect.

Proposed Project Overview

The Project reimagines the site as a vibrant mixed-use neighborhood, which will reinvigorate the LMA by introducing diverse, pedestrian-friendly, and publicly accessible open spaces, along with programs and infrastructure that enhance safety, access, and mobility in and through the site.

The Project is comprised of five buildings and includes a below-grade parking and loading structure, new publicly accessible open space, totaling 2.8 acres, and public realm improvements, including the "Main Heart", the Project's activated open space anchor, a new two-way street ("Mid-Block Street") and a multimodal corridor along Short Street. The uses and approximate sizes of the five buildings are:

- Commercial Building 1 – 503,000 SF of laboratory/research and development, office, medical/clinic, retail, accessory uses and/or community uses
- Commercial Building 2 – 335,000 SF of laboratory/research and development, office, medical/clinic, retail, accessory uses and/or community uses
- Commercial Building 3 – 460,000 SF of laboratory/research and development, office, medical /clinic, retail, accessory uses and/or community uses
- Residential Building 1 – 205,000 SF of residential, retail, accessory uses and/or community uses
- Residential Building 2 – 145,000 SF of residential, retail, accessory uses and/or community uses

The Project has been refined through an extensive public engagement effort, with the Proponent holding over 90 meetings with the Impact Advisory Group (IAG), abutters, neighborhood groups, community leaders, business owners, elected officials, and other stakeholders to seek input and feedback during the PDA review process and continuing in the ongoing City of Boston Article 80B Large Project Review process.

Longwood Place will also enhance the economic vitality of the surrounding areas in multiple ways with its comprehensive direct financial commitments. They include over $15.5 million in housing linkage, over $2.8 million in jobs linkage, $7 million for a Boston Parks and Recreation Department endowment, and $4 million for transportation initiatives. Additionally, Longwood Place is estimated to generate $50 million in new tax revenue for the City of Boston, 5,000 construction jobs, and 5,000 permanent jobs.

Alternatives Assessment to Avoid or Minimize Impacts to Historic Resources

The Project team considered two alternative approaches to avoid or minimize adverse effects to the Residence Campus. Each alternative is discussed below, including specifics about the changes necessitated by each alternative and the results of the impacts studies. Massing diagrams for the alternatives are included in Attachment B.

Alternative 1 – Retain Residence Campus

This alternative would retain and reuse the existing buildings, while constructing one new commercial building and necessary infrastructure to meet a portion of the programming needs of the Project. The new building would be in the approximate center of the current campus configuration (Attachment B, Figures 2 and 3).

This alternative introduces a number of logistical, circulation, use, and financial constraints. The existing buildings are mostly inward-facing onto the campus, limiting the ability to reuse them for ground floor commercial use. Circulation around the site is also a concern. The new building would not be on a public roadway, which is challenging for fire services. A new, shared access path for fire service access and pedestrian access would likely be needed on the north and south sides of the building. At a minimum of 20 feet wide, the inclusion of these pathways would impede the open space between the existing dorm buildings (Evans, Mesick, Morse, Arnold, Smith, and Dix Halls). This would also limit vehicular parking, which is needed for the proposed uses. The existing buildings represent a significant amount of deferred maintenance. To comply with current building, accessibility and energy codes, they would likely require complete remediation of hazardous material, modifications to the exterior envelopes, new heating, cooling, ventilation, plumbing and electrical systems and new roofing systems – as well as all new interior architecture. In addition, the existing Holmes Center (an athletic facility) and Bartol Hall (a dining facility) are use-dependent, with deep floor plates and specialized equipment and facilities, such as a competition swimming pool and large commercial kitchens. These are especially challenging to repurpose for non-campus mixed-use retail or commercial uses.

To meet a portion of the necessary program, the new building height would be 295 feet, the maximum allowable by the PDA, to offset keeping the existing buildings. During construction the existing buildings will severely constrain access for construction which will increase logistical complexity and likely result in extended construction duration and cost premiums.

From a financial perspective this alternative is not viable for four primary reasons: 1) a significant reduction in buildable SF, 2) a significant increase in the land basis, 3) a negative change in the property use mix, and 4) lower quality assets to lease.

1. The Project, as approved in the PDA, has approved zoning to build up to 1.7 million SF. In this alternative, the square footage available for use on the land would be significantly reduced, by 65%, to 0.6 million SF.

2. The cost of the ground lease that the Proponent is paying to Simmons University is based on the approved zoning square footage of 1.7 million SF. In this alternative, the square footage available for use on the land would not lower the ground lease cost and therefore the Project's land basis would be dramatically higher than could be supported by market rental rates for the uses on the site.

3. The Project's approved use mix is approximately 75% commercial and 20% residential with the remainder retail and community space. In this alternative, the mix would change to 50% commercial and 43% residential with the remainder retail and community space. Commercial SF is more valuable than residential SF and therefore this mix degrades the financial viability of the project.

4. The Project is designed as five modern, new construction buildings that will be state of the art in terms of their quality, sustainability, and accessibility. In this alternative, only one new building would be built, and the remaining SF would be spread among functionally obsolete dormitories and support buildings that were not built for these uses.

As a result of the factors outlined above, the Project could not be financed and therefore it could not be built under this alternative.

<u>Alternative 2 – Retain Select Residence Campus Buildings</u>

In the June 2, 2025 letter, the MHC identified the three earliest buildings on the campus, designed by architect Guy Lowell and constructed 1905-1907, as particularly noteworthy examples of Georgian Revival style architecture (South Hall, BOS.7358; Refectory (Alumnae Hall), BOS.7581; North Hall, BOS.7580). This alternative evaluates the feasibility of retaining this early core of buildings while redeveloping the rest of the Project site.

The existing three buildings would not offset the programming proposed for Building R1 (see Attachment A) and would still require new construction at the west side of the campus. As a result, Building C (Attachment B, Figures 5 and 6) would occur in the common space between these three building, isolating them within the new construction and interrupting their relationship with one another. The available footprint will limit the floor plate for residential use, resulting in a smaller, less efficient building that delivers fewer residential housing units. Much of the publicly accessible open space that is being provided as part of the proposed project is on the west side of the Project area, made possible by the siting of the Project's R1 Building at the northwest corner of the Project site. Combined, the footprints of the existing buildings and Building C significantly curtails both the amount of open space that can be incorporated into the site plan and the quality of the open space.

From a financial perspective this alternative is not viable for four primary reasons: 1) a reduction in buildable SF, 2) an increase in the land basis, 3) a negative change in the property use mix, and 4) reduced efficiency for Residential Building C.

1. The Project, as approved in the PDA, has approved zoning to build up to 1.7 million SF. In this alternative, the square footage available for use on the land would be reduced by 6%, to 1.6 million SF.
2. The cost of the ground lease that the Proponent is paying to Simmons University is based on the approved zoning square footage of 1.7 million SF. In this alternative, the square footage available for use on the land would not lower the ground lease cost and therefore the Project's land basis would be higher than could be supported by market rental rates for the uses on the site.
3. The Project's approved use mix is approximately 75% commercial, 20% residential, and 3% retail with the remainder community space. In this alternative, the mix would change to 70% commercial, 23% residential,

and 7% retail with the remainder community space. Commercial SF is more valuable than residential SF and retail SF and therefore this mix degrades the financial viability of the project.

4. The Residential Building that would fit between North, South, and Alumnae Hall is a non-ideal floorplate for residential buildings which would result in a building that is less efficient - meaning the rentable to gross square footage ratio - than the Project's residential building.

As a result of the factors outlined above, the Project could not be financed and therefore it could not be built under this alternative.

Conclusion

Thank you for your staff's continued review of the Longwood Place Project. We look forward to working with the MHC and other stakeholders through the rest of the planning process. If you have any questions, please do not hesitate to contact me at (857) 324-0835 or Michael.Caliva@skanska.com, or our historic consultant Nicole Benjamin-Ma, Senior Preservation Planner at VHB, at (617) 607-2657 or nbenjamin-ma@vhb.com.

Sincerely,



Michael Caliva
Vice President of Development

SCD Pilgrim Road Master Planner LLC
c/o Skanska USA Commercial Development Inc.

CC:

Boston Landmarks Commission
Katie Ronan, MWRA
Katherine Davis-Wheeler, Boston Preservation Alliance
Karen Mauney-Brodek, Emerald Necklace Conservancy

Figure 1.5: Proposed Conditions Site Plan

Longwood Place | Boston, MA



Source: Google Earth

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Massachusetts Historical Commission

Attachment B
Alternative Studies

Figure 1. Existing Site Plan

Longwood Place | 305 Brookline Avenue, Boston, MA 02215

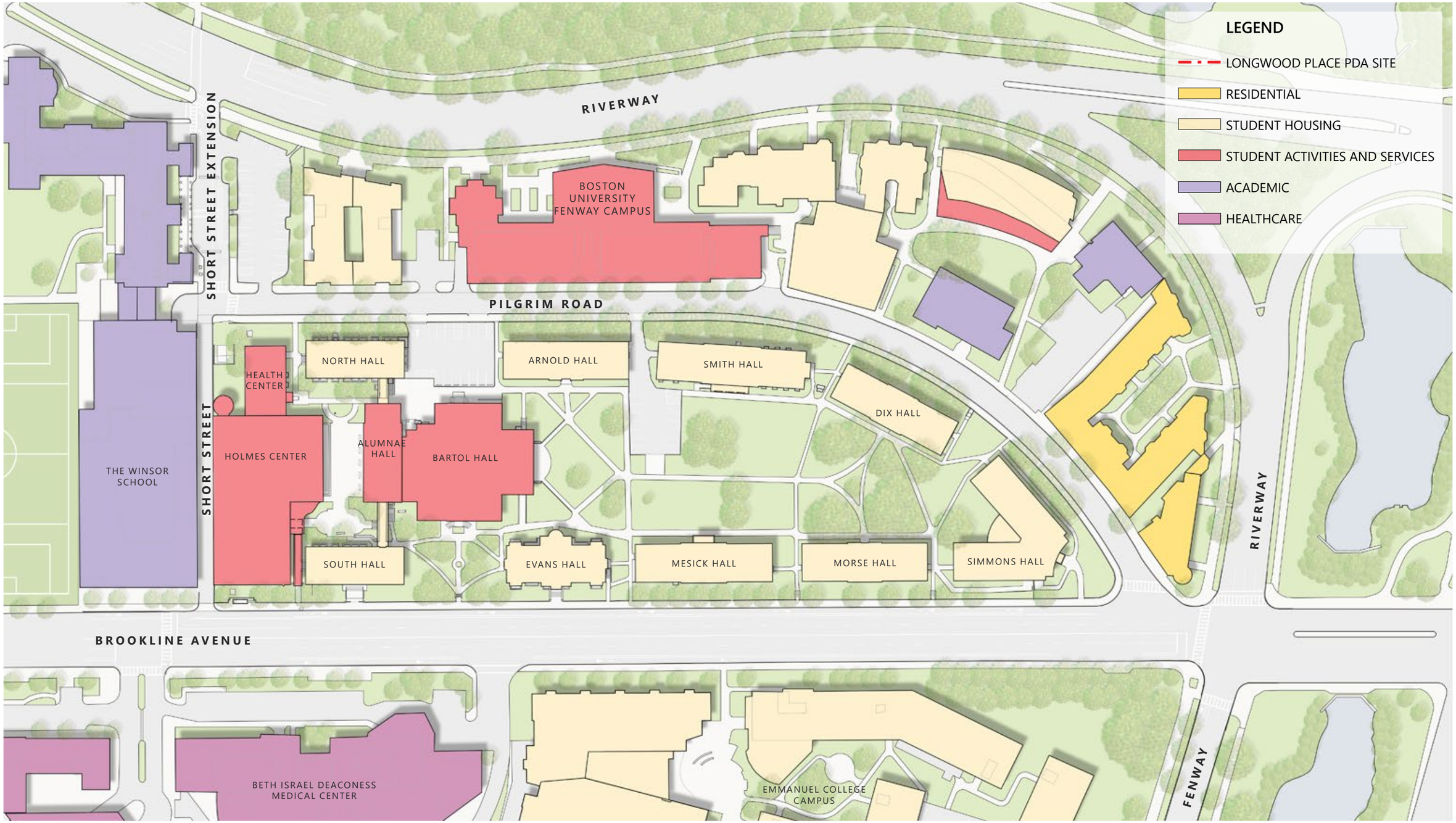
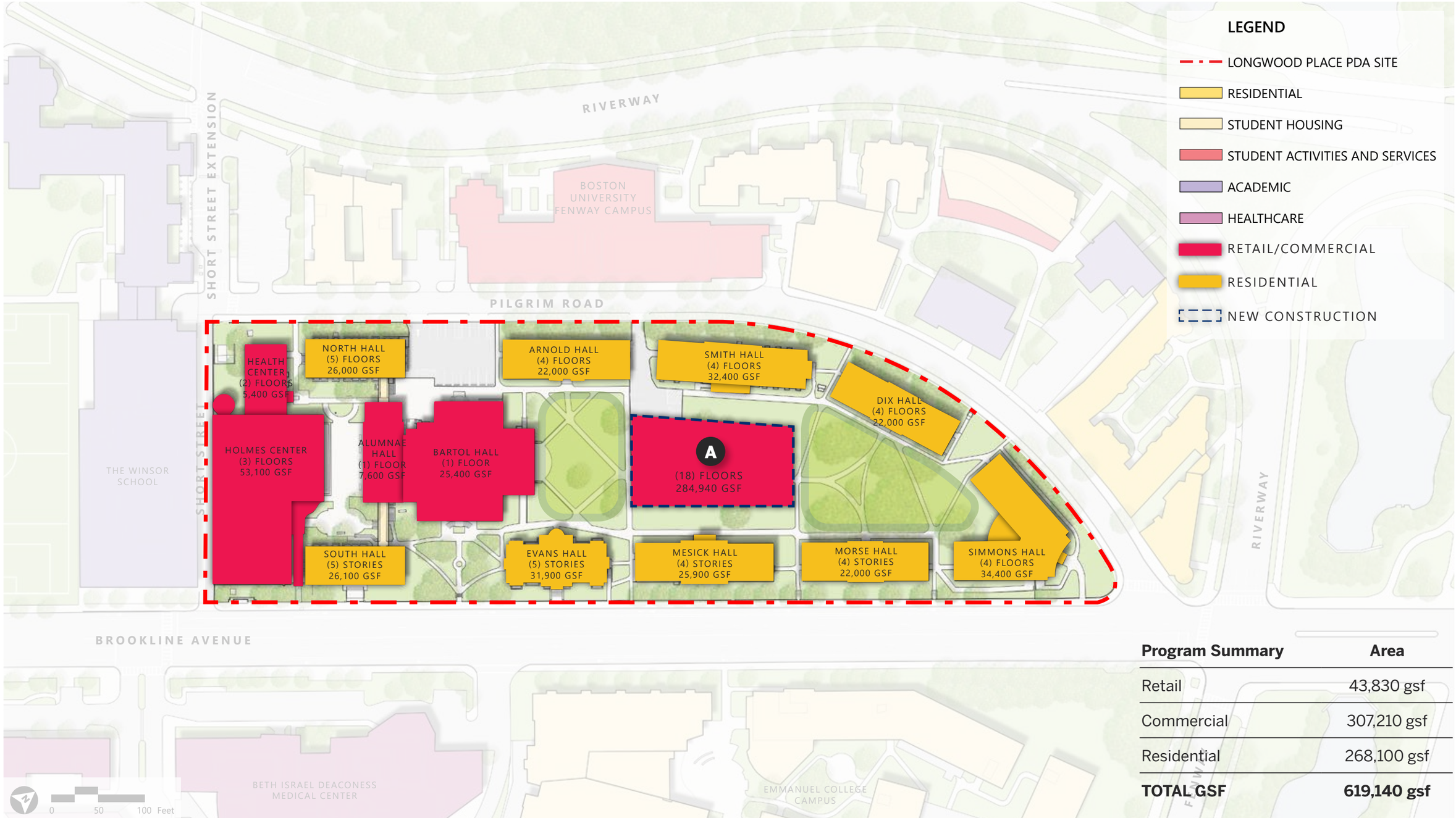


Figure 2. Alternative 1

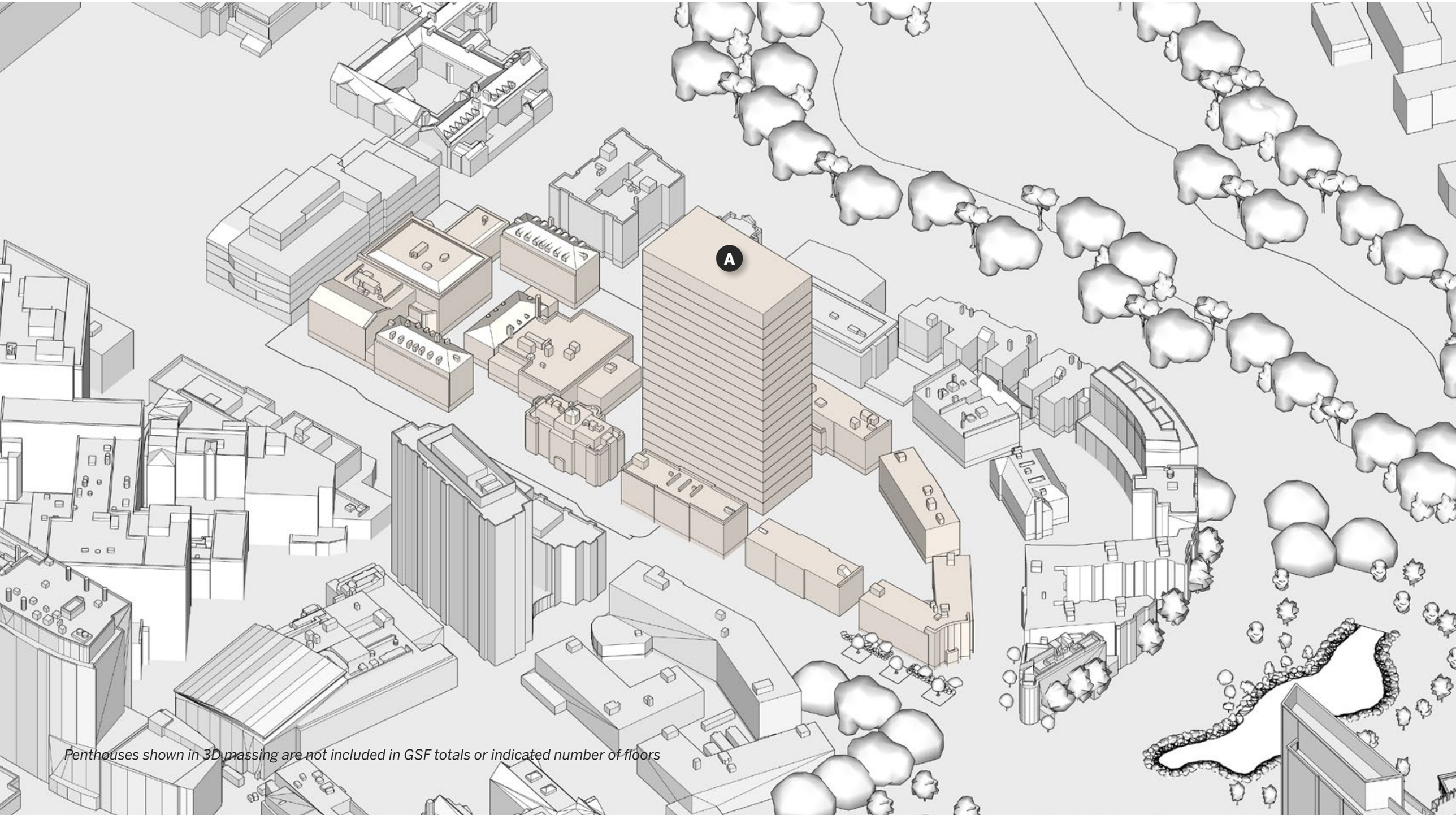
Longwood Place | Boston, MA



Program Summary	Area
Retail	43,830 gsf
Commercial	307,210 gsf
Residential	268,100 gsf
TOTAL GSF	**619,140 gsf**

Penthouses shown in 3D massing are not included in GSF totals or indicated number of floors

Figure 3. Alternative 1 Massing View



Penthouses shown in 3D massing are not included in GSF totals or indicated number of floors

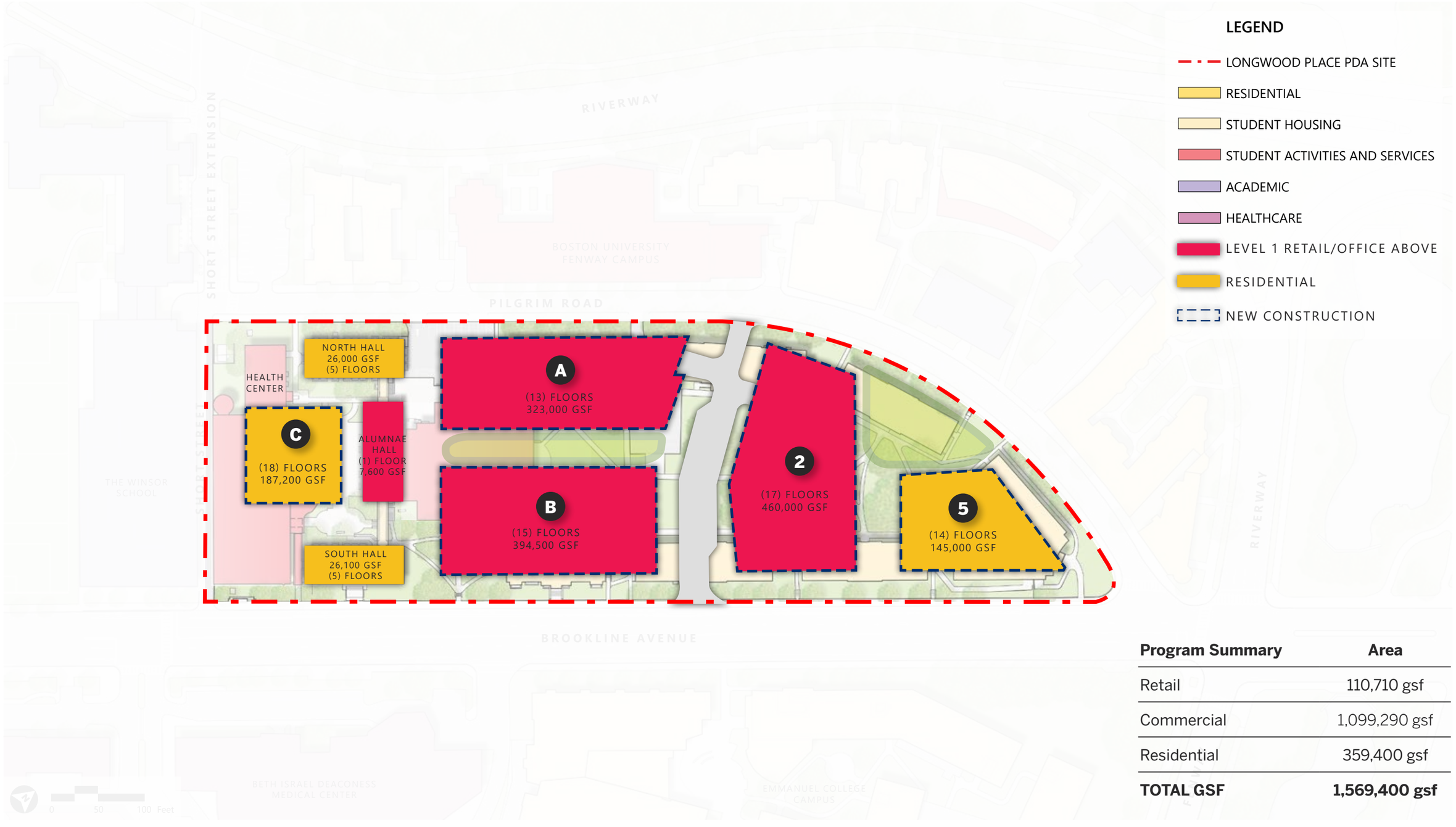
Figure 4. Area Summary - Alternative 1

Longwood Place | Boston, MA

Building	Retail	Commercial	Residential	Total
Health Center	2,700 gsf	2,700 gsf	-	5,400 gsf
Holmes Center	17,700 gsf	35,400 gsf	-	53,100 gsf
Alumnae Hall	7,600 gsf	-	-	7,600 gsf
Bartol Hall	-	-	25,400 gsf	25,400 gsf
North Hall	-	-	26,000 gsf	26,000 gsf
South Hall	-	-	26,100 gsf	26,100 gsf
Arnold Hall	-	-	22,000 gsf	22,000 gsf
Smith Hall	-	-	32,400 gsf	32,400 gsf
Dix Hall	-	-	22,000 gsf	22,000 gsf
Simmons Hall	-	-	34,400 gsf	34,400 gsf
Morse Hall	-	-	22,000 gsf	22,000 gsf
Mesick Hall	-	-	25,900 gsf	25,900 gsf
Evans Hall	-	-	31,900 gsf	31,900 gsf
Proposed Commercial Building A	15,830 gsf	269,110 gsf	-	284,940 gsf
Total GSF	**43,830 gsf**	**307,210 gsf**	**268,100 gsf**	**619,140 gsf**

GSF for existing buildings is taken from the Simmons University IMP document, Table 1-2. GSF per floor is estimated based on the total GSF and number of floors. Totals shown assume back of house areas are included.

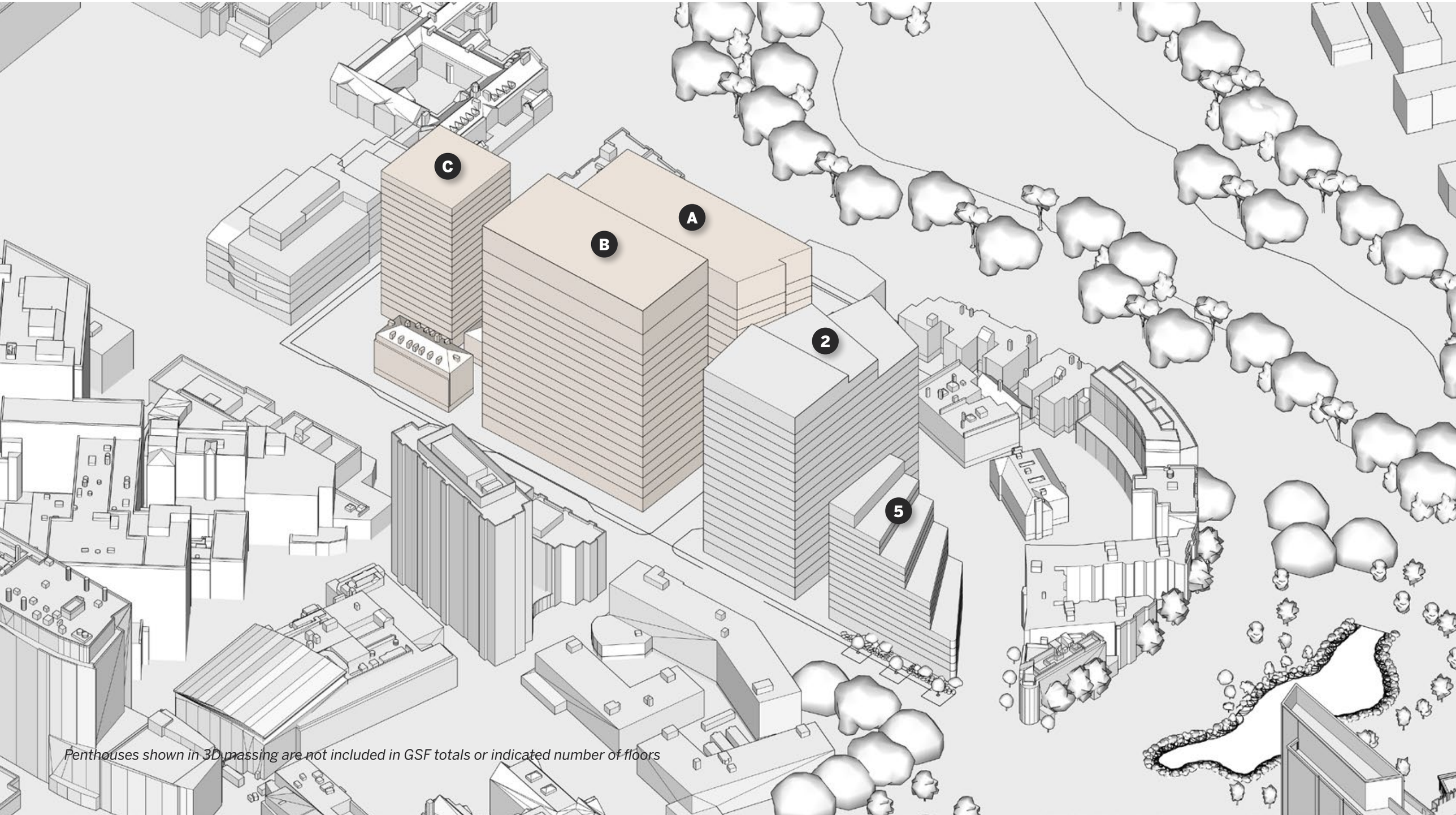
Figure 5. Alternative 2



Program Summary	Area
Retail	110,710 gsf
Commercial	1,099,290 gsf
Residential	359,400 gsf
TOTAL GSF	**1,569,400 gsf**

Penthouses shown in 3D massing are not included in GSF totals or indicated number of floors

Figure 6. Alternative 2 Massing View



Penthouses shown in 3D massing are not included in GSF totals or indicated number of floors

Figure 7. Area Summary - Alternative 2

Longwood Place | Boston, MA

Building	Retail	Commercial	Residential	Total
North Hall	-	-	26,000 gsf	26,000 gsf
South Hall	-	-	26,100 gsf	26,100 gsf
Alumnae Hall	7,600 gsf	-	-	7,600 gsf
Proposed Residential Building C	10,400 gsf	-	176,800 gsf	187,200 gsf
Proposed Commercial Building A	24,850 gsf	298,150 gsf	-	323,000 gsf
Proposed Commercial Building B	26,300 gsf	368,200 gsf	-	394,500 gsf
Proposed PDA Commercial Building (2)	27,060 gsf	432,940 gsf	-	460,000 gsf
Proposed PDA Residential Building (5)	14,500 gsf	-	130,500 gsf	145,000 gsf
Total GSF	**110,710 gsf**	**1,099,290 gsf**	**359,400 gsf**	**1,569,400 gsf**

GSF for existing buildings is taken from the Simmons University IMP document, Table 1-2. GSF per floor is estimated based on the total GSF and number of floors. Totals shown assume back of house areas are included.

Appendix G: Delineated ENF Certificate and Comment Letters

The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Maura T. Healey
GOVERNOR

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http://www.mass.gov/eea

June 13, 2025

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS ON THE ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME	: Longwood Place
PROJECT MUNICIPALITY	: Boston
PROJECT WATERSHED	: Charles River
EEA NUMBER	: 16948
PROJECT PROPONENT	: SCD Pilgrim Road Master Planner LLC c/o Skanska USA Commercial Development Inc.
DATE NOTICED IN MONITOR	: May 7, 2025

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62I) and Section 11.03 of the MEPA Regulations (301 CMR 11.00), I hereby determine that this project **requires** the preparation of a mandatory Draft Environmental Impact Report (DEIR).

Project Description

As described in the Environmental Notification Form (ENF), the project consists of the construction of five buildings with a combined gross floor area (GFA) of approximately 1.65 million square feet (sf). The development program includes 340,000 sf of residential uses (approximately 388 units), 1,133,100 sf of office/life sciences space, 125,900 sf of medical/clinic uses, 34,000 sf of retail space, and 15,000 sf of community space. A new street (the "Mid-Block Street" through the site between Brookline Avenue and Pilgrim Road will divide the site into northern and southern sections. The five buildings are described below.

- Commercial Building 1 (C1): A 503,000-sf, 15-story building located in the center of the site along Brookline Ave and south of Mid-Block Street. The building will include lobby, back of house, lab support, and retail and/or community space on the ground floor, and laboratory/research and development (R&D), office, medical/clinic, and accessory uses on the upper floors.
- Commercial Building 2 (C2): A 335,000-sf, 13-story building located in the western part of the site along Pilgrim Road and south of Mid-Block Street. The building will include lobby, back of house, lab support, and retail and/or community space on the ground floor, and laboratory/R&D, office, medical/clinic, and accessory uses on the upper floors.
- Commercial Building 3 (C3): A 460,000-sf, 17-story building located north of Mid-Block Street in the northeastern part of the site. The building will include retail, community space, lobby, back of house, and lab support uses on the ground floor, and laboratory/R&D, office, and accessory uses on the upper floors.
- Residential Building 1 (R1): A 205,000-sf, 17-story building located in the southwestern part of the site along Pilgrim Road with lobby, back of house, residential support, and retail and/or community space on the ground floor, and approximately 227 residential units and accessory space on the upper floors.
- Residential Building 2 (R2): A 145,000-sf, 14-story building located in the northeastern part of the site at the intersection of Pilgrim Road and Brookline Avenue. The building will include lobby, back of house, residential support, and retail and/or community space on the ground floor, and approximately 161 residential units and accessory space on the upper floors.

The project also includes a below-grade parking garage with 520 parking spaces and loading docks for truck deliveries. The entrance and exit to the garage will be on Mid-Block Street so that all vehicular access to the site is via the Mid-Block Street intersections at Brookline Avenue and Pilgrim Road. The project also includes a new stormwater management system, bicycle and pedestrian amenities, and 2.8 acres of open space, including a "central connector" between the northern and southern halves of the site, a 0.7-acre (31,000 sf) open space known as the "Main Heart," and smaller open spaces and plazas throughout the site.

According to the ENF, the project will be constructed in multiple phases spanning a period of five to ten years after commencement of construction. Buildings C1, C2, and R1, and the below-grade parking garage (the portion of the site south of, and including, the Mid-Block Street) are currently undergoing Article 80B Large Project Review with the City of Boston (City). Buildings C3 and R2 will be reviewed by the City in the future.

Project Site

The 5.9-acre project site is bordered to the north and west by Pilgrim Road, to the east by Brookline Avenue, and to the south by Short Street and Winsor School. The site is the location of the Simmons College Residence Campus and contains 13 buildings which provide student housing and student services, such as a health center, dining hall and sports center. The site is located in an area with other nearby educational institutions, including Boston University's Fenway Campus, which is located north and west of Pilgrim Road; Emmanuel College, which is

located east of Brookline Avenue; and the Windsor School. The Riverway parkway and parkland along the Muddy River is located approximately 250 feet to the north and west of the site.

Approximately 58% (3.4 acres) of the site is impervious, including buildings, paved walkways, and surface parking areas with 28 spaces; the remainder of the site consists of lawns with a few shade trees, particularly along Brookline Avenue and Pilgrim Road. As detailed below, the Simmons College Residence Campus (BOS.AEM) and 12 of the buildings on the site are listed in the Massachusetts Historical Commission's (MHC's) Inventory of Historic and Archaeological Assets of the Commonwealth.

The project site is located within an Environmental Justice (EJ) population characterized as Minority, and within one mile of 75 additional EJ populations (located in Boston, Brookline, and Cambridge) designated as Minority; Minority and Income; Minority and English Isolation; and Minority, Income, and English Isolation. The site is located within five miles of 602 additional EJ populations designated as Minority; English Isolation; Minority and Income; Minority and English Isolation; and Minority, Income, and English Isolation.

Environmental Impacts and Mitigation

Potential environmental impacts associated with the project include creation of 1.5 acres of impervious area (for a total of 4.9 acres of impervious area on the site), generation of 20,689 new unadjusted average daily trips (adt) (7,7376 adjusted adt), construction of 492 new parking spaces (for a total of 520 including 28 existing parking spaces), use of 237,275 gallons per day (gpd) of water (an increase of 115,076 gpd), generation of 215,705 gpd of wastewater (an increase of 104,615 gpd), demolition of historic buildings, and generation of greenhouse gas (GHG) emissions from on-site uses and motor vehicles accessing the site.

Measures to avoid, minimize, and mitigate environmental impacts include creation of 2.8 acres of publicly-accessible landscaped open space; 15,000 sf of interior community space; pedestrian and bicycle facilities, including new sidewalks, paths, signalized crosswalks, bicycle parking, and bicycle lanes; construction of the Mid-Block Street to provide primary vehicle access and egress to the site; reconstruction of two existing bus stops; a $4 million contribution to implement transit recommendations included in the Fenway-Kenmore Transportation Action Plan; stormwater management system that utilizes Best Management Practices (BMPs) and complies with the Massachusetts Stormwater Standards (SMS); a Transportation Demand Management (TDM) program that encourages alternative modes of transportation; use of electric heat pump technology to provide primary heating and cooling in the commercial buildings; all-electric heating and cooling systems in the residential buildings; and construction of one of the proposed residential buildings in accordance with Passivehouse standards. Additional measures should be identified in the DEIR.

Jurisdiction and Permitting

The project is undergoing MEPA review and is subject to preparation of a mandatory EIR pursuant to Sections 11.03(6)(a)(6) of the MEPA regulations because it requires Agency Actions and will generate 3,000 or more new adt on roadways providing access to a single location. The

project is also required to prepare an EIR pursuant to 301 CMR 11.06(7)(b) because it is located within a Designated Geographic Area (or DGA) (as defined in 301 CMR 11.02) around one or more EJ populations. The project meets or exceeds the ENF thresholds at 301 CMR 11.03(5)(b)(4)(a) (New discharge or Expansion in discharge to a sewer system of 100,000 or more gpd of sewage, industrial wastewater or untreated stormwater); 301 CMR 11.03(6)(b)(15) (construction of 300 or more New parking spaces at a single location); and 301 CMR 11.03(10)(b)(2) (Demolition of all or any exterior part of any Historic Structure listed in or located in any Historic District listed in the State Register of Historic Places or Inventory of Historic and Archaeological Assets of the Commonwealth. The project requires a Sewer Use Discharge Permit from the Massachusetts Water Resources Authority (MWRA). It is subject to the MEPA GHG Emissions Policy and Protocol.

The project requires Article 80B Large Project Review from the Boston Planning and Development Agency (BPDA), a Sewer and Water Connection Permit from the Boston Water and Sewer Commission (BWSC) and other approvals from the City of Boston. The project also requires a National Pollutant Discharge Elimination System Construction General Permit from the Environmental Protection Agency (EPA).

According to the ENF, no Financial Assistance for the project has been identified; however, the Proponent will explore opportunities for Financial Assistance. Because the project may receive Financial Assistance, MEPA jurisdiction is broad in scope and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment as defined in MEPA regulations.

SCOPE

General

The DEIR should follow Section 11.07 of the MEPA regulations for outline and content and provide the information and analyses required in this Scope. It should clearly demonstrate that the Proponent will avoid, minimize and mitigate Damage to the Environment to the maximum extent practicable through project alternatives and design. C.1

Project Description and Permitting

The ENF included a project description, conceptual plans of existing and proposed conditions, an alternatives analysis, estimates of project-related impacts, and measures to avoid and mitigate environmental impacts. Consistent with the MEPA Interim Protocol on Climate Change Adaptation and Resiliency, the ENF contained an output report from the MA Climate Resilience Design Standards Tool prepared by the Resilient Massachusetts Action Team (the "MA Resilience Design Tool"),[1] together with information on climate resilience strategies to be

[1] https://resilientma.org/rmat_home/designstandards/

undertaken by the project. The ENF included a description of the Proponent's public engagement efforts and an analysis of the project's potential impacts on EJ populations.

The DEIR should include updated site plans for existing and post-development conditions at a legible scale and a detailed description of all project components. It should provide plans showing existing and proposed site grades and ground-level elevations of all proposed structures. Conceptual plans should be provided at a legible scale and clearly identify buildings, public areas, open space, impervious areas, pedestrian and bicycle accommodations, roadways, and stormwater and utility infrastructure. Site elevations should be provided in relation to the NAVD 88 datum. The DEIR should identify any changes since the filing of the ENF. The DEIR should identify and describe state, federal and local permitting and review requirements associated with the project, provide an update on the status of each of these pending actions, analyze applicable statutory and regulatory standards and requirements, and provide a discussion of the project's consistency with those standards. C.2 C.3 C.4 C.5

The information and analyses identified in this Scope should be addressed within the main body of the DEIR and not in appendices. In general, appendices should be used only to provide raw data, such as drainage calculations, traffic counts, capacity analyses and energy modelling, which are otherwise adequately summarized with text, tables and figures within the main body of the DEIR. Information provided in appendices should be indexed with page numbers and separated by tabs, or, if provided in electronic format, include links to individual sections. Any references in the DEIR to materials provided in an appendix should include specific page numbers to facilitate review.

Alternatives Analysis

The ENF included a comparison of the Preferred Alternative to No Build and Planned Development Area (PDA) Development Plan (also referred to as "Alternative 1" in the ENF) Alternatives. The No Build Alternative would maintain the site in its current condition and use as a residential campus, and represents a baseline to which future proposed conditions are compared to assess impacts and mitigation measures. Under existing conditions, 3.4 acres of the 5.9-acre site are impervious, 122,200 gpd of water are consumed, 119,000 gpd of wastewater are generated. There are 28 existing parking spaces; the ENF did not provide an estimate of the adt generated by existing uses, but asserted that trip generation associated with college student housing and services is low. According to the ENF, the No Build Alternative is not consistent with Simmons University's "One Simmons" plan for the future of the university. The One Simmons plan includes construction of new library and health science facilities (which have been completed) and new residential housing (the "Living and Learning Center") at the Academic Campus located approximately 0.25 miles east of the project site to enhance the student experience by consolidating all services at one campus. The Simmons College Residence Campus, which is currently located at the project site, will be relocated to the central campus and renamed the Living and Learning Center. Upon completion of the Living and Learning Center by the Proponent, Simmons University will lease the current Residence Campus to the Proponent under a 99-year ground lease to implement this private development. As noted, the ENF did not provide information related to the impacts of the existing Residence Campus to be relocated. However, as this campus relocation will be occurring simultaneously with this project, the DEIR C.6

should include a general description of the Living and Learning Center and document its potential impacts, including trip generation, impervious area, water use, and wastewater generation, in comparison to the existing uses at the current location of the Residence Campus at the project site. C.6

The PDA Development Plan Alternative represents the maximum buildout of the site pursuant to the PDA Development Plan approved by the City in 2023. The PDA Development Plan Alternative would include construction of five buildings with a combined GFA of 1.7 million sf with 340,000 sf of residential use, 1,170,900 sf of office/life science space, 130,100 sf of medical/clinic uses, 44,000 sf of retail space, and 15,000 sf of community space. The PDA Development Plan Alternative would include the same number of residential units (388 units), area of community space (15,000 sf), maximum building height (295 ft), and number of parking spaces (520 spaces) as the Preferred Alternative. Impacts associated with the PDA Development Plan Alternative include the addition of 2.5 acres of impervious area to the 3.4 acres of existing impervious area, which would make the entire site impervious; an increase in water consumption of 128,940 gpd; an increase in wastewater generation of 117,219 gpd; and generation of 21,642 adt (7,617 adjusted trips). As detailed below, the development program and environmental impacts of the PDA Development Plan Alternative are similar to those of the Preferred Alternative, and the DEIR should include a supplemental alternatives analysis which reviews development programs substantially different from the Preferred Alternative. C.7

As detailed above, the Preferred Alternative includes development of five buildings with a combined GFA of 1,648,000 (52,000 sf (3%) less than the PDA Development Plan Alternative). The development program under the Preferred Alternative is substantially the same as that of the PDA Development Plan Alternative, except that it includes 37,800 sf less office/life science space, 4,200 sf less medical/clinic space, and 10,000 sf less retail space. The Preferred Alternative will add 1.5 acres of impervious area compared to 2.5 acres of impervious area added under the PDA Development Plan Alternative. Compared to the PDA Development Plan Alternative, the Preferred Alternative will consume 13,864 fewer gallons of water per day, generate 12,604 fewer gallons of wastewater per day, and generate 953 fewer unadjusted adt (214 fewer adjusted daily vehicle trips).

The objective of MEPA review is to ensure that projects avoid, minimize and mitigate Damage to the Environment to the maximum extent practicable. Consistent with that goal, an alternatives analysis is required to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment. The alternatives analysis should identify the project purpose and criteria for selecting the Preferred Alternative. As noted above, the PDA Plan Development Alternative is nearly identical to the Preferred Alternative with respect to its size, use and environmental impacts. The DEIR should include a supplemental alternative analysis that reviews alternatives that are significantly different than the Preferred Alternative in size and/or use, and degree of environmental impact. A conceptual-level plan of each alternative should be provided. The alternatives analysis should clearly describe and, to the extent possible, quantify the environmental impacts associated with each alternative, and identify potential measures to minimize and mitigate environmental impacts and impacts to EJ populations in the DGA. The alternatives analysis and project narrative should support the selection of the Preferred Alternative and ensure that the project avoids, minimizes, and C.8 C.9 C.10 C.11

mitigates environmental impacts to the maximum extent practicable. The DEIR should provide more specific information about how each alternative is consistent with zoning. Given the historical significance of the Residence Campus, the DEIR should evaluate an alternative in which one or more of the existing buildings are reused. C.12 C.13

Environmental Justice

The project site is located within an EJ population characterized as Minority, and within one mile of 75 additional EJ populations. Within the census tracts containing the above EJ Populations within one mile of the project site, Spanish, Spanish Creole, and Chinese were identified as spoken by 5% or more of residents who also identify as not speaking English very well.

Effective January 1, 2022, all new projects in a DGA (as defined in 301 CMR 11.02) around EJ populations are subject to new requirements imposed by the Chapter 8 of the Acts of 2021: *An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy* (the "Climate Roadmap Map") and amended MEPA regulations at 301 CMR 11.00. Two related MEPA protocols—the MEPA Public Involvement Protocol for Environmental Justice Populations (the "MEPA EJ Public Involvement Protocol") and MEPA Interim Protocol for Analysis of project Impacts on Environmental Justice Populations (the "MEPA Interim Protocol for Analysis of EJ Impacts")—are also in effect for new projects filed on or after January 1, 2022. Under the new regulations and protocols, all projects located in a DGA around one or more EJ populations must take steps to enhance public involvement opportunities for EJ populations, and must submit analysis of impacts to such EJ populations in the form of an EIR.

Community Engagement

The ENF reviewed public outreach conducted by the Proponent prior to filing the ENF and included a Public Engagement Plan (PEP) which describes measures the Proponent will implement to promote public involvement in the project during MEPA review. Between March 2021 and January 2022, the Proponent held over 90 meetings with the public and community stakeholders, including community-based organizations (CBOs), within the neighborhoods surrounding the site and at meetings of the Boston Civic Design Commission (BCDC) and the Impact Advisory Group (IAG) established for the project, which includes representatives from CBOs in the Longwood Medical Area and Fenway neighborhoods. According to the ENF, the project was reduced in size and substantially reconfigured multiple times as a result of this community engagement.

Consistent with the MEPA EJ Public Involvement Protocol, the Proponent sent advance notification of the project in the form of an EJ Screening Form to a list of project-specific CBOs and tribes/indigenous organizations ("the EJ Distribution List") developed by the Proponent from a list provided by the MEPA Office. The public notices of the ENF were provided in English and Chinese languages in the Boston Herald and in Spanish in El Mundo on May 1, 2025, and in Chinese in Sampan, a bilingual Chinese-English newspaper published in Boston, on May 9, 2025. Electronic copies of the ENF were distributed to the EJ Distribution List when it was submitted to the MEPA Office. Notice of the MEPA remote consultation session was

distributed to the EJ Reference List, and the meeting was held at 6:00 PM on May 22, 2025 to accommodate residents who may be unable to attend meetings during working hours. The notice of the MEPA remote consultation session was translated into Chinese and Spanish, and the Proponent offered to provide oral interpretation at the consultation session and to hold an additional in-person meeting upon request (no such requests were received).

The PEP outlined the following public engagement measures that will be implemented by the Proponent during MEPA review of the project:

- Notification of all MEPA filings will be provided to stakeholders through a broad range of media, such as the MEPA Distribution List, the EJ Distribution List, MEPA Environmental Monitor website, and/or notice in local newspapers.
- Notification of project-related public meetings will be provided to stakeholders through appropriate communication channels, such as the MEPA Distribution List, MEPA Environmental Monitor website, EJ Distribution List, City of Boston Planning Department project website, CBO email listservs, social media and/or notice in local newspapers. Public meetings will be publicized with sufficient notice of the meeting (where possible, at least two weeks in advance). All notifications shall be translated into Chinese and Spanish.
- Hard copies of all MEPA filings available at the local public libraries located in the vicinity of the site, including the Coolidge Corner and Brookline Village branches of the Brookline Public Library, and the Central Library (main branch), Parker Hill, and Roxbury Branches of the Boston Public Library.
- An interactive project web site (www.longwoodplaceboston.com) will be maintained to provide updates about the project and links to all public filings and public presentations. The website will include tools, such as a moderated forum where the community can submit comments, questions, or concerns to the proponent. The website will also allow the Proponent to utilize surveys to activate stakeholders and to gather community feedback throughout the design process.
- The Proponent will hold additional public meetings during the MEPA review process to provide updates about the project or the content of the MEPA filing, or to provide an overview to those that may not be familiar with the project. Meeting notifications will be translated into Chinese and Spanish languages. Interpretation will be offered in Chinese and Spanish for meetings and will be provided upon request.
- The Proponent will conduct community-based outreach in various forms, including the potential for distribution of project information at local gathering places, pop-up events at local venues, and/or other efforts to spread the word in places where the community is located.
- Public meetings will also be held as part of the City of Boston Article 80B review process focused on the initial phase of development. The Proponent will offer simplified and traditional Chinese language interpretation services at public meetings on an as-requested basis.

The DEIR should review the public engagement conducted by the Proponent between the filing of the ENF and DEIR. It should provide a summary of any public meetings or informational events held by the Proponent, including questions and comments posed by the C.14 C.15

public and responses provided by the Proponent. The DEIR should discuss whether and how the public involvement activities in the PEP are consistent with best practices listed in the MEPA EJ Public Involvement Protocol, including a commitment to on-going engagement such as through a mechanism for response to comments received during public meetings. The DEIR should include a revised PEP which identifies specific project milestones at which the Proponent will seek public feedback and includes other revisions in response to public input. C.16 C.17

Baseline Health Assessment

The ENF contained a baseline assessment of any existing unfair or inequitable Environmental Burden and related public health consequences impacting EJ populations in accordance with 301 CMR 11.07(6)(n)1. and the MEPA Interim Protocol for Analysis of EJ Impacts. The baseline assessment included a review of the data provided by the Department of Public Health (DPH) EJ Tool regarding "vulnerable health EJ criteria"; this term is defined in the DPH EJ Tool to include any one of four environmentally related health indicators that are measured to be 110% above statewide rates based on a five-year rolling average.[2] The data surveyed indicate that the City of Boston meet the criteria for childhood asthma, childhood blood lead, and low birth weight. According to the ENF, the census tract containing the project site does not meet the criteria for childhood blood lead and low birth weight. However, the ENF did not include a review of vulnerable EJ health criteria for any other census tract within the DGA, as required by the MEPA Interim Protocol for Analysis of EJ Impacts; this analysis should be provided in the DEIR. C.18

The ENF indicated that the following sources of potential pollution exist within 1 mile, based on data available in the DPH EJ Tool:

- Large Quantity Toxic Users: 1
- Large Quantity Generators: 25
- MassDEP tier Classified 21E sites: 14
- "Tier II" toxics use reporting facilities: 27
- MassDEP Sites with Activity and Use Limitations (AULs): 31
- Underground storage tanks: 32
- EPA facilities: 21

The DPH EJ Tool also provides data on other sources of air pollution, including energy and transportation infrastructure; however, this data was not reviewed in the ENF. Given the project's high trip generation, the DEIR should include a list of these additional pollution sources in the DGA and discuss the addition of project-generated emissions to existing sources. C.19

According to the output report from the MA Resilience Design Tool included in the ENF, the site has a high exposure to urban flooding due to extreme precipitation and to extreme heat, and moderate exposure to sea level rise/storm surge. EJ populations near the site are likely also exposed to these climate risks.

[2] See https://matracking.ehs.state.ma.us/Environmental-Data/ej-vulnerable-health/environmental-justice.html. Four vulnerable health EJ criteria are tracked in the DPH EJ Viewer, which are tracked on a municipal level. Two indicators (childhood blood lead, and low birth weight) are also tracked on a census tract level.

Although not required by the MEPA Interim Protocol for Analysis of EJ Impacts, the ENF surveyed environmental indicators tracked through the U.S. EPA's "EJ Screen," which compares the indicators by U.S. census block to the MA statewide average.[3] According to the EJ Screen results, the following indicators exceed the 80th percentile of statewide values, based on a weighted average of conditions across the project DGA: Fine Particulate Matter ($PM_{2.5}$), NATA Diesel PM; NATA Cancer Risk (cancer risk from inhalation of air toxics); Toxic Releases to Air; Traffic Proximity; Hazardous Waste Proximity; and Underground Storage Tanks. These data indicate elevated indicators related to air quality, suggesting potential "unfair or inequitable" air quality burdens impacting EJ populations. While former EPA guidance on "limitations and caveats" of using EJ Screen advise users to summarize EJ Screen data within a larger area rather than looking at a single census block group, reviewing the individual indicator values that comprise the DGA weighted average may provide important insights on whether specific EJ populations experience overlapping burdens. The DEIR should identify the individual census block groups of any EJ Populations that exceed the 80th percentile of an environmental indicator within a one-mile radius of the site.[4] Note that as of February 2025, the EJ Screen tool is no longer available on EPA's website. The Proponent may access reproduced versions of the EJ Screen desktop toll at alternative sites (including: https://pedp-ejscreen.azurewebsites.net/) or by downloading the most recent underlying Massachusetts EJ Screen data as retained by EEA (https://arg.is/0K4eSu2). The Proponent may alternatively utilize data distributed by the Massachusetts Department of Environmental Protection (MassDEP) through the Cumulative Impact Analysis (CIA) air quality permitting procedure, which includes air quality environmental indicators previously available through EPA EJ Screen.[5] C.20

Due to elevated air indicators in the vicinity of the project site, along with childhood asthma rates identified as a vulnerable health condition by the DPH EJ tool, the DEIR shall take additional steps to survey localized respiratory health conditions within the project DGA. Specifically, the Proponent should utilize MassDEP CIA methods to analyze asthma prevalence at a finer scale (by census block group) via asthma prevalence for kindergarten through 8th grade (K-8) schools. These prevalences should be provided for all schools servicing EJ populations where air quality indicators air related indicators are elevated above the 80th percentile. Specifically, the Proponent should utilize the pediatric asthma analysis framework finalized in MassDEP Cumulative Impact Analysis (CIA) air permitting regulations.[6] C.21

According to the ENF, the entire Metro Boston region and many of its bordering communities are at or above the 80th percentile for many of the pollution indicators above, and

[3] These data were retrieved on November 7, 2024, before the EJ Screen tool and accompanying data was removed from the EPA website in February 2025. Reproduced versions of the EJ Screen desktop tool may be found at alternative sites (including: https://pedp-ejscreen.azurewebsites.net/) and the most recent underlying EJ Screen data was retained by EEA (download MA EJ Screen data here: https://arg.is/0K4eSu2).
[4] Data on the EJ population census block groups within the project DGA may be downloaded via the MassDEP CIA Mapping Tool and utilizing the "Near Me Report" tool.
[5] Air indicator data may be downloaded on the MassDEP CIA website (Indicator Data for Cumulative Impact Analysis).
[6] Data on pediatric asthma prevalence in individual schools (k-8 grade) may be downloaded on the MassDEP CIA website ("Indicator Data for Cumulative Impact Analysis. All K-8 public schools can be identified on the MassDEP CIA Mapping Tool.

areas that are well-served by major roadways tend to exceed the threshold for traffic proximity. The ENF asserts that no extraneous hazards within the MEPA Project area are atypical to the urban context of Metro Boston; however, as is discussed above and below, multiple indicators of environmental burden are elevated above average statewide conditions, suggesting some level of "unfair or inequitable" burden is present in these communities despite their urban character. Further analysis of project impacts and mitigation should be provided in the DEIR. C.22

Project Impacts and Mitigation

The DEIR should provide additional analysis of the project's impacts on EJ populations. To assess the project's impacts associated with its high trip generation, the DEIR should present an air quality assessment consistent with the *MassDEP Guidelines for Performing Mesoscale Analysis of Indirect Sources (1991)*, as detailed below. C.23 As noted, the EJ Screen indicators above show that surrounding EJ populations within 1 mile of the site may be burdened with environmental and public health burdens, including air pollution, that may be unfair or inequitable when compared to the general population. For any routes of travel located adjacent to EJ populations, the DEIR indicate whether those intersections will be impacted by the project as shown in the TIA, and, if so, what mitigation is being proposed to address those impacts. C.24 The DEIR should also calculate the increase in air emissions (by percentage or volumetric increase) at any impacted intersections adjacent to EJ populations based on the methodology used for the mesoscale analysis described below, and discuss whether the increase in emissions from the project would have material impacts on the adjacent EJ population. C.25 If the level of existing burden in the community is high (as indicated by the number or intensity of DPH EJ Tool or EPA EJ Screen indicators), the project should consider ways to avoid impacts altogether by reducing emissions below No Build conditions, or if impacts cannot be avoided, to make other contributions to reduce the public health burden of the EJ population. C.26 At minimum, the DEIR should confirm that any impacted intersections within the traffic study area (where Level of Service (LOS) was shown to degrade from No Build to Build conditions) and adjacent to EJ populations will be adequately mitigated. C.27 Mitigation should also be considered if air pollutants are documented to increase from Existing to future Build conditions for the study area, or if total project-generated emissions will exceed 1 ton per year (tpy) for any pollutant, which is the lowest level at which MassDEP air permitting for stationary sources is required.[7] C.28 Potential mitigation could include increased commitments to EV charging infrastructure, investments into public infrastructure and transportation, expanded TDM program, air monitoring during remediation/construction activities, and contributions to public health services that directly benefit EJ populations.

The project will add 1.5 acres of impervious area. According to the ResilientMass Climate and Hazards Viewer,[8] a small portion of the project site is mapped as a "hot spot" and other mapped hot spots are located within the DGA. The DEIR should review mitigation measures for minimizing heat island effect. C.29 The DEIR should evaluate the potential for C.30

[7] The MEPA Office acknowledges that MassDEP thresholds for air permitting do not apply to mobile source emissions, including traffic. However, given that the traffic study area for TIA studies generally is concentrated around a project location, 1 tpy is referenced here as a general guide to encourage mitigation for increased air pollution impacts on already burdened communities such as EJ populations.

[8] https://eeaonline.eea.state.ma.us/ResilientMAMapViewer/

stormwater flooding and heat effects in the surrounding neighborhoods. Analysis of the stormwater management system should specifically assess whether flooding risks may be exacerbated for nearby EJ populations, including under future climate conditions. The DEIR should contain an GHG emissions analysis consistent with the GHG Emissions section of the Scope. The DEIR should analyze any other relevant short-term environmental or public health impacts of the project, including construction period activities. C.31 C.32 C.33

According to the ENF, the project will address climate change resiliency by providing 2.8 acres of landscaped open space, which will minimize urban heat island effect and stormwater runoff, and by constructing high-efficiency buildings that will minimize energy use. The project will include mitigation measures to minimize impacts on EJ populations during the construction period. According to the ENF, the project will provide benefits to EJ populations, including:

- The on-site open space will be publicly accessible
- Twenty percent of the proposed residential units will be affordable
- The Proponent will contribute approximately $15.5 million in housing linkage payments to the City's Housing Trust
- The project will create approximately 5,000 construction jobs and 5,000 jobs related to proposed uses
- The Proponent will provide approximately $2.8 million in jobs linkage payments to the City's Jobs Trust
- Approximately 15,000 sf of interior community space will be provided on-site
- The Proponent will provide a total of $7 million in funding for the Emerald Necklace, as detailed below

The DEIR should provide further details of the project benefits, highlighting key improvements to the site such as creation of public amenities (such as landscaped parks and open spaces), construction of new housing stock, funding for the Emerald Necklace, and other benefits. The DEIR should describe how the proposed public benefits will offset impacts to EJ populations, specifically, with respect to air quality impacts from new traffic and urban heat effects from increased impervious cover. C.34

Public Health

The DEIR should include a separate section on "Public Health," and discuss any known or reasonably foreseeable public health consequences that may result from the environmental impacts of the project. Focus should be given to any impacts that may materially exacerbate "vulnerable health EJ criteria," in accordance with the MEPA Interim Protocol for Analysis of EJ Impacts. Publicly available data, including data from the DPH EJ Tool and EJ Screen Tool, should be surveyed to assess the public health conditions in the immediate vicinity of the project site, in accordance with 301 CMR 11.07(6)(g)10, and in the immediate vicinity of anticipated truck routes. C.35 C.36

To the extent any required Permits for the project contain performance standards intended to protect public health, the DEIR should contain specific discussion of such standards and how the project intends to meet or exceed them. As a Sewer Use Discharge Permit may be required C.37 C.38

from MWRA, the DEIR should discuss the permit standards that will need to be followed to ensure that any wastewater discharges will meet public health standards. C.38

Transportation

According to the ENF, the project will generate 20,689 New unadjusted vehicle trips (7,376 adjusted trips) on an average weekday. This estimate was prepared based on trip rates for land use codes (LUCs) 221 (Multi-Family Housing Mid-Rise) and 820 (Shopping Center) published in the 10th edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th edition), and the trip rates for LUC 710 (Medical-Dental Office Building) (Multi-Family Housing Mid-Rise) and 820 (Shopping Center) published in the 11th edition of the ITE *Trip Generation Manual*. According to the ENF, the 10th edition of the ITE manual was used for LUCs 221 and 820 because that manual was in effect at the time the transportation analysis was conducted for the PDA Development Plan, and the 11th edition was used for LUC 710 because the proposed medical/clinic space was not proposed in the original PDA Development Plan. The ENF did not include estimates of the project's peak hour trip generation, or explain how the adjusted trip generation estimate was calculated; this information should be provided in the DEIR as detailed below. C.39 According to the ENF, the Proponent will not deduct trips associated with the existing Residence Campus from the project's trip generation to be used in the TIA, as the trips associated with the Residence Campus will be relocated to another site.

Traffic Study

According to the Department of Conservation and Recreation (DCR), project-generated vehicular trips have the potential to significantly impact the roadway system in the vicinity of the site. The project will increase vehicular traffic on DCR roadways, including the Riverway, the Fenway, and Park Drive by up to 6%, which will impact traffic conditions if not adequately mitigated. The DEIR should include a traffic study prepared consistent with the EEA/MassDOT *Transportation Impact Assessment (TIA) Guidelines* issued in March 2014, this Scope, and DCR's comment letter, which is incorporated herein by reference. C.40 The TIA should document how the trip generation estimate provided in the ENF was calculated, including mode share assumptions and any adjustments for internal capture or pass-by trips. C.41 The Proponent should consult with DCR prior to completing the analysis to ensure that it will be designed to assess impacts on DCR roadways. The DEIR should identify the proposed study area for the TIA. The study area should include intersections and roadways identified in consultation with DCR and, consistent with *TIA Guidelines,* the TIA should analyze intersections and roadways where site traffic exceeds 100 vehicle trips per hour or 5% of existing volume. C.42

The TIA should include a multimodal assessment of the transportation impacts of the project. C.43 Due to the project's high trip generation and the site's location near a large number of EJ populations, the Proponent should ensure that study area includes roadways and other transportation facilities that reflect conditions at key intersections, public transportation stations, and major pedestrian and bicycle facilities adjacent to EJ populations. C.44 Within the final study area, project trips should be assigned to the intersections and roadways based on the anticipated directional distribution of employees, residents, and visitors to the site, considering populations of nearby towns and regional travel to and from the site. C.45 The TIA should include a network map C.46

and shows the percentages of traffic assigned to each roadway link and each intersection for the anticipated trip generation. It should provide capacity analyses for the existing conditions, future No-Build conditions, and future Build conditions within the study area. The No-Build and Build conditions should include trips generated by other nearby planned and/or approved projects. In addition, an annual growth factor should be superimposed on existing traffic volumes prior to the addition of the volumes associated with background project-specific growth. Future scenarios should also incorporate planned transportation projects, including roadway improvement projects, and transit service changes by the MBTA. The Proponent should coordinate with the MBTA and the City regarding the appropriate data needed for analysis and about ongoing and planned transportation improvements in the vicinity of the project site. The future Build conditions should include an analysis of operations both with and without any improvements suggested to mitigate project impacts. The study should propose a mitigation package intended to reduce vehicular travel while supporting increased use of carpooling, walking, bicycling, and transit by residents, employees, and visitors. C.47 C.48 C.49 C.50

Capacity analyses should be conducted for the weekday morning, evening peak hours, and the Saturday peak hour for both existing and future conditions. In addition, capacity analyses for Build with Mitigation conditions should be provided at impacted locations on DCR roadways. The TIA should provide illustrations depicting the peak hour 50th (average) and 95th percentile queue lengths for each lane group/turning movement at each study area intersection. The information contained in these illustrations should clearly demonstrate that the project would not result in any extended queues that would block vehicle movements to/from study area intersections, particularly those involving state highways. Color-coded illustrations should also be prepared depicting the level of service (LOS) for each lane group/turning movement for each case. C.51 C.52 C.53

The DEIR should identify appropriate mitigation measures at any locations where project-generated traffic will impact roadway operations. The Proponent should consult with DCR regarding mitigation at DCR roadways and intersections. The TIA should describe proposed mitigation measures at project site intersections, including signalization of the Mid-Block Street and Brookline Avenue intersection, and other intersections adjacent to the project site. C.54

Public Transit

The project site is served by multiple bus routes operated by the Massachusetts Bay Transportation Authority (MBTA) which travel along Brookline Avenue, and is less than 0.25 miles from the Longwood and Fenway Stations on the MBTA's Riverside line. The MBTA is studying bus service in the Longwood Medical Area as part of its Bus Network Redesign service plan, which may result in changes to bus service, including potentially a transit priority corridor on Brookline Avenue. According to the ENF, the Proponent will work with the MBTA and the City to relocate and reconstruct two of the bus stops adjacent to the project site with floating bus stops and shelters.

According to the MBTA, the project will add significant new ridership to the public

transportation system.[9] The DEIR should describe the transit ridership that will be generated by the project, and provide an analysis of the impacts of project-generated ridership on the MBTA's system. The Proponent should consult with the MBTA regarding the appropriate data and methodology to use for this analysis. The DEIR should review potential mitigation measures, including bus stop improvements, funding of bus priority infrastructure on Brookline Avenue, and pedestrian accessibility improvements to facilitate access between the project site and Longwood Station. According to the ENF, the Proponent will provide approximately $4 million ($5 per square foot of life science space) to the City to help implement transportation recommendations developed through the Fenway-Kenmore Transportation Action Plan. The DEIR should include a summary of the recommendations of the Fenway-Kenmore Transportation Action Plan, identify potential measures that may be funded by the Proponent, and review the consistency of the potential mitigation measures with the mitigation measures recommended by the MBTA. The DEIR should specify whether mitigation requested by MBTA will be funded through the $4 million contribution to the City or directly by the Proponent. C.55 C.56 C.57 C.58

Pedestrian and Bicycle Access

The DEIR should provide a thorough inventory of all on-site and off-site existing, planned, and proposed pedestrian and bicycle services, facilities, and routes for accessing the site. It should provide an evaluation of the pedestrian network, including pavement conditions, sidewalk widths, crosswalks, compliance with current accessibility standards, and existing pedestrian volumes and movements. The TIA should include a detailed inventory of the bicycle network, including bikeway types, bikeway widths, and bicycle numbers and speeds. The DEIR should identify the likely travel routes for bicyclists within the study area, assess the degree to which these routes can safely support bicycle travel, and reevaluate these routes based on the origin-destination of potential residents, employees, and visitors to the site. Improved pedestrian and bicycle access to Longwood Station should be evaluated as a way of facilitating access to public transportation. The Proponent should work with DCR to ensure that a seamless connection between the existing and planned pedestrian facilities that span across multiple jurisdictions is available to accommodate demand generated by the project. C.59 C.60 C.61 C.62

Parking

As described in the ENF, the project includes construction of an underground parking garage with 520 spaces (as increase of 492 spaces compared to existing conditions). Access into and out of the parking garage will be provided from Mid-Block Street to minimize impacts on transportation operations on Brookline Avenue and Pilgrim Road associated with vehicles entering and exiting the garage.

According to the ENF, the proposed parking supply is almost 50% below the City's maximum parking ratio, and will support the use of modes of travel other than single occupancy vehicles (SOV). The DEIR should include a discussion of the proposed parking supply in relation to the City's parking ratio for the site, ITE parking ratios, and the parking supply at other C.63

[9] The ENF did not include an estimate of project-generated transit ridership. The MBTA's comment letter cites the daily transit ridership estimate of 10,468 trips provided in the Project Notification Form filed with the City.

locations within walking distance of the project site. The TIA should describe proposed parking pricing and evaluate the potential for shared parking. The DEIR should identify any on-street parking or drop-off areas to be constructed along Brookline Avenue and Pilgrim Road. C.64 C.65

Transportation Demand Management

According to the ENF, the Proponent will implement a Transportation Demand Management (TDM) program to minimize SOV trips and to achieve a robust non-SOV mode share. Measures identified in the ENF include membership in the Longwood Collective Transportation Management Association (TMA), transit pass subsidies for employees, incentives to walk and bike to work, support for carpooling, and location-priced parking. The TIA should evaluate additional TDM measures, including, at a minimum, the following: C.66

- Employment of a Transportation Coordinator to coordinate efforts, monitor success rates, and manage strategic implementation of traffic reduction programs.
- Staggering employee shifts to avoid the peak hour.
- Carpool/vanpool matching programs.
- Dissemination of promotional materials about the TDM program online.
- Participation in the MBTA Corporate Pass Program to the extent practical and as allowable pursuant to commercial tenant lease requirements.
- Electric vehicle (EV) charging stations within the proposed parking garage.
- Preferential parking for alternatively fueled vehicles.
- Offering a "Guaranteed-Ride-Home" in case of emergency to employees that commute to the project site by means other than private automobile.
- Discounted Bluebikes memberships.
- Rideshare program which allows employees to find other users who are commuting.
- Implementation of a transportation monitoring program to gauge the effectiveness of the TDM measures and, if requested by DCR, monitor post-construction operations at DCR roadways and intersections.

Stormwater

The project will add 1.5 acres of impervious area, which will increase impervious area at the 5.9-acre site from 3.4 acres to 4.9 acres. According to the ENF, the project will include a new stormwater management system that will be designed to meet the standards of the Stormwater Management Standards (SMS) and comply with the phosphorous Total Maximum Daily Load (TMDL) established for the Charles River. The stormwater management system will include Best Management Practices (BMPs) such as subsurface infiltration and/or detention systems to remove pollutants from stormwater and maintain peak discharge rates at or below pre-development conditions.

The DEIR should include detailed plans at a readable scale of the proposed drainage system and provide calculations of water quality volume, infiltration volume, total suspended solids removal, and peak rates of runoff for predevelopment and post- development site. It should discuss whether the design of the stormwater management system may cause or contribute to flooding risks for adjacent areas, including to EJ populations. If the site currently C.67 C.68

experiences flooding, the DEIR should discuss whether the project has considered all feasible measures to improve such conditions, even in excess of SMS standards. The DEIR should include an evaluation of the use of low impact design (LID) strategies and green infrastructure wherever practicable. It should provide analysis of the capacity of the stormwater management system under future climate conditions, as described below. C.69 C.70 C.71

Water /Wastewater

The project will use 237,275 gpd of water, an increase of 115,076 gpd compared to existing conditions, and generate 215,705 gpd of wastewater, an increase of 104,615 gpd from existing conditions.[10] According to the ENF, the project will connect to existing BWSC-owned water and sewer infrastructure in adjacent streets which is believed to have adequate capacity to serve the project. The project will include water conservation measures such as sensor-operated, low-flow plumbing fixtures. The DEIR should describe and provide plans of proposed water and sewer service to the site. It should review the capacity of the BWSC system to provide water and sewer service, and describe any on-site or off-site improvements that the Proponent will be required to construct. The DEIR should review additional water conservation measures that can be incorporated into the project design, including reuse of rainwater and gray water and measures to eliminate or minimize water needed for irrigation. C.72 C.73 C.74

According to the MWRA, existing sanitary sewer mains in Brookline Avenue convey flows to the MWRA's Ward Street Headworks in Roxbury, which in turn direct flows into MWRA's Boston Main Drainage Tunnel for transport to the Deer Island Treatment Plant. Due to infiltration and inflow (I/I) that can enter tributary community sewers, along with stormwater that enters tributary BWSC combined sewers, combined flows in large storms can exceed the capacity of the conveyance system and contribute to combined sewer overflows ("CSO") to the Charles River Basin. To ensure that the Project's wastewater flow does not increase system surcharging or overflows in large storms, the project will be required to mitigate its contribution of flow into the sanitary sewer system. MassDEP regulations at 314 CMR 12.04(2)(d) specify that communities with CSOs must require projects generating 15,000 gpd or more of new wastewater flow to remove four gallons of I/I for each gallon of wastewater. According to BWSC, the Proponent will be required to mitigate its full wastewater generation (215,705 gpd) rather than the increase in wastewater generation (104,615 gpd) over the 111,090 gpd generated by the existing Simmons University Residence Campus, as the existing flows will continue to be generated by the new Simmons University residential building under construction. The DEIR should confirm the volume of wastewater that will be mitigated by the project. As requested by the MWRA, the DEIR should identify specific projects that would offset the project's wastewater generation, and the Proponent should commit to implement the projects before wastewater is discharged from the project. The DEIR should specifically identify potential increased CSO discharges affecting surface water quality in EJ populations and address mitigation of these impacts. C.75 C.76 C.77

[10] As noted above, "existing conditions" at the site include dormitory and supporting uses associated with the Simmons College Residence Campus. These uses will be relocated to the Living and Learning Center within the main academic campus. The DEIR should provide a general description of the Living and Learning Center and associated impacts, so as to accurately describe impacts that will remain unchanged (albeit at a different location).

According to the MWRA, the discharge of groundwater and stormwater into the sanitary system is prohibited. According to the MWRA, if any on-site uses will discharge industrial process, manufacturing, power generating, or laboratory wastewater, a Sewer Use Discharge Permit will be required; the DEIR should address the potential need for this permit and review the relevant standards. C.78 The DEIR should include a commitment to use oil/gas separators in the parking garage drainage systems. C.79

Cultural Resources and Open Space

According to MHC, the project site consists entirely of the Simmons College Residence Campus (BOS.AEM), which is included in the Inventory. This campus is comprised of the following 12 buildings:

- South Hall (BOS.7358)
- Rectory (BOS.7581)
- North Hall (BOS.7580)
- Evans Hall (BOS.17885)
- Arnold Hall (BOS.17890)
- Bartol Dining Hall (BOS.17886)
- Dix Hall (BOS.17888)
- Morse Hall (BOS.17882)
- Simmons Hall (BOS.17883)
- Mesick Hall (I 7884)
- Smith Hall (BOS.17889)
- Health Center (BOS.17887)

It is the opinion of MHC staff that the campus meets the criteria of eligibility for listing in the National Register of Historic Places at the local level of significance. A remarkably well-preserved and intact collection of dormitories and associated residential buildings with a unified aesthetic, the campus has historically been an integral part of Simmons University since its initial construction in 1905. In particular, the three buildings designed by architect Guy Lowell - North and South Halls and the Rectory - are noteworthy examples of Georgian Revival architecture. The project site is also located within close proximity of the Emerald Necklace park system (BOS.JE), which is listed in the State and National Registers of Historic Places.

MHC has determined that the project will have an "adverse effect" (950 CMR 71.05(a) and 950 CMR 71.07(2)(b)(3)) on the Simmons College Residence Campus through the demolition of the buildings and redevelopment of the site. The DEIR should review the historical resources at the project site, report on the Proponent's consultation with MHC, provide any additional analyses requested by MHC or prepared for the City (including studies of off-site shadow impacts), and describe proposed mitigation measures. C.80

The DEIR should describe and provide plans of proposed on-site open space, and review potential connections to off-site public parkland, including nearby components of the Emerald Necklace such as the Riverway and Back Bay Fens. C.81 According to the ENF, the Proponent will provide $7 million as mitigation for project impacts to create an endowment for use by the

Boston Parks and Recreation Department to support the needs of the Emerald Necklace. The endowment is intended to provide funding for maintenance, a study of shadow impacts on the Emerald Necklace, and development of a policy for the protection of the Emerald Necklace from development impacts. According to the ENF, the Proponent made a payment of $1 million to the BPDA in June 2023 and will provide a second installment of $6 million within 30 days of the issuance of a building permit for above-grade construction.

Climate Change

Adaptation and Resiliency

Effective October 1, 2021, all MEPA projects are required to submit an output report from the MA Resilience Design Tool to assess the climate risks of the project. Based on the output report attached to the ENF, the project has a "High" exposure rating based on the project's location for extreme precipitation (urban flooding) and extreme heat, and a "Moderate" exposure rating for sea level rise/storm surge. Based on the 57-year useful life and the self-assessed criticality of the buildings, the MA Resilience Design Tool recommends a planning horizon of 2070 and a return period associated with a 50-year (2% annual chance) storm event when designing the project with respect to extreme precipitation and a planning horizon of 2070 and a return period associated with a 200-year (0.5% annual chance) storm event when designing the project with respect to sea level rise/storm surge. The output report recommends planning for the 90th percentile with respect to extreme heat (which indicates an increase in extremely hot days as compared to a historical baseline).

The DEIR should address the design recommendations for each climate parameter provided by the MA Resilience Design Tool. If the project is not anticipated to meet the design recommendations provided by the MA Resilience Design Tool, the DEIR should discuss whether the project has considered adaptive management strategies. C.82 The DEIR should address specific impacts to EJ populations, consistent with MEPA EJ protocols, as well as impacts on other vulnerable populations. C.83

According to the ENF, the project will be designed to adapt to extreme precipitation events by incorporating design elements to improve on-site stormwater management and reduce risk of precipitation-based flooding, such as integrating pervious surfaces into the landscape, increasing the amount of greenery and green infrastructure, and on-site stormwater infiltration systems. The DEIR should review the capacity and performance of the proposed stormwater management system to accommodate the 2070 50-year storm event (24-hour precipitation depth of 9.8 inches), as recommended by the Tool. C.84 Based on the Massachusetts Coast Flood Risk Model (MC-FRM) data included in the output report, the water surface elevation at the site under 2070 200-year storm conditions is projected to be 12.5 ft NAVD 88. According to the ENF, the site elevation will rise from an elevation of approximately 10.8 ft NAVD 88 in the northeast corner to over 20 ft NAVD 88 in the southern part of the site. The ENF indicates that all buildings will be designed with a first floor elevation greater than approximately 11.5 ft NAVD 88. The DEIR should include a plan showing all proposed structures (including critical infrastructure) and building first floor elevations (NAVD 88) in relation to the 2070 200-year storm flood elevation (12.5 ft NAVD 88). C.85 The DEIR should

describe all flood resiliency measures that will be incorporated into the design of the project. It should also report any local requirements for building elevation, including whether the project is subject to elevation to the City of Boston's recommended design flood elevations (DFE) for sites subject to future sea level rise. C.86 C.87

According to the ENF, the project will reduce the urban heat island effect through a combination of strategies, including using landscaping, the use of hardscape materials with a low solar reflectance and high-albedo roofing materials where feasible. The project will also integrate a robust tree canopy throughout the site and along the boundaries to provide shade, mitigate the urban heat island effect, act as natural buffers, and slow down rainwater, thus reducing erosion. Given the proposal to increase impervious area on a site that is already predominantly impervious, the DEIR should include a robust discussion of measures the project will take to mitigate urban heat island effect through cooling and shading measures. To the extent site constraints prevent extensive measures such as tree planting, the DEIR should consider off-site mitigation to benefit surrounding EJ communities. C.88 C.89

Greenhouse Gas (GHG) Emissions

The project is subject to review under the May 5, 2010 MEPA GHG Policy. The Policy requires Proponents to quantify carbon dioxide (CO_2) emissions and identify measures to avoid, minimize or mitigate such emissions. The analysis should quantify the direct and indirect CO_2 emissions of the project's energy use (stationary sources) and transportation-related emissions (mobile sources).

Stationary Sources

According to the ENF, one of the residential buildings will be designed to meet Passivehouse design standards, both residential buildings will include all-electric heating and cooling systems, and the commercial building will include electric air-source heat pump (ASHP) heating with the capacity to meet 25% of the peak heating loads.

The DEIR should identify the number of EV charging stations and EV-ready parking spaces to be provided by the project. The DEIR should review the building energy mitigation measures for each building use as detailed in the comment letter submitted by the Department of Energy Resources (DOER), which include: C.90

- The residential buildings should be designed in accordance with Passivehouse standards; provide space heating using electric ASHPs; provide service water heating using electric ASHPs or solar thermal plus electric resistance water heaters; and include electric cooking and drying appliances. C.91
- Uses with space that is highly ventilated, such as laboratory/R&D, should be designed with a glazed wall system that covers no more than 50% of the above-grade vertical wall; heat recovery chillers to capture concurrent heating and cooling; a primary heating system using electric ASHPs sized to 25% of peak space heating load; service water

heating using electric ASHPs; and reduced air infiltration per Option 8 of the C406 measures listed in the Massachusetts Energy Code.

- Other nonresidential uses without the need for highly ventilated space should be designed with a glazed wall system that covers no more than 50% of the above-grade vertical wall; electric ASHPs for space heating; service water heating using electric ASHPs or solar thermal plus electric resistance water heaters; electric cooking and drying appliances; and reduced air infiltration per Option 8 of the C406 measures listed in the Massachusetts Energy Code. C.91

According to DOER, if the DEIR includes commitments to implement the measures listed above, no further analyses are required. If the recommended design measures are not adopted, then the DEIR should include the additional evaluations detailed in DOER's comment letter and in accordance with the MEPA GHG Policy. The analysis should clearly demonstrate consistency with the key objective of MEPA review, which is to document the means by which Damage to the Environment can be avoided, minimized and mitigated to the maximum extent feasible. C.92

Mobile Sources

The DEIR should include an evaluation of potential GHG emissions associated with mobile source emissions from project-generated vehicle trips. C.93 The DEIR should follow the guidance provided in the GHG Policy for *Indirect Emissions from Transportation* to determine mobile emissions, and should provide data on Existing Conditions, Build Conditions, and Build Conditions with Mitigation consistent with the air quality assessment required below. C.94 The DEIR should thoroughly explore means to reduce overall single occupancy vehicle trips and review measures to promote the use of low-emissions vehicles, including installing EV charging stations for both vehicles and trucks and providing designated parking spaces for these vehicles (a minimum of 25% of proposed spaces) with the balance of spaces being EV ready for future installation.[11] C.95 The Build with Mitigation model should incorporate TDM measures, and any roadway improvements implemented by the project, and document the associated reductions in GHG emissions. C.96 The DEIR should explain how TDM measures will be monitored and adjusted over time and provide a methodology for quantifying emission reductions impacts rather than an assumed percentage reduction. C.97

Air Quality

The Proponent should conduct an indirect source review analysis in accordance with the 1991 *MassDEP Guidelines for Performing Mesoscale Analysis of Indirect Sources*. C.98 The purpose of the analysis is to determine whether and to what extent the project will increase the amount of volatile organic compounds (VOC) and nitrogen oxides (NOx) emitted in the project area and to determine consistency with the State Implementation Plan (SIP). The analysis should model emissions under Existing, No Build and Build conditions using data from the traffic study. C.98 Data on CO, VOCs, NOx, NO2, $PM_{2.5}$, PM_{10}, and DPM should be provided, in addition to greenhouse gas emissions as indicated in the Climate Change section above. The DEIR should provide a

[11] More information on EV infrastructure can be obtained from the MassEVolves program at www.massevolves.org.

comparison of air pollutants from Existing (current) conditions to future No Build, future Build, and future Build with Mitigation conditions, and should quantify the effects of TDM measures to the extent feasible. C.99 The DEIR should include data and analyses necessary to address the project's potential impacts on EJ populations, as detailed above. C.100 As indicated above, available mapping tools from DPH and EPA appear to show high levels of existing environmental burdens, particularly those affecting air quality, in surrounding neighborhoods. The DEIR should explore all feasible means to reduce and mitigate air quality impacts, including through measures that go above and beyond traffic and roadway mitigation to address vehicular delays at intersections studied through the TIA. C.101 Examples of targeted mitigation to address air quality include enhanced commitments to EV charging and parking space, contributions to transit service improvements to support nearby communities, public health contributions to address health risks of poor air quality, and enhanced commitments to tree plantings and open space/parks for nearby communities.

Construction Period

According to ENF, the project will be constructed in multiple phases over a 5-10 year period. The Proponent anticipates that construction will commence in the first quarter of 2027 at the earliest, and not until after the new Simmons University student housing is completed at the main campus of the university.

The DEIR should describe how construction activities will be managed in accordance with applicable MassDEP regulations regarding Air Pollution Control (310 CMR 7.01, 7.09-7.10), and Solid Waste Facilities (310 CMR 16.00 and 310 CMR 19.00, including the waste ban provision at 310 CMR 19.017). C.102 The Proponent is referred to MassDEP's comment letter, which provides details on applicable construction-period requirements. The DEIR should describe all construction-period impacts and mitigation relative to noise, air quality, water quality, and traffic, including construction vehicle trips through residential areas. C.103 It should confirm that the project will require its construction contractors to use Ultra Low Sulfur Diesel fuel, and discuss the use of after-engine emissions controls, such as oxidation catalysts or diesel particulate filters. C.104 The DEIR should provide more information regarding the project's generation, handling, recycling, and disposal of construction and demolition debris (C&D) and identify measures to reduce solid waste generated by the project. C.105 I encourage the Proponent to commit to C&D recycling activities as a sustainable measure for the project. C.106

According to the ENF, an asbestos inspection of the buildings to be demolished has not been completed; however, given the age of the buildings, it is possible that asbestos containing materials (ACM) may be present. The DEIR should review mitigation measures that will be implemented to minimize potential public health risks associated with the demolition, handling, and transport of any ACM or other hazardous materials. C.107 Any contaminated material encountered during construction must be managed in accordance with the Massachusetts Contingency Plan (MCP; 310 CMR 40.00) and with prior notification to MassDEP. C.108 The project will be required to develop a Stormwater Pollution Prevention Plan (SWPPP) in accordance with its NPDES CGP to manage stormwater during the construction period. C.109 The DEIR should describe stormwater management measures that will be implemented during construction. C.110 It should describe potential construction period dewatering activities and associated permitting (i.e., NPDES) and identify C.111

mitigation measures. All construction-period mitigation measures should be listed in the draft Section 61 Findings. C.112

Mitigation and Draft Section 61 Findings

The DEIR should include a separate chapter summarizing all proposed mitigation measures including construction-period measures. This chapter should also include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the environmental and related public health impacts of the project, and should include a separate section outlining mitigation commitments relative to EJ populations. The filing should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments should be provided in a tabular format organized by subject matter (traffic, water/wastewater, GHG, EJ, etc.) and identify the Agency Action or Permit associated with each category of impact. Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project. The filing should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing to ensure that adequate measures are in place to mitigate impacts associated with each development phase. C.113 C.114 C.115

The DEIR should include a commitment to provide a GHG self-certification to the MEPA Office upon construction of the building signed by an appropriate professional indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source GHG emission and transportation-related measures, have been incorporated into the project. If equivalent measures are adopted, the project is encouraged to commit to achieving the same level of GHG emissions (i.e., "carbon footprint") identified in the Preferred Alternative expressed as a volumetric measure (tpy) in addition to a percentage GHG reduction from Base Case. The commitment to provide this self-certification in the manner outlined above should be incorporated into the draft Section 61 Findings included in the DEIR. C.116 C.117

Responses to Comments

The DEIR should contain a copy of this Certificate and a copy of each comment letter received. The DEIR should contain a direct response to the scope items in this Certificate. To ensure that the issues raised by commenters are addressed, the DEIR should also include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the scope of the DEIR beyond what has been expressly identified in this certificate. C.118 C.119

Circulation

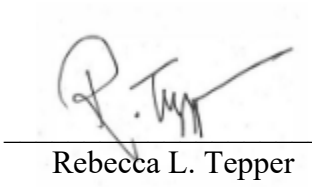
In accordance with 301 CMR 11.16, the Proponent should circulate the DEIR to each Person or Agency who commented on the EENF, each Agency from which the project will seek Permits, Land Transfers or Financial Assistance, and to any other Agency or Person identified in the Scope. Pursuant to 301 CMR 11.16(5), the Proponent may circulate copies of the DEIR to C.120

commenters in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient access to a computer to be distributed upon request on a first come, first served basis. Copies of the DEIR should be made available for review in the Coolidge Corner and Brookline Village branches of the Brookline Public Library, and the Central Library (main branch), Parker Hill, and Roxbury Branches of the Boston Public Library

C.121

C.122

June 13, 2025
Date



Rebecca L. Tepper

Comments received:

05/15/2025	Boston Water and Sewer Commission (BWSC)
05/30/2025	Alison Pultinas
06/02/2025	Massachusetts Historical Commission (MHC)
06/03/2025	Department of Conservation and Recreation (DCR)
06/03/2025	Massachusetts Department of Environmental Protection (MassDEP)/Northeast Regional Office (NERO)
06/03/2025	Emerald Necklace Conservancy
06/03/2025	Massachusetts Bay Transportation Authority (MBTA)
06/09/2025	Massachusetts Water Resources Authority (MWRA)
06/13/2025	Department of Energy Resources (DOER)

RLT/AJS/ajs

dcr
Massachusetts

LETTER 1

June 3, 2025

Secretary Rebecca L. Tepper
Executive Office of Energy and Environmental Affairs
MEPA Office, Attn: Alexander Strysky
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Re: EEA 16948 Longwood Place (Boston) ENF

Dear Secretary Tepper:

The Department of Conservation and Recreation ("DCR" of "Department") is pleased to submit the following comments in response to the Environmental Notification Form ("ENF") submitted by VHB on behalf of SCD Pilgrim Road Master Planner LLC (the "Proponent") for Longwood Place (the "Project").

As described in the ENF, the 5.89-acre Project site is bounded by the Boston University Fenway Campus to the north and west, Brookline Avenue and Emmanuel College to the east, and Winsor School to the south. The Project proposes to construct five buildings with new residential, laboratory/office, medical/clinic, and retail components totaling 1.65 million square feet gross floor area. The Project will be constructed in phases spanning approximately 5 to 10 years.

DCR Parkways in the Fenway neighborhood were the first to be constructed as part of the historic Emerald Necklace Park system. Although there is no direct access from the Project to DCR Parkways, it will rely heavily on the Riverway, the Fenway and Park Drive. The ENF indicates that estimated average daily traffic will increase by 1,622 trips for the Riverway and increase by 1,143 trips for the Fenway. This is an estimated 5% to 6% increase over current traffic conditions and is too much for DCR roads and intersections to absorb in the absence of mitigation.

DCR notes that the Longwood Medical Area team is proposing improvements for MBTA Bus Facilities and bus circulation that will have traffic impacts in the Project area. The Sears Building project will also have traffic impacts in the Project area that must be considered in the EIR traffic impact assessments. 1.1

DCR respectfully requests that an assessment of additional trips generated by the Project for all intersections in the vicinity of the Project be conducted by the Proponent. Coordination with the City of Boston will be required for DCR's Park Drive intersection with Brookline Avenue / Boylston Street, because the City monitors and controls the intersection. 1.2

DCR requests the opportunity to coordinate with the Proponent regarding the scope of the EIR Traffic Impact Study, and traffic mitigation strategies. 1.3

Thank you for the opportunity to comment on the ENF. Questions related to traffic impact assessments can be directed to Val Soroka, DCR's Traffic Section Head, at Val.Soroka@mass.gov, and/or Manny Pires, DCR's Parkway Section Head at manuel.pires@mass.gov.

Sincerely,



Brian Arrigo
Commissioner

cc: Priscilla Geigis, Patrice Kish, Robert Fitzgerald, Manny D. Pires, Val Soroka

LETTER 2

Maura Healey, Governor
Kimberley Driscoll, Lieutenant Governor
Monica Tibbits-Nutt, Secretary & CEO
Phillip Eng, General Manager & CEO

massDOT
Massachusetts Department of Transportation

June 3, 2025

Executive Office of Energy and Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Attention: Alex Strysky

RE: Longwood Place EEA #16948
305 Brookline Ave, Boston, MA 02215

Dear Alex:

The MBTA offers the following response relative to the Longwood Place Phase 1 Project Notification Form (PNF) dated March 18, 2025. The PNF envisions the redevelopment of an area of Simmons University into over a million square feet of residential, lab/office, medical, and retail uses.

The MBTA has reviewed the PNF and has concerns related to bus operations. This letter includes comments made by the MBTA's Bus Transformation, Real Estate, and Transit-Oriented Development teams. The MBTA appreciates the opportunity to provide comments on this PNF and looks forward to collaborating with the project team and City to mitigate construction impacts and increased ridership in supporting the successful implementation of this transit-oriented development.

MBTA Comments

Project Transportation Impacts

The project filing indicates that the project includes parking for 520 vehicles serving the ~1M SF of mixed-use development, that will also be dedicated to the project's second phase. The filing estimates the project will generate 6,935 transit trips daily, and a total of 10,468 transit trips for the full PDA buildout. These transit trips would primarily be done using bus routes along Brookline Ave. The proponent's focus on improving bus, pedestrian, and biking infrastructure is supportive of a multimodal focus and will result in increased transit usage in the Longwood Medical Area. While increased ridership and sustainable multimodal development is encouraged by the MBTA, we have several concerns outlined below.

Bus Service Impacts

The project is adjacent to Brookline Ave, where MBTA bus routes 8, 19, 47, 60, 65, and CT2 operate today. The MBTA is studying LMA circulation to finalize routing for the Bus Network Redesign (BNR) service plan, currently anticipating Brookline Ave will be a transit priority corridor with up to four Frequent Bus Routes (FBRs) operating. This includes routes 22, 28, and 47. The new FBR 12 will be determined by the study in 2026.

The project envisions a floating bus shelter along Brookline Ave (stop 1778, Brookline Ave @ Short Street), as well as adding an additional signalized intersection (Mid-Block St and Brookline Ave). The project also plans on improvements to the intersections of Brookline Ave with Pilgrim Rd and the BIDMC driveway. The MBTA will need to coordinate with the proponent and City to plan an alternative location for stop 1778 during the construction period so as not to disrupt bus service in the area. To ensure the planned bus stop facility adheres to MBTA design standards, MBTA will require design review and sign-off prior to construction. 2.1

MBTA Operations and Safety

It is recommended that the project adhere to all MBTA Engineering Design Standards and Plans, specifically: 2.2

- MBTA Design Standards and Guidelines

Proposed Transportation Mitigation

The MBTA looks forward to discussions with the Planning Department, the city, and the project team. Particularly, on how the project can contribute to supporting costs of the necessary infrastructure improvements that will benefit prospective residents, visitors, and future employees of the project and the Longwood Medical Area. Specifically, MBTA requests the support of the proponent to further the MBTA's Bus Priority Vision, which identifies Brookline Avenue as a priority corridor due to historic transit delay and planned service increases under the Bus Network Redesign service plan. Due to this planned service increase, MBTA requests the proponent's support to ensure high-quality bus priority infrastructure is constructed on Brookline Avenue to ensure current and future service increases are frequent and reliable as planned. 2.3

Items that the project could assist in supporting are outlined on the table below.

Table 1. Longwood Medical Area Improvements

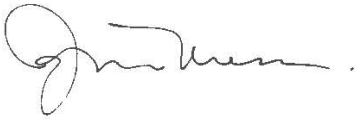
Element	Requested Contribution
Bus Stop Improvements	Construct/Fund the 1777 (Brookline Ave @ Pilgrim St) and 1778 (Brookline Ave @ Short St) stops as high-quality stop facilities, including enhanced canopy, seating, real-time arrival information, and other rider amenities to support public transit ridership. Please be aware of MBTA's updated Bus Stop Design Guidelines (published 2025) to ensure accessibility.
Brookline Ave Bus Priority	Fund bus signal priority at the intersection Mid-Block St and Brookline Ave and intersection of the BIDMC driveway and Brookline Ave; fund/design other agreed upon high-quality priority facilities, including bus lanes, on Brookline Avenue in coordination with design recommendations from the Fenway Transportation Action Plan.
Pedestrian Accessibility Improvement	Fund the design and reconstruction of the Riverway and Short St intersection crosswalks to create an accessible route from Longwood Station to the Medical Area.

Moving Forward

Prior to any Boston Planning Department Board action on this project in the future, the MBTA kindly requests that the project team schedule a follow up meeting to discuss the items outlined here in more detail if any clarity is needed. 2.4

Continued partnership with the City of Boston is a key component in identifying opportunities to support a safe transit system that can serve the LMA area as it continues to develop. If you have any questions regarding these issues, please feel free to contact Joe Blankenship, Director of TOD Planning at (857) 378-6648 or by email at jblankenship@mbta.com.

Sincerely,



Jennifer Mecca, Deputy Chief, Transit-Oriented Development

cc: J. Blankenship, Director of Transit-Oriented Development Planning
M. Folts, Senior Manager of Transit-Oriented Development Planning
R. Mann, Senior Director of Real Estate
R. Duverge, Deputy Director of Real Estate Permitting & Planning
J. Antos, Senior Director of Bus Transformation
M. Moreno, Project Manager of Bus Transformation
C. Hines, Senior Deputy Director of Development Review, Boston Planning Department
N. Monani, Senior Deputy Director of Development Review, Boston Planning Department
J. Fitzgerald, Deputy Director of Transportation Planning, Boston Planning Department

LETTER 3

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
Northeast Regional Office • 150 Presidential Way Woburn, MA 01801 • 978-694-3200

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

June 3, 2025

Rebecca L. Tepper, Secretary
Executive Office of
Energy & Environmental Affairs
100 Cambridge Street
Boston MA, 02114

RE: Boston
Longwood Place
EEA # 16948

Attn: MEPA Unit

Dear Secretary Tepper:

The Massachusetts Department of Environmental Protection Northeast Regional Office (MassDEP-NERO) has reviewed the Environmental Notification Form (ENF) for the proposed Longwood Place project in Boston. MassDEP provides the following comments.

Solid Waste

MassDEP's current *Massachusetts 2030 Solid Waste Master Plan–Working Together Toward Zero Waste*, issued in October 2021 identifies a key goal to reduce solid waste disposal by 30% by 2030 and 90% by 2050. MassDEP encourages the Proponent to review the plan to identify project management and operational practices that will assist the Commonwealth in meeting its material management goals. More information on the *Solid Waste Master Plan* and yearly update reports can be found at: https://www.mass.gov/guides/solid-waste-master-plan. 3.1

Waste Ban

Section 310 CMR 19.017 *Waste Bans* of the Massachusetts Solid Waste regulations prohibit the disposal of certain construction-related wastes in Massachusetts, including, but not limited to, metal, wood, asphalt pavement, brick, concrete, clean gypsum wallboard. Further guidance can be found at: https://www.mass.gov/guides/massdep-waste-disposal-bans.

This information is available in alternate format. Please contact Melixza Esenyie at 617-626-1282.
TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

MassDEP regulations also ban disposal of food and other organic wastes from businesses and institutions that dispose of more than ½ ton of these materials per week. The ban is one of MassDEP's initiatives to help achieve our goal of further reducing food waste by 500,000 tons annually by 2030. Diverted food waste may be composted, converted to energy (through anaerobic digestion), recycled, or reused. Additional information, including a full list of banned materials, can be found at: https://www.mass.gov/guides/massdep-waste-disposal-bans.

C&D Recycling

Many construction and demolition materials are currently banned from disposal or transfer for disposal in Massachusetts (https://www.mass.gov/guides/massdep-waste-disposal-bans). Therefore, MassDEP encourages the Proponent to make a significant commitment to construction and demolition (C&D) waste recycling activities as a sustainable measure for the project and to assist in complying with waste ban requirements. MassDEP considers an asphalt, brick, and concrete (ABC) rubble processing or recycling facility (pursuant to the provisions of Section (2)(b) under 310 CMR 16.03), the Site Assignment regulations for solid waste management facilities), to be exempt from the site assignment requirements, if the ABC rubble at such facilities is separated from other solid waste materials at the point of generation. In accordance with 310 CMR 16.03(2)(b), ABC can be crushed on-site with a 30-day notification to MassDEP. However, the asphalt is limited to weathered bituminous concrete (no roofing asphalt), and the brick and concrete must be uncoated or not impregnated with materials such as roofing epoxy. If the brick and concrete are not clean, the material is defined as C&D waste and requires either a Beneficial Use Determination (BUD) or a Site Assignment and permit before it can be crushed. 3.2

Pursuant to the requirements of 310 CMR 7.02 of the Air Pollution Control regulations, if the ABC crushing activities are projected to result in the emission of one ton or more of particulate matter or other pollutant to the ambient air per year, and/or if the crushing equipment employs a diesel oil fired engine with an energy input capacity of three million or more British thermal units per hour for either mechanical or electrical power which will remain on-site for twelve or more months, then a plan application must be submitted to MassDEP for written approval prior to installation and operation of the crushing equipment.

Asbestos

Pursuant to 310 CMR 7.15 the removal of asbestos from the buildings must adhere to the special safeguards defined in the Air Pollution Control regulations. An asbestos survey to identify all asbestos containing materials (ACM) shall be conducted by a Massachusetts Department of Labor Standards certified Asbestos Inspector. All identified ACM shall be abated prior to demolition activities. The Proponent is required to submit to MassDEP an Asbestos Removal Notification (Form AQ04 (ANF-001)) at least 10 working days prior to initiating work for any project involving asbestos abatement, removal, or disposal. If any ACM will need to be abated through non-traditional abatement methods, the Proponent must apply for and obtain approval from MassDEP, through Application BWP AQ36 - Application for Non-Traditional Asbestos Abatement Work Practice Approval.

Pursuant to 310 CMR 7.09, for any Construction and Demolition, except in a residential building with fewer than 20 units, the Proponent is required to submit to MassDEP a Construction/Demolition Notification (Form BWP AQ06) at least 10 working days prior to initiating work. MassDEP Asbestos, Construction and Demolition Notifications can be found at: https://www.mass.gov/guides/massdep-asbestos-construction-demolition-notifications.

Pursuant to 310 CMR 19.061, disposal of ACWM within the Commonwealth must be at a facility specifically approved by MassDEP. The Proponent is advised that asbestos containing waste materials (ACWM) are a special waste as defined in the Solid Waste Management regulations. There are specific ACWM disposal exceptions for intact vinyl asbestos tile (VAT) and asphaltic-asbestos felt and shingles. The disposal of the ACWM outside the jurisdictional boundaries of the Commonwealth must comply with all the applicable laws and regulations of the state receiving the material. Pursuant to 310 CMR 16.05, ACM including VAT, and/or asphaltic-asbestos felts or shingles may not be disposed of at a facility operating as a recycling facility.

Recycling Infrastructure

MassDEP supports voluntary initiatives to institutionalize source reduction, materials reuse, and recycling into operations. Adapting the design, infrastructure, and contractual requirements necessary to incorporate reduction, recycling and recycled products into existing large-scale developments has presented significant challenges to recycling proponents. Integrating those components into developments during the planning and design stage enables the project's management and occupants to establish and maintain effective waste diversion programs. For more guidance on how to reuse building materials, see https://www.mass.gov/lists/managing-construction-demolition-cd-wastes. Free assistance is available from RecyclingWorks in Massachusetts, a recycling assistance program funded by MassDEP – see www.recyclingworksma.com for more information.

MCP/21E

In 1987, MassDEP received notification of petroleum-contaminated soils at the Simmons College campus located at 321 Brookline Avenue in Boston. The source of the release was believed to be a nearby 20,000-gallon #6 fuel oil underground storage tank (UST). The UST was reportedly removed from the site in 1988 and replaced with a 10,000-gallon UST. Subsequently, in 1991, MassDEP received notification of a release of #6 fuel oil from a leaking oil line connected to a 10,000-gallon #6 oil storage tank. The tank was located within a concrete vault in the basement boiler room of Simmons College's Bartol Hall building and was reportedly removed in 1997. MassDEP assigned Release Tracking Number (RTN) 3-0738 to these release conditions. On September 25, 1998, MassDEP received a Permanent Solution Statement (formerly referred to as a Response Action Outcome Statement) indicating a condition of No Significant Risk was achieved at the site and no restrictions or conditions were placed on the property.

The project proponent is advised that excavating, removing and/or disposing of contaminated soil, pumping of contaminated groundwater, or working in contaminated media, if present, must be done under the provisions of M.G.L. c.21E (and, potentially, c.21C), the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000), and all other applicable federal, state, 3.3

and local laws, regulations, and bylaws. If permits and approvals under these provisions are not obtained beforehand, considerable delays in the project can occur. The project proponent cannot manage contaminated media without prior submittal of appropriate plans to MassDEP, which describe the proposed contaminated soil and groundwater handling and disposal approach, and health and safety precautions. If contamination at the site is known or suspected, the appropriate tests should be conducted well in advance of the start of construction and professional environmental consulting services should be readily available to provide technical guidance to facilitate any necessary permits. If dewatering activities are to occur at a site with contaminated groundwater, or in proximity to contaminated groundwater where dewatering can draw in the contamination, a plan must be in place to properly manage the groundwater and ensure site conditions are not exacerbated by these activities. A Licensed Site Professional (LSP) must be employed or engaged to manage, supervise or actually perform the necessary response actions at disposal sites regulated under M.G.L. c.21E and the MCP. 3.4 3.5

The MassDEP appreciates the opportunity to comment on this proposed project. Please contact John.MacAuley@mass.gov at (978) 815-0423 for further information on solid waste, recycling, or demolition issues. Please contact Joanne.Fagan@mass.gov at (857) 303-2098 for more information on the MCP/21E issues. If you have any general questions regarding these comments, please contact me at John.D.Viola@mass.gov or at (857) 276-3161.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

John D. Viola
Deputy Regional Director

cc: Brona Simon, Massachusetts Historical Commission,
Eric Worrall, John MacAuley, Joanne Fagan, MassDEP-NERO

LETTER 4

The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

June 2, 2025

Secretary Rebecca Tepper
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, 10th Floor
Boston, MA 02114

ATTN: Nicholas Moreno, MEPA Unit

RE: Longwood Place, 305 Brookline Avenue, Boston (Fenway), MA; MHC# RC.76716
EEA #16948

Dear Secretary Tepper:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the Environmental Notification Form (ENF), submitted by VHB and received at this office on May 2, 2025, for the project referenced above and have the following comments.

SCD Pilgrim Road Master Planner LLC proposes the complete demolition and redevelopment of the parcel currently comprising the residential campus of Simmons University that is bounded by Brookline Avenue, Pilgrim Road, and the Winsor School campus to accommodate the construction of a mixed-use development. The information provided indicates that the project will require a state permit from the Massachusetts Water Resources Authority (MWRA).

Review of the MHC's *Inventory of Historic and Archaeological Assets of the Commonwealth* indicates that the project site consists entirely of the Simmons College Residence Campus (BOS.AEM), which is included in the Inventory. This campus is comprised of the following 12 buildings:

South Hall (BOS.7358)
Refectory (BOS.7581)
North Hall (BOS.7580)
Evans Hall (BOS.17885)
Arnold Hall (BOS.17890)
Bartol Dining Hall (BOS.17886)
Dix Hall (BOS.17888)
Morse Hall (BOS.17882)
Simmons Hall (BOS.17883)
Mesick Hall (17884)
Smith Hall (BOS.17889)
Health Center (BOS.17887)

It is the opinion of MHC staff that the campus meets the criteria of eligibility for listing in the National Register of Historic Places under Criteria A and C at the local level of significance. A remarkably well-preserved and intact collection of dormitories and associated residential buildings with a unified aesthetic, the campus has historically been an integral part of Simmons University since its initial construction in 1905. In particular, the three buildings designed by architect Guy Lowell – North and South Halls and the Rectory – are noteworthy examples of Georgian Revival architecture. The project site is also located within close proximity of the Emerald Necklace park system (BOS.JE), which is listed in the State and National Registers of Historic Places.

220 Morrissey Boulevard, Boston, Massachusetts 02125
(617) 727-8470 • Fax: (617) 727-5128
www.state.ma.us/sec/mhc

After review of our files and the information submitted, the MHC has determined that the proposed project will have an "adverse effect" (950 CMR 71.05(a) and 950 CMR 71.07(2)(b)(3)) on the Simmons College Residence Campus through its complete destruction and redevelopment. Pursuant to 950 CMR 71.07(3), the MHC looks forward to consulting with SCD Pilgrim Road Master Planner LLC and the MWRA to seek ways to avoid, minimize, or mitigate the adverse effect of the proposed demolition. The MHC hereby initiates its consultation process. 4.1

Please submit project materials to the Boston Landmarks Commission, Boston Preservation Alliance, and Emerald Necklace Conservancy for review and comment. Copies of any comments received should be forwarded to the MHC. 4.2

These comments are offered to assist in compliance with M.G.L. Chapter 9, Sections 26-27C (950 CMR 71.00) and MEPA (301 CMR 11). Please do not hesitate to contact Joshua Dorin of my staff if you have any questions.

Sincerely,

Brona Simon

Brona Simon
Executive Director
State Historic Preservation Officer
Massachusetts Historical Commission

xc: C. Russell DeMartino, Skanska USA Commercial Development Inc.
Lauren DeVoe, VHB
Katherine Ronan, MWRA
Karen Mauney-Brodek, Emerald Necklace Conservancy
Kimberlee Schumacher, Boston Preservation Alliance
Boston Landmarks Commission

LETTER 5

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF
ENERGY AND ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENERGY RESOURCES
100 CAMBRIDGE ST., SUITE 1020
BOSTON, MA 02114
Telephone: 617-626-7300
Facsimile: 617-727-0030

Maura Healey
Governor

Kim Driscoll
Lt. Governor

Rebecca Tepper
Secretary

Elizabeth Mahony
Commissioner

13 June 2025

Rebecca Tepper, Secretary
Executive Office of Energy & Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02114
Attn: MEPA Unit

RE: Longwood Place, Boston, MA, EEA #16948

cc: Jo Ann Bodemer, Director of Energy Efficiency, Department of Energy Resources
Elizabeth Mahony, Commissioner, Department of Energy Resources

Dear Secretary Tepper:

We've reviewed the Environmental Notification Form (ENF) for the proposed project. The project consists of 5 new buildings having the following uses:

- Laboratory/R&D (space that are typically highly ventilated)
- Office
- Medical
- Retail
- Restaurant
- Accessory use/community use
- Multifamily residential

Three of the buildings will have only nonresidential uses (lab, office, retail, etc). These buildings will have the following sizes: 503,000-sf; 335,000-sf, and 460,000-sf. Two of the buildings will have residential multifamily uses and will also include retail, restaurant, and other non-residential uses in the lower levels. These building will have the following sizes: 205,000-sf (227 units); 145,000-sf (number of units not indicated).

Recommendations

Emissions mitigation recommendations are as follows:

Residential multifamily uses

- Passivehouse
- Electric air source heat pump space heating
- Electric air source heat pump service water heating OR solar thermal plus electric resistance water heating
- Electric cooking and drying

High ventilation uses

- Maximum 50% of above-grade vertical wall is glazed wall system
- Heat recovery chillers to capture concurrent heating and cooling
- Electric air source heat pump space heating sized to 25% of peak space heating used for primary heating
    - Note the building would follow the mixed fuel path and require rooftop solar PV and electric readiness per the energy code.
- Electric air source heat pump service water heating
- Option 8 of C406 measures (reduced air infiltration)

All other normally ventilated/nonresidential uses (including restaurants)

- Maximum 50% of above-grade vertical wall is glazed wall system
- Electric air source heat pump space heating
- Electric air source heat pump service water heating OR solar thermal plus electric resistance water heating
- Electric cooking and drying
- Option 8 of C406 measures (reduced air infiltration)

If the project commits to all the above mitigation strategies, DOER review will be complete and no further analyses are required.

Incentives

The project should pursue MassSave incentives which include significant rebates for Passivehouse, energy efficiency, and efficient electrification. Note that with very limited exceptions, fossil fuel connections to new construction buildings will disqualify the project from MassSave incentives. For example, if the multifamily building has a first floor restaurant use,

5.1

gas cooking in the restaurant will disqualify the Passivehouse multifamily units from the MassSave Passivehouse incentive.

Scenarios, Modeling, and Evaluations

If the Passivehouse, efficient electrification, etc outlined above are not incorporated, then additional evaluations are needed in the next submission to ensure the project is avoiding emissions. The evaluations should be based on energy modeled scenarios, as follows:

Residential uses:

Note that Passivehouse is mandatory by code and the submission indicates that the residential will be all electric, including electric air source heat pumps for space heating. Accordingly, with that as the starting point, we recommend the following to evaluate service water heating: 5.2

- Passivehouse, air source heat pump space heating, electric resistance service water heating.
  - As above, but with solar thermal water heating, sized to 25% of rooftop by area with electric resistance supplemental
  - As above, but with in-building centrally-located air source heat pump water heating

High ventilation uses:

Note that 25% hybrid heat pump is mandatory by code. Accordingly, with that as the starting point, we recommend the following to evaluate glazing, service water heating, heat recovery chillers, and low air infiltration:

- 25% hybrid space heating 5.3
  - As above, with heat recovery chillers
  - As above, with heat recovery chillers plus low air infiltration
  - As above, with heat recovery chillers plus low air infiltration plus no more than 50% glazed wall system
  - As above, with heat recovery chillers plus low air infiltration plus no more than 50% glazed wall system plus air source heat pump service water heating

All other normally ventilated/nonresidential uses (including restaurants)

We recommend the following scenarios:

- Air source heat pump space heating 5.4
  - As above, with low air infiltration
  - As above, with low air infiltration plus no more than 50% glazed wall system
  - As above, with low air infiltration plus no more than 50% glazed wall system plus electric cooking and drying

- One version of above with solar thermal water heating, sized to 25% of rooftop by area with electric resistance supplemental
- One version of above with in-building centrally-located air source heat pump water heating

5.4

Using scenario/subscenario inputs and results, prepare the following table (one table each for each representative residential, high ventilation, and normally ventilated non residential case)

Item	Scenario 1	Scenario 2	etc
Roof R value			
Wall U value			
% wall			
Window U value			
% window			
Area-weighted vertical above grade U value			
Air infiltration (cfm at 75 PA)			
Ventilation energy recovery (% effectiveness)			
Solar heat gain coefficient (SHGC)			
Heating TEDI (kBtu/sf-yr)			
Cooling TEDI (kBtu/sf-yr)			
Peak annual space heating demand (MBtu/hr)			
Peak annual space cooling demand (MBtu/hr)			
Peak annual electric load (MW)			
Peak annual electric load attributable to service water heating (MW)			
Peak annual gas load (MBH)			
Natural gas consumption (MBtu/yr)			
Electric power consumption (MBtu/yr)			
Fossil fuel emissions (tons/yr)			
Electric emissions @ 2025 (tons/yr)			
Total emissions @ 2025 (tons/yr)			
Electric emissions @ 2050 (tons/yr)			
Total emissions @ 2050 (tons/yr)			
Space heating emissions @ 2025 (tons/yr)			
Space heating emissions @ 2050 (tons/yr)			
Water heating emissions @ 2025 (tons/yr)			
Water heating emissions @ 2050 (tons/yr)			

For fossil fuel emission rate, use 116 lbs/MMBtu for gas. For emissions rate of electricity in 2025 and 2050, use approximate grid emission rates of 750 and 50 lbs/MWhr, respectively.

For each building use type, develop a "gap analysis" table that summarize the key design changes to go from planned scenario to scenarios being evaluated. Gap analysis should also include reductions in HVAC equipment size enabled by increasingly improved building thermal performance, as well as reduction in peak electric usage due to improved thermal performance. 5.5

Provide a cost-estimate analysis tied to each row of the gap analysis, showing specific additional costs/reductions.

Develop a cash flow model for each scenario, as follows: 5.6

- Estimate net cost increase associated with each improved scenario;
  - Amortize this cost into annual cost increase using 30-year mortgage term, after netting against rebates and other tax incentives
- Estimate cost to operate per year;
- Net operating cost increase (or decrease) (operating+amortized).

Include the following in the next submission:

- Communications to the gas and electric utilities sharing the above scenario findings (kW demand, etc) 5.7
- Written communications from the gas and electric utilities that present the following:
  - Utility estimate/analysis of the size of the electric and gas utility needs, for each scenario
  - All costs to expand the gas system to service the project under all scenarios (including: cost to project, cost to ratepayers, costs covered by grants, costs financed, costs/financing from any other source(s)) 5.8
  - All costs to expand the electric system to service the project (including: cost to project, cost to ratepayers, costs covered by grants, costs financed, costs/financing from any other source(s))
  - If gas is used, provide the following
    - Plan and costs (from all sources: ratepayers, residents, etc) from the gas utility for eventual decommissioning/abandonment of the gas service by 2050.

- Plan and costs (from all sources: ratepayers, residents, etc) from the electric utility for eventual necessary upgrades to electric service by 2050 to support a transition from gas to electric. 5.8

Sincerely,
Massachusetts Department of Energy Resources



Becca Edson
Decarbonization Architect



Paul F. Ormond, P.E.
Energy Efficiency Engineer

MASSACHUSETTS WATER RESOURCES AUTHORITY
Deer Island
33 Tafts Avenue
Boston, MA 02128

LETTER 6

Frederick A. Laskey
Executive Director

Telephone: (617) 242-6000
Fax: (617) 788-4899
TTY: (617) 788-4971

June 3, 2025

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge St, Suite 900
MEPA Office, Alexander Strysky
Boston, MA 02114

Subject: EOEEA #16948 – Environmental Notification Form
Longwood Place Project, Boston, MA

Dear Secretary Tepper,

The Massachusetts Water Resources Authority (MWRA) appreciates the opportunity to comment on the Environmental Notification Form (ENF) submitted by SCD Pilgrim Road Master Planner LLC c/o Skanska USA Commercial Development, Inc. (the "Proponent") for Longwood Place (the "Project") in Boston, Massachusetts. The Project, located at 305 Brookline Avenue, consists of the phased redevelopment of a 5.89-acre site with a mixed-use development consisting of approximately 1.65 million square feet (MSF) of gross floor area across five buildings of new residential, laboratory/office, medical/clinic uses, community space, retail, below-grade parking and loading, and approximately 2.8 acres of landscape and public realm improvements.

MWRA's comments on this ENF relate to wastewater issues and the need for Infiltration/Inflow (I/I) Removal and Toxic Reduction and Control (TRAC) discharge permitting.

Wastewater

The ENF reports that the Project will increase wastewater flow by 104,615 gallons per day (gpd), from an existing wastewater flow of 111,090 gpd to 215,705 gpd. According to the Boston Water and Sewer Commission's (BWSC) storm drain and sewer maps, the Project site is served by BWSC separate storm drains and sanitary sewers. There are existing sanitary sewer mains in Brookline Avenue which convey flows to MWRA's Ward Street Headworks in Roxbury, which in turn direct flows into MWRA's Boston Main Drainage Tunnel for transport to the Deer Island Treatment Plant. Due to infiltration (groundwater) and inflow (rainwater) that can enter tributary community sewers, along with stormwater that enters tributary BWSC

combined sewers, combined flows in large storms can exceed the capacity of the conveyance system and contribute to combined sewer overflows ("CSO") to the Charles River Basin.

To ensure that the Project's wastewater flow does not increase system surcharging or overflows in large storms, the Proponent should work with BWSC to effect a 4:1 offset of the Project's new wastewater flow by removing stormwater and/or I/I from a hydraulically related sewer system(s). That is, four gallons of extraneous flow should be removed for every gallon of new wastewater flow, in compliance with Massachusetts Department of Environmental Protection regulation and BWSC I/I policy. Increasing wastewater flow to the BWSC and MWRA sewer systems without targeted offset can compromise the sewer system benefits and Charles River water quality benefits of MWRA's $912 million region-wide CSO control plan. 6.1

Keep as one comment, use '....' in between

Additionally, MWRA requests that the Proponent identify specific projects that would offset discharge and make every effort to implement the projects before discharge begins.

TRAC Discharge Permitting

MWRA prohibits the discharge of groundwater and stormwater into the sanitary sewer system, pursuant to 360 C.M.R. 10.023(1) except in a combined sewer area when permitted by the Authority and BWSC. The Project Site has access to storm drains and is not located in a combined sewer area. Therefore, the discharge of groundwater or stormwater to the sanitary sewer system associated with this Project is prohibited. 6.2

If groundwater is anticipated during the construction phase of the Longwood Place Project, an MWRA Temporary Construction Dewatering Permit will be required, pursuant to 360 C.M.R. 10.091-10.094. To obtain this permit, both the Proponent and the Contractor should contact Michael Moscho, MWRA, Industrial Coordinator, TRAC, at Michael.Moscho@mwra.com to obtain an MWRA Temporary Construction Dewatering Permit Application. The Proponent and the Contractor shall not discharge groundwater from the construction site into the sanitary sewer system unless they have a permit from the MWRA and BWSC.

The Proponent must apply for an MWRA Sewer Use Discharge Permit if proposing to discharge industrial process, laboratory wastewater, and/or photoprocessing wastewater to the sanitary sewer system. To obtain an MWRA Sewer Use Discharge Permit Application, please contact Michael Moscho, MWRA, Industrial Coordinator, at Michael.Moscho@mwra.com. The Proponent is required to have an MWRA Sewer Use Discharge Permit prior to discharging process and/or laboratory wastewater into the MWRA sanitary sewer system. 6.3

Any gas/oil separators in parking garages associated with the Project must comply with 360 C.M.R. 10.016 and State Plumbing Code. The installation of the proposed gas/oil separators may not be back filled until inspected and approved by the MWRA and the Local Plumbing Inspector. For assistance in obtaining an inspection, the Proponent should contact Ralph Francesconi, MWRA, Program Manager, Construction Permits, TrapNotifications@mwra.com. 6.4

On behalf of the MWRA, thank you for the opportunity to provide comments on this Project. Please do not hesitate to contact Hillary Monahan of my staff at (857) 324-0554 or Hillary.Monahan@mwra.com with any questions or concerns.

Sincerely,

Colleen C. Rizzi

Colleen Rizzi, P.E.
Director
Environmental and Regulatory Affairs

cc: John Viola, MassDEP
Adam Horst, BWSC

LETTER 7

Boston Water and Sewer Commission

980 Harrison Avenue
Boston, MA 02119-2540
617-989-7000

May 15, 2025

Secretary Rebecca Tepper
Executive Office of Energy and Environmental Affairs
Attn: MEPA Office, Mr. Alexander Strysky
100 Cambridge Street, Suite 900
Boston MA 02114

Re: Longwood Place
Environmental Notification Form

Dear Secretary, Tepper:

The Boston Water and Sewer Commission (Commission) has reviewed the Environmental Notification Form (ENF) for the proposed Longwood Place redevelopment project located at the intersection of Brookline Avenue and Pilgrim Road in the Fenway/Longwood Medical and Academic Area (LMA) neighborhood of Boston. This letter provides the Commission's comments on the ENF.

The proposed project site is located on seven parcels of land encompassing approximately 5.89 acres and is generally bounded by Brookline Avenue Pilgrim Road and Short Street. Longwood Place is in Planned Development Area (PDA) 134, that was approved by the BPDA in January of 2023 and the Boston Zoning Commission in March of 2023. The project site is currently occupied by thirteen buildings that include residential dormitories, dining and athletic facilities for Simmons University students. The site also has a courtyard and two small parking lots.

The project proponent, SCD Pilgrim Road Master Plan LLC, c/o Skanska Commercial Development Inc. (SCD/Skanska), proposes to demolish the existing buildings and construct five new buildings containing up to 1,650,000 gross square feet (gsf). The buildings will range in height from thirteen to seventeen floors above grade. Three commercial and two residential buildings are proposed. The commercial buildings will have laboratory/research and development, office and medical/clinic space on the upper floors. Ground floor retail and/or community space and lobby space is anticipated. The residential buildings will have residential units on the upper floors. It is expected that the ground floor will have retail and community space. Building C1 will have 227 residential units, the ENF did not provide the number of residential units in Building C2. Below grade parking for 520 cars and 2.8 acres of public open space is also a component of the proposed project.

Water service is provided by Commission owned and maintained water mains in Brookline Avenue and Pilgrim Road. Brookline Avenue has a 12-inch zinc coated ductile iron cement lined water main that was installed in 2018 and a 48-inch steel water transmission main that was installed in 1935 and cleaned, and cement lined in 1995. Pilgrim Road has a 12-inch pit cast iron water main that was installed in 1924 and cleaned and cement lined in 1987. These water mains are connected to the Commission's Southern Low-Pressure Zone.

Sewer and storm drain facilities owned by the Commission are a 15-inch sewer, 12-inch sewer and 24-inch storm drain in Brookline Avenue. The 24-inch sewer increases in size to 45-inches near 275 Brookline Avenue. Pilgrim Road has a 15-inch sewer and 18-inch storm drain.

The ENF states that total daily water demand for the proposed project is estimated to be 237,275 gallons per day (gpd) and total wastewater generation is estimated to be 215,705 gpd. Since Simmons University used the credit for the existing wastewater generation from this site. SCD/Skanska infiltration/inflow removal calculation will be based on the total wastewater generation stated on the site plan.

The Commission has the following comments regarding the ENF.

General

1. Prior to the initial phase of the site plan development, SCD/Skanska, should meet with the Commission's Design and Engineering Customer Services Departments to review water main, sewer and storm drainage system availability and potential upgrades that could impact the development. 7.1

2. Prior to demolition of any buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The proponent must complete a Cut and Cap General Services Application, available from the Commission. 7.2

3. All new or relocated water mains, sewers and storm drains must be designed and constructed at SCD/Skanska's, expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use regulations, and Requirements for Site Plans. The site plan should include the locations of new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections, water meter locations, as well as backflow prevention devices in the facilities that will require inspection. A General Service Application must also be submitted to the Commission with the site plan. 7.3 7.4 7.5

4. The Department of Environmental Protection (DEP), in cooperation with the Massachusetts Water Resources Authority (MWRA) and its member communities, has

implemented a coordinated approach to flow control in the MWRA regional wastewater system, particularly the removal of extraneous clean water (e.g., infiltration/inflow (I/I)) in the system. The Commission has a National Pollutant Discharge Elimination System (NPDES) Permit for its combined sewer overflows and is subject to regulation [314 CMR 12.00, section 12.04(2)(d)]. This section requires all new sewer connections with design flows exceeding 15,000 gpd to mitigate the impacts of the development by removing four gallons of I/I for each new gallon of wastewater flow. In this regard, any new connection or expansion of an existing connection that exceeds 15,000 gallons per day of wastewater shall assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I. Currently, a minimum ratio of 4:1 for I/I removal to new wastewater flow added is used. The Commission will require proponent to develop a consistent inflow reduction plan. The 4:1 requirement should be addressed at least 90 days prior to activation of water service and will be based on the estimated sewage generation provided on the project site plan. 7.6

5. The design of the project should comply with the City of Boston's Complete Streets Initiative, which requires incorporation of "green infrastructure" into street designs. Green infrastructure includes greenscapes, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The proponent must develop a maintenance plan for the proposed green infrastructure. For more information on the Complete Streets Initiative see the City's website at http://bostoncompletestreets.org/ 7.7

6. SCD/Skanska is advised that the Commission will not allow buildings to be constructed over any of its water lines. Also, any plans to build over Commission sewer facilities are subject to review and approval by the Commission. The project must be designed so that access, including vehicular access, to the Commission's water and sewer lines for the purpose of operation and maintenance is not inhibited. 7.8

7. The Commission will require SCD/Skanska to undertake all necessary precautions to prevent damage or disruption of the existing active water and sewer lines on, or adjacent to, the project site during construction. As a condition of the site plan approval, the Commission will require SCD/Skanska to inspect the existing sewer lines by CCTV after site construction is complete, to confirm that the lines were not damaged from construction activity. 7.9

8. It is SCD/Skanska's responsibility to evaluate the capacity of the water, sewer and storm drain systems serving the project site to determine if the systems are adequate to meet future project demands. With the site plan, SCD/Skanska must include a detailed capacity analysis for the water, sewer and storm drain systems serving the project site, as well as an analysis of the impacts the proposed project will have on the Commission's water, sewer and storm drainage systems. 7.10

9. The laboratory space may require that the project proponent or owner of the facility complete and submit a Sewer Use Discharge Permit Application with the MWRA. If SCD/Skanska needs additional information regarding the permit application contact the MWRA's Toxic Reduction and Control Unit at 617-305-5627. 7.11

Water

1. SCD/Skanska must provide separate estimates of peak and continuous maximum water demand for residential, commercial, industrial, irrigation of landscaped areas, and air-conditioning make-up water for the project with the site plan. Estimates should be based on full-site build-out of the proposed project. SCD/Skanska should also provide the methodology used to estimate water demand for the proposed project. 7.12

2. SCD/Skanska should explore opportunities for implementing water conservation measures in addition to those required by the State Plumbing Code, consider outdoor landscaping which requires minimal use of water to maintain. If SCD/Skanska plans to install in-ground sprinkler systems, the Commission recommends that timers, soil moisture indicators and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should be considered. 7.13

3. SCD/Skanska is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. SCD/Skanska should contact the Commission's Meter Department for information on and to obtain a Hydrant Permit. 7.14

4. SCD/Skanska will be required to install approved backflow prevention devices on the water services for fire protection, mechanical and any irrigation systems. SCD/Skanska is advised to consult with the Commission's Manager of Engineering Code Enforcement, with regards to backflow prevention. 7.15

5. The Commission is utilizing a Fixed Radio Meter Reading System to obtain water meter readings. For new water meters, the Commission will provide a Meter Transmitter Unit (MTU) and connect the device to the meter. For information regarding the installation of MTUs, SCD/Skanska should contact the Commission's Meter Department.

Sewage / Drainage

1. A Total Maximum Daily Load (TMDL) for Nutrients has been established for the Lower Charles River Watershed by the Massachusetts Department of Environmental Protection (MassDEP). To achieve the reductions in Phosphorus loading required by the TMDL, phosphorus concentrations in the lower Charles River from Boston must be reduced by 64%. To accomplish the necessary reductions in phosphorus, the Commission is requiring developers in the lower Charles River watershed to infiltrate stormwater

discharging from impervious areas in compliance with MassDEP. SCD/Skanska will be required to submit with the site plan a phosphorus reduction plan for the proposed development. The Commission supports SCD/Skanska commitment to fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer. 7.16

In conjunction with the Site Plan and the General Service Application the SCD/Skanska will be required to submit a Stormwater Pollution Prevention Plan. The plan must:

- Identify best management practices for controlling erosion and for preventing the discharge of sediment and contaminated groundwater or stormwater runoff to the Commission's drainage system when the construction is underway. 7.17

- Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control or treatment structures to be utilized during construction.

- Provide a stormwater management plan in compliance with the DEP standards mentioned above. The plan should include a description of the measures to control pollutants after construction is completed.

2. Developers of projects involving disturbances of land of one acre or more will be required to obtain an NPDES General Permit for Construction from the Environmental Protection Agency and the Massachusetts Department of Environmental Protection. SCD/Skanska is responsible for determining if such a permit is required and for obtaining the permit. If such a permit is required, it is required that a copy of the permit and any pollution prevention plan prepared pursuant to the permit be provided to the Commission's Engineering Services Department, prior to the commencement of construction. The pollution prevention plan submitted pursuant to a NPDES Permit may be submitted in place of the pollution prevention plan required by the Commission provided the Plan addresses the same components identified in item 1 above. 7.18

3. The Commission encourages SCD/Skanska to explore additional opportunities for protecting stormwater quality on site by minimizing sanding and the use of deicing chemicals, pesticides, and fertilizers. 7.19

4. The discharge of dewatering drainage to a sanitary sewer is prohibited by the Commission. SCD/Skanska is advised that the discharge of any dewatering drainage to the storm drainage system requires a Drainage Discharge Permit from the Commission. 7.20

If the dewatering drainage is contaminated with petroleum products SCD/Skanska will be required to obtain a Remediation General Permit from the Environmental Protection Agency (EPA) for the discharge.

5. Sanitary sewage must be kept separate from stormwater and separate sanitary sewer and storm drain service connections must be provided. The Commission requires that existing stormwater and sanitary sewer service connections, which are to be re-used by the proposed project, be dye tested to confirm they are connected to the appropriate system. 7.21

6. The Commission requests that SCD/Skanska install a permanent casting stating "Don't Dump: Drains to "Charles River" next to any catch basin created or modified as part of this project. SCD/Skanska E should contact the Commission's Operations Division for information regarding the purchase of the castings. 7.22

7. If a cafeteria or food service facility is built as part of this project, grease traps will be required in accordance with the Commission's Sewer Use Regulations. SCD/Skanska is advised to consult with the Commission's Operations Department with regards to grease traps. 7.23

8. The enclosed floors of a parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations. The Commission's Requirements for Site Plans, available by contacting the Engineering Services Department, include requirements for separators. 7.24

Thank you for the opportunity to comment on this project.

Yours truly,

John P. Sullivan, P.E.
Chief Engineer

JPS/RJA

cc:

C. Rizzi, MWRA via e-mail
D. Devlin, BWSC via e-mail
P. Salvatore, BWSC via e-mail
S. McFee, BWSC via e-mail

LETTER 8

Emerald Necklace
CONSERVANCY

Connecting People and Parks and Conserving the Emerald Necklace

CHARLESGATE PARK • BACK BAY FENS • RIVERWAY • OLMSTED PARK • JAMAICA POND • ARNOLD ARBORETUM • FRANKLIN PARK

Karen Mauney-Brodek, *President*

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PARK ADVISORS
Arboretum Park Conservancy
Arborway Coalition
Arnold Arboretum
Authentic Caribbean Foundation
Boston Committee of the Garden Club of America
Boston Society of Landscape Architects
Brookline GreenSpace Alliance
Charlesgate Alliance
Emerald Necklace Greenway Project
The Fenway Alliance
Fenway Civic Association
Fenway CDC
Fenway Garden Society
Franklin Park Coalition
Franklin Park Zoo / Zoo New England
Friends of the Boston Park Rangers Mounted Unit
Friends of Jamaica Pond
Friends of Leverett Pond
Friends of the Muddy River
Isabella Stewart Gardner Museum
Jamaica Hills Association
Jamaica Pond Association
Longwood Collective
Muddy Water Initiative
Museum of Fine Arts, Boston

June 03, 2025

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: Tori Kim, MEPA Director
100 Cambridge Street, Suite 900 Boston, MA 02114

Dear Secretary Tepper and Director Kim:

Thank you for the opportunity to submit public comments for the Longwood Place project Environmental Notification Form. As we understand, the project exceeds several state environmental impact thresholds, including the size of the garage and expected traffic impacts. The Emerald Necklace Conservancy and others have provided feedback in the letter attached (05.22.2025) that highlights areas of environmental concern and request for additional information and analysis in order to understand, recommend changes and mitigate impacts.

The purpose of the alternatives analysis is to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment, keeping in mind that the objective of the MEPA review process is to avoid or minimize damage to the environment to the greatest extent feasible. Examples of alternative projects include alternative site locations, alternative site uses, and alternative site configurations.

Please find the attached letter provided by the Emerald Necklace Conservancy Project Review Committee on 5/22/2025, which summarizes the areas that require additional analysis. These include but are not limited to transportation, shadow impacts to parkland, and others highlighted in the attached document.

Additional Information Needed/Scoping Requests:
In determining scoping instructions and review of this project and its impacts, we require more information on the following:

- Clarification on the planned provision and management of park funding to be provided as mitigation 8.1
- Review Existing Environmental Value Provided and Evaluate Impacts By this Proposal 8.2

Thank you for your consideration and response to our comments and requests for additional information on analysis and review of this project.

Sincerely,

Karen Mauney-Brodek
President

Additional references: https://www.emeraldnecklace.org/restoration/advocacy/
(other feedback on this project and suggestions for park and project review policy improvements)

Emerald Necklace
CONSERVANCY

Connecting People and Parks and Conserving the Emerald Necklace

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Boston Planning Department
Attn: Sarah Peck
One City Hall Square (9th floor)
Boston, MA 02201-1007

May 22, 2025

Re: Comments on the Longwood Place Phase I PNF

Dear Ms. Peck,

The Emerald Necklace Conservancy's Project Review Committee wishes to communicate continuing concern about the impacts that Phase I of the Longwood Place proposal will have on the Riverway and Back Bay Fens parks of the Emerald Necklace and requires additional information.

<u>Additional Information Needed/Scoping Requests</u>

In determining scoping instructions and review of this project and it's impacts the Planning Department should require more information on the following areas:

- Analysis on the anticipated New Shadow on the Emerald Necklace Parks
- Provide views of the project as seen from the Emerald Necklace
- Provide information on the potential wind impacts on the Emerald Necklace
- Clarification on the planned provision and management of park funding to be provided as mitigation
- Review Existing Environmental Value Provided and Evaluate Impacts By this Proposal

<u>Additional Shadow Analysis Required</u>

During the review process for the PDA, the project proponent provided diagrams tracking the project's shadows at 15-minute intervals throughout the day at the equinoxes. By contrast, the diagrams in the PNF only show shadows at three-hour intervals. We ask that the scoping determination require:

1. Shadow information at 15-minute intervals on the equinoxes, as was done in the PDA process; and
2. Areas of new shadows to be better represented in color for increased clarity. Currently the methods of representation are hard to interpret.

This information will allow residents, IAG members, and the public to understand more clearly the length of time new shadows would fall on the parks on March 21—the spring equinox - a critical moment for plant growth—as well as to calculate the additional area of parkland that would lose hours of sunlight in the fall, winter, and spring.

Clarification is needed to understand the true and total duration and extend to the shadow impact, how it is being measured, and how it is evaluated for significance. For example, please see the below diagram developed using information from prior project reports indicating two and there hours of shadow in some areas of the park and 5+ hours total.* By contrast in 2003 the BRA's Longwood Medical Area Interim called for no more than one hour of additional shadow on the parks at the equinoxes (March

21/September 21). More specific thresholds and analysis are need to determine how impacts are measured and evaluated.

As described in earlier letters on this project in earlier phases, the addition of shadows during the winter and icy months are particularly challenging with limited daylight, and can make the parks less welcoming and less useable.

Park User Views/Renderings and Wind Impact Information

As requested in the IAG meetings, in order to review and determine the impact on the experience of a public park user by this proposed project, renderings of the latest project design as viewed from the perspective of park users is essential. This requires renderings of the existing and new views as experienced by a park user from multiple locations along the impacted sections of the Necklace (including the Riverway and Back Bay Fens), from the Boston and Brookline portions of the park. Along with these views, understanding the anticipated impact on wind for these users in these and other key locations are needed.

Proposed Funding for Park Support

It is our understanding that the project proposes to provide approximately $6 Millon for the support of the parks impacted by this project. More clarity is needed to understand how this figure was determined, how it would be managed or used, over what time and how it could be additive to the existing services these areas receive. It is essential that these funds not displace existing services and are focused to mitigate project impacts.

Value of Emerald Necklace's Environmental Services

The 1,100 acres of Emerald Necklace plays a central role in mitigating increasingly common weather extremes in Boston and in this project area. The analysis should document the value and role these parks play, and evaluate if this project would impact the Emerald Necklace's ability to do this work. These benefit provided by the parks could be impacted by this project, and that has not been evaluated.

Continued Need for Sunshine Protection Policy

The Conservancy continues to call for a systematic sunshine protection policy for all public parks in the City of Boston. After considerable advocacy and process, an earlier approval for this development provided $1Million to the City for analysis and the development of recommendations to inform a Sunshine Projection Policy in a year. Two years have passed and suggested guidelines or a proposed policy has not been achieved.

The city is under great pressure to develop and provide new opportunities for work, housing and economic development. The needs of the public and park users can be challenged if they are not systematically protected. Our organization and related park groups seek to protect and improve all aspects of Emerald Necklace's ecological, historical, and societal value. Our Emerald Necklace is the envy of cities around the world for many reasons, including its place as the first example of "green infrastructure."

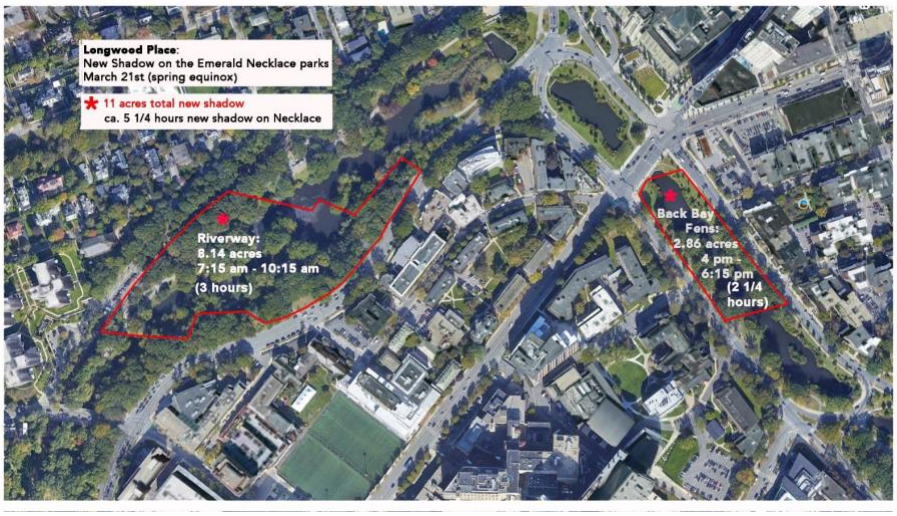
Without systematic guidelines for the system's protection and ongoing investments, we do not provide an adequate framework to guide development and balance needs.

Thank you for your consideration and response to our comments and requests for additional information to inform analysis and review of this project.

Sincerely,

Karen Mauney-Brodek
President

* Diagram below referenced in text above indicating longer shadow durations



Additional references: https://www.emeraldnecklace.org/restoration/advocacy/
(other feedback on this project and suggestions for park and project review policy improvements)

The Conservancy's Project Review Committee evaluates proposed developments close to Emerald Necklace using these criteria:

- compatibility with Olmsted's vision;
- impacts on park users' experience;
- consistency with existing Emerald Necklace master plans;
- impact on access between and within parks;
- impact on air and water quality;
- generation of new noise;
- potential wind tunnel effect;
- potential heat island effect;
- creation of new shadows; and
- benefits provided to the park system.

LETTER 9

May 30, 2025

To: Alexander Strysky, MEPA reviewer
Kairos Shen, Boston Chief of Planning
Brian Swett, Boston Chief of Environment, Energy and Open Space

Re: Longwood Place Boston, ENF project #16948

Sharing my concerns about the 520-car garage in the transit rich LMA and Fenway neighborhoods. This is an irrational and regressive plan. 9.1

This excessively large garage will increase traffic on the local roadways, impacting air quality for pedestrians, cyclists and nearby residents. The Fenway, The Riverway, Brookline Avenue, Longwood Avenue, Park Drive and Louis Prang are streets that serve as crosstown routes and are already congested. Given recent and expected approvals for other new and nearby parking facilities (409 capacity at 1400 Boylston and 250 at 1 Joslin Place) the total effect will be near constant gridlock.

The Longwood Collective TMA shuttles are expected to serve this site; this allows for those who are commuting by car to park elsewhere. And given the proximity of other garages (290 spaces at Longwood Center,1,790 at 401 Park) walking a block or so to your car is not out of the question considering the environment and climate change.

The capacity of this proposed 520 car garage should be reduced by half if not more. Planning a garage of this size when the timeline for two of the five buildings is likely to be far off in the future is wrongheaded and should not be approved. 9.1

Sincerely,

Alison Pultinas

81 Lawn Street Roxbury, Mass.02120