EXPANDED PROJECT NOTIFICATION FORM

12-28 Lansdowne Street

SUBMITTED TO

Boston Planning and
Development Agency

February 22, 2019

SUBMITTED BY

175 Ipswich Street, LLC
c/o Fenway Sports
Group Real Estate

PREPARED BY

flink CONSULTING

vhb

IN ASSOCIATION WITH

DAIQ Architects

Jones Lang LaSalle
Foley Hoag LLP
Tremont Preservation
WSP
Neoscape
McNamara Salvia
Howe Engineers
Haley & Aldrich
Golder Associates, LSP
Axiom Partners, Inc.

This Page Left Intentionally Blank

FENWAY | SPORTS | GROUP

4 Jersey Street. Boston. MA 02215 USA
TEL +1.617.226.6000 FAX +1.617.226.6789

February 22, 2019

Mr. Brian Golden, Director
Boston Planning & Development Agency
One City Hall Square, 9th Floor
Boston, MA 02201

Attn: Tim Czerwienski, Project Manager

Re: Expanded Project Notification Form – Article 80 Large Project Review
12 – 28 Lansdowne Street

Dear Director Golden:

175 Ipswich Street, LLC (the "Proponent"), an affiliate of Fenway Sports Group Real Estate (FSG Real Estate), is pleased to submit the enclosed Expanded Project Notification Form (EPNF) to initiate the Large Project Review process in accordance with Article 80B of the Boston Zoning Code (the "Code"). The EPNF describes the proposed development of a performing arts center adjacent to Fenway Park (referred to in the EPNF as the "Fenway Theater"), construction of associated improvements to Fenway Park, and renovation of existing spaces to serve both the Fenway Theater and Fenway Park (collectively, the "Project"). The Project is to be located on approximately 1.5 acres of land at the corner of Ipswich Street and Lansdowne Street abutting Fenway Park, having an address of 12-28 Lansdowne Street/175 Ipswich Street.

The Fenway Theater is envisioned as an iconic, state-of-the-art performing arts venue that will host a wide variety of performing arts, educational, and civic events on a year-round basis. The Fenway Theater will further enliven the already vibrant Lansdowne Street Entertainment District known for its music venues and nightlife, including the House of Blues. Event attendees will drive additional business to the many restaurant, retail, and service establishments of the Fenway and Kenmore neighborhoods throughout the year. The Theater will also create new opportunities for performing arts programming and educational initiatives just steps away from the Boston Arts Academy, Berklee College of Music and Boston Conservatory at Berklee, and accessible to many other schools and arts programs located in the greater Boston area.

The Project will invest in the City's beloved Fenway Park by providing enhanced fan amenities and improved accessibility in the bleacher and right-field grandstand areas of the ballpark. In conjunction with the construction of the Project, the Proponent plans enhancements to the streetscape, building on previously completed work and work currently underway. Collectively, the Project offers a considerable opportunity to rejuvenate an underutilized urban site, improve the adjacent public realm, and become an asset to the vibrant Fenway neighborhood and the City as a whole.

The Proponent has prepared this EPNF to meet the standards of Article 80B, Large Project Review, of the Code by presenting details about the Project and providing a thorough impact analysis of transportation, environmental protection, infrastructure, and other components of the Project in order to inform City agencies and neighborhood residents about the Project, its potential impacts and mitigation proposed to address those potential impacts. The Project Site is located within the Fenway Triangle Neighborhood Development Area of the Fenway Neighborhood District, which is governed by Article 66 of the Code. The Proponent intends to design the Project to comply with the use and dimensional requirements of Article 66.

In support of the Article 80B review process, and in advance of this filing, the Proponent and its team have had preliminary meetings with the BPDA, Boston Transportation Department, Boston Police Department, and representatives from Boston's Neighborhood Services Department, Inspectional Services Department, Boston Civic Design Commission (BCDC), and Boston Landmarks Commission, as well as state and city elected officials representing the district in which the Project is located. In addition, commencing in October 2018, FSG Real Estate and the Boston Red Sox organization have engaged in extensive community and neighborhood outreach, including meetings with members and representatives from the Fenway Civic Association, Fenway Community Development Corporation, Audubon Circle Neighborhood Association, Back Bay Association, Fenway Alliance, Kenmore Association, Fenway Victory Gardens, Fenway Community Center, Boston Arts Academy, Berklee College of Music, Boston Conservatory at Berklee, and other interested parties, to provide initial information about the Project and solicit feedback.

We look forward to continuing to work collaboratively with you, interested members of the community, the Impact Advisory Group, your staff, and other City agencies. We will publish notice of submission of the EPNF, as required by Section 80A-2(3) coincident with the filing of this EPNF. Requests for copies of the EPNF should be directed to Kyle Greaves, AICP at (617) 607-2988 or via email at kgreaves@vhb.com.

Very truly,

Jonathan Gilula

Jonathan Gilula
175 Ipswich Street LLC

12 – 28 Lansdowne Street

Boston, Massachusetts

SUBMITTED TO	**Boston Redevelopment Authority d/b/a Boston Planning & Development Agency** One City Hall Square Boston, MA 02201	
PROPONENT	175 Ipswich Street, LLC **c/o Fenway Sports Group Real Estate** 4 Jersey Street Boston, MA 02115	
PREPARED BY	**Flink Consulting, LLC.** 1000 Great Plain Ave. Suite 1 Needham, MA 02492	**VHB** 99 High Street, 10th Floor Boston, MA 02110

In association with:
DAIQ Architects
Jones Lang LaSalle
Foley Hoag LLP
Tremont Preservation
WSP
McNamara Salvia
Howe Engineers
Haley & Aldrich
Golder Associates, LSP
Axiom Partners, Inc.
Neoscape

February 22, 2019

This Page Left Intentionally Blank

Table of Contents

Chapter 3: Sustainability/Green Building Design and Climate Change Resiliency

Chapter 4: Transportation

*Appendices provided on enclosed CD-ROM due to large file size. Hard copies are available upon request.

This Page Left Intentionally Blank

List of Tables

List of Figures

***Note: All report figures are provided at the end of each chapter.**

1

Project Description

In accordance with Article 80B of the City of Boston Zoning Code (the "Code"), 175 Ipswich Street, LLC ("the Proponent"), an affiliate of Fenway Sports Group Real Estate (FSG Real Estate), respectfully submits this "expanded" Project Notification Form ("EPNF") to the Boston Redevelopment Authority, d/b/a Boston Planning and Development Agency (the "BPDA") for the development of a performing arts center adjacent to Fenway Park (the "Fenway Theater"), construction of associated improvements to Fenway Park (the "Fenway Park Improvements"), and renovation of existing spaces to serve both the Fenway Theater and Fenway Park (the "Interior Renovations"), (collectively, the "Project"), in Boston's Fenway neighborhood.

This chapter provides an overview of the Project history and existing site conditions, and describes the key elements of the Project. This chapter also presents Project-related benefits, an overview of the regulatory context, a summary of agency and community outreach efforts and identifies the development team.

1.1 Project History/Overview

The Project is to be located on certain property at 12-28 Lansdowne Street (also having the address 175 Ipswich Street) in the Fenway neighborhood of Boston, consisting of approximately 1.5 acres (67,400 square feet) bounded by Lansdowne Street to the north, Ipswich Street to the south and east, and Fenway Park to the west (the "Project Site"). Refer to Figure 1.1 for the site locus map and Figure 1.2 for site context.

The Project Site is currently comprised of an open-air service area, referred to as the "Triangle Lot", and an existing building that abuts the Bleacher Concourse of Fenway Park and houses dining/function spaces, back of house service areas and parking for Fenway Park (the "Fenway Garage" building). Refer to Figure 1.3 for existing site conditions, Figure 1.4 for the site survey plan, and Figure 1.5a-d for photographs of the existing site.

The Triangle Lot has long been an open, paved lot serving as service parking primarily for broadcast trucks, and a service yard for Fenway Park. The Fenway Garage building at 175 Ipswich Street has had a varied history. A year after baseball came to Fenway Park, the Fenway Garage opened on the site in 1913. The full-service garage could park up to 500 cars and had facilities to wash up to 24 cars at a time. The property was sold in 1960, and the garage was converted into a laundry plant. In 1961, the Hospitals Laundry Association began operations as a central laundry facility for the area's hospitals. (In reference to this use, the structure is sometimes referred to as the "Laundry Building"). Two years into operation, more than 12 million pounds of laundry per year was being processed at the site. In 1988, the Red Sox acquired the building and it was returned to use as warehouse space, and as a garage for Fenway Park during home games, and public or permitted parking at all other times. In 2003, a portion of the Fenway Garage building was converted into a commissary for ballpark concessions operations, new restrooms, and function spaces, as part of renovations to Fenway Park. This repurposing reduced the parking capacity of the building to its current level of 105 spaces. In conjunction with these improvements, media trucks which had been located in the Right Field Concourse were relocated to the Triangle Lot. This move opened up space inside Gate B for improved Bleacher/Right Field concessions and restrooms, and a large picnic area in the newly created "Big Concourse" (described below), enhancing fan comfort in one of Major League Baseball's smallest ballparks.

The Project proposes to demolish a portion of the existing Fenway Garage building, reconfigure existing ballpark functions located within the building, construct a new multi-purpose performing arts center, and create additional improvements to Fenway Park that will enhance the fan experience and improve accessibility in the Bleacher and Grandstand areas, as described below in subsequent sections.

Collectively, the Project offers a considerable opportunity to rejuvenate an underutilized urban site, host a wide variety of live entertainment and civic events on a year-round basis, create new opportunities for performing arts programming and educational initiatives, improve the adjacent public realm, and become an asset to the vibrant Fenway neighborhood and the City as a whole.

1.2 Project Description

Figure 1.6 presents the proposed site plan for the Project. The Project consists of approximately 136,360 square feet of gross floor area situated on approximately 1.5 acres within the Fenway Triangle Neighborhood Development Area Subdistrict and the Lansdowne Street Entertainment District of the Fenway neighborhood. The Project will include the following key components:

- *Fenway Theater - Performing Arts Center*[1]*:* The eastern portion of the Project Site, at the intersection of Lansdowne and Ipswich Streets, will house a new, state of the art, multi-purpose performing arts center, occupying approximately 86,000 square feet on four (4) levels (floor, mezzanine, loge, and balcony) and accommodating approximately 5,400 patrons.
- *Fenway Park Improvements*: At the western portion of the Project Site, approximately 30,000 square feet of new fan amenity areas serving Fenway Park will be built as a two (2) story vertical expansion of the existing Fenway Garage building.

[1] Throughout this document, the performing arts center is referred to as the "Fenway Theater" for reader convenience. The ultimate name of the theater has not yet been determined.

› *Interior Renovations*: Approximately 20,000 square feet of the existing two (2) story Fenway Garage building interior area occupied by Fenway Park ballpark operations will be renovated to provide enhanced service and support areas to serve both the ballpark and the Fenway Theater.

The following section describes the development program, key components, and anticipated schedule for the Project.

1.2.1 Proposed Development Program

Table 1-1 below presents a summary of the proposed development program for the Project. Specific Project components are described more fully below.

Table 1-1 Proposed Development Program Summary

Project Element	Approx. Square Footage[1]	Approx. Capacity	Approx. Height[2]
Fenway Theater[3]			
Performing Arts Center	86,540 GFA	Approx. 5,400 Persons (varies depending on event)	3 Stories 67 feet to the top of the structural roof
Fenway Park Improvements[4]			
Bleacher Concessions, Bar, Restrooms and Overlook Seats	15,925 GFA	Net Reduction of Approx. +/-300 Seats	4 Stories 67 feet to the top of the structural roof
Bleacher Function Space[5]	13,695 GFA	Approx. 500 Persons for Banquet Approx. 600 Persons for Stand-up Function	
Sub Total	**29,620 GFA**	NA	NA
Shared Spaces (Theater and Ballpark)			
Renovation of Fenway Garage building for a New Commissary/Central Kitchen, Lobbies, Service and Staff Areas	20,200 GFA		NA
Sub Total	**20,200 GFA**		
Total Gross Floor Area (GFA)	**136,360 GFA[6]**		
Floor Area Ratio	**2.55**		
Total Parking	NA	Reduction of 105 spaces[7]	N/A

NA = Not Applicable
SF = square feet of site or lot area

1. All square footages are approximate. Unless otherwise noted, all areas provided herein are in Gross Floor Area (GFA) as such term is defined in Article 2A of the Code; therefore, such areas specifically exclude floor area devoted to mechanical equipment, storage, and service and loading areas.

2. In accordance with the Code, building heights are measured from "Grade", as that term is defined in Article 2A of the Code.
3. Fenway Theater includes floor; mezzanine, loge, and balcony seating; lobby and lounge areas; theater offices; concessions and toilets.
4. Fenway Park Improvements involve new construction in existing Bleacher space, new construction above the Fenway Garage building, and renovation of additional space in the Fenway Garage building. Approximately 25,500 SF of the Fenway Garage building will remain unchanged including the recently renovated Royal Rooters Club, elevators, elevator lobbies and access hallways, and restrooms.
5. It is assumed that Fenway Park patrons using this space in advance of a game will have ticketed seats elsewhere in the park. No change in Fenway Park's licensed capacity of 39,928 persons is being sought.
6. Includes approximately 116,160 of new GFA, and 20,200 GFA of renovated space.
7. The Project will result in a loss of all 105 parking spaces in the Fenway Garage building.

Fenway Theater

The primary component of the Project, as currently conceptualized, involves construction of the Fenway Theater, a new, state-of-the-art, multi-purpose performing arts center with an approximately 5,400-person capacity at the intersection of Lansdowne and Ipswich Streets. The Fenway Theater is intended to fill a void in the landscape of performing arts venues in the greater Boston area by providing a facility whose capacity sits between venues that accommodate less than 2,500 patrons and the larger arena/stadium venues. In contemplating this Project, a market analysis was completed to better understand the need for and desired capacity for an indoor live entertainment venue. The range of anticipated uses and attendance at the Fenway Theater is summarized in Section 4.5.1.1. The venue will be operated by a newly formed joint venture which will also operate the nearby House of Blues. This relationship will ensure that scheduling of events planned for the two venues will be closely coordinated.

The Fenway Theater will host a wide variety of live entertainment events on a year-round basis, enlivening the Lansdowne Street entertainment district on both Fenway Park event days and non-event days, and providing a steady stream of patrons for the neighborhood's many restaurants and retail establishments.

The Fenway Theater will also create new opportunities for performing arts programming and educational initiatives, establishing a world-class performing arts center located just steps away from the Boston Arts Academy, Berklee College of Music and Boston Conservatory at Berklee, as well as many other schools and arts programs located in the greater Boston area. It is expected that thousands of students and performers will have the opportunity to perform in this new venue, pursue employment and internships, engage in professional development and educational programs, and enjoy live performances as both performers and audience members.

Other than backstage support areas, which will be housed within renovated areas of the Fenway Garage building, the Fenway Theater will be entirely new construction. The Theater will also house a central plant mechanical system to serve the entire Project. Refer to Figure 1.6 for a proposed conditions plan.

Fenway Park Improvements

The Fenway Park Improvements will include a new two (2) story, approximately 30,000 square foot vertical addition constructed above the existing roof of the Fenway Garage building, directly adjacent to and accessed from the existing Right Field Grandstand and Bleacher seats within Fenway Park. The lower level of the addition will contain expanded food, beverage and restroom areas, improved circulation and exit facilities, and new seating areas for fans that will enhance the fan experience in the Bleacher and Grandstand seats. The upper level of the vertical addition will contain a multi-purpose reception/function room with views into Fenway Park that can accommodate approximately 500 persons at a banquet, or 600 in a standing group. This space is expected to be utilized for group events before or after Fenway Park events, or for private functions on non-event days.

The current scope of these improvements include the removal of the uppermost six (6) rows of Right Field Bleacher seats (approx. 450 seats), replacing them in part, with counter and table seating (approx. 150 seats), resulting in a net reduction of approximately 300 seats within Fenway Park. There will be no change in Fenway Park's legal capacity as a result of this Project. Refer to Figure 1.6 for a proposed conditions plan.

Interior Renovations

The existing Fenway Garage building occupies the majority of the Project Site, with a footprint of approximately 50,000 square feet. Approximately 20,000 square feet of this footprint will be removed in order to create sufficient area to accommodate the Fenway Theater. The remaining interior areas of the Fenway Garage building along Ipswich Street that are currently occupied by Fenway Park ballpark operations will be renovated to house expanded shared service and support areas to serve both Fenway Park and the Fenway Theater. The remaining interior areas along Lansdowne Street will be renovated to include concessionaire and Fenway Theater office areas, backstage support areas, and a new public lobby to serve the Fenway Park function space on the top level of the Fenway Park Improvements. A new central kitchen and food service commissary will replace existing parking areas on Level 2.

Approximately 25,500 gross square feet of existing space comprised of the Royal Rooters Club, elevator lobbies and access hallways, and restroom areas adjacent to the Big Concourse and built as part of earlier Fenway Park improvement projects will remain essentially unchanged from existing conditions. Refer to Figure 1.6 for a proposed conditions plan, and Figures 2.3a-d for Project floor plans.

1.2.2 Service Lot Relocation

The existing service, loading and receiving activities which currently occur within the Triangle Lot will be relocated to newly constructed, dedicated off-street, interior loading dock bays within the Fenway Garage building to remain accessed from Ipswich Street. The concessionaire employee check-in and secure entrance will also be relocated to a dedicated entry off of Ipswich Street. Mail processing and grounds/concession materials storage will be relocated within the ballpark or moved off-site.

Broadcast production trucks, which currently occupy the Triangle Lot on event days, are currently contemplated to be relocated to the existing surface parking lot located to the southwest of the Project Site at the intersection of Ipswich Street and Van Ness Street at 189 Ipswich Street (the "189 Ipswich Street Lot") that is owned by a Fenway Sports Group affiliate. The 189 Ipswich Street lot currently accommodates parking for approximately 140 vehicles. Improvements to the 189 Ipswich Street lot will enable the relocation of critical infrastructure and existing Fenway Park operations currently located on the Project Site. Current plans include providing broadcast cabling via a below grade crossing on Van Ness Street.

1.3 Project Schedule

The Project is in the early design stages and the Proponent intends to commence construction in the fall of 2019, following the completion of the Red Sox baseball season. Full Project completion is targeted for Summer/Fall of 2021. One of the objectives of the schedule is to complete active construction activity prior to the opening of the new Boston Arts Academy (the "BAA") located across Ipswich Street from the Project Site.

Initial phases of construction will focus on Project components that impact the operation of Fenway Park. This includes the partial demolition and renovation of the existing Fenway Garage building.[2] The Fenway Park Improvements, and the Interior Renovations are targeted for completion by the opening of the 2020 baseball season. Construction of the balance of the Project, including the construction of the Fenway Theater, will continue through final completion in summer/fall of 2021.

1.4 Summary of Public Benefits

The Project will provide an iconic, state-of-the-art performing arts center that will host a wide variety of performing arts, educational, and civic events on a year-round basis in the Lansdowne Street Entertainment District of the Fenway neighborhood. The Project will additionally invest in improvements to the City's beloved Fenway Park by providing enhanced fan amenities and improved accessibility in the Bleacher and Right-Field Grandstand areas of the ballpark. The anticipated public benefits of the Project for the surrounding neighborhoods and the City of Boston are summarized in the following subsections and described in detail in the chapters that follow.

2 During the initial phases of construction, the broadcast truck parking will be relocated from the current location on the Project Site to the 189 Ipswich Street lot.

Urban Design/Public Realm and Accessibility

- The building massing and articulation of the facades have been designed to respect and complement the street wall alignments and architectural and historic character of Fenway Park and the surrounding neighborhood.
- The Project is anticipated to dramatically change the pedestrian experience along Ipswich and Lansdowne Streets, replacing an open, paved service lot surrounded by chain link fence with the new Fenway Theater that will further activate the street and engage with passersby.
- The Project is anticipated to promote public safety through implementing a site design that provides a safe and universally accessible facility from all directions.
- The Fenway Park Improvements will improve the fan experience and accessibility for fans seated in the Bleachers by providing improved circulation and exit facilities, and improved concessions and new seating areas for fans in the Right Field Grandstand and Bleacher seats of Fenway Park.

Transportation

- The Project proposes an enhanced streetscape, including wide, accessible sidewalks, improved bus stops with shelters, improved street lighting, street bollards to protect pedestrians from vehicles, and facility and street level wayfinding advice consistent with the BTD's Complete Streets guidelines.
- The Project is anticipated to provide enhancements at the intersection of Lansdowne and Ipswich Streets to improve the pedestrian crossings and calm vehicle traffic.
- The Project is anticipated to improve two MBTA bus stops along Ipswich Street.
- The Project is anticipated to improve freight handling by expanding off-street loading facilities on-site to serve both Fenway Park and the Fenway Theater.
- The Project is anticipated to incorporate bicycle accommodations in compliance with BTD's guidelines to encourage cycling and walking as strong transportation modes.
- The Project will not provide for any on-site parking and will implement a transportation demand management (TDM) plan to encourage employees and patrons to use alternative modes of transportation.

Social and Economic Benefits

Performing Arts Collaboration and Education

- The Project will create new opportunities for performing arts programming and educational initiatives, establishing a world-class performing arts center located just steps away from the BAA, Berklee College of Music and Boston Conservatory at Berklee, as well as many other schools and arts programs located in the greater Boston area. Through collaboration and partnerships with these institutions, it is expected that thousands of local students and performers will have the opportunity to perform in this new venue, pursue employment and internships, engage in professional development and educational programs, and enjoy live performances as both performers and audience members.

Expanded Local Business and Retail Activity

- The Project is estimated to generate tens of millions of dollars annually in increased business for local restaurants and retail establishments, particularly in the Fenway and Kenmore neighborhoods.
- The Project continues Red Sox ownership's on-going investments in the City's beloved Fenway Park to ensure its long-term viability. This Project will enhance the ballpark experience and increase accessibility for fans seated in the Bleacher and Right-Field Grandstand areas.

Enhanced Tax Revenues

- The Project is expected to generate more than one million dollars annually in new real estate tax revenues for the City of Boston and significant state sales tax revenue to the Commonwealth.

New Job Creation

- The Project will enhance the economy by creating approximately 80 full-time positions, and approximately 450 part-time positions on-site.
- The Project is anticipated to create over 200 construction jobs on site in a variety of trades during the peak of construction.
- The Project is anticipated to contribute approximately $375,000 in linkage payments to assist with the creation of affordable housing and the provision of job training in accordance with the terms and provisions of Section 80B-7 of the Code.

<u>Sustainability/Environmental Benefits</u>

Stormwater Management

- The Project will improve the quality of and reduce the quantity of site stormwater runoff compared to existing conditions, and will include groundwater recharge in accordance with provisions applicable to the Groundwater Conservation Overlay District ("GCOD") to the maximum extent practicable.
- The Project will comply with the MassDEP Stormwater Management Standards, in accordance with the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) and Water Quality Certification Regulations (314 CMR 9.00).

LEED Approach

- In addition to compliance with the City of Boston Article 37 Green Building and Climate Resiliency Guidelines ("Article 37"), the Project will be certifiable under the LEED rating system, which provides verification of green building design. Through the incorporation of a variety of sustainable design strategies, the Project will improve water quality and reduce the urban heat island effect, among other environmental benefits. As the design and engineering of the Project is further advanced, the Proponent aspires to achieve LEED-Silver certifiability, to the extent feasible. This is discussed more extensively in Chapter 3, *Sustainability/Green Building and Climate Change Resiliency*.

Energy Conservation / Greenhouse Gas Emissions Reduction

› The Project aims to achieve a reduction in stationary source CO_2 emissions below an ASHRAE 90.1-2013 baseline, currently estimated at seventeen (17) percent, by reducing overall energy consumption through the incorporation of Energy Efficiency Measures ("EEMs") and energy-efficient design strategies, such as:
  - High-performance glazing and efficient building materials (walls and windows);
  - Condenser water plant that exceeds base energy code efficiency with variable speed technology;
  - High-efficiency chillers with variable speed compressors;
  - Low lighting power density;
  - Ventilation air heat recovery; and
  - Commissioning to help ensure major energy-using equipment is installed correctly.

Renewable Energy

› The Proponent will continue to evaluate the feasibility of clean and renewable energy sources as the design progresses including but not limited to solar photovoltaic ("PV") panels and an on-site battery energy storage system. This is discussed more extensively in Section 3.4.2 of Chapter 3, *Sustainability/Green Building Design and Climate Change Resiliency*.

Climate Resilience

› By designing for resilience, the Project seeks to integrate climate change adaptations that reduce vulnerability given future changes in climate scenarios and natural events, such as severe weather. This is discussed more extensively in Section 3.5 of Chapter 3, *Sustainability/Green Building and Climate Change Resiliency*.

1.5 Regulatory Context

This section identifies the anticipated permits and approvals required for the Project as well as the local planning and regulatory controls applicable to the Project.

1.5.1 Anticipated Permits and Approvals

Table 1-2 lists the anticipated permits and approvals from state and local government agencies that are presently expected to be required for the Project, based on information currently available. It is possible that not all of these permits or approvals will be required, or that additional permits or approvals may be needed, depending upon the outcome of the community and regulatory review processes.

Table 1-2 List of Anticipated Permits and Approvals

Agency/Department	Permit/Approval/Action
City of Boston	
Boston Planning and Development Agency	• Article 80B, Large Project Review and Execution of Related Agreements and Disclosures • Design Review
Boston Civic Design Commission	• Design Review
Boston Zoning Board of Appeal	• Groundwater Conservation Overlay District (GCOD) Conditional Use Permit • Electronic Signage Condition Use Permit
Boston Zoning Commission	• Map Amendment (if required)
Boston Fire Department	• Fuel Storage/Tank Permit • Equipment and Access Permits • Plan Review • Approval of Fire Safety Equipment
Boston Interagency Green Building Committee	• Article 37 Green Building Compliance • Climate Change/Resiliency Checklist
Boston Inspectional Services Department	• Turndown Letter • Demolition Permit • Foundation Permit • Building Permit • Certificates of Occupancy
Boston Public Improvement Commission	• Specific Repair Plan • Canopy Approvals • Street and Sidewalk Occupancy Permits • Agreement for Temporary Earth Retention System, Tie-Back Systems and Temporary Support of Subsurface Construction (if required) • Curb Cut Permit (if required) • Approval for Underground Utility Connections
Boston Transportation Department	• Transportation Access Plan Agreement • Construction Management Plan
Boston Water and Sewer Commission	• Site Plan Approval • Temporary Construction Dewatering Permit (issued jointly with MWRA) • Water and Sewer Connection Permits • GCOD Approval Letter
Boston Parks Department	• Approval of Cutting of Public Shade Tree
Boston Landmarks Commission	• Article 85 Demolition Delay
Boston Public Works Department	• Street Opening Permit
Commonwealth of Massachusetts	
Massachusetts Water Resources Authority	• Temporary Construction Dewatering Permit (issued jointly with BWSC)

Massachusetts Board of Building Regulations and Standards	• Variance
Federal	
Federal Aviation Administration	• Determination of No Hazard to Air Navigation for Cranes
United States Environmental Protection Agency	• National Pollutant Discharge Elimination System (NPDES) Permit

1.5.2 City of Boston Zoning Code

As shown on Map 1Q of the City of Boston Zoning Maps, the Project Site is located within the Fenway Triangle Neighborhood Development Area ("NDA") of the Fenway Neighborhood District, which is governed by Article 66 of the Code. The Project Site is also located within the GCOD established by Article 32 of the Code, the Restricted Parking Overlay District established by Section 3-1A.c of the Code, and the Lansdowne Street Entertainment District Established by Section 11-7 of the Code. The Project Site is located within an area of the City in which Planned Development Area ("PDA") designations are permitted pursuant to Section 3-1A.a. of the Code.

The Proponent intends to design the Project to comply with the use and dimensional requirements of Article 66. Zoning relief in the form of Conditional Use Permits from the Boston Zoning Board of Appeal will be required to authorize electronic signage and to meet GCOD requirements. Depending upon the design evolution of the electronic signage, a Map Amendment from the Boston Zoning Commission may also be required.

1.5.3 Article 80B – Large Project Review

Because the Project exceeds 50,000 square feet of gross floor area, it is subject to Large Project Review by the BPDA pursuant to Article 80B of the Code. The Large Project Review process was commenced by the filing of a Letter of Intent with the BPDA on December 18, 2018, a copy of which is included in Appendix A.

The Proponent has prepared this EPNF to meet the standards of Article 80B, Large Project Review, of the Code by presenting details about the Project and providing a thorough impact analysis of transportation, environmental protection, infrastructure, and other components of the Project in order to inform City agencies and neighborhood residents about the Project, its potential impacts and mitigation proposed to address those potential impacts. Given the comprehensive approach to analyze and address such impacts at the level typically contained in a Draft Project Impact Report, the Proponent requests that the BPDA, after reviewing public and agency comments on this EPNF and any further responses to comments made by the Proponent, issue a Scoping Determination Waiving Further Review pursuant to the Article 80B-5 process.

1.5.4 Groundwater Conservation Overlay District

Under Article 32 of the Code, a conditional use permit is required for projects located within the GCOD that occupy more than 50 square feet. The Proponent intends to comply with the design standards set forth in Article 32-6 of the Code. The Proponent will provide appropriate plans to the Boston Water and Sewer Commission demonstrating that the Project will promote infiltration of rainwater into the ground and will not have a negative effect on groundwater. The Proponent will then seek a conditional use permit from the Boston Zoning Board of Appeal.

1.5.5 Development Impact Project

The Project is considered a Development Impact Project ("DIP") under Article 80B-7 of the Code because it exceeds 100,000 square feet of gross floor area and contains certain non-residential uses enumerated in the Code. Projects that qualify as a DIP must provide certain payments to the City (known as linkage payments) to assist with the creation of affordable housing and the provision of job training. The Project will comply with Article 80B-7 of the Code by providing such linkage payments.

1.6 Agency Coordination

In advance of this filing, the Proponent and its Project team have had preliminary meetings with the BPDA, the BTD, the Boston Police Department, and representatives from Boston's Neighborhood Services Department, Inspectional Services Department, Boston Civic Design Commission (BCDC), and Boston Landmarks Commission, as well as the state and city elected officials representing the district in which the Project is located.

The Project team will continue to meet with elected officials, the City of Boston, abutters, neighborhood groups, local businesses, and other interested parties as the Project moves forward in the Article 80B review process.

1.7 Community Outreach

The Proponent and its affiliated organizations value their relationship with the Fenway and Kenmore communities. Under its current ownership, for over 16 years, the Boston Red Sox organization has been actively engaged in the neighborhood in many ways, including attending and hosting local meetings, sponsoring organizations and community events, providing neighborhood cleaning and betterment resources, and contributing to the economic vitality of local businesses. The organization communicates regularly with its neighbors through weekly emails and neighborhood meetings.

In recent months, commencing in October, 2018, the FSG Real Estate/Boston Red Sox organization has engaged in extensive community and neighborhood outreach regarding the Project. The organization hosted open public community meetings in

October, 2018, and February, 2019. In addition, the Project team has met with members and representatives from the Fenway Civic Association, Fenway Community Development Corporation, Audubon Circle Neighborhood Association, Back Bay Association, Fenway Alliance, Kenmore Association, Fenway Victory Gardens, Fenway Community Center, Boston Arts Academy, Berklee College of Music, Boston Conservatory at Berklee, and other interested parties to provide initial information about the Project and solicit feedback. The Project team has also been in regular communication with multiple developers who are pursuing planned development projects in the Fenway and Kenmore areas. The Project team welcomes the input of its neighbors and will continue to meet with the community and others as the Project moves through the Article 80B review process and construction.

1.8 Development Team

The following table lists the key members of the development team for the Project (the "Project Team"):

Table 1-3 Project Team

Proponent	175 Ipswich Street, LLC c/o Fenway Sports Group Real Estate 4 Jersey Street Boston, MA 02215 Jonathan Gilula David Friedman Christopher Knight Claire Durant
Owner's Project Manager	Jones Lang LaSalle One Post Office Square Boston, MA 02109 617-523-8000 Michael Lamphier Cornelia Szustka
Legal Counsel	Foley Hoag LLP Seaport West 155 Seaport Boulevard Boston, MA 02110-2600 617-832-1000 Jeffrey Mullan Kathleen Brill
Project Architect	DAIQ Architects 1310 Broadway Somerville, MA 02144 617-623-3000 Chuck Izzo Tom Martinez David Sliwinski

Permitting Consultant	Flink Consulting LLC 1000 Great Plain Avenue, Suite 2 Needham, MA 02492 617-448-1548 Ruth Bonsignore VHB 99 High Street, 10th Floor Boston, MA 02110 617-728-7777 Elizabeth Grob Kyle Greaves Quan Tat (Noise) Heidi Richards (Air Quality/GHG)
Historic Resources	Tremont Preservation 374 Congress Street, Suite 301 Boston, MA 02210 617-482-0910 Leslie Donovan
Transportation	Flink Consulting LLC 1000 Great Plain Avenue, Suite 2 Needham, MA 02492 617-448-1548 Ruth Bonsignore VHB 99 High Street, 10th Floor Boston, MA 02110 617-728-7777 David Black Adriana Santiago
Structural Engineer	McNamara Salvia Structural Engineers 101 Federal Street, Suite 100 Boston, MA 02110 617-737-0040 Adam McCarthy Kevin Westerhoff
Civil Engineer	VHB 99 High Street, 10th Floor Boston, MA 02110 617-728-7777 Mark Junghans Brian Fairbanks
Mechanical/Electrical/Plumbing	WSP USA 88 Black Falcon Avenue, Suite 210 Boston, MA 02210 617-426-0110 Michael Brown Claire McKenna

	Audrey Ng Massimo D'Aloisio Blair Chamberlain Ernie Needham Joshua Monahan
Life Safety	Howe Engineers 101 Longwater Circle, Suite 203 Norwell, MA 02061 781-878-3500 Andrew Newman Ben Muscente
Geotechnical Services	Haley & Aldrich 465 Medford Street, #2200 Charlestown, MA 02129 617-886-7400 Mark Balfe
Hazardous Materials	*Below Grade Hazardous Materials* Golder Associates, LSP 200 Friberg Parkway, Suite 3019 Westborough, MA 01581 508-329-7961 Frank Lilley, LSP *Building Materials* Axiom Partners, Inc. One Pleasure Island Road, Suite 2C Wakefield, MA 01880 781-213-9198 Peter A. Del Sette, Jr.

1.9 Legal Information

1.9.1 Legal Judgments or Actions Pending Concerning the Proposed Project

The Proponent is not aware of any legal judgments or pending legal actions concerning the Project.

1.9.2 History of Tax Arrears on Property Owned in Boston by the Proponent

The Proponent does not own any property which is in arrears on the payment of taxes due and owing to the City of Boston.

1.9.3 Evidence of Site Control

The Project is located on two parcels. The Fenway Theater portion of the Project is to be located on a parcel with an address of 12-28 Lansdowne Street (also having the address of 175 Ipswich Street), currently owned by John W. Henry and Thomas C. Werner, Trustees of 175 Ipswich Street Realty Trust. A portion of the Fenway Park Improvements component of the Project is to be located on the 12-28 Lansdowne Street parcel and the remainder on a parcel with an address of 24 Jersey Street (known to the public as Fenway Park), which is owned by John W. Henry and Thomas C. Werner, Trustees of the Olde Town Team Realty Trust. Use of and access between the parcels is provided for by agreement among the parcel owners.

1.9.4 Public Easements

The property at 24 Jersey Street (Fenway Park) is subject to the following public easements:

- An easement for street purposes taken by the City of Boston by a taking dated September 11, 1945 and recorded with the Suffolk County Registry of Deeds (Suffolk Deeds) in Book 6175, Page 553 (affects Van Ness Street);
- A five (5) foot wide building line established under an order of the Board of Street Commissioners, approved by the Mayor of Boston on November 7, 1906, on the southerly side of Lansdowne Street, as affected by orders of the Street Commissioners dated June 27, 1946 and recorded with Suffolk Deeds in Book 6239, Page 309; and
- A five (5) foot wide building line on the northwesterly side of Jersey Street established by the Board of Street Commissioners dated July 15, 1898.

The property at 12-28 Lansdowne Street is subject to the following public easements:

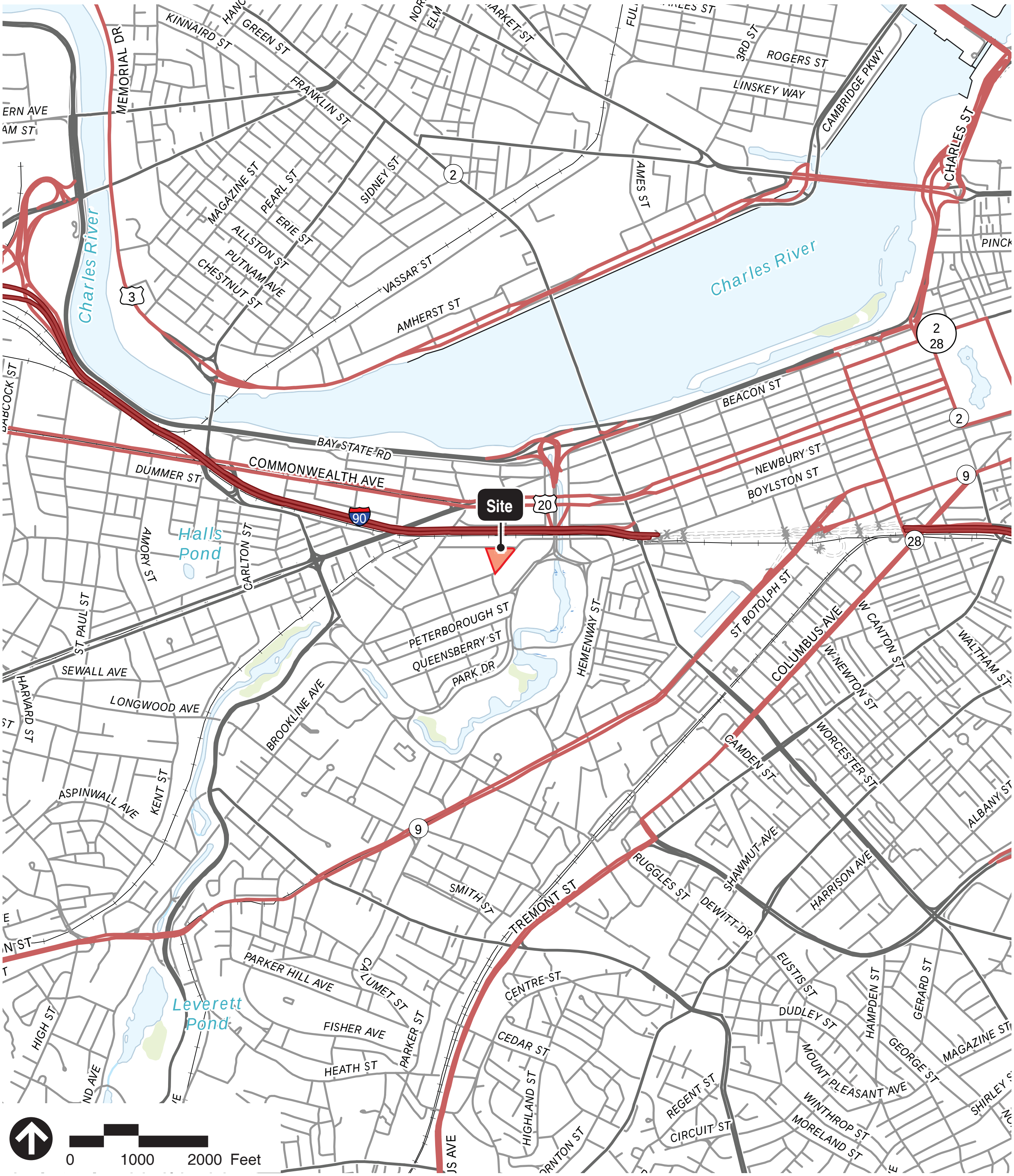
- A five (5) foot building line along the entire frontage on Lansdowne Street as referred to in a deed dated October 11, 1926 and recorded with Suffolk Deeds in Book 4844, Page 471 and as shown on a plan of land recorded with Suffolk Deeds in Book 17225, Page 232, Book 4141, Page 42, Book 6239, Page 309, and Book 4878, Page 252, as may be in force and applicable.[2]

Depending upon the design evolution of the Project, features such as foundations and canopies may ultimately extend over the property lines and onto the adjacent public ways constituting Ipswich Street and Lansdowne Street. In addition to the rights of the City of Boston in those public ways, those portions of the Project Site are subject to the following public rights. All work will be conducted respecting the following rights:

[2] See the plan at Book 17225, Page 232, which appears to be definitive.

- Layout of Ipswich Street by Boston Water Power Company and others dated March 4, 1899 and recorded in Book 2590, Page 273 to the extent applicable.
- City of Boston Public Improvement Commission order that specific repairs be made in Lansdowne Street between Brookline Avenue and Ipswich Street dated December 19, 2002 and recorded in Book 31008, Page 304.
- Specific Repairs in Ipswich Street by City of Boston Public Improvement Commission dated February 26, 2004 and recorded in Book 34446, Page 230.
- City of Boston Public Improvement Commission order that specific repairs be made in Lansdowne Street for increasing the sidewalk width and installation of parking lane and for the installation of trees, tree grates and tree guards dated November 4, 2004 and recorded in Book 35961, Page 165.
- City of Boston Public Improvement Commission order that specific repairs be made in Ipswich Street consisting of increasing the sidewalk width at the NW and SW corners with Lansdowne Street dated November 4, 2004 and recorded in Book 3596I, Page 166.
- Specific Repairs within the following streets: Lansdowne Street, Van Ness Street and Ipswich Street granted to Olde Town Team Realty LLC by City of Boston Public Improvement Commission dated July 11, 2013 and recorded in Book 51990, Page 347.
- License, Maintenance and Indemnification Agreement for Ornamental Bollards Lansdowne Street, Ipswich Street and Van Ness Street by and between the City of Boston by and through its Public Improvements Commission and Olde Town Team Realty LLC dated July II, 2013 and recorded in Book 51991, Page 1.

This Page Left Intentionally Blank

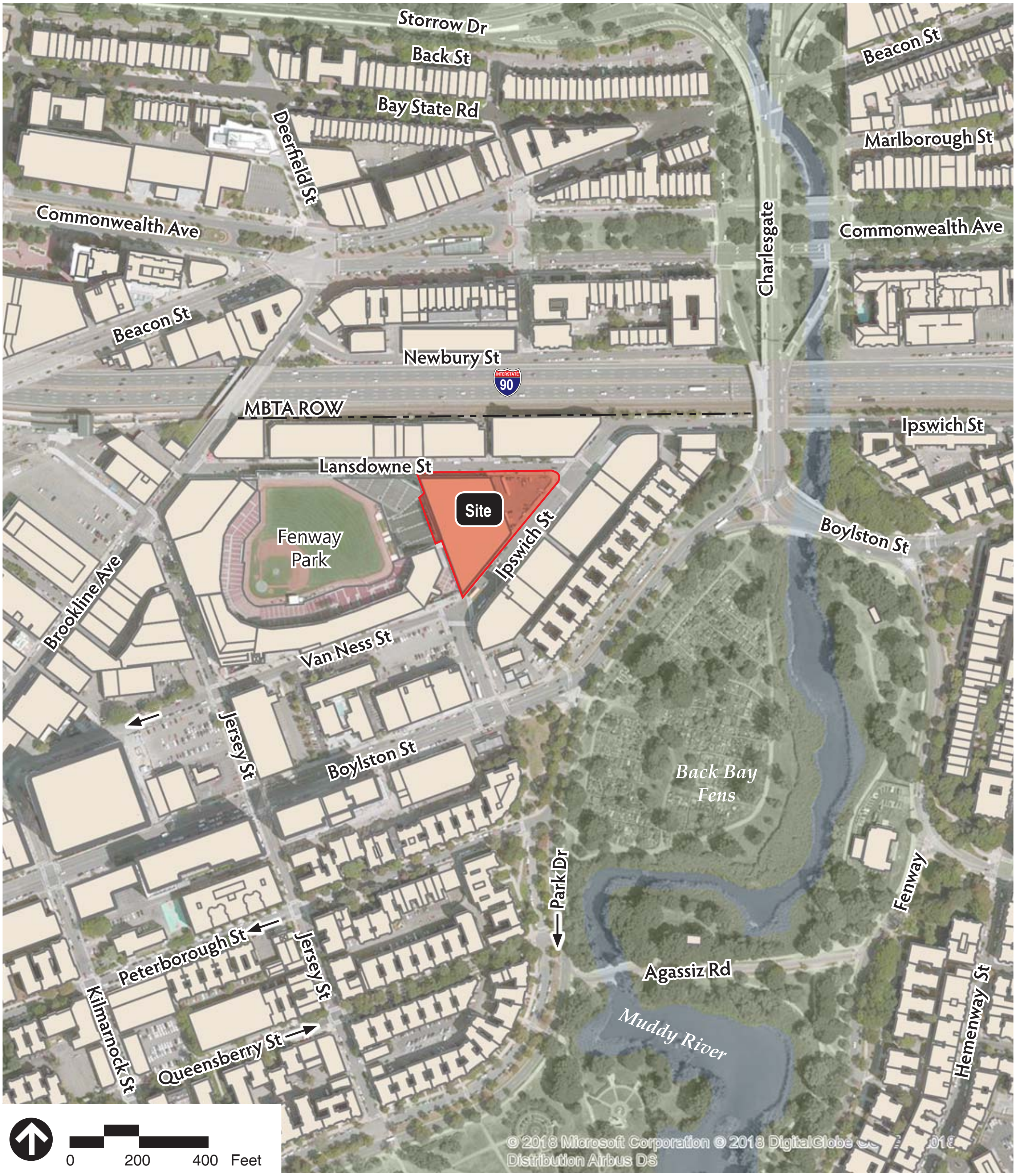


Source: USGS Topo

Figure 1.1

Site Locus Map

12 – 28 Lansdowne Street
Boston, Massachusetts

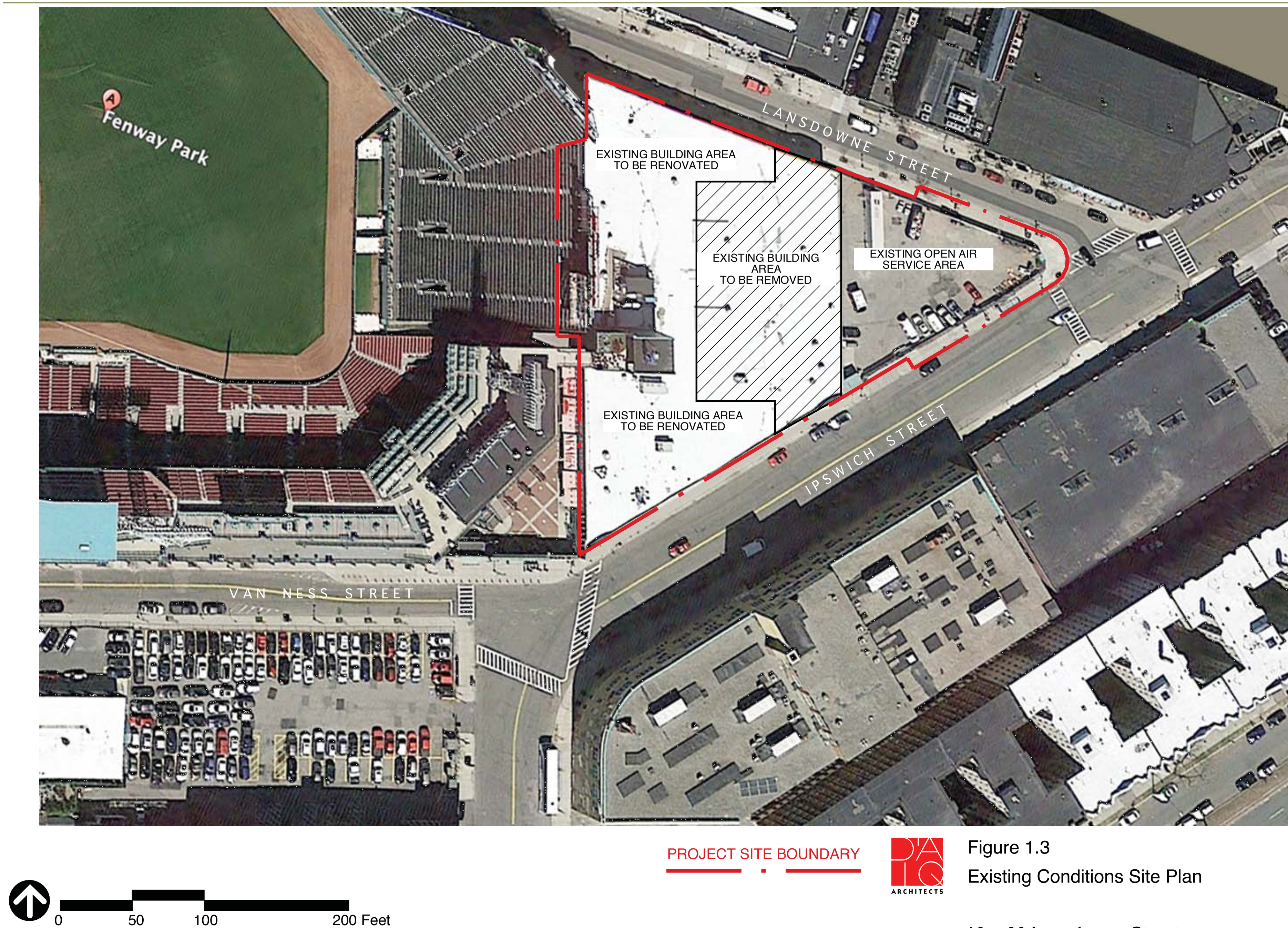


Source: ArcGIS Online Bing Aerial

Figure 1.2

Project Site Context

12 – 28 Lansdowne Street
Boston, Massachusetts



DAIQ ARCHITECTS

Figure 1.3

Existing Conditions Site Plan

12 – 28 Lansdowne Street
Boston, Massachusetts

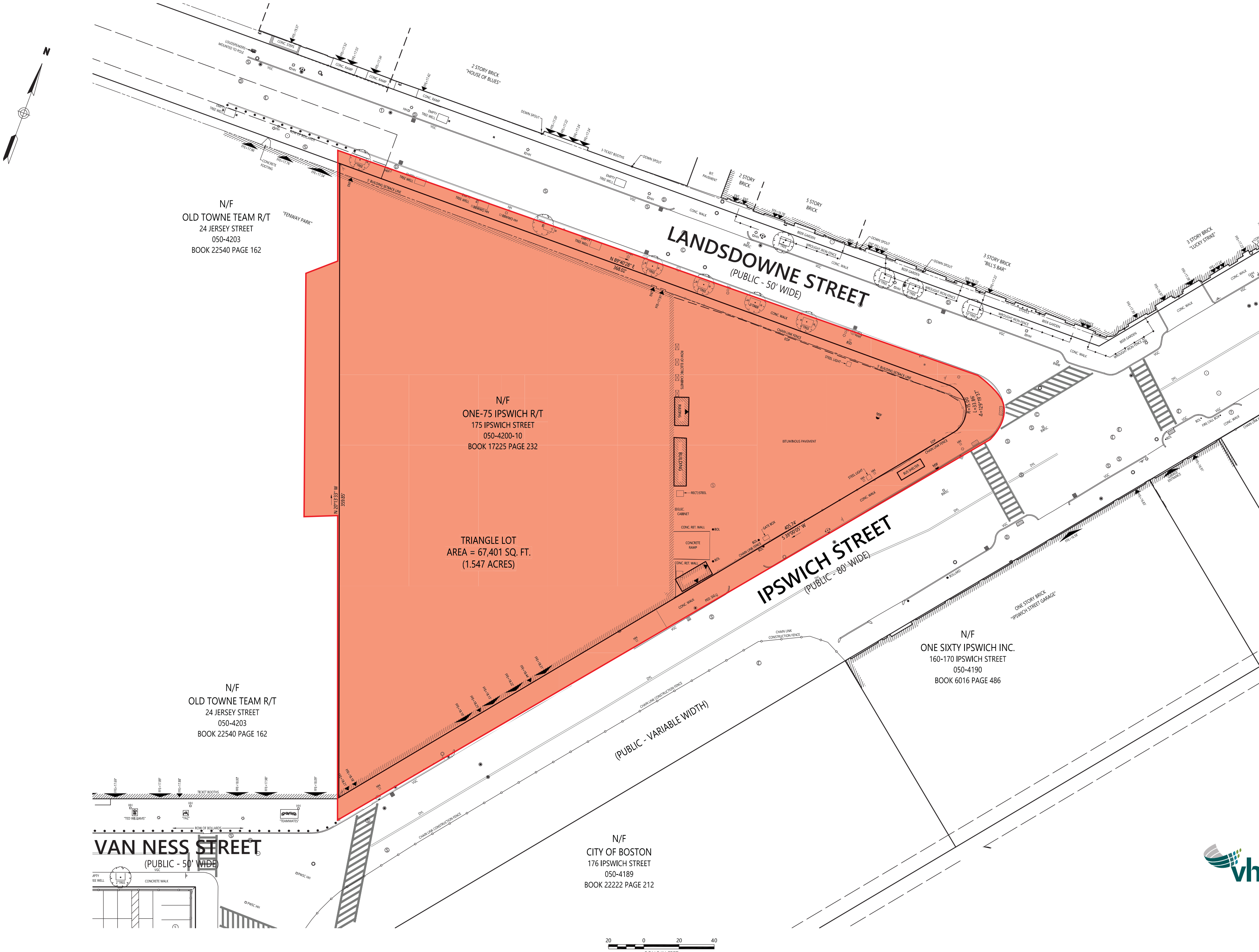


Figure 1.4

Existing Conditions Survey Plan

12 – 28 Lansdowne Street
Boston, Massachusetts

View of the Project Site Looking West from Lansdowne and Iswich Streets

Figure 1.5a
Existing Site Conditions Photos

12 – 28 Lansdowne Street
Boston, Massachusetts

View of the Project Site and Fenway Garage Building Looking South from Lansdowne Street

Figure 1.5b
Existing Site Conditions Photos

12 – 28 Lansdowne Street
Boston, Massachusetts

View of the Fenway Garage Facade and Fenway Park Looking West from Lansdowne Street

Figure 1.5c
Existing Site Conditions Photos

12 – 28 Lansdowne Street
Boston, Massachusetts

View of the Fenway Garage Facade and Project Site looking North East from Ipswich Street

Figure 1.5d
Existing Site Conditions Photos

12 – 28 Lansdowne Street
Boston, Massachusetts

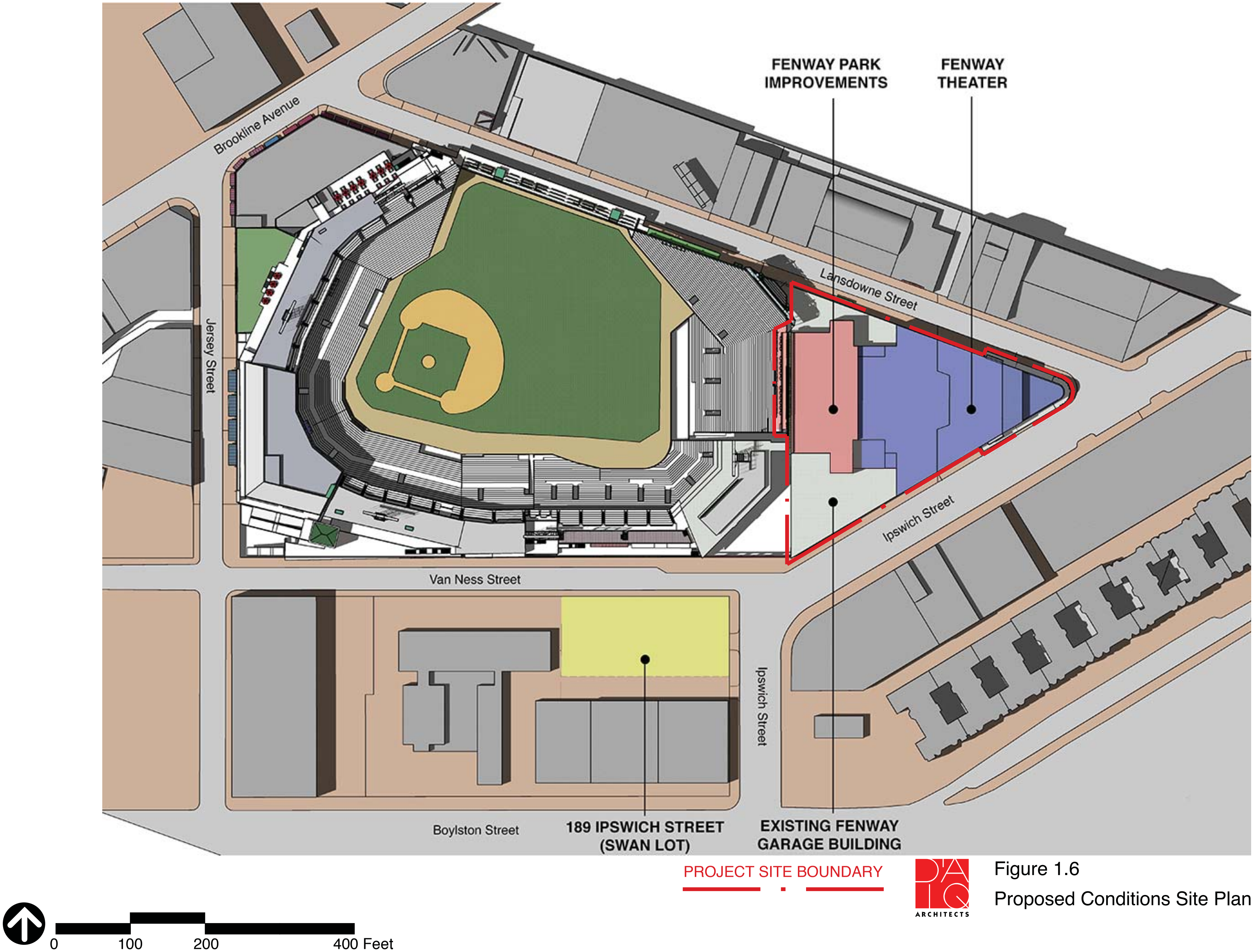


Figure 1.6
Proposed Conditions Site Plan

12 – 28 Lansdowne Street
Boston, Massachusetts

This Page Left Intentionally Blank

2

Urban Design

This chapter describes the neighborhood and urban design context and the preliminary design approach of the Project, including its public realm improvements. The Project design will create a gateway for visitors traveling to the exciting Lansdowne Street Entertainment District, further enhancing the vibrant mix of cultural, retail, sports, entertainment, educational, and residential uses in the Fenway neighborhood.

2.1 Summary of Key Findings and Benefits

- The building massing and articulation of the facades will be designed to respect and complement the street wall alignments and architectural and historic character of Fenway Park, the Fenway Garage building, and the surrounding neighborhood.
- The Project is anticipated to dramatically change the pedestrian experience along Ipswich and Lansdowne Streets, replacing an open, paved surface lot surrounded by chain link fence with the new Fenway Theater building that will activate the street and engage with passersby.
- The Project proposes an upgraded streetscape, including wide, accessible sidewalks, improved bus stops with shelters, improved street lighting, street bollards to protect pedestrians from vehicles, and facility and street level wayfinding advice consistent with the BTD's Complete Streets guidelines.
- The Project is anticipated to provide enhancements at the intersection of Lansdowne and Ipswich Streets to improve the pedestrian crossings and calm vehicle traffic.
- The Project is anticipated to promote public safety through implementing a site design that provides a safe and universally accessible facility from all directions.
- The Fenway Park Improvements will improve the fan experience and accessibility for fans seated in the bleachers by providing improved circulation and egress facilities, and improved concessions and casual seating areas for fans in the Right Field Grandstand and Bleacher seats of Fenway Park.
- The Project will contribute to the vibrancy of the neighborhood and its businesses on a year-round basis.

2.2 Neighborhood Context

The Project Site lies within the Fenway Triangle Neighborhood Development Area Subdistrict and the Lansdowne Street Entertainment District, and is adjacent to Fenway Park, a building listed in the National Register of Historic Places.

The surrounding neighborhood is a vibrant mix of cultural, retail, entertainment, and residential uses. The Lansdowne Street Entertainment District is known for its music venues and nightlife, including the House of Blues, and is activated with fans when Fenway Park hosts Red Sox games, other sporting events (i.e., hockey, football, soccer, winter sports), concerts, charity events and other public events. Street level retail, restaurants, and services line Boylston Street, Brookline Avenue, and some of the adjacent neighborhood streets amidst recently redeveloped parcels.

The area is also home to numerous educational institutions. It is expected that the Fenway Theater will develop a synergistic relationship with the rich arts education community in the neighborhood including the BAA (with its renovated school under construction), the Berklee College of Music, the Boston Conservatory at Berklee and the New England Conservatory of Music. Other educational institutions in the area include Boston University, Northeastern University, Wheelock College, and the Colleges of the Fenway.

Fenway is a very walkable neighborhood, and the Project Site enjoys excellent access to public transportation options. The Massachusetts Bay Transportation Authority (MBTA) #55 bus connects the Fenway neighborhood to Copley Square and Downtown and stops at the Project Site. The Project Site is a short walk from Kenmore Station, Fenway Station and the Hynes Convention Center Station along the MBTA's Green Line service, and Yawkey Station with commuter rail services. Six other local bus routes (8, 19, 57, 60, 65, and the CT2), are located within a 10-minute walk of the Project Site.

2.3 Urban Design Context

The existing street context is varied. In addition to Fenway Park, neighboring buildings are generally older commercial and light industrial masonry buildings of two to five stories in height. Many of these buildings have been repurposed to accommodate entertainment and dining uses. Other buildings in the neighborhood serve as structured parking. Recent new construction includes the House of Blues music venue on the north side of Lansdowne Street and the Boston Conservatory of Music building diagonally opposite on Ipswich Street. The BAA public high school is currently under construction across Ipswich Street to the south. Neighboring properties all present street wall facades, generally in the 30 to 60-foot range in height. The Project Site is triangular in shape, with approximately 365 linear feet of frontage on Lansdowne Street to the north, 400 linear feet of frontage on Ipswich Street to the south, and an additional 350 linear feet of frontage abutting the Bleacher Concourse of Fenway Park. Figures 1.5a-d provide photographs of the existing site and surrounding context. As permitted in the unique Lansdowne Street Entertainment District, vibrant digital signage located in the immediate vicinity of the Project Site illuminates the street at the House of Blues, Town Taxi, Lansdowne Garage, and Lucky Strike Social Boston establishments.

2.4 Planning Principles and Design Goals

The design intent of the Project is one that derives inspiration from iconic music and performance art venues, while preserving a scale, character, and expression that is consistent with Fenway Park and the Lansdowne Street Entertainment District. The building mass along Ipswich and Lansdowne Streets is set by the location of the existing Fenway Garage building. The mass of the proposed Fenway Theater will extend the building lines out towards the point of intersection at Lansdowne and Ipswich Streets. The building facade at this intersection will be chamfered and set back from the property line to provide increased pedestrian area at the Fenway Theater entrance. The geometry and location of the Project Site enables the Project to provide active building street frontage, to engage adjacent buildings, and to further define the public streetscape environment in a cohesive urban neighborhood. The Project is planned to be a vibrant development, combining high-quality sustainable architecture with a design that complements the urban fabric at multiple scales - city, district and pedestrian.

2.5 Design Concepts and Development

2.5.1 Height and Massing

Fenway Theater Multi-Purpose Performing Arts Venue

The Fenway Theater will rise three (3) stories (approximately 67 feet) above grade to the top of the structural roof, a height that is consistent with the general scale of the street wall created by the Fenway Park Improvements and existing at Fenway Park and other buildings in the vicinity of the Project Site. The top of the Fenway Theater at the corner of Lansdowne and Ipswich Streets will feature an outdoor terrace, which will be available to Fenway Theater patrons, while additionally being visible from the surrounding streetscape.

The Fenway Theater interior design will take advantage of the unique Project Site geometry, providing patrons with intimacy and sightlines rarely seen in venues of this size. Seating arrangements will vary according to individual events and are distributed over a generous main floor and three upper levels above. The main entrance at the intersection of Ipswich and Lansdowne Streets will anchor the Fenway Theater with signature elements such as, signage and graphics, marquee, and entry canopy. Lobby spaces will be vertically stacked to provide pre-event waiting areas to the various seating levels and include generous glass areas to help activate the adjacent streetscape. The mass of the stage will be located in the center portion of the Project Site, adjacent to service and backstage areas, and set back from the street frontage.

Refer to Figures 2.3a-f for the Project floor plans, Figure 2.4 for the Project elevations and Figure 2.5 for Project sections. Figures 2.6 to 2.7 provide aerial and pedestrian level perspective views of the Project. Figure 2.8 provides a rendering of the Project.

Fenway Park Improvements

The existing street wall height of the Fenway Garage building is a maximum of 32 feet above grade. The vertical addition of the Fenway Park Improvements will rise two stories, or approximately 35 feet above the existing Fenway Garage building, up to a total of approximately 67 feet from grade to the top of the structural roof.

The vertical addition will be set back a minimum of 15 feet from the closest street facade at Lansdowne Street, and 42 feet at Ipswich Street, and will be designed to be perceived as an extension of Fenway Park. The vertical addition will be constructed above the existing roof of the Fenway Garage building, directly adjacent to and accessed from the Right Field Grandstand and Bleacher seats of Fenway Park. The floor levels of the vertical addition will utilize the existing stair and elevator core that currently provides access to the back of the Right Field Grandstand and the Right Field Roof Deck above, in addition to newly constructed stairs and elevator(s).

Refer to Figures 2.3a-f for the Project floor plans, Figure 2.4 for the Project elevations and Figure 2.5 for Project sections. Figures 2.6 to 2.7 provide aerial and pedestrian level perspective views of the Project.

2.5.2 Character and Exterior Materials

While the Fenway Theater and the Fenway Park Improvements will have distinct facades and expressions tailored to their particular roles, there is a relationship between them and the existing Fenway Park, including shared materials that will convey a sense of harmony and unify the entire Project into a cohesive whole.

The existing Fenway Garage building facade to remain will continue to occupy a substantial portion of the Project's perimeter, providing more than 40 percent of the Lansdowne Street and Ipswich Street frontage. A comprehensive exterior facade restoration, consistent with previous work executed as part of earlier Fenway Park improvement projects, will be expanded to include all remaining areas along Ipswich and Lansdowne Streets and the Bleacher Concourse. Elements of this work include installation of windows and restoration of masonry and concrete. Glazed areas at Lansdowne Street will be active and transparent and include Fenway Park concession areas, office areas, backstage support and lounge areas, and a new public lobby to serve the new Fenway Park function space. Ipswich Street frontage will include the existing club areas, employee entrances and utility areas. The existing tall openings in the Fenway Garage building will be maintained and used to provide access to newly constructed trash, recycling and loading dock bays. One additional loading bay opening will be added at the easternmost portion of the facade along Ipswich Street. These openings will be protected by painted metal roll-down doors.

Refer to Figure 2.4 for the Project elevations and Figures 2.6 to 2.7 for aerial and pedestrian level perspective views of the Project.

Fenway Theater

The Fenway Theater exterior expression will be designed to reflect its connection to Fenway Park and its neighborhood context, while incorporating signature elements inspired by iconic theaters and music halls. The building will continue the masonry base expression of Fenway Park, the Fenway Garage, and The Smith (Jeano) Building to the west on Lansdowne Street, and share with them a rhythm of brick pilasters and framed openings. Lintels will be a combination of flat and shallow arched precast concrete, along with projecting sills and capstones. Glazed areas will be concentrated at the intersection of Ipswich and Lansdowne Streets, providing visual access to lobbies, lounges, and ticketing areas. Other ground level openings are contemplated to provide information on upcoming events, as well as graphic arts displays. In keeping with the theatrical and entertainment uses, the building exterior expression will include an entry marquee and animated lighting and signage. A sidewalk canopy will extend beyond the building face at the lobby and ticketing areas to provide weather protection to waiting patrons.

The upper portions of the theater audience chamber will be clad with standing seam metal panels. The change of materials at the upper levels will reduce the height of the masonry expression and apparent mass to a height more consistent with that of Fenway Park.

The Fenway Theater has been thoughtfully designed with canopies, signage and lighting elements appropriate for the building's use and scale that complement the identity of this unique district, which is known for its music venues and nightlife. The proposed facade treatment includes a combination of static signage, LED video displays, interactive decorative lighting, and a marquee befitting of an iconic performing arts venue, but consistent with existing digital signage as permitted in this district. The proposed signage and lighting elements are intended to invigorate an underutilized parcel, mark the entrance to the Theater, and create an iconic gateway for visitors traveling to the vibrant Lansdowne Street Entertainment District.

Refer to Figure 2.4 for the Project elevations, and Figures 2.6 to 2.7 for aerial and pedestrian level perspective views of the Project. Refer to Figures 2.4a-b, 2.6, 2.7 and 208 for a depiction of conceptual signage.

Fenway Park Improvements

The Fenway Park Improvements component of the Project will be designed as a lightweight steel framed structure clad with green vertical metal panels with flat battened seams. The construction methodology and materials palette will be consistent with earlier vertical additions to the ballpark that differentiate areas of new construction from those of the original historic structure, and will appear seamless to Fenway Park patrons and pedestrians. Openings will generally be open air where possible, or otherwise infilled with simple rectangular frames.

The existing Fenway Park right field video board and sponsor signage will be detached from the current bleacher supports. Final design and positioning of signage elements are to be determined as the design advances.

Refer to Figure 2.4 for the building elevations, and Figures 2.6 to 2.7 for aerial and pedestrian level perspective views of the Project.

2.6 Public Realm Improvements

The Project Site is uniquely positioned at the intersection of Ipswich and Lansdowne Streets and offers excellent opportunities to improve the public realm and position the Project as a new gateway to the vibrant Lansdowne Street Entertainment District.

2.6.1 Pedestrian Access/Circulation

The main entrance to the Theater will be prominently placed at the point where Ipswich Street and Lansdowne Street intersect. Access for the planned function space is be located on Lansdowne Street just east of Gate C. Easy access and egress for pedestrians of all abilities is integral to the Fenway Theater design development. Accessible pedestrian routes and entrances compliant with Americans with Disabilities Act (ADA) will be provided along Ipswich and Lansdowne Streets. Refer to Appendix B, *BPDA Checklists*, Figure B.1, Diagram of Accessible Routes for additional details.

The Project will also include improvements to sidewalks, enhancements to crossing locations, and pedestrian amenities in the vicinity of the Project Site. These include:

- A new wide, accessible, barrier-free pedestrian zone along the entire Project frontage;
- Improved lighting;
- Facility and street level wayfinding advice;
- Street bollards to protect pedestrians from motor vehicles;
- Intersection enhancements at the intersection of Lansdowne and Ipswich Streets to improve pedestrian crossings and calm traffic; and,
- A new, short-term, accessible drop-off area proposed to be provided along Ipswich Street proximate to the loading and service area, as illustrated in Figure 2.9.

2.6.2 Streetscape Improvements

Streetscape improvements were previously implemented along Lansdowne Street, Van Ness Street, and at the intersection of Ipswich Street/Van Ness Street as part of earlier Fenway Park improvements. These improvements widened and improved sidewalks, and provided lighting and trash receptacles, public art installations, and outdoor dining space. Additional streetscape enhancements along Ipswich Street are under design as part of the renovation of the BAA. The Project will carry the design philosophy and scale of these efforts through the Project frontage and at the Lansdowne Street/Ipswich Street intersection to provide a space that is welcoming, safe, and aesthetically appealing.

Specific streetscape improvements planned as part of the Project include:

- Continuation of the streetscape improvements planned by the BAA along the north side of Ipswich Street to Lansdowne Street;
- Narrowing of the intersection of Lansdowne and Ipswich Streets to provide wider sidewalks and safer pedestrian crossing locations;
- Use of pavement treatments, wayfinding signage, and bollards to demarcate the Lansdowne/Ipswich Street intersection as a gateway and emphasize the presence of pedestrians; and
- New MBTA bus stops and shelters along Ipswich Street.

Planned improvements by the BAA also propose to narrow the intersection of Van Ness Street and Ipswich Street and improve walkways and crossings. This proposal will further slow traffic in the vicinity of the Project and enhance the environment for pedestrians accessing the Theater from the Boylston Street corridor. Refer to Figure 2.9 for a public realm improvements plan, and Figure 4.11 for a Site access plan.

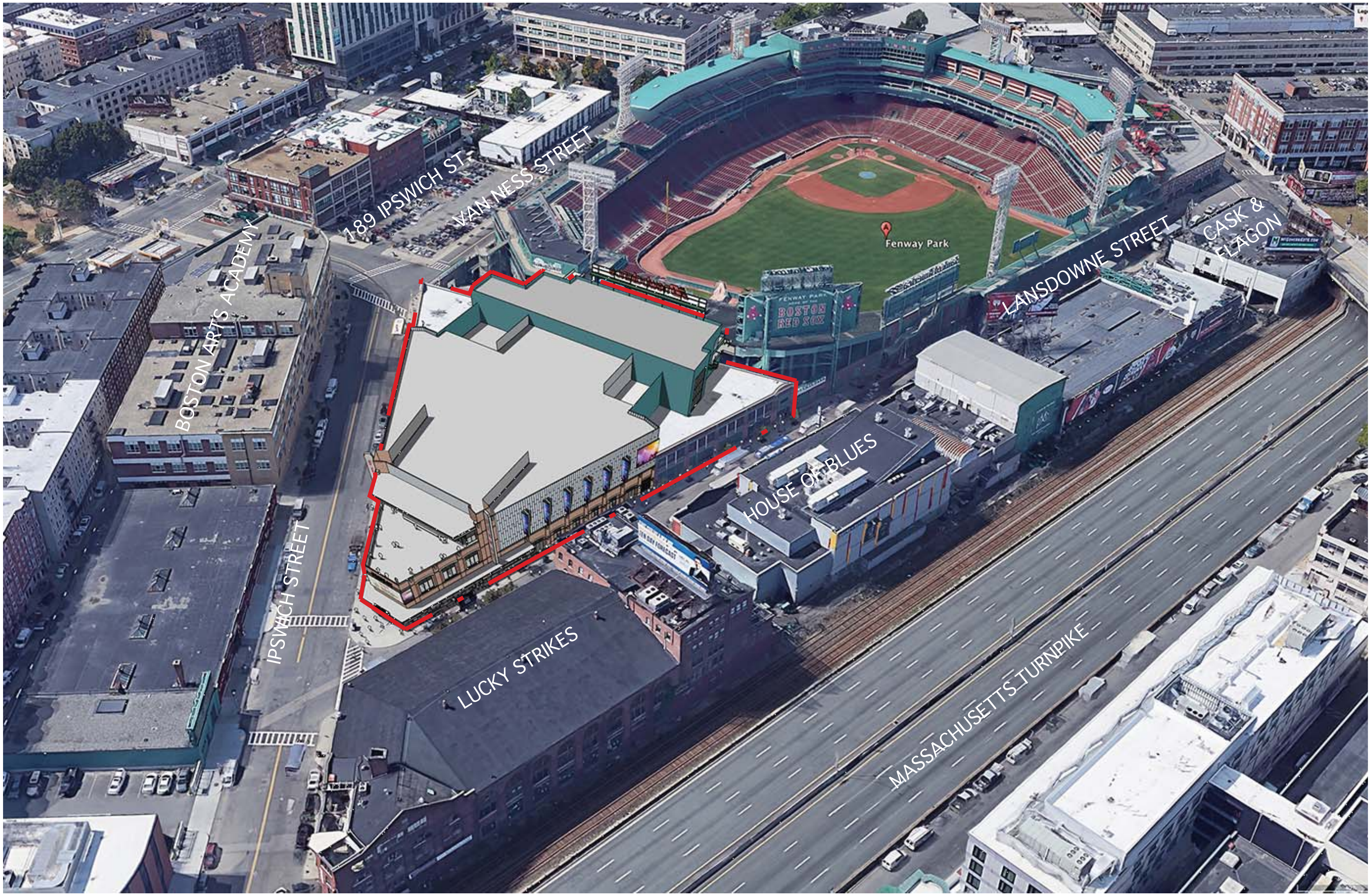
This Page Left Intentionally Blank

PROJECT SITE BOUNDARY

ARCHITECTS

Figure 2.1
Neighborhood Context (existing)

12 – 28 Lansdowne Street
Boston, Massachusetts



PROJECT SITE BOUNDARY

Figure 2.2
Neighborhood Context (proposed)

12 – 28 Lansdowne Street
Boston, Massachusetts

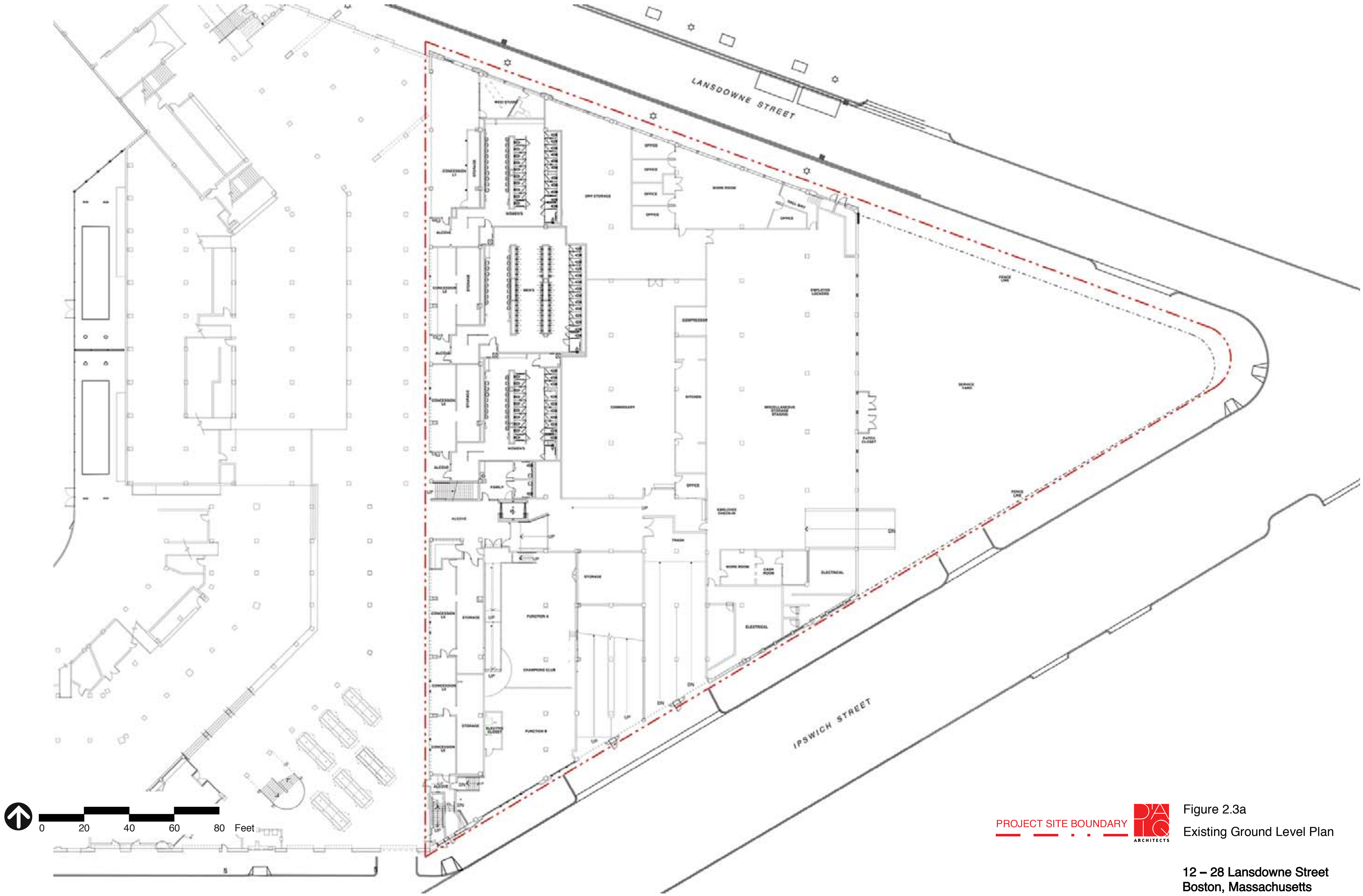


Figure 2.3a
Existing Ground Level Plan

12 – 28 Lansdowne Street
Boston, Massachusetts

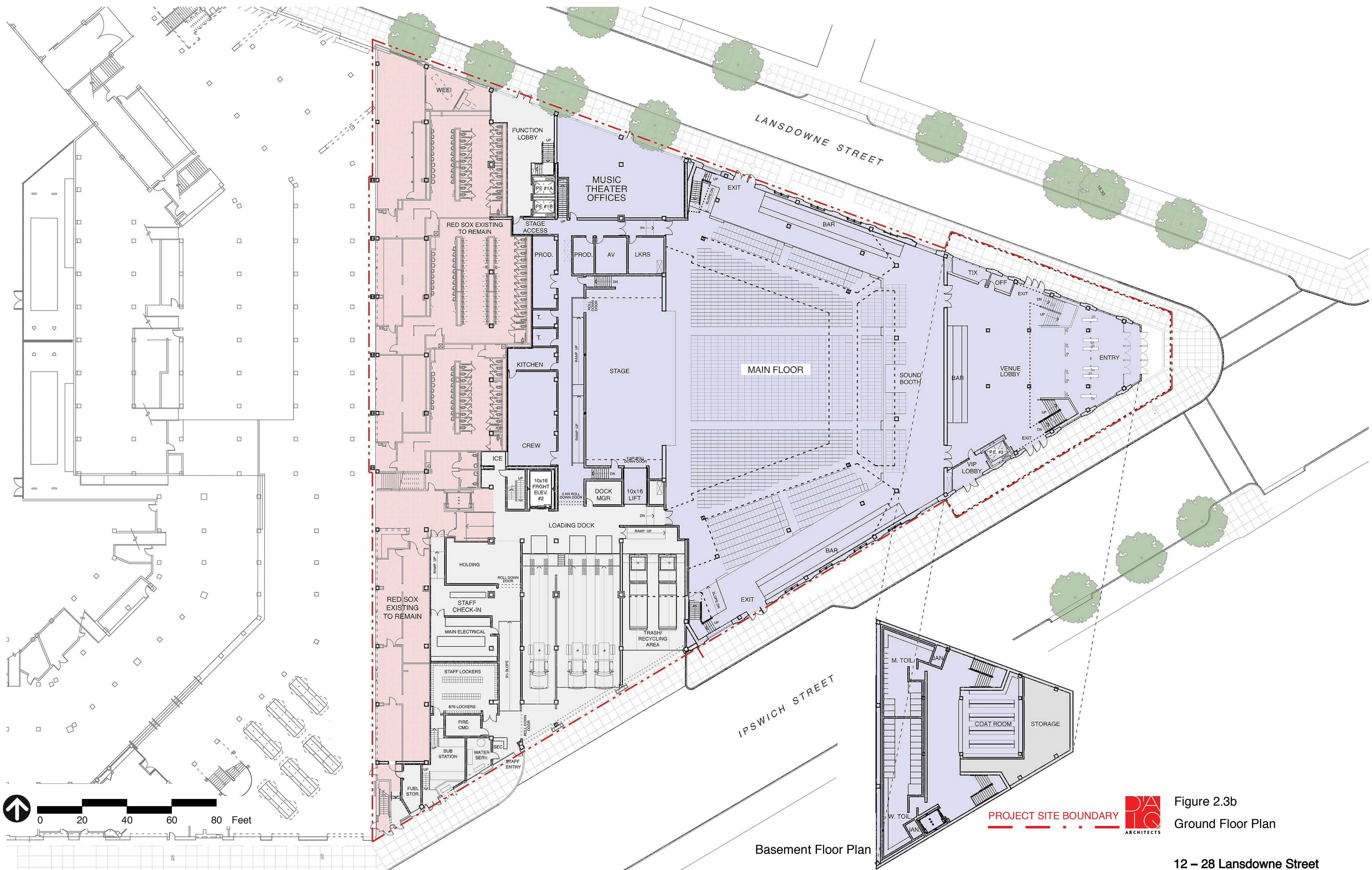


Figure 2.3b

Ground Floor Plan

12 – 28 Lansdowne Street
Boston, Massachusetts

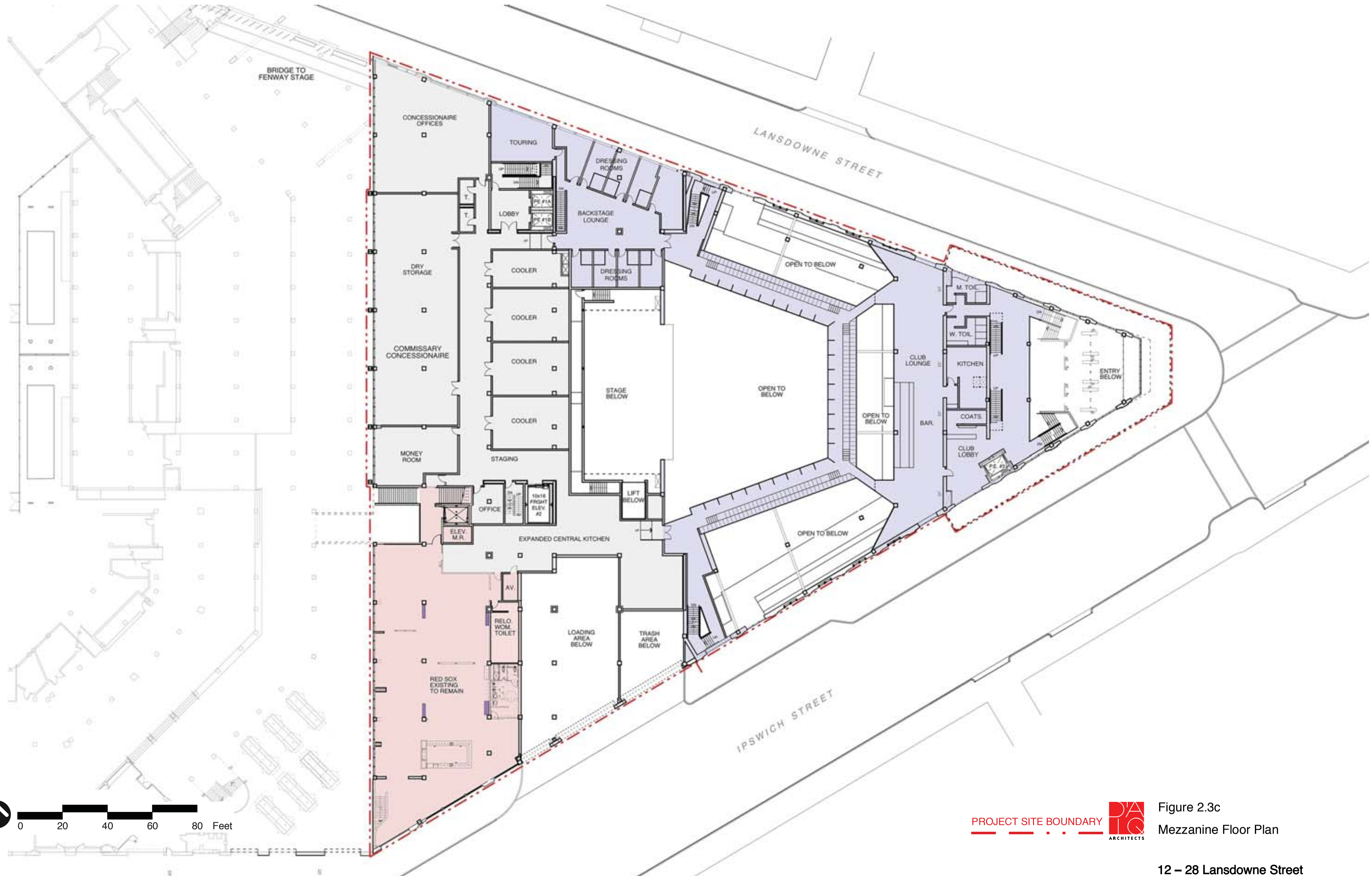


Figure 2.3c

Mezzanine Floor Plan

12 – 28 Lansdowne Street
Boston, Massachusetts

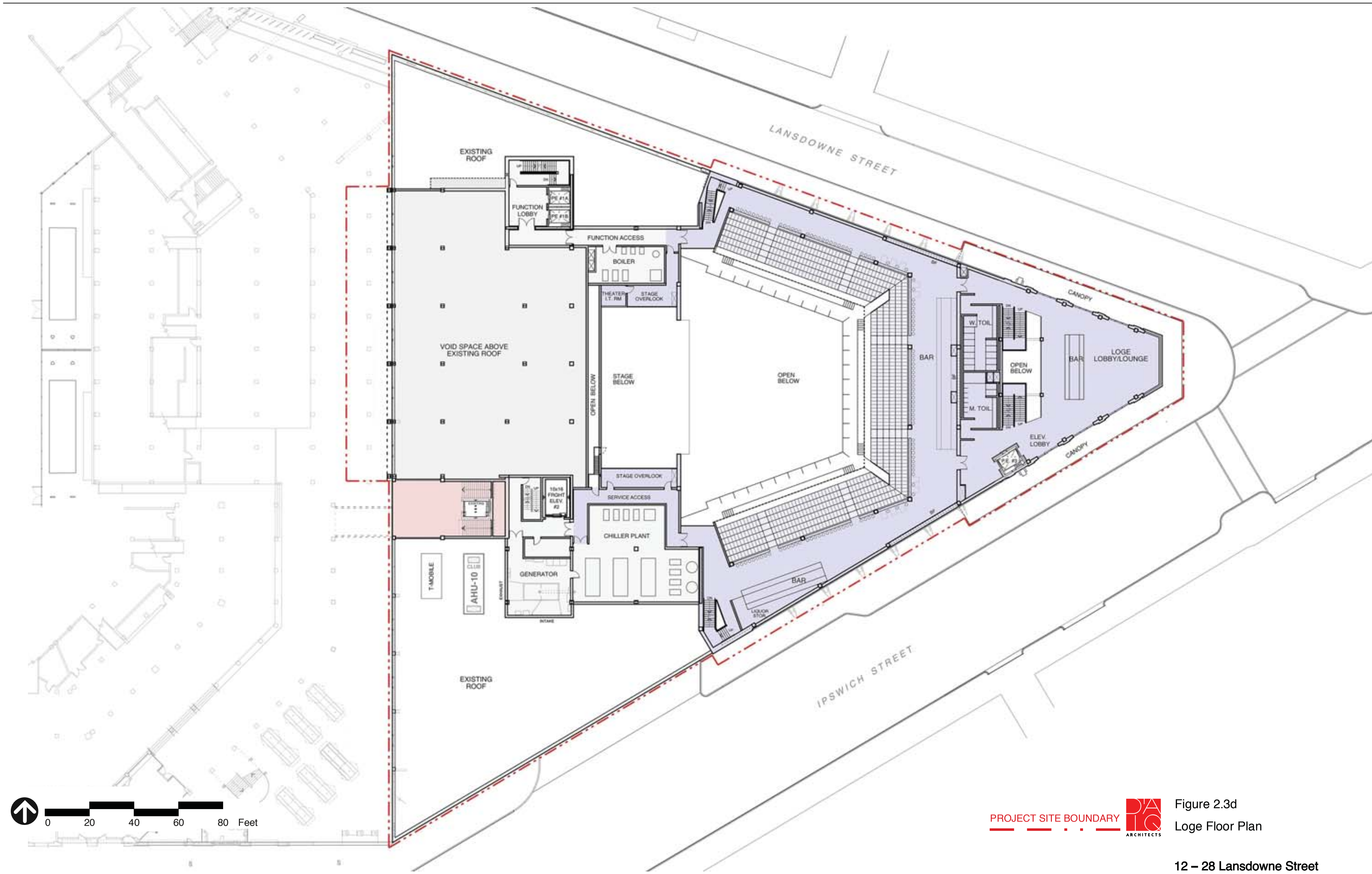


Figure 2.3d

Loge Floor Plan

12 – 28 Lansdowne Street
Boston, Massachusetts

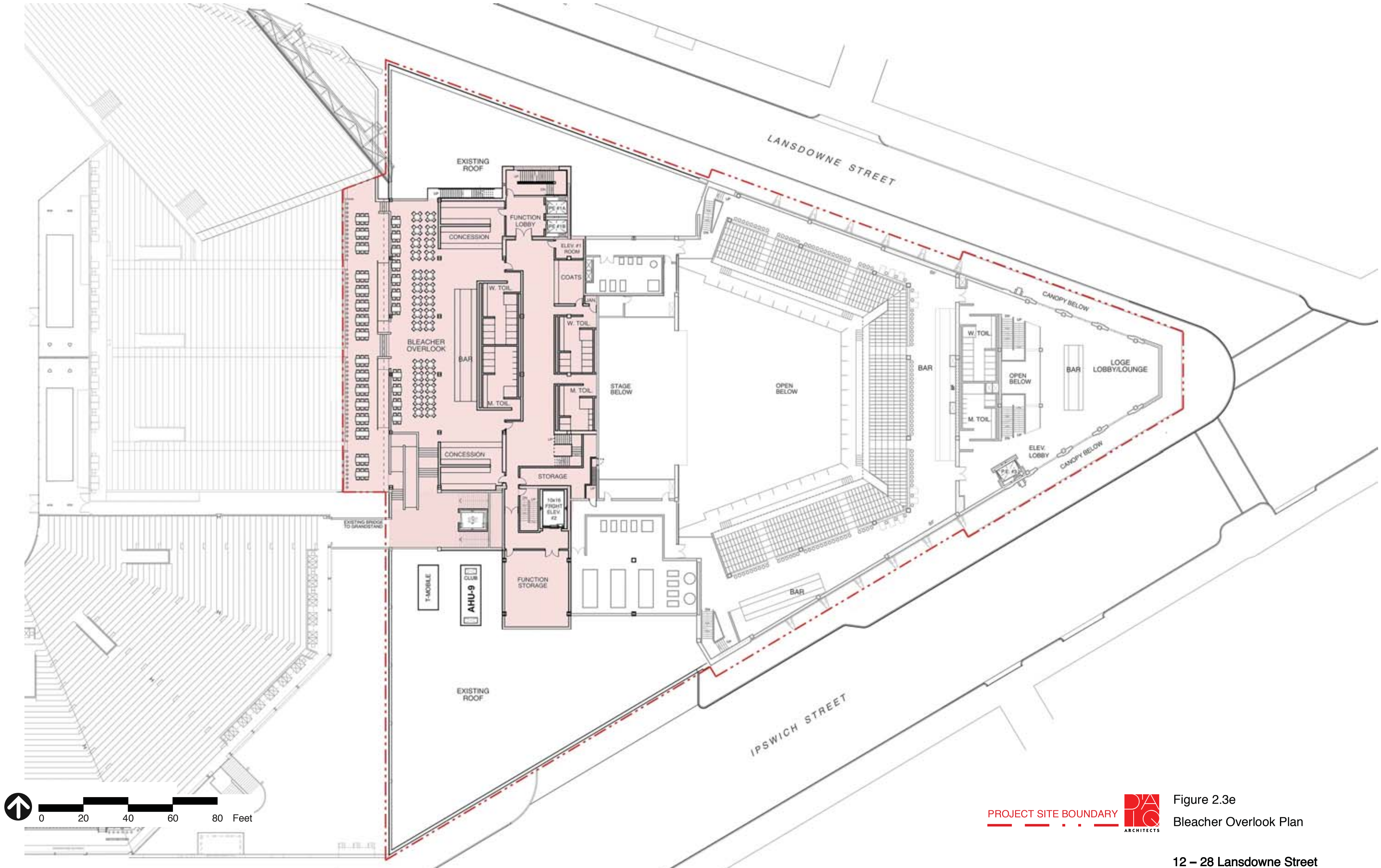


Figure 2.3e

Bleacher Overlook Plan

12 – 28 Lansdowne Street
Boston, Massachusetts

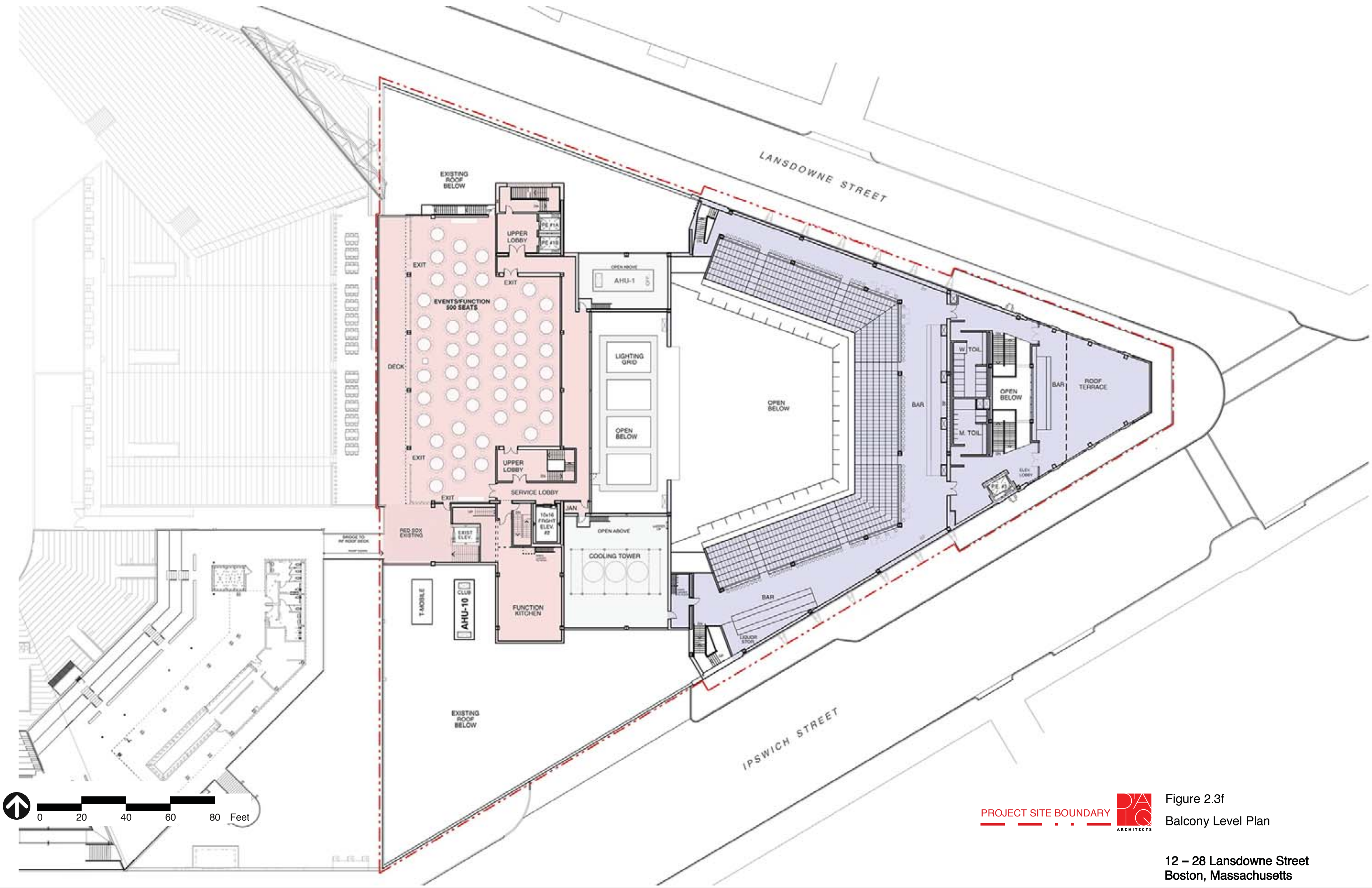


Figure 2.3f

Balcony Level Plan

12 – 28 Lansdowne Street
Boston, Massachusetts

Night View

Day View

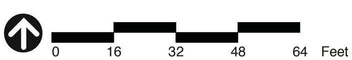


Figure 2.4a

Lansdowne Street Elevations

12 – 28 Lansdowne Street
Boston, Massachusetts

Night View

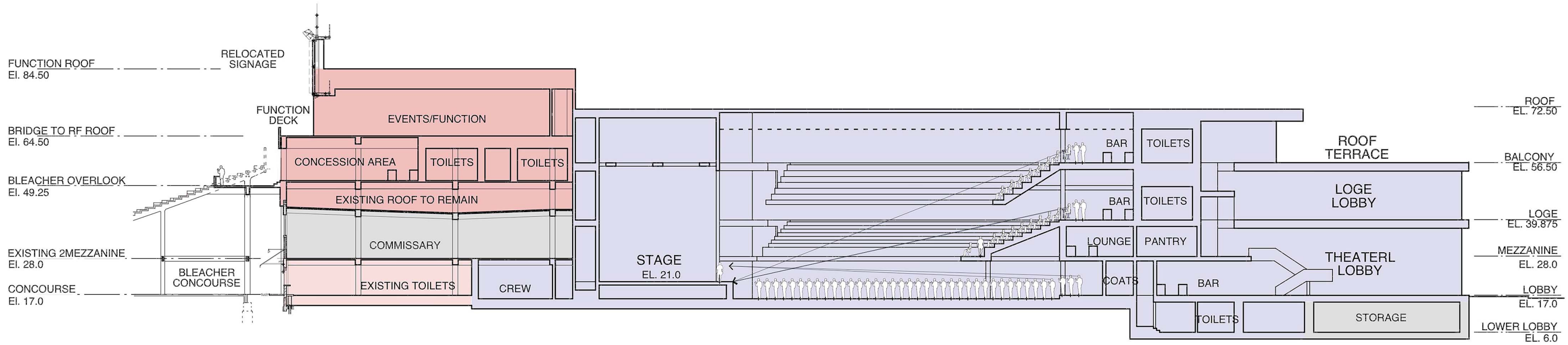
Day View

0 16 32 48 64 Feet

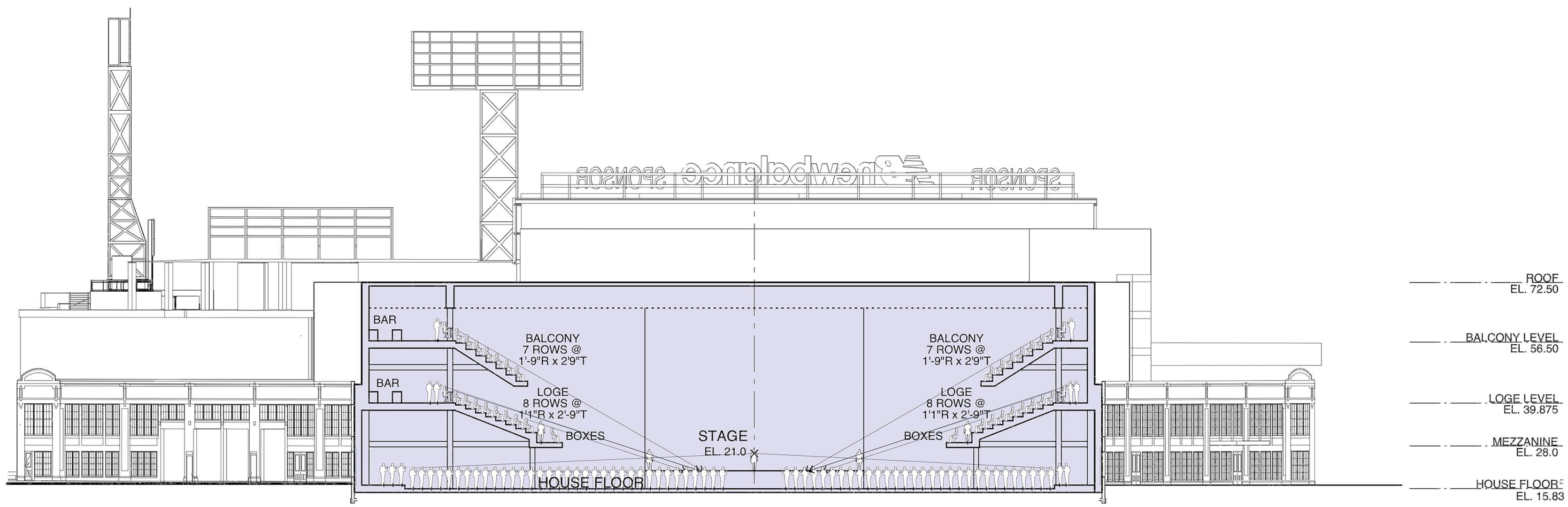
Figure 2.4b

Ipswich Street Elevations

12 – 28 Lansdowne Street
Boston, Massachusetts



Longitudinal Section



Transverse Section

0 16 32 48 64 Feet

Figure 2.5

Project Sections

12 – 28 Lansdowne Street
Boston, Massachusetts

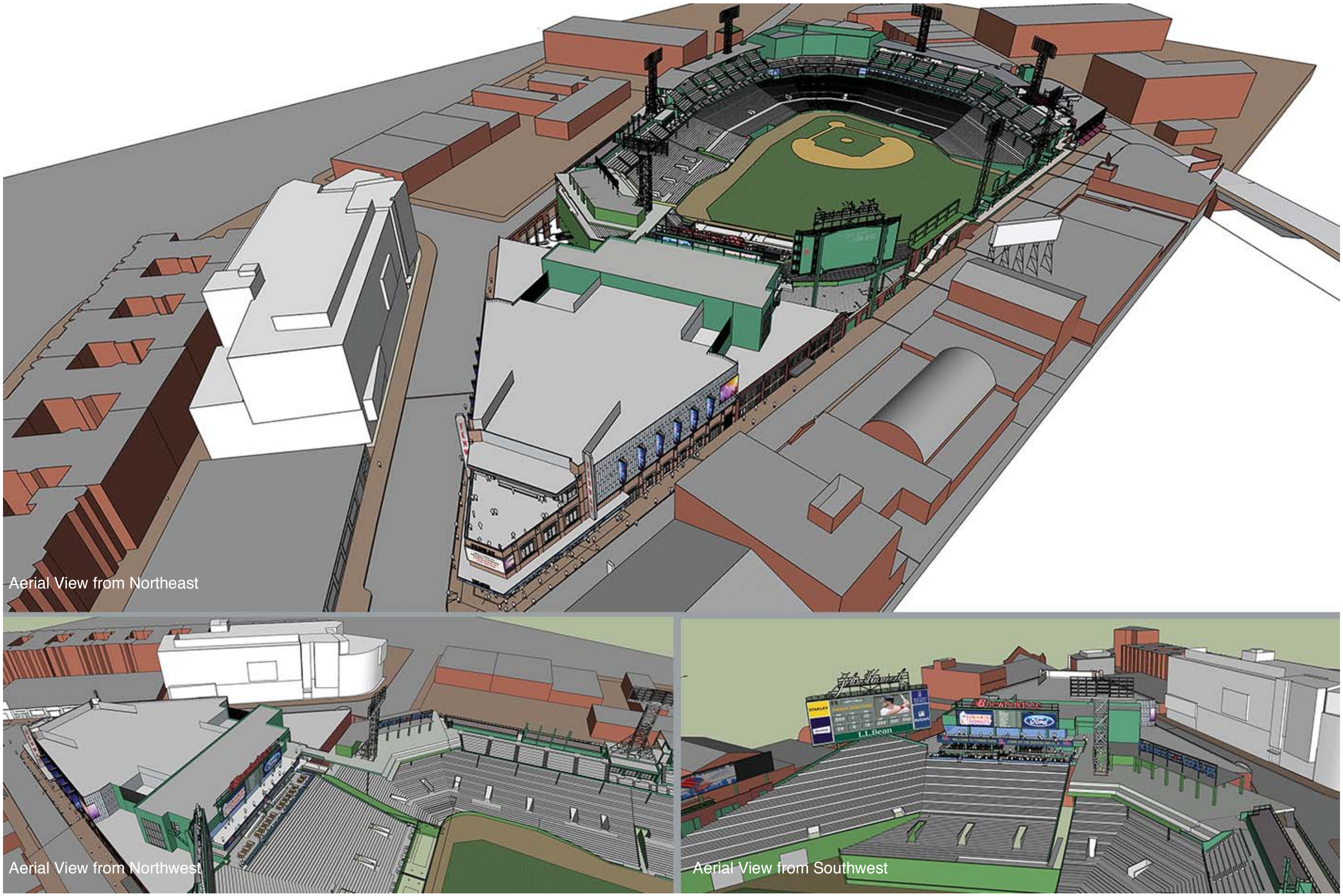
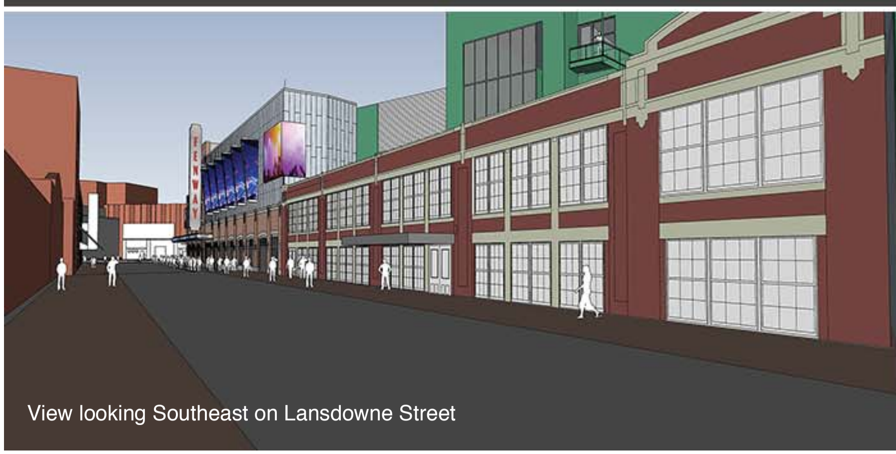


Figure 2.6

Fenway Park Improvements Model Views

12 – 28 Lansdowne Street
Boston, Massachusetts

View at Lansdowne Ipswich Intersection


View looking Southeast on Lansdowne Street


View looking Northeast on Ipswich Street

Figure 2.7

Fenway Theater Model Views

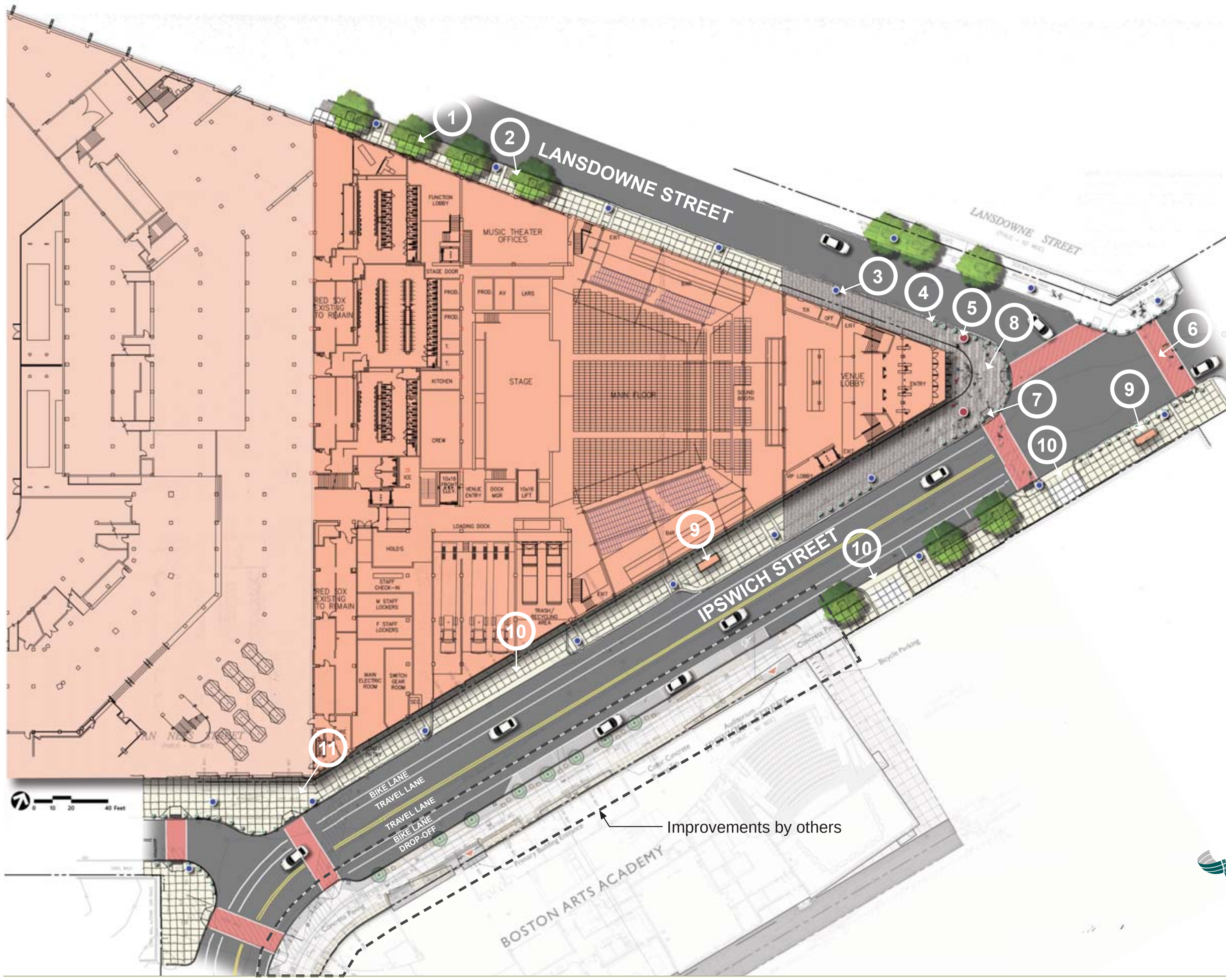
12 – 28 Lansdowne Street
Boston, Massachusetts

NEOSCAPE

Figure 2.8

View at Ipswich and Lansdowne Streets

12 - 28 Lansdowne Street
Boston, Massachusetts



LEGEND

1. Broad shade tree
2. Permeable pavers and treeway
3. Street light
4. Decorative security bollard
5. Large decorative plaza light
6. Thermal plastic imprint paving at crosswalk
7. Accessible ramp
8. Entry plaza pavers
9. Bus shelter
10. Vehicular scored concrete
11. Pedestrian scored concrete

Figure 2.9

Public Realm Improvment Plan

12 - 28 Lansdowne Street
Boston, Massachusetts

Source Info

This Page Left Intentionally Blank

3

Sustainability/Green Building and Climate Change Resiliency

This chapter provides an overview of the Project's proposed sustainable design elements at the preliminary design stage, to demonstrate that the Project will meet the requirements of Article 37 of the Code relative to the City's Green Building policies and procedures.

This chapter also discusses the approach to preparing for changes in climate, in accordance with the BPDA Climate Resiliency - Review Policy Update (the "Resiliency Policy Update"). The required Climate Change Resiliency and Preparedness Checklist (the "Resiliency Checklist") has been completed for the Project and is provided in Appendix B.

3.1 Summary of Key Findings and Benefits

The key findings related to sustainability and climate change for the Project include:

- The Project targets a high level of sustainability by designing the Project Site and building using the LEEDv4 rating system to demonstrate compliance with Article 37, Green Buildings, of the Code.
- In support of Boston's Greenhouse Gas ("GHG") emissions reductions goals, the Project team has considered and will continue to evaluate energy conservation measures to reduce overall building energy usage and reduce associated GHG emissions.
- The preliminary energy model study provides an evaluation of building system and alternative energy options and demonstrates that the proposed building design exceeds the Massachusetts Stretch Energy Code requirement (10 percent better than ASHRAE 90.1-2013).
  - The Project aims to achieve a reduction in stationary source CO_2 emissions below an ASHRAE 90.1-2013 baseline, currently estimated at seventeen (17) percent, by reducing overall energy consumption through the implementation of energy optimizing building design and systems.
  - Based on the preliminary energy model, the energy consumption is expected to result in an estimated GHG emissions of approximately 620 tons per year, which represents an estimated 17 percent reduction below an ASHRAE 90.1-2013 baseline.
- Potential impacts associated with climate change, such as predicted future sea level rise, increased frequency and intensity of precipitation events, and extreme heat events have been considered during early stages of design.

3.2 Regulatory Context

3.2.1 Massachusetts Stretch Energy Code

As part of the Green Communities Act of 2008, Massachusetts developed an optional 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. Codified by the Board of Building Regulations and Standards as 780 CMR Appendix 115.AA of the 9th edition Massachusetts Building Code, the Stretch Energy Code is an appendix to the Massachusetts Building Code, based on further amendments to the International Energy Conservation Code (IECC). The Stretch Energy Code increases the energy efficiency code requirements for new construction and major residential renovations or additions in municipalities that adopt it. The Stretch Energy Code applies to new commercial buildings over 5,000 square feet and multi-family residential buildings over three (3) stories. The City adopted the Stretch Energy Code, which became mandatory on July 1, 2011.

Effective January 1, 2017, the IECC 2015/ASHRAE 90.1-2013 standard became the new/updated state-wide energy code as an amendment to the 9th edition of the State Building Code, and the Stretch Energy Code was amended to require 10 percent greater energy efficiency compared to ASHRAE 90.1-2013. The Project has incorporated these new requirements into its basis of design.

3.2.2 Article 37 of Boston Zoning Code

Through Article 37 – Green Buildings, the City encourages major building projects to be “planned, designed, constructed, and managed to minimize adverse environmental impacts; to conserve natural resources; to promote sustainable development; and to enhance the quality of life in Boston.” Any project that is subject to Article 80B, Large Project Review is also subject to the requirements of Article 37.

Article 37 requires all projects over 50,000 square feet to meet LEED certification standards by either certifying the proposed project or demonstrating that the project would meet the minimum requirements to achieve a LEED Certified level (i.e., all LEED pre-requisites and at least 40 points associated with credits listed on the LEED project checklist) without registering the project with the USGBC (“LEED certifiable”). With the LEEDv4 rating system effective as of October 31, 2016, the BPDA requires initial Article 80B Large Project Review submissions on or after November 1, 2016 to demonstrate LEED certifiability using LEEDv4.

3.2.3 BPDA Climate Change Preparedness and Resiliency Policy

In conformance with the Mayor’s 2011 Climate Action Leadership Committee’s recommendations, the BPDA requires projects subject to Boston Zoning Article 80 Small and Large Project Review to complete a Resiliency Checklist to assess potential adverse impacts that might arise under future climate conditions and to identify any project resiliency, preparedness, and/or mitigation measures early in the design stage. The Resiliency Checklist is reviewed by the Interagency Green Building Committee (“IGBC”).

3.3 Sustainability/Green Building Design Approach

While the sustainability goals of the Project are in the preliminary design phase, the Proponent has identified sustainability as one of the design team's priorities for the Project. The sustainability goals for the Project include enhancing the neighborhood, minimizing environmental impacts, and maximizing occupant health and comfort. In support of the City's energy conservation and GHG emissions reduction goals, the Proponent and design team are also working to develop an energy efficient building. These goals will continue to guide the Proponent's decision making regarding design and operations of the Project.

The entire scope of the Project is captured in the building energy model, which is used to demonstrate LEED compliance as required by Article 37 of the Code. The Project will show compliance using the LEEDv4 BD+C New Construction rating system and pursue a minimum of a LEED Silver certifiability, as shown in the LEED Scorecard show in Figure 3.1 at the end of this chapter.

The Proponent and Project team will continue to evaluate and incorporate sustainable design and energy conservation as the design process continues.

3.3.1 Compliance with Article 37

The Project incorporates a holistic approach to sustainability, while mitigating the environmental impacts of energy, water and material use. The Project is currently targeting LEED-Silver certifiability. A summary of the preliminary approach to the credit categories is outlined below and shown in Figure 3.1, the preliminary LEED checklist.

Integrative Process

The Project team will identify and use opportunities to achieve synergies across disciplines and building systems. The analyses inform the owner's Project requirements, basis of design, design documents, and construction documents.

Location and Transportation

The Project Team has currently identified 12 achievable points within the Location and Transportation credit category along with four (4) points that may be feasible with additional investigation. The Project Site is located in the fast-growing, densely populated Fenway neighborhood offering a range of amenities and convenient intermodal public transportation options, as detailed in Chapter 4, *Transportation*. The diversity in public transportation options encourages building occupants and theater patrons to utilize these modes, as opposed to taking single occupant vehicles. Facilitating public transportation access reduces the number of vehicles traveling to and from the building, reduces mobile source greenhouse gas emissions linked to this building, and can reduce commuting costs for employees.

Additionally, the Project will not provide any parking, and, in fact, results in an overall reduction in study area parking of approximately 105 parking spaces to further encourage occupants and visitors to choose sustainable transportation alternatives.

Sustainable Sites

The Project team has currently identified six (6) achievable points within the Sustainable Sites category. The Project is designed to minimize rainwater runoff and reduce the impact of highly absorptive surfaces contributing to the urban heat island effect. The Project team has also identified four (4) points that may be feasible but require further investigation to determine achievability. The team will track and continue to evaluate the potential to pursue the “maybe” credits related to the Project’s rainwater management strategy, incorporation of pedestrian oriented open space, and reduction of light pollution.

Water Efficiency

The Project team has currently identified five (5) points that are attainable, along with an additional three (3) points that may be feasible and require additional investigation. The Project is designed to incorporate high-efficiency water fixtures to reduce indoor water consumption and incorporate advanced water meters to help the Project consistently track water usage data. The team will track and continue to evaluate the potential to pursue the “maybe” credits to achieve additional water savings in cooling tower and indoor water use demands.

Energy and Atmosphere

The Project Team has currently identified 16 points within the Energy and Atmosphere category that are attainable, and another 8 points that may be feasible with some further investigation.

The 14 attainable credits in the Energy and Atmosphere category will be sought through reductions in overall energy consumption by cost, enhanced commissioning strategies, green power and carbon offsets, enhanced refrigerant management, and advanced metering of energy subsystems to help the building’s management to understand and reduce consumption.

The potential “maybe” credits will be monitored by the Project team to determine if improvements to energy performance, commissioning, demand response, and renewable energy production strategies can be utilized for the Project.

Materials and Resources

The Project team has currently identified three (3) points that are attainable within the Materials and Resources category, and an additional nine (9) points as potential target credits. The Project will reduce the overall footprint of the materials and resources by utilizing sustainable waste management strategies and maximizing the declarations of environmental products and chemical ingredients of the permanently installed products. The Project team will continue to investigate the possibilities for maximizing points under Building Product Disclosure Optimization credits.

Indoor Environmental Quality

The Project team has currently identified seven (7) points in this category that are likely to be attainable for the Project, and nine (9) points that may be feasible. Strategies such as enhanced indoor air quality control strategies, construction indoor air quality management plan, and low-emitting materials are incorporated to provide a healthy indoor environment for all occupants and visitors. The Project team will continue to investigate the possibilities of pursuing daylighting, acoustic performance, and quality views to further enhance the indoor environment of the space.

Innovation

All LEEDv4 projects must pursue at least one (1) Pilot Credit, one (1) Innovation Credit, and no more than two (2) exemplary performance credits. The Innovation in Design Credits may include: designing a walkable Project Site to encourage visitors to walk; increasing health and environmental benefits; purchasing lamps that contain minimal-to-zero mercury to reduce toxic materials onsite; and one ID credit for having a LEED AP on the Project team.

Regional Priority

The four (4) points available in the Regional Priority credit category are contingent on the Project meeting certain thresholds for credits in previous categories as determined by the USGBC. The Project has identified the Regional Priority credit for Rainwater Management listed as attainable. The four (4) points in this category are automatically awarded pending the award of the original credits to which they are linked.

Boston Green Building Credits

Appendix A of Article 37 lists "Boston Green Building Credits," which are credits that may be included in the calculation toward achieving a LEEDv4 certifiable project. These credits along with the prerequisites were developed by the City and are intended to address local issues unique to development within Boston. The credits include the following categories: Modern Grid; Historic Preservation; Groundwater Recharge; and Modern Mobility.

The Project team is investigating the feasibility of complying with the prerequisites and pursuing credits under the Boston Green Building Credit system. This system supplements LEED certification and allows projects to comply with unique credits developed by the City that can then be included in the calculation towards achieving a LEED Certification.

3.4 Preliminary Energy Conservation/GHG Emissions Reduction Approach

In alignment with regional efforts to reduce GHG emissions and in support of Boston's specific GHG emissions reduction targets, the Proponent will continue to evaluate energy efficiency measures (EEMs) for possible inclusion in the Project. The EEMs may include low-flow plumbing fixtures, as well as high efficiency mechanical and ventilation systems.

Whole building energy modeling was used for a preliminary analysis of potential Project EEMs.

The Project meets or exceeds the updated code requirement to have energy consumption a minimum of 10 percent below an ASHRAE 90.1-2013 baseline. Based on the current preliminary design, the Project aims to achieve a reduction in estimated energy usage of approximately 17 percent compared to the baseline (as presented in Table 3-1a). Based on the preliminary energy model, the energy consumption of the overall Project is expected to result in estimated GHG emissions of approximately 620 tons per year, which represents an approximately 17 percent reduction from the baseline. The high performance of the Project is proposed to be achieved through improvements such as the incorporation of high efficiency heating and cooling systems, heat rejection system improvements, improved lighting and envelope options. The Project's energy consumption broken down by end use for the base code and proposed design are presented below.

Table 3-1a Preliminary Energy Model Results (Overall Project)

	Energy Consumption		
	Electricity (MMBtu)	**Natural Gas (MMBtu)**	**Total (MMBtu)**
Base Case[1]	6,345	1,445	7,790
Design Case	5,321	1,127	6,448
Savings	1,024	318	1,342
Savings Target	-	-	10%
Percent Savings	16%	21%	**17%**

1 ASHRAE 90.1-2013

Exhibit 3-1b Overall Project Projected End Use

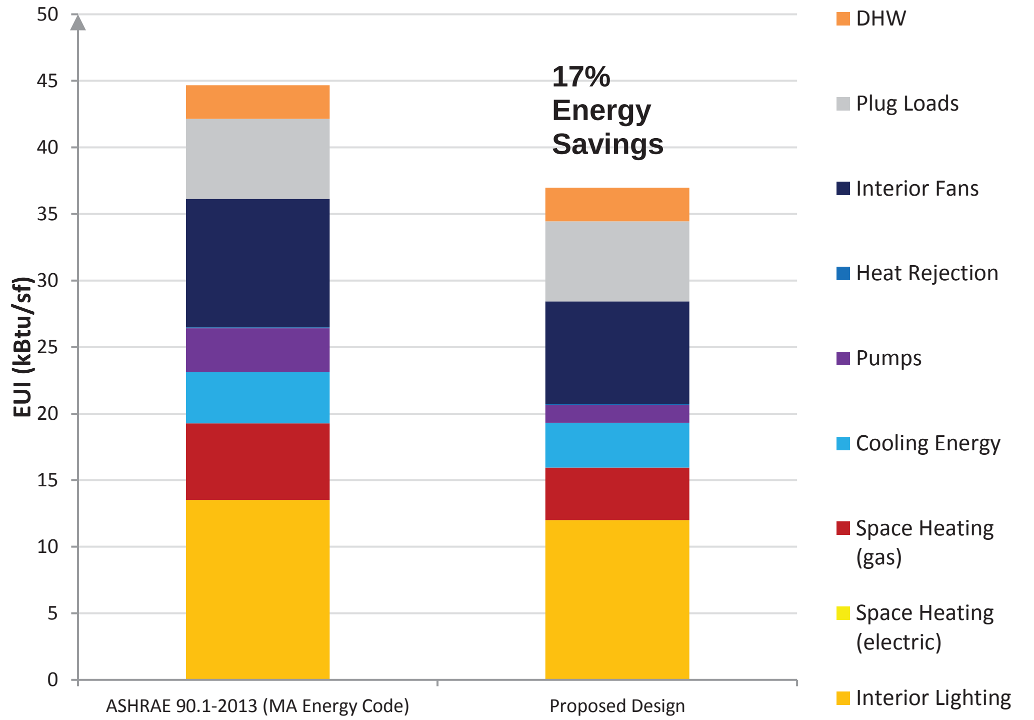


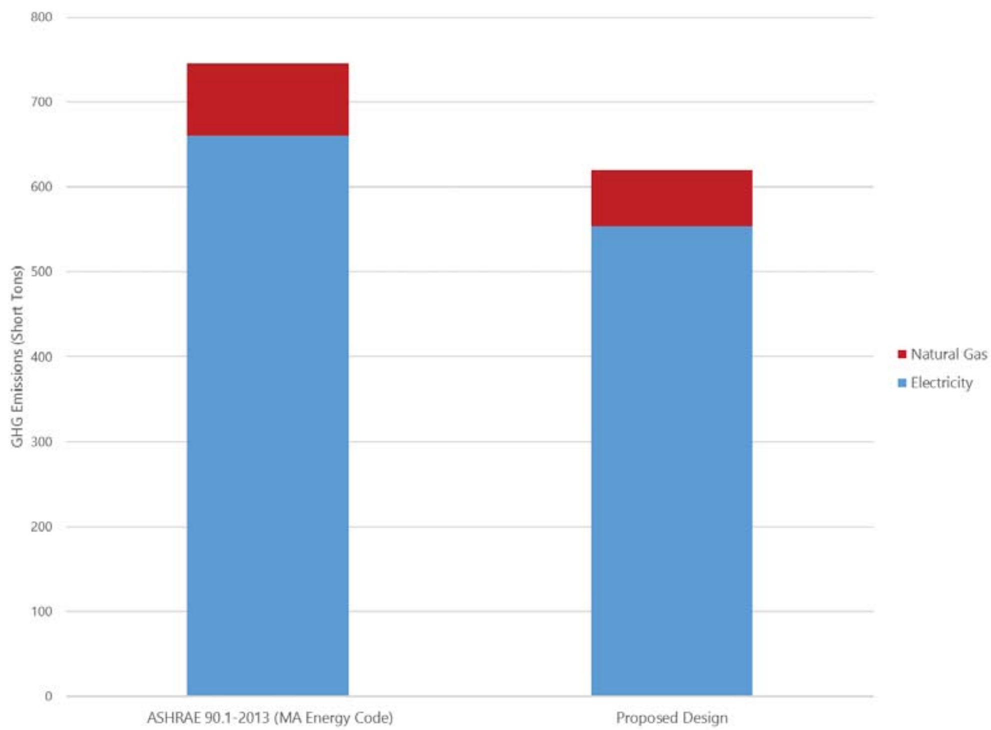
Table 3-1b Greenhouse Gas Analysis (Overall Project)

	Greenhouse Gas (CO_2) Emissions		
	Electricity (short tons)	**Natural Gas (short tons)**	**Total (short tons)**
Base Case[1]	661	84	745
Design Case	554	66	620
Savings	107	18	125
Percent Savings	16%	22%	**17%**

1 ASHRAE 90.1-2013

Note: 710 lb CO_2/MWh was used to convert electricity consumption into the amount of CO_2 emissions (2016 ISO-New England Marginal Emissions Report). 117.1 lb CO_2/Mbtu was used to convert gas consumption into the amount of CO_2 emissions (The Energy Information Administration Documentation for Emissions for GHG).

Exhibit 3-1b Total Overall Project Projected End Use



3.4.1 Energy Efficiency Measures

The energy savings calculated in the preliminary energy model were based on several key energy conservation measures for the Project that currently include:

- High-performance glazing and efficient building materials (walls and windows);
- Condenser water plant that exceeds base energy code efficiency with variable speed technology;
- High-efficiency chillers with variable speed compressors;
- Low lighting power density;
- Ventilation air heat recovery; and,
- Commissioning to help ensure major energy-using equipment is installed correctly.

As the Project's design develops, the Project team will consider further load reduction where possible through additional strategies.

Energy Efficiency Utility Assistance

The Project team will meet with representatives of local utility companies serving the area to discuss the utility incentives programs available. By working with these utility companies throughout the design process, the Proponent will evaluate additional energy conservation strategies and, therefore, additional energy savings and associated GHG emissions reductions that may be achieved. The Project will likely participate in the MassSave New Construction Program, which is designed to target energy efficiency opportunities in new commercial facilities. The program provides financial incentives and technical assistance to developers, customers and design professionals to encourage the use of design features and equipment that optimize energy efficiency in the new construction projects.

3.4.2 Clean and Renewable Energy Analysis Evaluation

A variety of clean and renewable energy sources are being been considered including solar PV, battery energy storage for peak demand reduction, and cogeneration in the form of combined heat and power ("CHP"). While not included in the base design assumptions of the preliminary energy models, these systems will continue to be evaluated as the Project design advances. The proposed building design achieves the energy savings and GHG reductions shown here without these systems included in the preliminary energy models.

Combined Heat and Power (CHP)

CHP systems are most efficient when there is a hot water demand year-round, so this technology has limited applicability for this Project. The Project team has not identified a suitable hot water demand that can be connected to the system (i.e. a laundry or shower load), and therefore is not exploring the feasibility of implementing a CHP system at this time.

Solar Photovoltaic (PV) System

Preliminary analysis indicates up to 70 kW of PV array could be installed on the Project Site. The system would generate an estimated 77,000 kWh per year of electricity, which could reduce the annual energy consumption of the Project by about five (5) percent.

A detailed technical analysis will be included in subsequent design phases, and will include details on economic feasibility and payback for all available federal and state incentives. The building will, at a minimum, be designed to be solar-ready; however, the Proponent will continue to explore a PV system for the Project as the design progresses.

Battery Energy Storage System

The Proponent is considering incorporating a battery energy storage system into the Project. On-site energy storage has the potential to reduce peak electrical demand, significantly reducing energy cost for the owner and minimizing impact of the new building to the local utility network.

A detailed technical analysis will be included in subsequent design phases and will take into account building peak load draw and duration, and any on-site renewables deemed feasible for the Project. Coordination with Eversource is currently underway to determine the regulations and financial incentives applicable to the Project.

3.5 Climate Change Preparedness and Resiliency

This section discusses the approach to preparing for anticipated changes in climate, in accordance with Appendix 7 of Article 80 of the Code. The required Resiliency Checklist has been completed for the Project and is provided in Appendix B of this EPNF.

3.5.1 Climate Change Projections

This section presents the current projections for changes in precipitation and temperature anticipated to impact Boston through the end of the century. Due to its inland location and distance from tidally-influenced water bodies, the Project is not anticipated to be impacted by sea level rise ("SLR") during its design life.

Extreme Storms/Flooding

Due to its distance from the current floodplain associated with the Muddy River and the Fens, coupled with the Project Site's elevation, the Project is not anticipated to be impacted by riverine flooding during its design life. However, a future increase in precipitation is being taken into account to appropriately size the Project Site's stormwater management infrastructure. According to the 2016 Climate Ready Boston Report, from 1958 to 2010 there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-year, 24-hour design storm precipitation level is 5.25 inches. There is a significant probability that this will increase to at least six (6) inches by the end of the century. Larger but less frequent storms are likely to occur, along with more frequent droughts.

According to the Climate Ready Boston Map Explorer, the Project Site is not projected to be susceptible to stormwater flooding in the medium-term but could be susceptible to small-scale impacts in the long-term.

Extreme Weather Events/Temperature

According to the 2016 Climate Ready Boston Report and the BPDA's Climate Resiliency Guidance document, the annual average temperature in Boston increased by about 2°F in the past hundred years and will continue to rise due to climate change. By the end of the century the average annual temperature could increase to 56°F (compared to the current average of 46°F) and the number of days with temperatures above 90°F could rise to 90 days per year (compared to the current count of approximately 10 days per year).

3.5.2 Potential Resiliency Measures

Site Resiliency Measures

The Project will cover the majority of the Project Site. As such, in the proposed condition, the majority of rainfall will be collected on the roofs and will not flow overland. The stormwater runoff from the roof areas will be directed to stormwater detention facilities via a series of roof drains. This will reduce the peak discharge rate of runoff from the Project Site. The Proponent will also explore opportunities to infiltrate a portion of the stormwater runoff collected from the proposed roof areas. This would significantly reduce the volume of and improve the quality of stormwater runoff from the Project Site compared to existing conditions, and would include groundwater recharge in accordance with provisions applicable to the GCOD to the maximum extent practicable.

Building Design and Operations

The approach to building design and operations incorporates a number of resiliency measures including:

› The HVAC system has been evaluated for performance during extreme weather events and anthropogenic future climate change.
› Roof mounted solar PV and on-site backup battery storage are being studied to provide utility grid relief and resilient back-up power generation.
› Reflective roof materials and/or vegetated roofs will reduce the urban heat island effect.
› Sewage backflow valves prevent backflow into the buildings during rainstorms and floods to avoid building damage and maintain occupant safety and comfort.
› The Project will include redundant connections for domestic water and fire protection systems ensure functionality in case of damage or other problems caused by extreme weather events.
› The Proponent will continue to consider elevating critical equipment through the design phase. If placing any sensitive building mechanical equipment at higher elevations is determined to be cost-prohibitive, ground-mounted equipment will include waterproofing measures, such as setting equipment on pads, curbs at equipment room entrances, and/or floor drains.

This Page Left Intentionally Blank

LEED v4 for BD+C: New Construction and Major Renovation

Project Checklist

Fenway Music Hall - SILVER CERTIFICATION

2/4/2019

Y	?	N				Points
1			Credit		Integrative Process	1
12	4	0	**Location and Transportation**			**16**
			Credit		LEED for Neighborhood Development Location	16
1			Credit 1		Sensitive Land Protection	1
	2		Credit 2		High Priority Site	2
5			Credit 3		Surrounding Density and Diverse Uses	5
5			Credit 4		Access to Quality Transit	5
	1		Credit 5		Bicycle Facilities	1
1			Credit 6		Reduced Parking Footprint	1
	1		Credit 7		Green Vehicles	1
6	4	0	**Sustainable Sites**			**10**
Y			Prereq 1		Construction Activity Pollution Prevention	Required
1			Credit 1		Site Assessment	1
1	1		Credit 2		Site Development - Protect or Restore Habitat	2
	1		Credit 3		Open Space	1
2	1		Credit 4		Rainwater Management	3
2			Credit 5		Heat Island Reduction	2
	1		Credit 6		Light Pollution Reduction	1
5	3	3	**Water Efficiency**			**11**
Y			Prereq 1		Outdoor Water Use Reduction	Required
Y			Prereq 2		Indoor Water Use Reduction	Required
Y			Prereq 3		Building-Level Water Metering	Required
2			Credit 1		Outdoor Water Use Reduction	2
2	1	3	Credit 2		Indoor Water Use Reduction	6
	2		Credit 3		Cooling Tower Water Use	2
1			Credit 4		Water Metering	1
16	8	9	**Energy and Atmosphere**			**33**
Y			Prereq 1		Fundamental Commissioning and Verification	Required
Y			Prereq 2		Minimum Energy Performance	Required
Y			Prereq 3		Building-Level Energy Metering	Required
Y			Prereq 4		Fundamental Refrigerant Management	Required
3	3		Credit 1		Enhanced Commissioning	6
9	2	7	Credit 2		Optimize Energy Performance	18
1			Credit 3		Advanced Energy Metering	1
	1	1	Credit 4		Demand Response	2
	2	1	Credit 5		Renewable Energy Production	3
1			Credit 6		Enhanced Refrigerant Management	1
2			Credit 7		Green Power and Carbon Offsets	2

Y	?	N			Points
3	9	1	**Materials and Resources**		**13**
Y			Prereq 1	Storage and Collection of Recyclables	Required
Y			Prereq 2	Construction and Demolition Waste Management Planning	Required
	5		Credit 1	Building Life-Cycle Impact Reduction	5
1	1		Credit 2	Building Product Disclosure and Optimization - Environmental Product Declarations	2
	1	1	Credit 3	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
	2		Credit 4	Building Product Disclosure and Optimization - Material Ingredients	2
2			Credit 5	Construction and Demolition Waste Management	2
7	9	0	**Indoor Environmental Quality**		**16**
Y			Prereq 1	Minimum Indoor Air Quality Performance	Required
Y			Prereq 2	Environmental Tobacco Smoke Control	Required
2			Credit 1	Enhanced Indoor Air Quality Strategies	2
2	1		Credit 2	Low-Emitting Materials	3
1			Credit 3	Construction Indoor Air Quality Management Plan	1
	2		Credit 4	Indoor Air Quality Assessment	2
1			Credit 5	Thermal Comfort	1
1	1		Credit 6	Interior Lighting	2
	3		Credit 7	Daylight	3
	1		Credit 8	Quality Views	1
	1		Credit 9	Acoustic Performance	1
3	3	0	**Innovation**		**6**
2	3		Credit 1-5	Innovation	5
1			Credit 6	LEED Accredited Professional	1
1	2	1	**Regional Priority**		**4**
	1		Credit 1	Optimize Energy Performance (8 point threshold)	1
	1		Credit 2	High Priority Site	1
1			Credit 3	Rainwater Management (2 point threshold)	1
		1	Credit 4	Building Lifecycle Impact Reduction (2 point threshold)	1
54	42	14	**TOTALS**	Possible Points:	**110**

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

Figure 3.1

LEED Checklist

Source: WSP

12 – 28 Lansdowne Street
Boston, Massachusetts

4

Transportation

4.1 Introduction and Project Overview

This chapter presents an evaluation and summary of existing and future transportation infrastructure and operations for the Project. The transportation study has been developed to understand and mitigate potential transportation impacts of the Project and to develop appropriate transportation improvements in Boston's Fenway neighborhood. Additional details and supporting information are provided in Appendix D.

The Project, located adjacent to Fenway Park at the corner of Ipswich Street and Lansdowne Street, includes the demolition of a section of the Fenway Garage building, the construction of the approximately 5,400-person capacity Fenway Theater, the construction of the Fenway Park Improvements, and the completion of the Interior Renovations. Please refer to Table 1-1 for summary of the proposed development program for the Project.

4.2 Summary of Key Findings and Benefits

The following are key transportation findings and benefits associated with the Project:

- The Project will activate a currently undeveloped property at the eastern end of Lansdowne Street and midway along Ipswich Street as it traverses the Lansdowne Street Entertainment District.
- Due to the anticipated time of day and 7-days per week schedule of events at the Theater and patrons' choice of transportation modes, the majority of the Project's transportation demands are expected to occur outside of the commuter peak periods.
- The Fenway Theater will add to pedestrian demands in the neighborhood before and after events, as patrons walk between the venue and their homes or businesses, transit stations, shared ride and other drop-off points, and area parking facilities. In conjunction with the Project, pedestrian and streetscape improvements are currently planned to include:
  - Continuation of the streetscape improvements planned by the Boston Arts Academy (BAA) along the north side of Ipswich Street to Lansdowne Street;

- Narrowing of the intersection of Lansdowne and Ipswich Streets to provide wider sidewalks and safer pedestrian crossing locations;
- Use of pavement treatments, wayfinding signage, and bollards to demarcate the Project Site as a gateway and emphasize the presence of pedestrians; and,
- Improvements to two MBTA bus stops and the provision of new bus shelters along Ipswich Street.

› The Fenway Theater will add demands for shared ride services in the neighborhood. The Project team will work with the Boston Transportation Department (BTD) to develop a shared-ride management plan consistent with an area-wide plan.

› The Project will provide three (3) general use loading docks (accommodating semi-tractor trucks) and two (2) loading docks for trash and recycling pick-up and smaller truck/van use. The (3) general use loading docks will adequately address the anticipated theater demands and enhance current freight operations at Fenway Park. Fenway Theater and Fenway Park management will work with vendors to develop an operations plan that minimizes loading conflicts during school pick-up and drop-off periods.

› No new parking is being provided as a part of the Project. Following the Red Sox lead, Fenway Theater management will work to encourage alternative modes of travel to events, including providing information and promotional material on its website and sending directed customer emails to encourage patrons to take public transportation to the venue.

› The Fenway Theater will be operated by a newly formed joint venture which will also operate the nearby House of Blues. This relationship will ensure that scheduling of events planned for the two venues will be closely coordinated.

4.3 Existing Transportation Conditions

The Project, located in Boston's Fenway neighborhood, enjoys direct access to major roadway arterials, public transit alternatives, and a vast system of sidewalks to connect the site with the surrounding community and adjacent neighborhoods. The following sections provide details of the existing transportation infrastructure supporting the Project Site.

4.3.1 Roadway Network

The roadway network in the Project Site environs serves pedestrian, bicycle, transit, truck, and private vehicle demands.

The Project Site is bound by Lansdowne Street to the north, Ipswich Street to the southeast, and Fenway Park to the west. Figure 4.1 shows the Project Site in context of the roadway infrastructure supporting the Project Site.

Lansdowne Street is a one-way eastbound road that runs for about a quarter mile directly adjacent to the north of the Project Site. During Fenway Park event days, including Red Sox games and other events, vehicular access to Lansdowne Street is restricted and the entire right-of-way serves as an emergency access, vendor and pedestrian only space.

Ipswich Street runs in a general east/west direction. Ipswich Street serves as a loop road from one section of Boylston Street on the west side of Charlesgate to Boylston Street on the east side of Charlesgate. The street serves as an important access to Fenway Park from the Back Bay area since there is no through movement allowed on Boylston Street westbound at the Charlesgate intersection.

Van Ness Street runs in a general east/west direction from Kilmarnock Street to the west to Ipswich Street to the east, but the section between Jersey Street and Richard B. Ross Way is one-way westbound only. During Red Sox Games, access to the portion of Van Ness Street proximate to Fenway Park (from Richard B. Ross Way to just west of Gate B) is restricted and is used for Red Sox pedestrian access/egress and parking.

4.3.1.1 Study Area Intersections

The Project study area includes the following seven (7) key intersections, as illustrated in Figure 4.2:

1. Jersey Street at Van Ness Street
2. Boylston Street at Jersey Street
3. Boylston Street at Ipswich Street
4. Boylston Street at Hemenway Street / Ipswich Street
5. Lansdowne Street at Ipswich Street
6. Lansdowne Street at Brookline Avenue
7. Ipswich Street at Van Ness Street

4.3.1.2 Existing Traffic Volumes

Daily traffic volumes were collected by automatic traffic recorders (ATRs) along Boylston Street east of Ipswich Street over the course of four days, starting Thursday November 29, 2018 until Sunday December 2, 2018 while schools and colleges were in session. Background traffic volumes are generally higher during December compared to summer months and therefore reflect a conservative analysis condition. Summaries of the variations in traffic volumes on Boylston Street over the course of an average weekday and the weekend are presented in Figures 4.3a and 4.3b.

From these counts, it was determined that:

- The evening peak hour is the busiest period along the Boylston Street corridor with demands about 15 percent higher than the morning peak.
- Commuter demands begin to peak at 3:00 PM, indicative of the influence of area hospital shifts, and stay relatively heavy until 6:00 PM.

- Traffic demands on the weekends are five (5) and 20 percent lower on Saturday and Sunday, respectively.

Turning movement counts (TMCs) were also conducted at study area intersections during the weekday evening peak period from 4:30 PM to 7:00 PM to record vehicular, pedestrian, and bicycle demands on days with and without a game at Fenway Park, as indicated below:

- Jersey Street at Van Ness Street (without Red Sox game);
- Boylston Street at Jersey Street (with and without Red Sox game);
- Boylston Street at Ipswich Street (with and without Red Sox game);
- Boylston Street at Hemenway Street / Ipswich Street (with and without Red Sox game);
- Lansdowne Street at Ipswich Street (without Red Sox game);
- Lansdowne Street at Brookline Avenue (with and without Red Sox game); and,
- Ipswich Street at Van Ness Street (without Red Sox game).

Observed traffic demands were slightly lower on Boylston Street for days when Fenway Park is active. This data suggests two likely factors: area motorists adjusting their travel patterns to avoid ballpark traffic and area congestion slowing the processing of traffic along the corridor. Observed traffic demands in advance of a Red Sox game on other local streets surveyed were higher by 85 to 130 vehicles during the peak hour (vph), depending on location. The exception to this general pattern was Ipswich Street which experienced an increase in demand by about 350 vph, just north of Boylston Street. This is likely due to motorists heading to parking along the corridor as well as the traffic associated with pick-up/drop-off activity.

Existing transportation demands at study area intersections for the non-event day evening peak hour, which is the focus of this analysis, are presented in Figure 4-4, 2018 Existing Conditions. The TMC data indicate that the weekday evening peak hour generally occurs between 4:45 PM and 5:45 PM.

Additional details on the transportation data inventoried as part of this effort are included in Appendix D.

4.3.2 Parking and Loading

4.3.2.1 Off-Street Parking

The Fenway Garage building currently contains parking that is leased to Medical Academic and Scientific Community Organization (MASCO) during weekdays and used by Fenway Park patrons during events. As part of the Project, this parking will be eliminated and will not be replaced at this location. There are numerous off-street public parking options within a reasonable walking distance of the Project Site for use by theater patrons and Fenway Park fans, as shown in Figure 4.5 and summarized in Table 4-1.

Table 4-1 Off-Street Parking Capacities

Parking Garage/Lot	Public Capacity (Spaces)
Fenway Triangle Trilogy Garage	200
Van Ness Garage	78
55 Jersey Street	150
189 Ipswich Street	140[1]
Landmark Center	400
1330 Boylston Street Garage	50
Queensbury Street Garage	91
Kilmarnock Street Parking Lot (Pilgrim Parking)	48
1295 Boylston Street Lot	42
Deaconess Garage Inc.	50
51 Van Ness Street	113
Kenmore Lot (73 Brookline Avenue)	211
Lansdowne Street Garage	320
Ipswich Street Garage	147
Somerset Garage	65
1081 Boylston Street Parking	28
Haviland Street Garage	32
Total	**2,165 Spaces**

1 The existing parking capacity of the 189 Ipswich Street lot varies depending on how much of the lot is needed to accommodate the operational demands placed upon it to support events at Fenway Park.

As shown in Table 4-1 above, currently there are more than 2,100 shared use parking spaces around the Fenway neighborhood that are open to the public, and additional parking is likely to be provided as new projects come on line.

4.3.2.2 On-Street Parking

An inventory of on-street curb regulations proximate to the Project Site is presented in Figure 4.6.

Along Lansdowne Street, adjacent to the Project Site, there are 2-hour parking and loading zones on the north side of the street and a No Parking zone on the south side of the street. Additional 2-hour parking and loading zones are provided further along Lansdowne Street close to Brookline Avenue.

Ipswich Street has an MBTA bus stop, handicapped parking, and no parking along the Project Site frontage. The curb on the south side of Ipswich Street is primarily allocated to a MBTA bus stop, handicapped parking, school drop-off/pick-up, and permit parking. It should be noted that a significant section of the south side curb and side-walk on Ipswich Street is currently occupied by construction staging for the BAA. To the east, Ipswich Street has metered parking on the south side and resident permit parking on the north side adjacent to the Massachusetts Turnpike.

Van Ness Street, adjacent to Fenway Park, provides metered parking on the south side and no parking on the north side.

4.3.2.3 Loading

In conjunction with the certified rehabilitation projects completed at Fenway Park between 2002 and 2012, two (2) off-street loading docks were added at the existing Fenway Garage building. These docks principally handle trash and recycling pick-ups and smaller truck deliveries. Larger trucks making deliveries to Fenway Park generally use curb space when off-loading.

4.3.3 Transit

The Project Site is currently served by several MBTA public transportation services, as shown in Figure 4.7. Numerous MBTA bus services are available within a half-mile from the Project Site, including the following:

- MBTA Green Line (B, C, and D)
- MBTA Commuter Rail Framingham/Worcester Line
- MBTA Bus routes 8, 19, 47, 55, 57, 60, 65, and CT2

Transit services are summarized in Table 4-2.

The Project Site is located about a 10-minute walk from Kenmore Station (Green Line and bus connections) and Hynes Convention Center Station (Green Line), and about a 6-minute walk from Yawkey Station (Commuter Rail). Also proximate to the ballpark is the Fenway Station that serves the Riverside (D) branch of the Green Line and is approximately a 12-minute walk from the Project Site. A multi-use path to improve the connection between Fenway Park and Fenway Station is currently under development by the City of Boston (see discussion below). Figure 4.8 shows the Project Site's proximity and walking corridors to nearby transit services.

Table 4-2 MBTA Services

Transit Service	Origin-Destination	Nearest Stop to Project Site	Weekday Ridership[2]	Hours of Service[1]
MBTA Commuter Rail				
Framingham/Worcester Line	Worcester/Union Station – South Station	Yawkey Station	16,293	Weekday: 4:40 AM – 1:51 AM Saturday: 6:40 AM – 12:30 AM Sunday: 6:40 AM – 12:30 AM
MBTA Subway Services				
Green Line B Branch	Park Street – Boston College	Kenmore Station	26,310[3]	Weekday: 5:01 AM– 12:52 AM Saturday: 4:45 AM – 12:52 AM Sunday: 5:20 AM – 12:52 AM
Green Line C Branch	North Station – Cleveland Circle	Kenmore Station	12,466[3]	Weekday: 5:01 AM– 12:46 AM Saturday: 4:50 AM – 12:46 AM Sunday: 5:30 AM – 12:46 AM
Green Line D Branch	Government Center – Riverside	Kenmore Station	24,632[3]	Weekday: 4:56 AM – 12:49 AM Saturday: 4:55 AM – 12:49 AM Sunday: 5:25 AM – 12:47 AM
MBTA Bus Service				
Route 8	Harbor Point/UMass – Kenmore Station	Kenmore Station	3,992	Weekday: 5:15 AM– 12:56 AM Saturday: 6:30 AM – 1:01 AM Sunday: 6:30 AM – 1:01 AM
Route 19	Fields Corner – Kenmore Station	Kenmore Station	3,600	Weekday: 5:50 AM – 7:45 PM Saturday: No Service Sunday: No Service
Route 47	Central Square, Cambridge – Broadway Station	Fenway Station	5,036	Weekday: 5:15 AM – 1:31 AM Saturday: 5:00 AM – 1:04 AM Sunday: 7:30 AM – 1:04 AM
Route 55	Jersey & Queensberry Streets – Copley Square or Park & Tremont Streets	Ipswich Street at Lansdowne Street (at Project Site)	917	Weekday: 5:48 AM– 11:10 PM Saturday: 6:00 AM – 11:11 PM Sunday: 8:15 AM – 11:09 PM
Route 57	Watertown Yard or Oak Square – Kenmore Station	Kenmore Station	10,094	Weekday: 4:33 AM – 1:30 AM Saturday: 4:33 AM – 1:21 AM Sunday: 6:00 AM – 1:32 AM
Route 60	Chestnut Hill – Kenmore Station	Kenmore Station	1,389	Weekday: 4:55 AM– 12:18 AM Saturday: 4:55 AM – 1:01 AM Sunday: 6:00 AM – 9:51 PM
Route 65	Brighton Center – Kenmore Station	Kenmore Station	2,516	Weekday: 5:58 AM – 8:58 PM Saturday: 6:45 AM – 6:39 PM Sunday: No Service

Transit Service	Origin-Destination	Nearest Stop to Project Site	Weekday Ridership[2]	Hours of Service[1]
Route CT2	Sullivan Station – Ruggles Station	Fenway Station	2,815	Weekday: 5:55 AM – 7:40 PM Saturday: No Service Sunday: No Service

[1] Based on the most recent schedule provided on the MBTA website as of January 2019
[2] Ridership data from MBTA Blue Book 2014
[3] Ridership only includes boarding along the above ground stations past Kenmore Station to the west. Between North Station and Kenmore, there are 74,603 entries.

4.3.4 Pedestrian Accommodations

Wide sidewalks along all local streets in the vicinity of the Project Site serve pedestrian demand in the study area. Crosswalks are marked at all study area intersections. During Fenway Park events, Lansdowne Street and the portions of Jersey Street and Van Ness Street adjacent to Fenway Park are closed to through vehicular traffic and turned over to pedestrians.

4.3.5 Bicycle Accommodations

As shown in Figure 4.9, bicycle lanes are provided on Beacon Street and Commonwealth Avenue through Kenmore Square, north of the Project Site. There are currently no bicycle facilities on the streets abutting the Project Site, although bicycle lanes on Ipswich Street are proposed in conjunction with the new BAA building. Protected bicycle lanes are proposed for both sides of Boylston Street from Park Drive to the Fens.

In addition, the Fenway-Yawkey Multi-Use Path, a recommendation of the 2009 Fenway-Longwood-Kenmore Transportation and Pedestrian Action Plan, is currently under development by the City of Boston. When complete, the path will improve the connection between Fenway Park and Fenway Station, via Yawkey Station, and link the Fenway neighborhood to the broader network of paths within the Emerald Necklace.

4.3.6 Bicycle and Carshare Locations

As shown in Figure 4.9, there are six (6) BlueBike stations within walking distance of the Project Site. The closest BlueBike stations are located at the intersection of Boylston Street and Jersey Street (north side) providing 13 bicycle docks, with an additional station on the south side of the intersection. At Kenmore Station, there is a station that provides 22 bicycle docks. At the intersection of Commonwealth Avenue and Deerfield Street, located north of the Project Site, there is a station that provides 18 bicycle docks. Along Brookline Avenue, there are stations at Park Drive (Landmark Center) and on Burlington Avenue, and on Massachusetts Avenue, there is another station. Many of these locations are popular “last mile” connections between transit stations and the Fenway neighborhood. Some of these stations are removed during the winter, so the numbers of docks are not available currently.

Figure 4.9 also shows the locations of four (4) Zipcar carshare locations within the Fenway neighborhood and two (2) additional locations in the nearby Back Bay. The closest location is located at 1271 Boylston Street behind The Verb Hotel, which provides four (4) cars for hourly rentals.

4.4 Future No-Build Conditions

To determine future roadway operations, traffic volumes in the study area were projected to the year 2023 to reflect a five-year planning horizon from Existing Conditions.

Traffic volumes on the roadway network under future conditions without the Project are assumed to include all existing traffic, any new traffic due to regional and area background traffic growth, and traffic related to any specific nearby development projects expected to be completed by the horizon year. Roadway improvements proposed within the boundaries of the study area were also considered, but no relevant projects are currently being proposed.

4.4.1 No-Build Traffic Volumes

A general area-wide traffic growth rate was applied to the Existing Conditions peak hour traffic volumes to account for general future traffic growth in the study area. Consistent with analysis of other area projects, a rate of 0.25 percent per year for five (5) years was applied.

In addition to background growth, traffic associated with other planned/BPDA approved developments in the Fenway area was considered. The following projects under construction or planned are expected to impact study area intersections and were included as part of the background growth:

- 50-60 Kilmarnock (Under Review)
- 560 Commonwealth Avenue (Under Review)
- 839 Beacon Street (Under Construction)
- 1241 Boylston Street (Under Review)
- Fenway Center Phase 1 (Under Construction)
- Kenmore Square Redevelopment (Board Approved)
- Landmark Center Phase 2 (Board Approved)
- 1252-1268 Boylston Street (Letter of Intent)

No Build volumes are presented in Figure 4.10 and additional details on these developments are included in Appendix D.

4.5 Build Conditions

The proposed site plan is shown in Figure 4.11, which identifies the Project's pedestrian and service vehicle access locations.

The 2023 Build transportation conditions were developed by estimating Project generated trips by mode, distributing these trips by time and geography, and assigning the new trips to the relevant transportation infrastructure network. For the roadway network, the traffic volumes expected to be generated by the Project were added to the 2023 No-Build Conditions to create the 2023 Build Conditions.

4.5.1 Project Trip Generation

The primary component of the Project, as currently conceptualized, involves construction of the Fenway Theater, a new, state-of-the-art, approximately 5,400-person capacity multi-purpose performing arts center at the intersection of Lansdowne and Ipswich Streets. The Fenway Theater will fill a void in the landscape of performance venues in Boston, by providing a state-of-the art facility whose capacity sits between those venues that accommodate less than 2,500 patrons, and the larger arena/stadium venues. The Fenway Theater will host a wide variety of live entertainment and civic events on a year-round basis, enlivening the Lansdowne Street entertainment district on both Fenway Park event days and non-event days, and providing a steady stream of patrons for the neighborhood's many restaurants and retail establishments. The Theater will be operated in a newly formed joint venture with Live Nation, which will also operate the nearby House of Blues, and is expected to have many of the same transportation characteristics as that facility.

The Fenway Park Improvements will include a new vertical addition constructed above the existing roof of the Fenway Garage building, featuring concession stands, restrooms and other elements designed to enhance the fan experience in the bleachers. Additionally, the Fenway Park Improvements will include a new function space for 500 to 600 persons with views of Fenway Park suitable for large pre-game groups and/or private events at other times. These Fenway Park improvements result in a net reduction of approximately +/- 300 seats, however these enhancements will not change the licensed capacity of Fenway Park and, as such, are not expected to appreciably change game day transportation demands.

Finally, the Interior Renovations will modify existing spaces to enable them to be shared between the operators of Fenway Park and the Fenway Theater (including a shared lobby, commissary, loading dock, trash and utility areas). Any anticipated changes in employment for these functions are captured within the theater employment estimates.

No on-site parking is planned as part of the Project and there will be a net reduction of 105 parking spaces as a result of the repurposing and demolition of existing parking within the Fenway Garage building.

To assess the impact of the proposed Project, trip estimates were based on the:

- Expected use of the theater (frequency and type of event);
- Anticipated on-site attendance during events (employees and patrons);
- Estimated mode of arrival; and
- Temporal characteristics of these trips.

4.5.1.1 Expected Use and Attendance

The Fenway Theater will be a state-of-the-art performing arts center. It will be built to house best in class amenities for musical performances and will also be designed to host a wide variety of events and private functions. In contemplating this Project, a market analysis was completed to better understand the need for and desired capacity for an indoor live entertainment venue. The range of anticipated use and attendance at the Fenway Theater is summarized in Table 4-3.

Table 4-3 Anticipated Utilization of the Fenway Theater*

	Range of Use	
Theater Patrons	**Low Scenario**	**High Scenario**
Total Capacity (persons)	5,400	5,400
Number of Theater Events per year	110	150
Average Theater Attendance	3,510	4,590
Number of Special Events per year	55	75
Average Special Event Attendance	800	800

*Based on a market study completed by the Fenway Sports Group Real Estate and Live Nation.

The transportation impact assessment presented in this chapter assumes an average theater attendance of 4,590 persons.

The theater is expected to provide approximately 80 full-time and 450 part-time jobs. Table 4-4 summarizes the expected number of employees that will be on-site at any one time, depending on the time of day and scheduled events.

Table 4-4 Anticipated Employment at the Fenway Theater

Day/Time/Condition	Estimated Employees*
Typical Weekday (Non-Event Day)	50
Typical Weekday (Event Day)	60
Peak Event Weeknight/Weekend	150

*Based on data provided by House of Blues and Live Nation.

It is expected that approximately 50 employees will be on-site on typical weekdays when there are no events scheduled and 60 to 150 employees on the day of an event, depending on the nature and time of the event. The transportation impact assessment presented in this chapter assumes 150 employees on-site during an evening performance.

4.5.1.2 Mode Share

To understand how patrons are expected to travel to/from the theater, transportation surveys were completed at Fenway Park and the House of Blues during the fall of 2018. It was found that mode choices vary by day of week, time of day, weather conditions, and type of event. In general, personal car use to Fenway Park and venues like the House of Blues is measurably lower on weekdays than on weekends. Average mode shares found through the 2018 surveys were used for this analysis and applied to the expected theater attendance, as summarized in Table 4-5.

Table 4-5 Fenway Theater Anticipated Average Attendance Estimates by Mode of Travel

Mode	Mode Share[1]	Estimated Theater Attendance by Mode
Personal Car	47.1%	2,160
Public Transportation	23.3%	1,070
Shared Ride (Taxi, Uber, Lyft, Limo, etc.)	16.3%	750
Walk	12.8%	590
Bike	0.5%	20
Total	100%	4,590

1 Based on patron surveys conducted at Fenway Park and the House of Blues in the fall of 2018.

Mode splits for theater employees are based on the BTD mode share guidelines for the area (Zone 4), as follows:

- 38 percent will travel by personal car;
- 37 percent will travel by public transportation; and
- 25 percent will walk or bike.

4.5.1.3 Temporal Characteristics of Project Trips

The Fenway Theater is expected to be most active during the evening hours. Based on programming data from the House of Blues, which is expected to be similar to programming at the Fenway Theater, most performances are expected to begin at approximately 8:00 PM, with doors opening 60 to 90 minutes before the show. As such, the majority of transportation demands is expected to occur after the evening commuter peak period. Fenway Park and House of Blues survey data did reveal that a segment of patrons (5 to 10 percent) come to the Fenway area in advance of events to have dinner, shop, or go to bars. Based on this data, the analysis assumes that 10 percent of patron arrivals would coincide with the evening peak period.

Employee arrival and departure patterns are expected to be similar to that of House of Blues with about 50 percent of the peak staffing arriving during the afternoon and 50 percent arriving during the evening commuter peak.

4.5.1.4 Project Trip Generation

Results of the total Project trip generation estimates are shown in Table 4-6 and Table 4-7 for Fenway Theater patrons and employees, respectively.

Table 4-6 Total Project Trip Generation: Theater Patrons

Time Period/Direction	Walk/Bike[1]	Transit[1]	Shared Ride[2]	Vehicle[2]
Daily				
Inbound	610	1,070	270	770
Outbound	610	1,070	270	770
Total	1,220	2,140	540	1,540
PM Peak Hour				
Inbound	61	107	27	77
Outbound	Neg.	Neg.	Neg.	Neg.
Total	61	107	27	77

1 Project-generated person trips.
2 Project-generated patron vehicle-trips based on vehicle occupancy of 2.8 persons per vehicle based on patron surveys conducted at Fenway Park and the House of Blues in the fall of 2018.
Neg. = Negligible

Table 4-7 Project Trip Generation: Theater Employees (Event Day)

Time Period/Direction	Walk/Bike/Shared-Ride[1]	Transit[1]	Vehicle[2]
PM Peak Hour			
Inbound	19	28	25
Outbound	Neg.	Neg.	Neg.
Total	19	28	25

1 Project-generated person trips.
2 Project-generated vehicle-trips based on vehicle occupancy of 1.1 persons per vehicle.
Neg. = Negligible

4.5.2 Trip Distribution and Assignment

Project trip distribution is based on ticket sales data provided by the House of Blues, a general admission concert venue located at 15 Lansdowne Street across the street from Fenway Park. The data provides the home towns of people that buy tickets to the venue and was assumed to reasonably approximate the patterns to the new theater.

Table 4-8 summarizes the results of the distribution analysis and the assignment of project generated trips to study area roadways.

Table 4-8 Expected Geographic Distribution of Project Traffic

Corridor	Distribution
Commonwealth Avenue (West)	9%
Beacon Street (East)	6%
Beacon Street (West)	2%
Boylston Street (West)	10%
Storrow Drive	32%
Soldier's Field Road	21%
Hemenway Street (South)	8%
Massachusetts Avenue (North)	6%
Massachusetts Avenue (South)	6%
Total	100%

Geographic distribution for the employees of the theater was assumed to be aligned with the patron distribution and follow similar patterns to get to the Fenway Theater. Build traffic volumes are presented in Figure 4.12.

4.5.3 Traffic Operations Analysis

Synchro 9.0 software, endorsed by the BTD, was used to evaluate the Vehicular Level of Service (LOS) operations at the study area intersections for the 2018 Existing, 2023 No-Build, and 2023 Build Conditions. This software is based on the 2000 Highway Capacity Manual (HCM).

LOS is a 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 designation is reported differently for signalized and unsignalized intersections:

- For signalized intersections, the analysis considers the operations of each lane or lane group entering the intersection, and the overall LOS designation at the intersection is a blended average of all the individual turning movements.

- For unsignalized intersections, the analysis assumes that traffic on the mainline is not affected by traffic on the side streets. The LOS is only determined for left turns from the main street and all movements from the minor street. The LOS designation is for the most critical movement, which is most often the left turn out of the side street.

Table 4-9 presents the delay threshold criteria for LOS, as defined in the HCM. Tables 4-10 and 4-11 present the results of the Level of Service analyses for signalized and unsignalized study area intersections, respectively.

Table 4-9 Level of Service Intersection Delay Thresholds[1]

Level of Service	Signalized Intersection Control Delay (sec/vehicle)	Unsignalized Intersection Control Delay (sec/vehicle)
LOS A	≤ 10	0 – 10
LOS B	> 10 – 20	> 10 – 15
LOS C	> 20 – 35	> 15 – 25
LOS D	> 35 – 55	> 25 – 35
LOS E	> 55 – 80	> 35 – 50
LOS F	> 80	> 50

[1] Highway Capacity Manual, Transportation research Board, 2000.

During non-Fenway Park event days, all intersections (signalized and unsignalized) operate at an overall LOS C or better during the evening peak hour for all scenarios analyzed. Traffic generated from the Project is not expected to measurably affect vehicular mobility at the study area intersections.

During Fenway Park events, as previously discussed, Lansdowne Street and the portions of Jersey Street and Van Ness Street adjacent to Fenway Park are closed to vehicular traffic. During the pre-event period, critical study area intersections operate under police officer control. Due to street closures and the influx of fans to Fenway Park, Brookline and Boylston Streets are more congested during this period. Similarly, during the post-event period, study area intersections operate under police officer control until area traffic is cleared (30 to 60 minutes post event).

Table 4-10 Signalized Intersection Vehicle Level of Service (Evening Peak Hour)

Intersection		Movement	2018 Existing Conditions					2023 No-Build Conditions					2023 Build Conditions				
			V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]	V/C[1]	Delay[2]	LOS[3]	50th Queue[4]	95th Queue[5]
2	**Jersey Street/ Boylston Street**	Boylston St EB L/T	0.76	14.1	B	175	#347	0.78	14.6	B	182	#384	0.79	14.8	B	182	#397
		Boylston St WB T/R	0.43	9.1	A	91	112	0.72	9.0	A	96	117	0.72	9.3	A	97	132
		Jersey St NB L/T/R	0.13	51.6	D	98	110	0.75	51.3	D	95	108	0.75	51.9	D	96	110
		Overall	**0.78**	**15.7**	**B**	-	-	**0.79**	**15.5**	**B**	-	-	**0.80**	**15.8**	**B**	-	-
3	**Boylston Street/Ipswich Street**	Boylston St EB L/T	0.95	23.6	C	201	#592	0.98	30.1	C	388	#626	1.01	38.0	D	~490	#644
		Boylston St WB T/R	0.61	14.3	B	192	254	0.66	15.5	B	218	290	0.71	16.6	B	240	319
		Ipswich St SB L	0.37	36.2	D	70	118	0.48	38.7	D	93	148	0.48	38.7	D	93	148
		Ipswich St SB R	0.34	36.5	D	48	89	0.35	36.6	D	48	89	0.35	36.6	D	48	89
		Overall	**0.78**	**21.2**	**C**	-	-	**0.84**	**25.2**	**C**	-	-	**0.86**	**29.4**	**C**	-	-
4	**Hemenway Street/ Ipswich Street/ Boylston Street**	Boylston St EB L/T	0.31	9.0	A	106	209	0.32	9.8	A	113	229	0.32	9.9	A	114	230
		Boylston St WB T/R	0.13	7.6	A	30	75	0.14	8.3	A	33	85	0.15	8.5	A	34	88
		Hemenway St NB L/T	0.72	39.2	D	180	235	0.70	37.0	D	180	228	0.71	37.0	D	182	230
		Hemenway St NB R	0.06	27.3	C	0	34	0.06	26.2	C	0	33	0.06	26.0	C	0	33
		Ipswich St SB L/T/R	0.82	58.4	E	86	152	0.94	82.7	F	113	#204	0.94	82.6	F	113	#205
		Overall	**0.46**	**25.5**	**C**	-	-	**0.51**	**29.9**	**C**	-	-	**0.52**	**29.8**	**C**	-	-

Table 4-11 Unsignalized Intersection Vehicle Level of Service (Evening Peak Hour)

	Intersection	Movement	2018 Existing Conditions				2023 No-Build Conditions				2023 Build Conditions			
			V/C[1]	Delay[2]	LOS[3]	95th Queue[4]	V/C[1]	Delay[2]	LOS[3]	95th Queue[4]	V/C[1]	Delay[2]	LOS[3]	95th Queue[4]
1	**Jersey Street/ Van Ness Street**	Van Ness St WB T/R	0.47	15.1	C	63	0.50	15.7	C	70	0.50	15.7	C	70
		Jersey St NB L/T/R	0.02	1.9	A	2	0.02	1.8	A	2	0.02	1.8	A	2
5	**Ipswich Street/ Lansdowne Street**	Lansdowne St EB L/R	0.32	12.3	B	35	0.38	13.3	B	45	0.38	13.3	B	45
		Ipswich St NB T	0.03	0.0	A	0	0.04	0.0	A	0	0.04	0.0	A	0
		Ipswich St SB T	0.16	0.0	A	0	0.17	0.0	A	0	0.17	0.0	A	0
6	**Brookline Avenue/ Lansdowne Street**	Brookline Ave NB T/R		10.4	B			10.9	B			11.0	B	
		Brookline Ave SB L/T		9.6	A			10.3	B			10.7	B	
7	**Ipswich Street/ Van Ness Street**	Van Ness St EB L/R	0.05	10.6	B	4	0.05	11.1	B	4	0.06	11.4	B	4
		Ipswich St NB L/T	0.03	4.0	A	2	0.06	5.1	A	5	0.06	3.5	A	5
		Ipswich St SB T/R	0.25	0.0	A	0	0.26	0.0	A	0	0.26	0.0	A	0

4.5.4 Transit Operations

The main transit mode taken to the Fenway area is the MBTA Green Line, which includes three distinct branches of the Green Line that converge at Kenmore Station. During the commuter peak hour, 76 Green Line trains are scheduled to arrive at Kenmore Station, 38 inbound and 38 outbound. Each of the Green Line trolleys can accommodate 101 passengers, or 202 in a typical 2-car set. When accounting for the Green Line's On-time performance of 88 percent[1] (88 percent of Green Line trains are on time), the actual capacity on the Green Line during the commuter peak hour is estimated at approximately 6,755 passengers per direction.

After the commuter peak hour, when theater arrivals are expected to be the heaviest, there are 60 Green Line trains scheduled per hour (both directions) until 8:00 PM when the schedule changes again to evening service. This means that after the peak hour, Kenmore Station can accommodate 5,333 Green Line passengers per direction per hour.

Sourced from other area studies of the Hynes Convention Center MBTA stop, the number of passengers entering Kenmore from the west (outbound) is about 3,470 passengers and exiting Kenmore to the east (inbound) is about 2,670 during the commuter peak hour, indicating reserve capacity in both directions.

The analysis of Fenway Theater trip generation suggests that the Project will add approximately 135 passengers during the commuter peak hour (approximately one percent of capacity) and approximately 960 transit trips to the period after the peak (about 9 percent of capacity). Many of these trips will be opposite to the peak directional demands in the evening and will be readily accommodated by available off-peak direction capacity. In addition, the MBTA is actively working to improve the capacity and reliability of its Green Line services, as discussed below, to accommodate the expected areawide growth in demands.

Furthermore, the MBTA has a detailed "Standard Operating Procedure (SOP) for Red Sox Games at Fenway Park" that codifies how it responds to increased patronage before and after Fenway events. The Red Sox closely coordinate all of their major events with the MBTA and this SOP can be activated for any special event at Fenway Park that warrants it.

Following the Red Sox lead, Fenway Theater management will work to encourage alternative modes of travel to events, including providing information and promotional material on its website and sending directed customer emails to encourage patrons to take public transportation to the venue.

Planned Green Line Improvements

The Project will benefit from the MBTA's planned capital program to modernize and enhance Green Line services. During the Summer of 2018, the MBTA released a draft

[1] MBTA Dashboard website, accessed January 14, 2019 (www.mbackontrack.com)

of “Focus40: The 2040 Investment Plan for the MBTA”. The plan lays out systemwide goals and investments that will transform the T to a reliable, robust, and resilient transit system. *Focus 40’s* goal for the Green Line is to increase its capacity by at least 50 percent with redesigned, larger vehicles and modernized infrastructure. Green Line improvement projects underway or planned include:

- Signal and track improvements along the Riverside (“D”) Branch to improve performance and reliability.
- Resiliency/flood control improvements and station access enhancements at Fenway Station.
- Automated Fare Collection. Transition to the new fare collection system is anticipated to be completed by May 2020 with new fare gates by Spring 2021.
- Consolidation of four (4) stops on the B line as part of MassDOT’s Commonwealth Avenue Phase 2A Project.
- Transit signal priority along surface stops. Planning and design will begin in 2019.
- 24 new Green Line cars to be integrated by the end of 2019 with plans to replace the entire fleet within the next 10-15 years.
- Increase the number of weekday peak trains from 73 to 94 and achieve a 15 percent increase in capacity.
- Green Line Extension to Medford/Somerville by the end of 2021. (Also, under consideration is extending the E line from Heath Street to Hyde Square in Jamaica Plain).

4.5.5 Pedestrian Circulation

Accommodating pedestrian flows is a critical component of planning for the new theater – both on the typical day and when Fenway Park is operating. Considerations were given to the pedestrian paths to the Fenway Theater, key locations of potential pedestrian/vehicular conflicts, and gathering space for theater patrons in advance of doors opening. Figure 4-13 illustrates the anticipated theater patron arrival patterns (total for all modes) during the evening for a typical theater performance. Average Red Sox patron demands over the same period are juxtaposed on the graphic for reference.

4.5.5.1 Pedestrian Paths

Table 4-12 summarizes the peak pedestrian flows to the Theater based on the mode and distribution of patrons taking into consideration transit connections, parking locations, and walk/bicycle origins.

Table 4-12 Estimated Peak Pedestrian Flows to the Fenway Theater

Approach Direction From:	Principally Includes:	Anticipated Peak Theater Pedestrian Flows (7 to 8 PM)[1]
East, via Ipswich Street	Back Bay residents, workers and visitors; Hynes Convention Center Green line riders; MBTA 55 bus riders; Massachusetts Avenue bus riders; and Back Bay parkers.	665
South/Southwest, via Ipswich Street and Van Ness Street	Fenway residents, workers and visitors; and patrons parking to the south.	850
North/West, via Lansdowne Street	Kenmore Square area residents, workers and visitors; Brookline patrons, Kenmore Green Line riders; MBTA buses 8, 19, 60, and 65 riders; and patrons parking to the north and west	780
Total Pedestrian Flow		2,295

1 Based on data provided by the House of Blues

The three primary pedestrian corridors that will collect Fenway Theater patrons approaching the Project Site, as presented in Table 4-12, are generally in a state of good repair and provide reasonable pedestrian accommodations. Crosswalks are provided at almost all intersections, and there are no missing links in the wider pedestrian network. Figure 4.8 presents the pedestrian routes and walking times to the MBTA stations.

From the east, Ipswich Street connects to Back Bay, Boylston Street, Hemenway Street, Massachusetts Avenue and the Hynes Green Line station, an approximately 10-minute walk. This provides an alternative, shorter route to the Fenway Theater location compared to staying on Boylston Street across the Back Bay Fens, and a comparable walking distance to the Green Line as the connection to Kenmore Square. Ipswich Street has a sidewalk on only the south side for most of its length, largely because it is bounded by the MBTA commuter rail right of way and the Massachusetts Turnpike on the north side where there are no pedestrian connections or origin/destinations. The sidewalk is generally wide enough to accommodate pedestrian volumes, although there is a pinch-point underneath the Bowker Overpass where the bridge abutment extends into the sidewalk. The BTD has indicated that the proponent of the new Boston Conservatory project has committed to providing lighting along this section of sidewalk.

From the south, Ipswich Street and Van Ness Street connect the Fenway neighborhood and the Boylston Street corridor to the Fenway Theater. At the intersection of Van Ness Street and Ipswich Street, the City is considering widening the sidewalks and incorporating bump-outs to shorten the crosswalk lengths and calm traffic in conjunction with the new BAA building.

From the north, Lansdowne Street is the more heavily used pedestrian approach route, connecting Kenmore Square and Brookline Avenue to the Theater location. This route is used by the large numbers of Green Line riders at Kenmore, an approximately 10-minute walk, as well as riders of the Brookline Avenue bus routes, and commuter rail riders connecting at Yawkey Station, an approximately 6-minute walk. As part of previous Fenway Park renovations, a significant investment was made to improve sidewalks and streetscape along Lansdowne Street. As a result, there are wide sidewalks in good conditions on both sides of the street. During Fenway Park events the street is closed to vehicle traffic, effectively transforming the entire street into a pedestrian zone where pedestrians can safely make use of the entire street.

Along this route, there is a pinch-point on the east side of Brookline Avenue between Lansdowne Street and the David Ortiz Bridge over the Massachusetts Turnpike. Along this short segment, there is two-level sidewalk, one fully accessible and one accessible via stairs. This system constraint is only evident before and after Fenway Park events when patrons occupy a significant part of the eastbound vehicle travel lane as an extension of the sidewalk. The Project team is in discussions with the BTD and the Boston Police Department (BPD) to consider ways to make the pinch point safer for pedestrians.

4.5.5.2 Theater Gateway

Table 4-13 summarizes the pedestrian crossing analysis at the three “gateways” to the Fenway Theater’s front door (Ipswich Street from Van Ness Street, Ipswich Street from Hemenway, and Lansdowne Street from Boylston Street). A description of each Column:

› Column A – Existing pedestrians crossing each intersection during the evening commuter peak hour.
› Column B – Existing, non-Fenway Park event day, pedestrians crossing each intersection between 7:00 PM and 8:00 PM (when the Theater is expected to peak).
› Column C – The project generated trips for the Fenway Theater during its peak between 7:00 PM and 8:00 PM.
› Column D – Total estimated pedestrian flows for peak Theater event between 7:00 PM and 8:00 PM (Columns B + C).

Table 4-13 Summary of Pedestrian Demands at Theater Gateway

	(A)	(B)	(C)	D = (B+ C)
Section	**Existing Pedestrian Demands During Commuter PM Peak Hour**	**Existing Pedestrian Demands During Theater PM Peak (7 to 8 PM)**	**Theater Generated Peak Pedestrian Trips (50%)**	**Total Pedestrian Flows During Peak Theater Arrivals**
Ipswich St. From South/ West	63	63	665	728
Ipswich St. (From East)	137	108	850	958
Lansdowne Street	288	209	780	989
Total	488	380	2,295	2,765

1 It was assumed that the count data (or "crossings") represent 2/3 of a pedestrian trip. (i.e., a pedestrian might cross more than one leg of the intersection, so there is not a 1:1 correlation to person trips)

Streetscape improvements are proposed as part of the Boston Arts Academy construction along its Ipswich Street frontage. These include sidewalk widening and curb extensions that will enhance the pedestrian environment and reduce the length of crosswalks on Ipswich Street. To complement these improvements, the Project proposes that the intersection of Lansdowne and Ipswich Streets be narrowed to provide wider sidewalks and safer pedestrian crossing locations. Use of pavement treatments, wayfinding signage, and bollards to demarcate the gateway and emphasize the presence of pedestrians are also proposed. Refer to Section 4.6 for a description of improvements to sidewalks, crossing locations, and pedestrian amenities in the vicinity of the Project Site that are currently planned.

4.5.5.3 Pedestrian Gathering Space

In addition to providing safe routes for pedestrians to access the Fenway Theater and accommodating key roadway crossings, planning for pedestrian flows also requires consideration of the space available for pedestrians to gather outside of the Fenway Theater's entrance. Pedestrians might gather prior to the doors opening, as patrons are processed through security, or as people linger to meet companions prior to entering. In this regard, the team assessed the gathering space available at the main door to the theater and inside the theater prior to the ticket turnstiles. In addition, the capacity of queuing space was assessed along Lansdowne Street while maintaining access along the sidewalk.

The analysis examined the peak volumes of patrons arriving at the Fenway Theater, assuming that some patrons will arrive and queue before theater doors are opened at approximately 6:30 PM. The processing time for patrons to pass through security screening and ticket check was based on data for the current processing of Fenway Park patrons. The sidewalk on Lansdowne Street abutting the Fenway Theater is significantly wider than the sidewalk on the opposite side in front of the House of Blues and, therefore, is considered suitable for accommodating the projected queuing. Fenway Theater operations staff will cordon off queuing areas for pedestrians on Lansdowne Street, Ipswich Street and the area in front of the entrance prior to doors opening.

Figure 4.14 presents a spatial distribution of theater patrons during the peak 15-minute arrival/entry period. The analysis is somewhat conservative in that it shows the entire volume of patrons queuing and entering the theater during the 15-minute period, whereas a portion of the patrons will enter the building during this period and all of patrons are not expected to be gathered on the sidewalks simultaneously.

As is the case for Fenway Park, theater operations will be closely coordinated with the Boston Police Department.

4.5.5.4 Conditions During Fenway Park Events

Pedestrian volumes in the study area are significantly higher on Fenway Park event days. Before events, Fenway Theater peak arrivals are expected to lag Red Sox peak arrivals, as previously shown in Figure 4.13, with Fenway Theater start times typically lagging by an hour. Post-event exiting flows are harder to predict as both event times and performance times are highly variable. As such, there may be occasions when both the Fenway Theater and Fenway Park are egressing concurrently.

As discussed previously, during Fenway Park events Lansdowne Street and the portions of Jersey Street and Van Ness Street adjacent to Fenway Park are closed to vehicle traffic, effectively transforming the entire street into a pedestrian zone where pedestrians can safely make use of the entire street. These street closures enhance the pedestrian environment and circulation for Fenway Theater patrons on event-days and can absorb and process the additional demands expected to be generated by the Project.

4.5.6 Parking Demand and Supply

Table 4-1 identified more than 2,100 shared use parking spaces around the Fenway neighborhood that are open to the public. Additional lots are activated during Fenway Park events. Based on the anticipated mode split and vehicle occupancies for theater patrons, it is expected that the Project could generate peak parking demands of 770 to 850 vehicles. Depending on events in the neighborhood, it is expected that these parking demands would be distributed throughout the facilities previously described, based on direction of arrivals, with the parking lots and garages closest to the theater filling up first.

During Fenway Park event days, these parking facilities, as well as other less formal lots, provide parking for Fenway Park patrons, often at special event (higher) rates. The availability of parking, as well as the price of parking during Fenway Park events, often motivates those patrons that still want/need to drive their own vehicle to park further from the ballpark. The transportation surveys in the fall of 2018 completed at Fenway Park during weeknight events offer insight on the parking locations for those patrons who elect to drive to the ballpark, as summarized in Table 4-14.

Table 4-14 Parking Locations for Fenway Park Patrons

Parking Location for Fenway Park Events	Percent of Total Parkers
Within ¼ Mile Walking Distance	46%
¼ to ½ Mile Walking Distance	28%
½ to 1 Mile Walking Distance	18%
More than 1 Mile Away (20+ minute walk)	8%

On average, Red Sox fans walk approximately 10 minutes from where they park to Fenway Park. In addition, the Red Sox promote discounted remote parking at the Prudential Center and 100 Clarendon Street Garage through the PARKWHIZ app. At all times, and particularly on the occasions when both Fenway Park and the Fenway Theater are in operation, theater patrons will be encouraged to take public transportation and/or park more remotely.

Finally, to reinforce parking management plans in the neighborhood, the City of Boston has increased the fine for parking a vehicle in the Fenway/Kenmore Residential Parking District during Fenway Park events without a valid and current residential sticker, as issued by the Transportation Department, to one hundred dollars ($100.00) for each violation. This measure deters non-residents from displacing local residents from parking near their homes.

4.5.7 Shared Ride Demands

Based on recent transportation surveys, it is expected that approximately 16 percent of Fenway Theater patrons will use shared ride services (taxi, Uber, Lyft, limousine, etc.) to access the venue. This translates to approximately 270 trips before and after theater events.

The BTD is currently considering the best approach to managing shared ride services. The drop-off shared rides are more difficult to manage compared to the pick-up trips. The Project team will work with BTD to implement a management strategy to most effectively control pick-up trips so that they occur at appropriate locations for theater events and more remotely, dispersed over a wider area, when Fenway Park is active.

4.5.8 Loading and Deliveries

Currently, loading and deliveries for Fenway Park (ballgames and special events) are largely accommodated on-street at Gate B (Ipswich Street) and Gate D (Jersey Street). Two off-street loading docks exist at 175 Ipswich Street that principally handle trash and recycling pick-ups and smaller truck deliveries. Larger trucks making deliveries to Fenway Park generally use curb-side space when off-loading and smaller trucks and vans, including mail and package deliveries, use the Triangle Lot.

Service demands for the Fenway Theater events are anticipated to vary depending on size of event, nature of performance, and catering activities. Many performances are expected to rely on the stage and production equipment provided within the building. These types of events will generally require accommodation of 1 to 2 tractor trailer trucks and 1 to 2 buses, each possibly with tow behind trailers. An equipment heavy performance might require up to six (6) tractor trailer deliveries and up to four (4) buses, each possibly with tow behind trailers. Currently, Live Nation deploys an off-site staging facility in South Boston that is anticipated to be available for use by the Fenway Theater should trucks or buses need to be marshalled into the Project Site during load-in or load-out periods.

Service demands when the Red Sox are in a homestand or when there is a special event at Fenway Park represent peak demands for the loading docks. Table 4-15 estimate peak daily demands for deliveries.

Table 4-15 Anticipated Peak Service Demands During Fenway Park Events

Truck Type/Product	Truck Size	Number of Deliveries	Time of Day
Sysco	53 Foot	Up to 5/week	Morning
Coca Cola	53 Foot and Open Sided	Up to 5/week	Morning
Beer	24 to 40-Foot	Up to 15/week	Morning
Perishables Products (Bread, Meats, Pizza, Seafood, etc.)	Varies	Up to 6/game	Varies
Trash and Recycling	40 Foot	1/game	Morning
Cintas	Varies	Up to 3/week	Morning
Other Misc. Vendors	Varies	Up to 3/game	Varies
Total (Average)		**15 to 20/game day**	

As shown previously in Figure 4.11, the Project will provide off-street loading facilities for Fenway Theater and Fenway Park operations from Ipswich Street, including three (3) general use loading docks which can accommodate up to semi-tractor trucks (WB-50) and two (2) loading docks for trash and recycling pick-up and smaller truck/van use. The addition of the general use loading docks is expected to address the anticipated Fenway Theater demands and enhance current freight/delivery operations at Fenway Park.

In addition, it is expected that daily mail and delivery activities (Fed Ex, UPS, etc.) will be redirected to an alternate location, such as the 189 Ipswich Street lot.

Truck turning movement diagrams demonstrating access/egress to the loading docks are presented in the Appendix D. The Proponent will implement a management plan for the loading docks and will work closely with BAA to coordinate deliveries and avoid school drop-off and pick-up hours.

4.6 Proposed Improvements/Mitigation

4.6.1 Public Realm Improvements

The Project will activate a currently undeveloped property at the eastern end of Lansdowne Street and midway along Ipswich Street as it traverses the Lansdowne Street Entertainment District. It is envisioned that the public realm improvement and placemaking strategies incorporated in the development of the Fenway Theater (grand entrance, signage, sidewalk and streetscape improvements) will activate this unique corner of the district and send visual cues to all visitors that they have arrived.

In conjunction with the Project, pedestrian and streetscape improvements are planned to include:

- Continuation of the streetscape improvements planned by the BAA along the southeast side of Ipswich Street to Lansdowne Street;
- Narrowing of the intersection of Lansdowne and Ipswich Streets to provide wider sidewalks and safer pedestrian crossing locations;
- Use of pavement treatments, wayfinding signage, and bollards to demarcate as a gateway and emphasize the presence of pedestrians; and,
- New MBTA bus stops and shelters along Ipswich Street.

Planned improvements by the BAA also propose to narrow the intersection of Van Ness Street and Ipswich Street and improve walkways and crossings. This proposal will further calm traffic in the vicinity of the Project and enhance the environment for pedestrians accessing the theater from the Boylston Street corridor. The Project team is also investigating potential benefits of converting a section of Van Ness Street to one-way westbound traffic between Ipswich Street and Jersey Street. (Van Ness Street is already one-way westbound beyond Jersey Street).

As discussed previously, the Project team is in discussions with the BTD and BPD to consider ways to make the pinch point on the east side of Brookline Avenue between Lansdowne Street and the David Ortiz Bridge over the Massachusetts Turnpike more amenable for pedestrians. Refer to Figure 2.9 for a public realm improvements plan, and Figure 4.11 for a Site access plan.

4.6.2 Event Management Plan

Theater Operations

It is envisioned that police details (depending on nature of event) will be deployed before and after events at the theater to manage pedestrian flows and traffic in the vicinity of the Lansdowne Street/Ipswich Street and Ipswich Street/Van Ness Street intersections.

Fenway Theater operations staff are also expected to cordon off queuing areas for pedestrians on both Lansdowne Street and Ipswich Street prior to doors opening. This will control the queuing area and preserve unobstructed space for pedestrians and patrons traveling through the Project Site to other destinations within the Fenway neighborhood.

As discussed previously, the Project team will work with BTD to implement a shared ride management strategy to most effectively control pick-up trips so that they occur at appropriate locations for theater events and more remotely, dispersed over a wider area, when Fenway Park is active.

Ballpark Operations

During times when both Fenway Park and the Fenway Theater host events, access and egress to the Project area will be subject to street closures, and the transportation management plan in effect for Fenway Park events. It is anticipated that Fenway Theater patrons will be notified of event conditions when buying tickets and given a transportation advisory in advance of the performance. These advisories would underscore traffic conditions and area parking limitations, and would encourage the use of public transportation to access the Fenway Theater.

The Red Sox, working collaboratively with the BTD, BPD and Homeland Security, actively manage traffic before and after events. Lansdowne Street and the portions of Jersey Street and Van Ness Street adjacent to the ballpark are closed to vehicular traffic approximately two hours before events. Police details are also strategically positioned around the Park to direct pedestrian and vehicular flows, as described in Table 4-16.

Table 4-16 Fenway Park Boston Police Officer Traffic Control: Game Day and Special Events

Existing Controlled Intersection	Condition	Duty
Brookline Avenue at Jersey Street (2)	Pre- and Post-Game	Regulate traffic in and out of Jersey Street and the Brookline Lot and facilitate pedestrian crossings
Brookline Avenue at Lansdowne Street (2)	Pre- and Post-Game	Control access/egress to Lansdowne Street and facilitate pedestrian movements
Jersey Street at Van Ness Street (2)	Pre- and Post-Game	Facilitate pedestrian crossing and manage access/egress to Van Ness Street and players lot
Boylston Street at Kilmarnock Street	Pre- and Post-Game	Prevent traffic gridlock and facilitate pedestrian crossings
Boylston Street at Richard Ross Way	Pre- and Post-Game	Prevent traffic gridlock and facilitate pedestrian crossings

Boylston Street at Jersey Street	Pre- and Post-Game	Prevent traffic gridlock and facilitate pedestrian crossings
Boylston Street at Ipswich Street	Pre- and Post-Game	Prevent traffic gridlock and facilitate pedestrian crossings
Brookline Avenue at Newbury Street Extension	Pre-Game	Facilitate pedestrian crossings and manage traffic
Ipswich Street at Van Ness Street	Post-Game	Facilitate pedestrian crossings and manage traffic; maintain barriers on Van Ness Street (exit only)
Brookline Avenue at Kilmarnock Street	Post-Game	Facilitate pedestrian crossings and manage traffic
Van Ness Street at Kilmarnock Street	Post-Game	Facilitate pedestrian crossings and manage traffic
Van Ness Street at Richard Ross Way	Post-Game	Facilitate pedestrian crossings and manage traffic
Beacon Street at Maitland Street (2)	Post-Game	Pull traffic outbound and facilitate pedestrian crossings

In addition to the police details outlined in Table 4-16, police details and specialized security agents are expected to be present at entrance gates and throughout Fenway Park. It is anticipated that there will be a combination of uniformed and non-uniformed security present.

As discussed previously, the Project team is in discussions with the BTD and BPD to consider ways to make the pinch point on the east side of Brookline Avenue at the Cask 'n Flagon between Lansdowne Street and the David Ortiz Bridge over the Massachusetts Turnpike safer for pedestrians.

4.6.3 Transportation Demand Management

The proposed TDM plan aims to reduce drive-alone trips, or single occupancy vehicles, by encouraging employees and patrons to use alternative modes of transportation. As has been Red Sox practice over the past 15 years, the promotion of alternative modes of access to the Fenway Theater (and Fenway Park) will continue to be promoted through on-line ticket sales, email advisories, in-park promotions, and website information.

The following additional TDM measures are being considered for the Project:

- Designate a Transportation Coordinator to oversee all transportation related operational matters for the Theater including vehicular operations, servicing and loading, parking and implementation of the TDM plan. The Transportation Coordinator will act as the contact and liaison for the City and community.

- Make available transit maps, schedules and other information relevant to commuting options for employees and patrons of the theater, including on-line information.
- Support the communication of real-time transportation information for patrons and employees.
- Provide pre-tax commuter benefits for employees to encourage transit pass purchases.
- Provision of secure bicycle parking on-site.

4.6.4 Construction Management Plan

The Proponent will develop a detailed evaluation of potential short-term construction-related transportation impacts including construction vehicle traffic, parking supply and demand, and pedestrian access. Detailed construction management plans will be developed by the Proponent and will be reviewed and discussed with abutters and BTD. These plans, which require BTD approval prior to construction commencement, will detail construction phasing, vehicle routing and staging, road closures, and pedestrian detours.

The Proponent will coordinate the construction management plans with abutters, including the BAA prior to submitting to BTD for approval.

4.6.4.1 Construction Vehicle Traffic

Construction vehicles will be necessary to move construction materials to and from the Project Site. Every effort will be made to reduce noise, control dust, and minimize other disturbances associated with construction traffic. Truck staging and laydown areas for the Project will be carefully planned. The need for lane closures along roadways adjacent to the Project Site is not known at this time.

4.6.4.2 Construction Parking

Contractors will be encouraged to devise access plans for their personnel that de-emphasize auto use (such as seeking off-site parking, provide transit subsidies, on site lockers, etc). Construction workers will also be encouraged to use public transportation to access the Project Site because no parking will be provided for them.

4.6.4.3 Pedestrian Access during Construction

During the construction period, pedestrian activity adjacent to the Project Site may be impacted by sidewalk closures. Temporary walkways, appropriate lighting, and new directional and informational signage to direct pedestrians around the construction sites will be provided. After construction is complete, finished pedestrian sidewalks will be permanently reconstructed around the new facilities. Any damage as a result of construction vehicles or otherwise will be repaired per City standards.

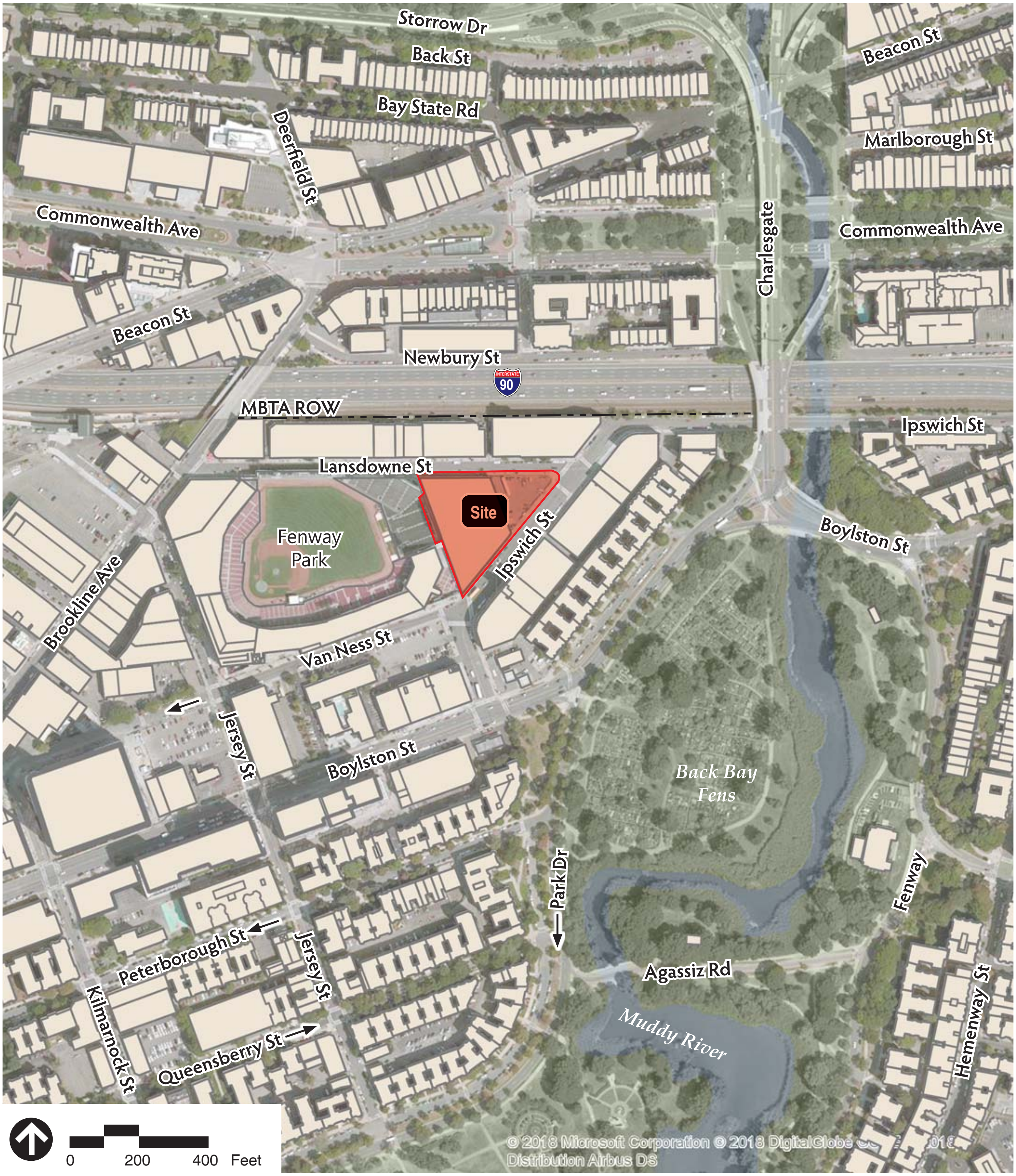
4.6.5 Transportation Access Plan Agreement (TAPA)

The Proponent will enter into a TAPA with the BTD which will formalize and document all transportation mitigation and TDM commitments.

Mitigation commitments are the result of the detailed transportation analyses and identification of Project impacts, as documented in the above chapter, and specific agreements made between the Proponent and the City of Boston.

Specific mitigation measures have not been discussed with the City at this time. Upon the City's review of this transportation analysis and assessment of Project impacts, TDM commitments will be discussed and agreed upon for the Project. A TAPA will be executed for the Project in advance of its building permit issuance.

This Page Left Intentionally Blank



Source: ArcGIS Online Bing Aerial

Figure 4.1

Project Site Context

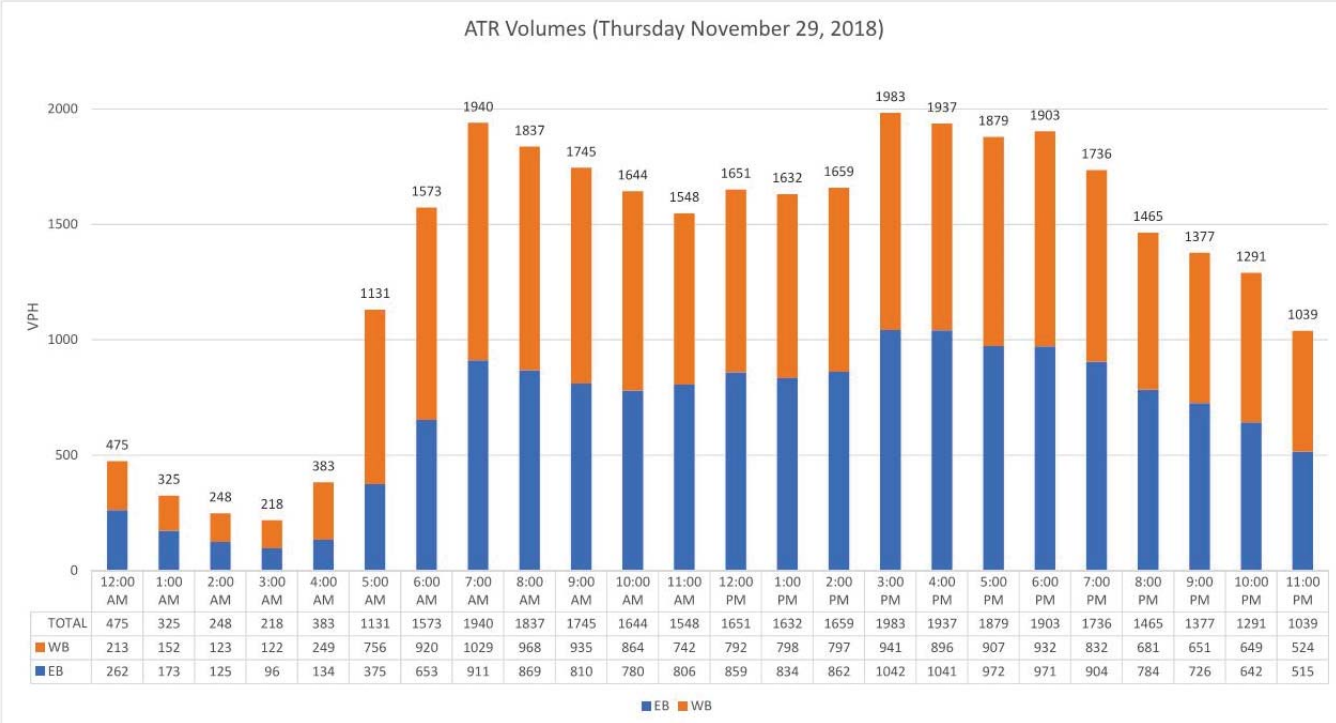
12 – 28 Lansdowne Street
Boston, Massachusetts

Source: ArcGIS Online Bing Aerial

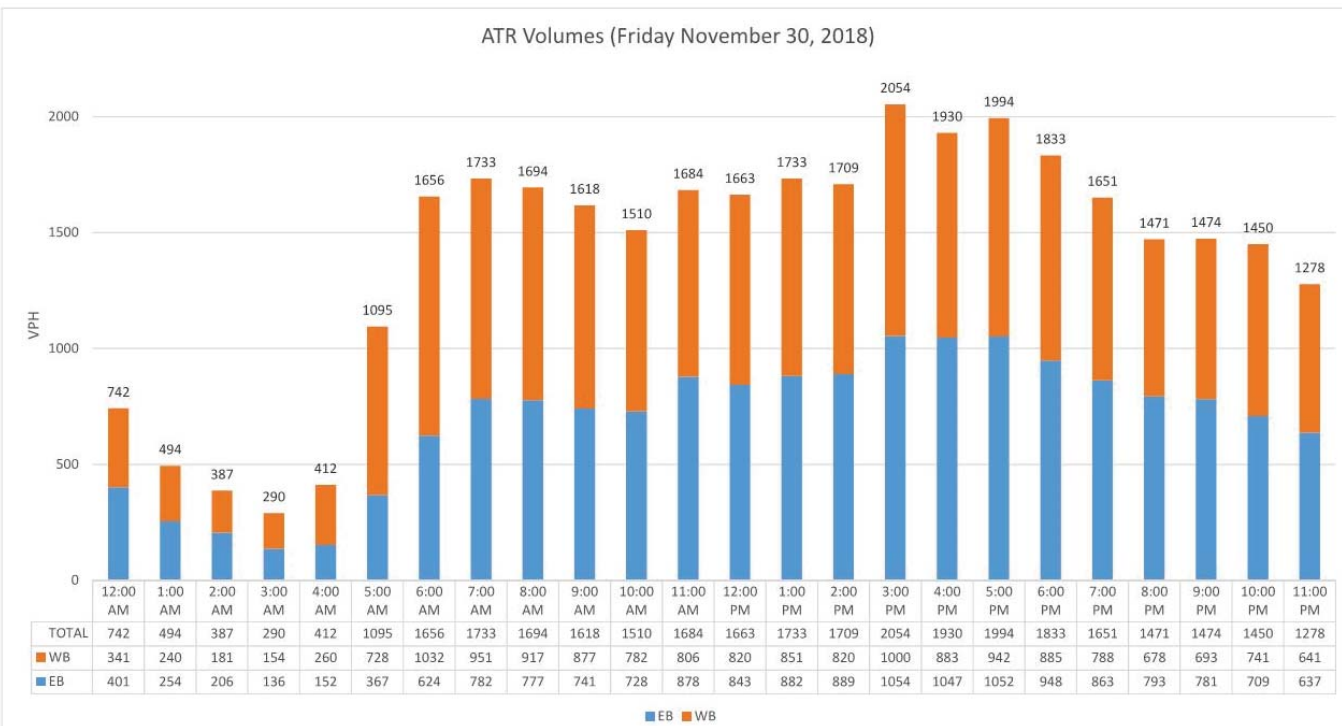
Figure 4.2

Study Area Intersections

12 – 28 Lansdowne Street
Boston, Massachusetts



	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
TOTAL	475	325	248	218	383	1131	1573	1940	1837	1745	1644	1548	1651	1632	1659	1983	1937	1879	1903	1736	1465	1377	1291	1039
WB	213	152	123	122	249	756	920	1029	968	935	864	742	792	798	797	941	896	907	932	832	681	651	649	524
EB	262	173	125	96	134	375	653	911	869	810	780	806	859	834	862	1042	1041	972	971	904	784	726	642	515



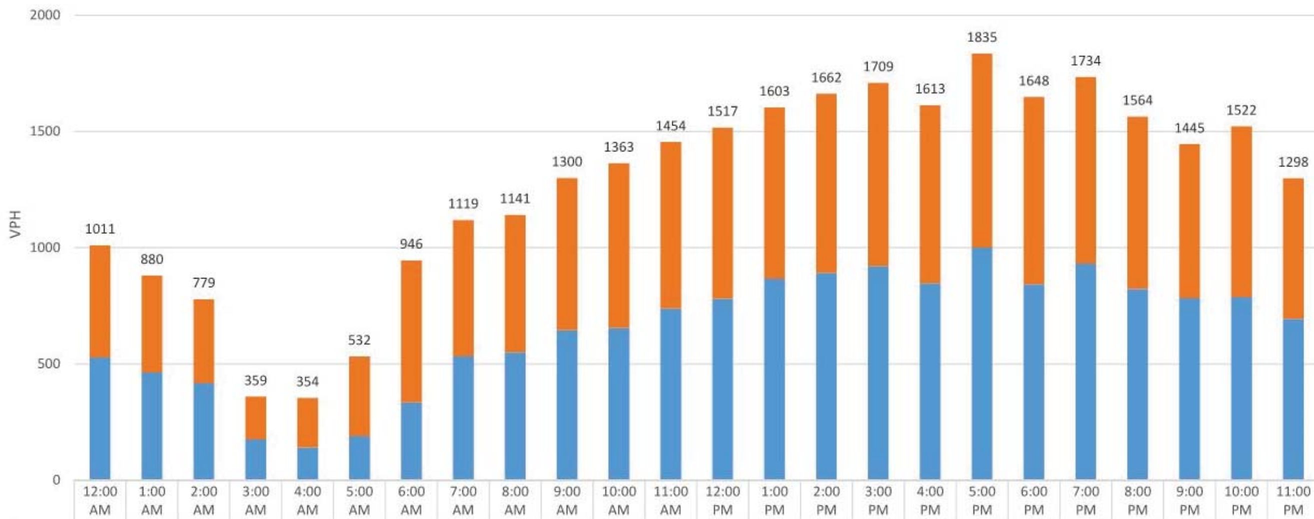
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
TOTAL	742	494	387	290	412	1095	1656	1733	1694	1618	1510	1684	1663	1733	1709	2054	1930	1994	1833	1651	1471	1474	1450	1278
WB	341	240	181	154	260	728	1032	951	917	877	782	806	820	851	820	1000	883	942	885	788	678	693	741	641
EB	401	254	206	136	152	367	624	782	777	741	728	878	843	882	889	1054	1047	1052	948	863	793	781	709	637

ATR = Automatic Traffic Recorder

Figure 4.3a

Observed Boylston Street Demands

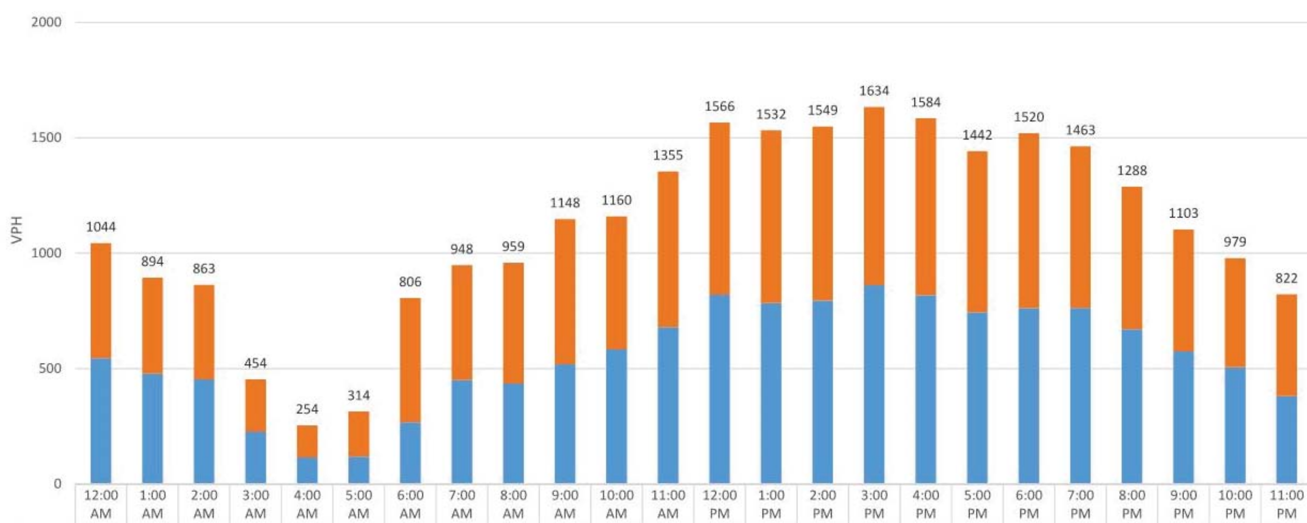
ATR Volumes (Saturday December 1, 2018)



	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
TOTAL	1011	880	779	359	354	532	946	1119	1141	1300	1363	1454	1517	1603	1662	1709	1613	1835	1648	1734	1564	1445	1522	1298
WB	483	417	363	183	213	343	612	587	591	655	708	716	737	737	772	788	767	835	806	802	742	662	735	605
EB	528	463	416	176	141	189	334	532	550	645	655	738	780	866	890	921	846	1000	842	932	822	783	787	693

EB WB

ATR Volumes (Sunday December 2, 2018)



	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
TOTAL	1044	894	863	454	254	314	806	948	959	1148	1160	1355	1566	1532	1549	1634	1584	1442	1520	1463	1288	1103	979	822
WB	499	416	409	228	138	195	539	498	523	630	577	676	746	748	755	772	766	699	758	700	618	530	473	441
EB	545	478	454	226	116	119	267	450	436	518	583	679	820	784	794	862	818	743	762	763	670	573	506	381

EB WB

ATR = Automatic Traffic Recorder

Figure 4.3b

Observed Boylston Street Demands

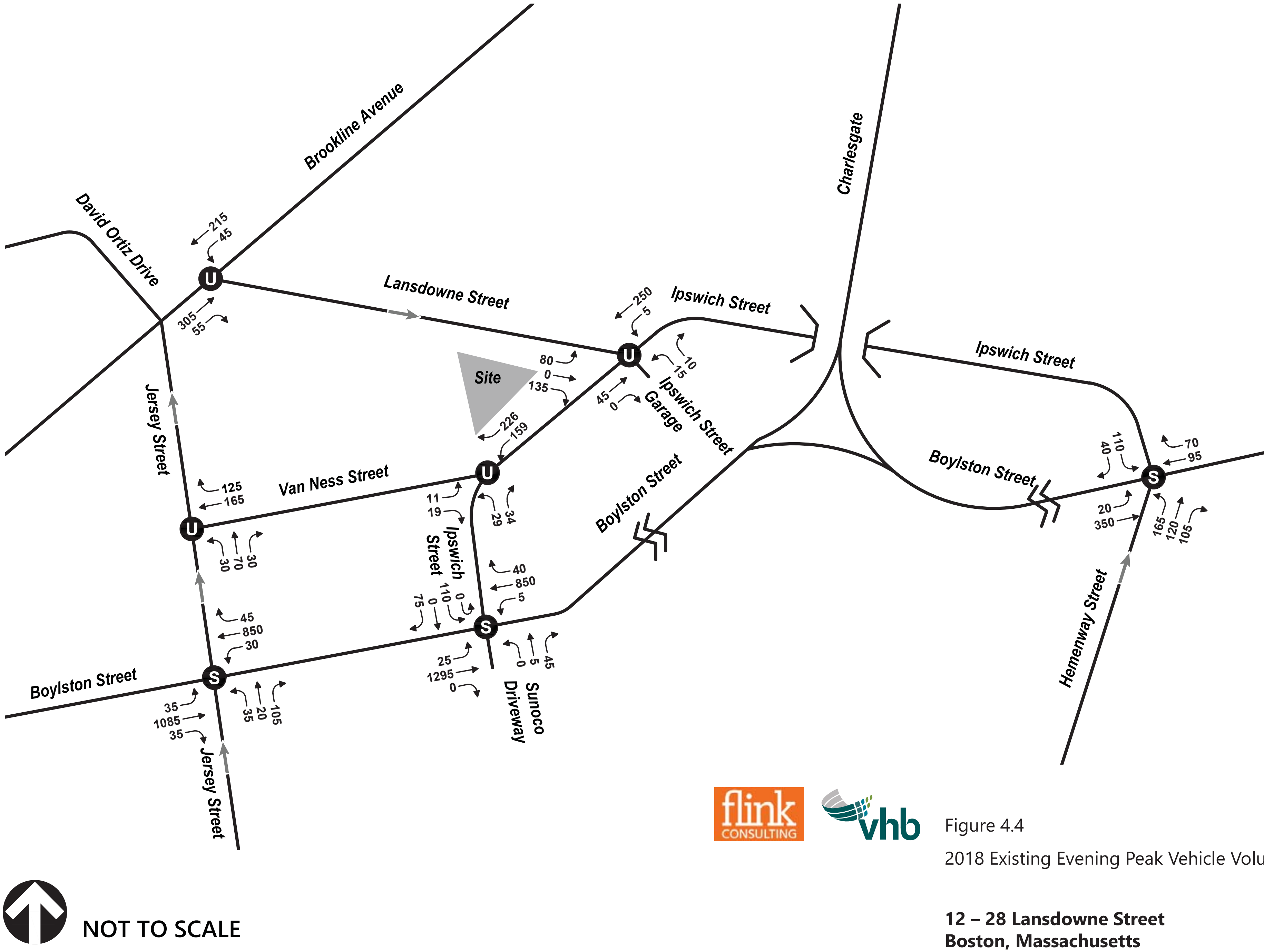


Figure 4.4

2018 Existing Evening Peak Vehicle Volumes

12 – 28 Lansdowne Street
Boston, Massachusetts

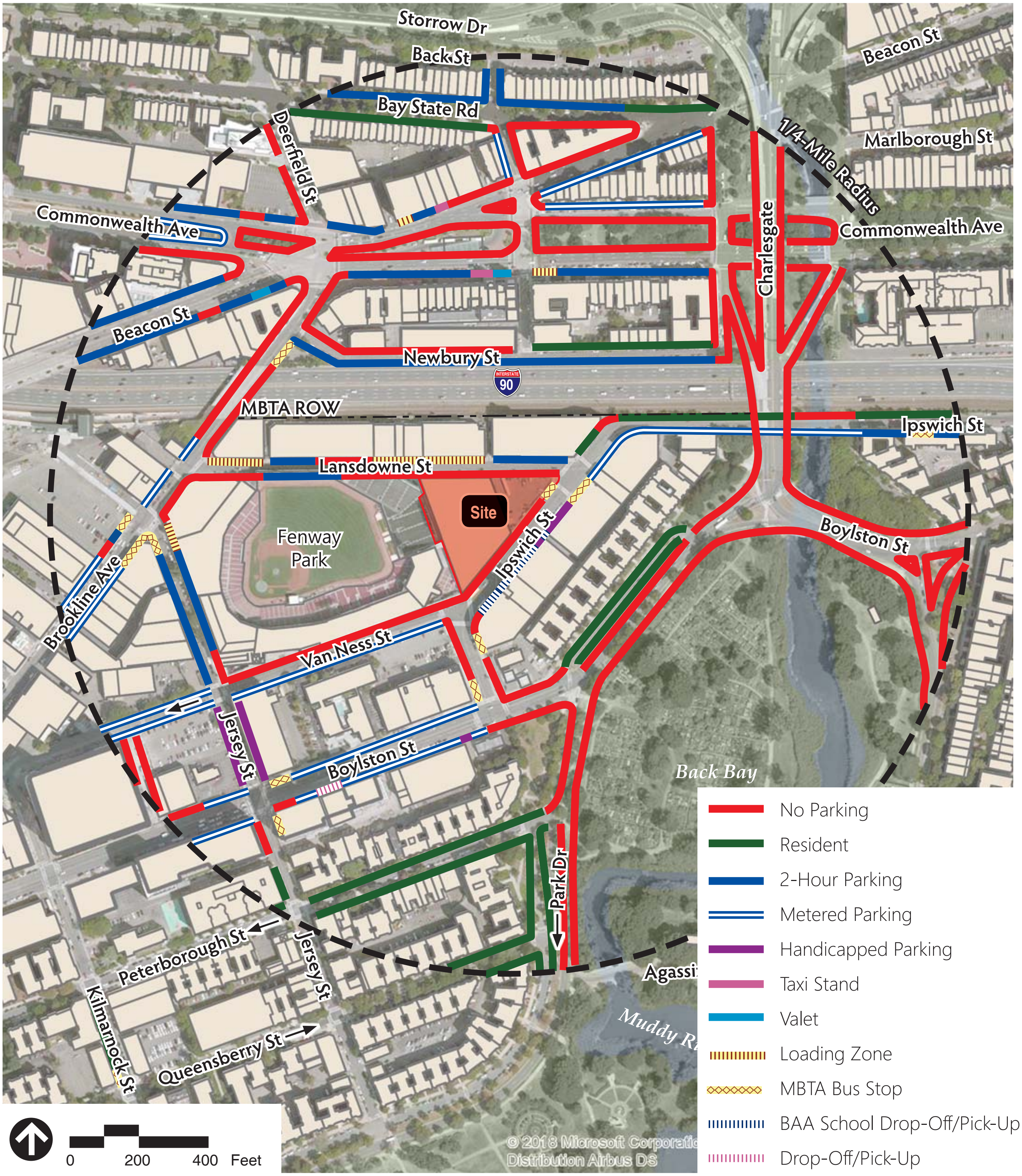
1. Fenway Triangle Trilogy Parking
2. Van Ness Garage
3. 55 Jersey Street
4. 1330 Boylston Street Garage
5. Queensbury Street Garage
6. Kilmarnock Street Parking Lot (Pilgrim Parking)
7. 1295 Boylston Street Lot
8. Deaconess Garage Inc.
9. 51 Van Ness Street
10. Kenmore Lot (73 Brookline Avenue)
11. Lansdowne Street Garage
12. Ipswich Street Garage
13. Somerset Garage
14. 1081 Boylston Street Parking
15. Haviland Street Garage
16. 189 Ipswich Street
17. Landmark Center

Source: ArcGIS Online Bing Aerial

Figure 4.5

Existing Off-Street Parking

12 – 28 Lansdowne Street
Boston, Massachusetts



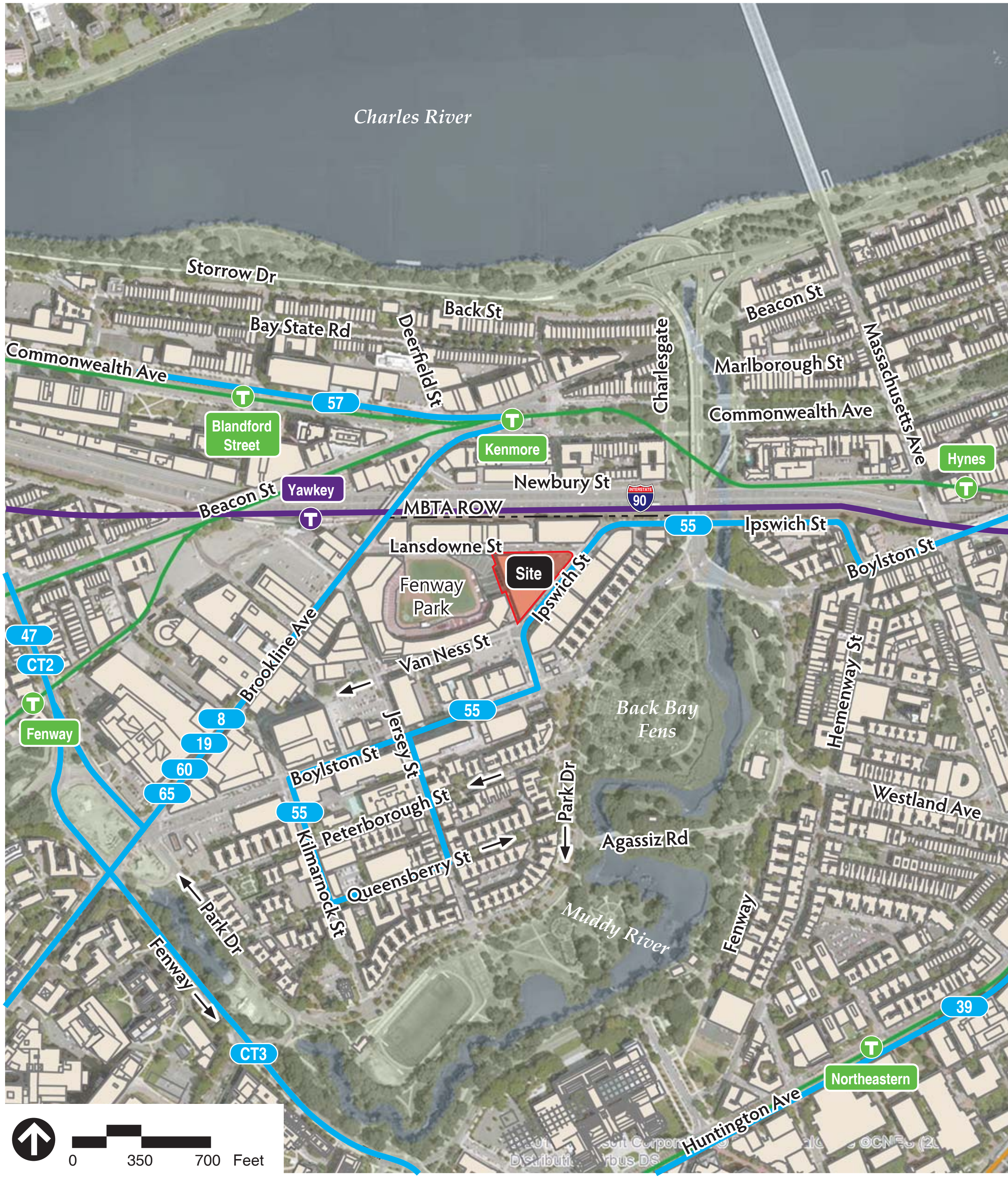
Source: ArcGIS Online Bing Aerial

flink CONSULTING vhb

Figure 4.6

Existing Curb Use

12 – 28 Lansdowne Street
Boston, Massachusetts

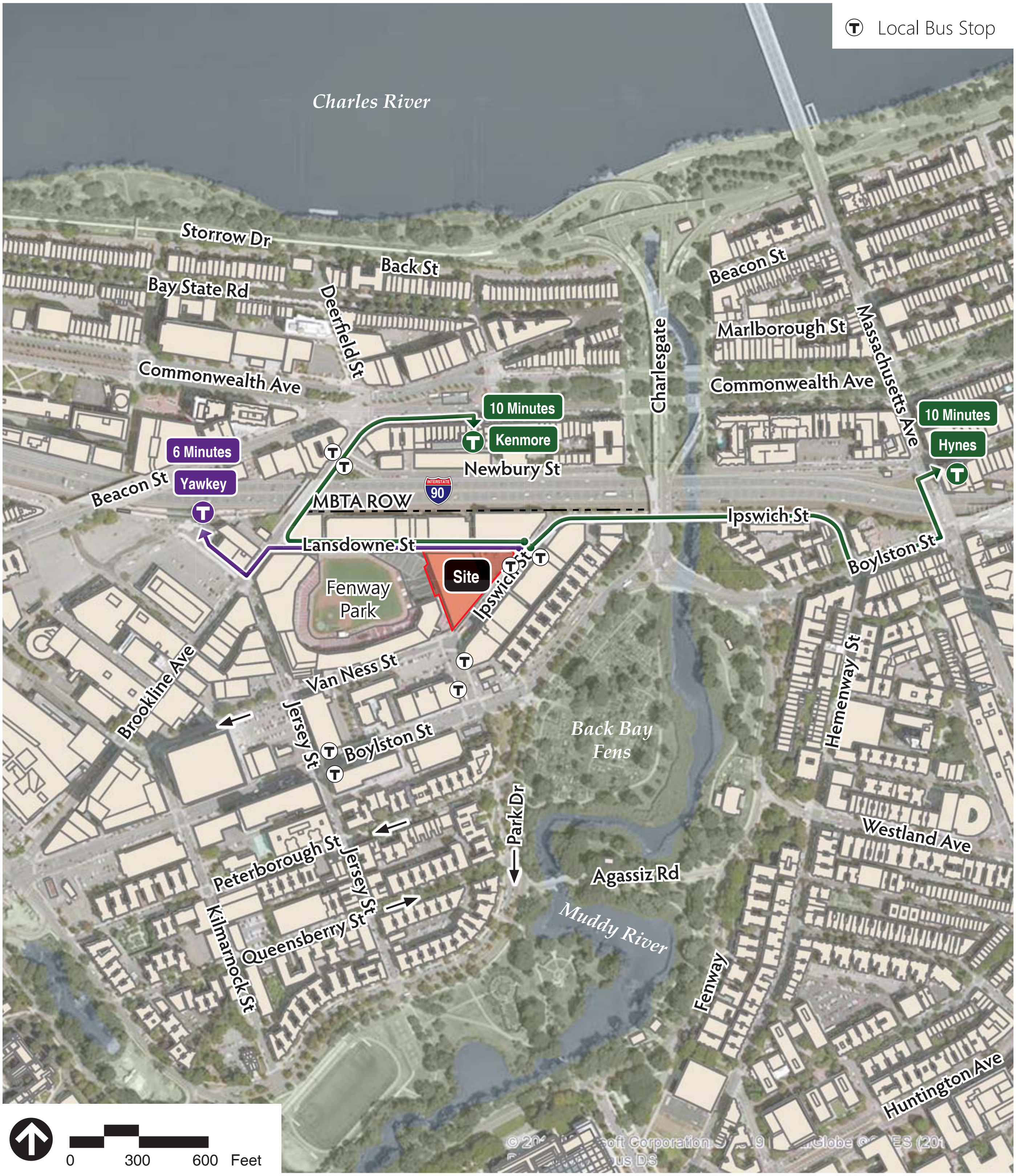


Source: ArcGIS Online Bing Aerial

Figure 4.7

Public Transportation

12 – 28 Lansdowne Street
Boston, Massachusetts



Source: ArcGIS Online Bing Aerial

Figure 4.8

Walk Times to MBTA Stations

12 – 28 Lansdowne Street
Boston, Massachusetts

Source: ArcGIS Online Bing Aerial

Figure 4.9
Existing Bike and Car Share Locations

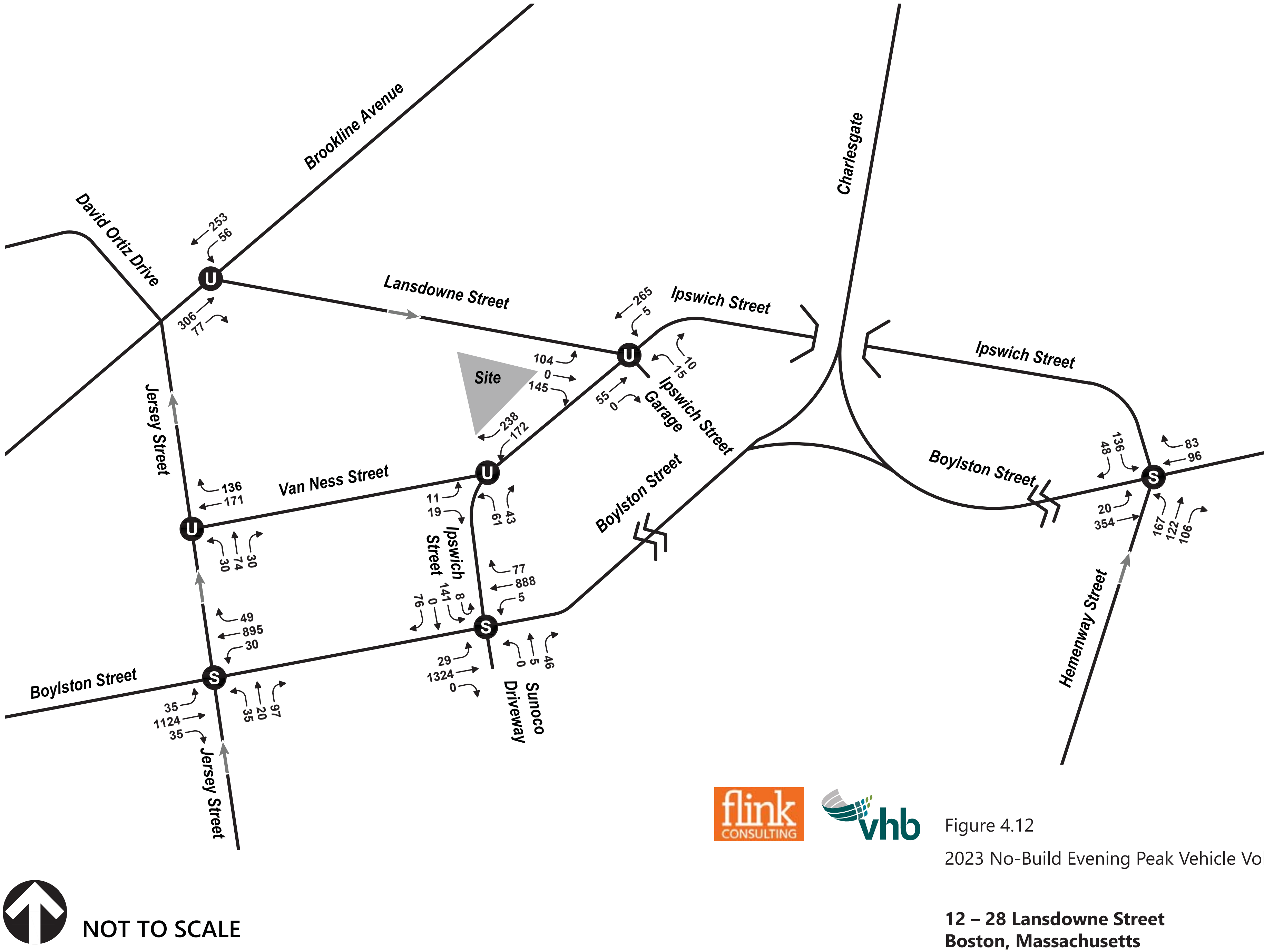


Figure 4.12

2023 No-Build Evening Peak Vehicle Volumes

12 – 28 Lansdowne Street
Boston, Massachusetts

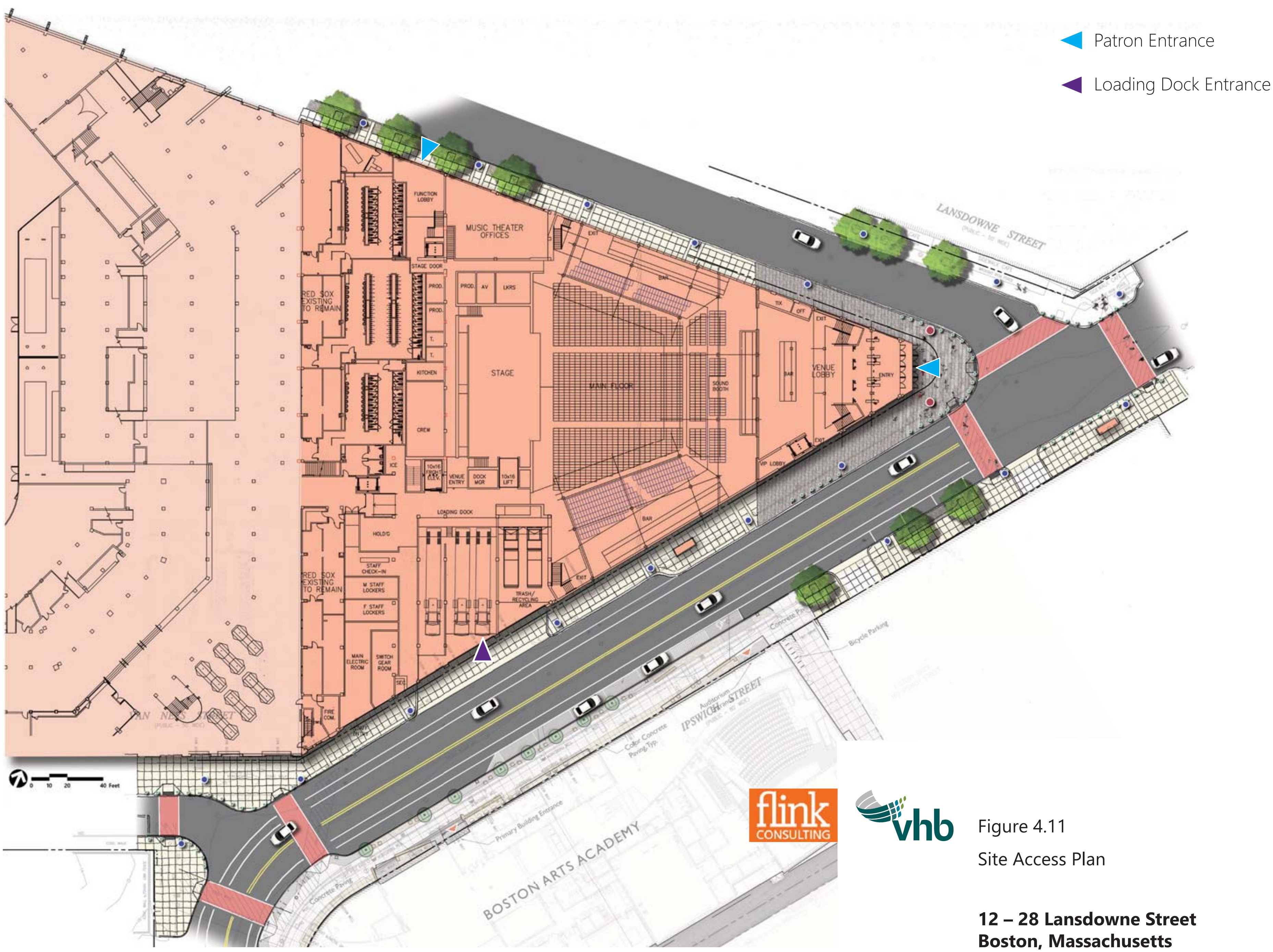


Figure 4.11

Site Access Plan

12 – 28 Lansdowne Street
Boston, Massachusetts

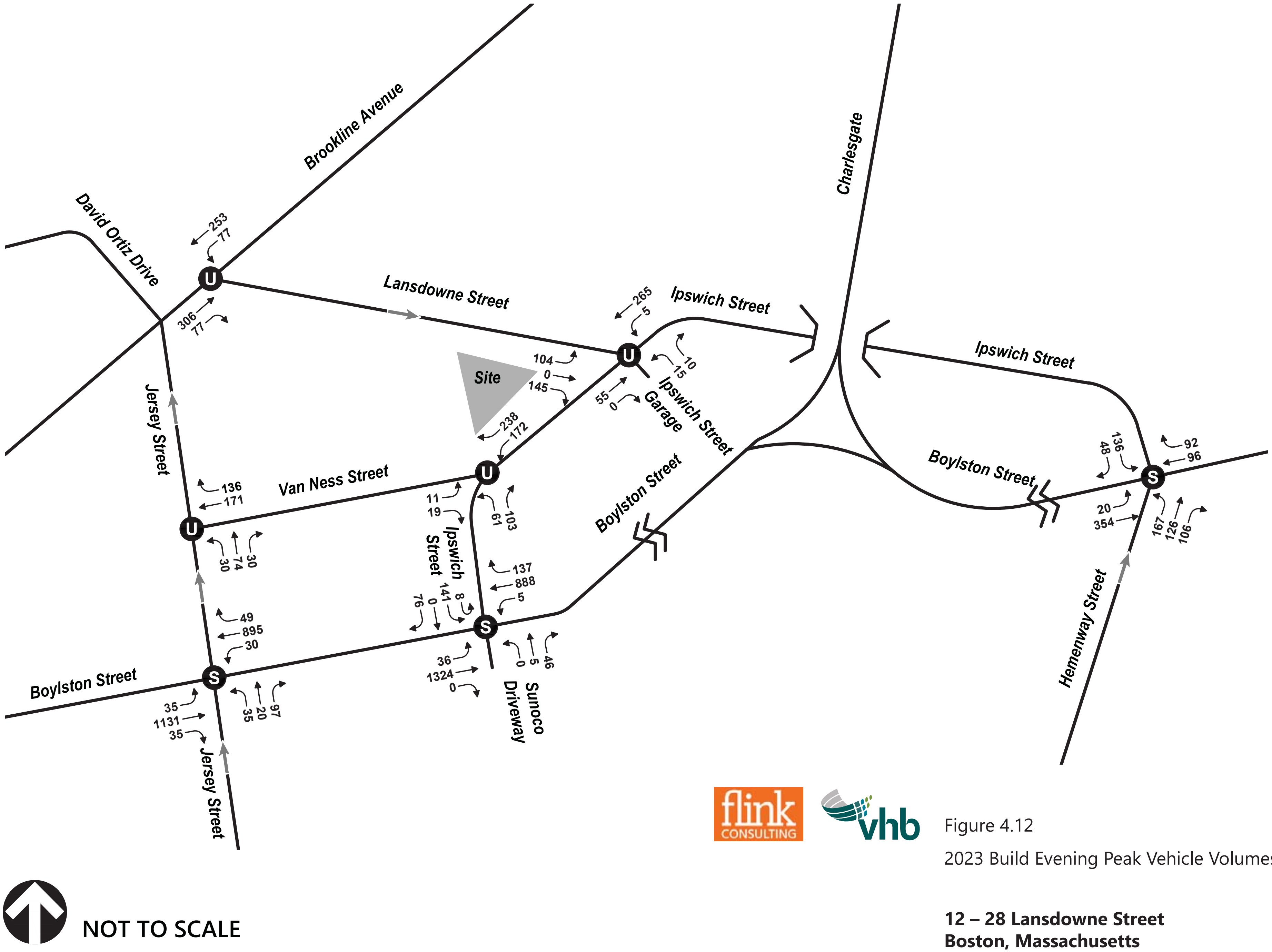


Figure 4.12

2023 Build Evening Peak Vehicle Volumes

12 – 28 Lansdowne Street
Boston, Massachusetts

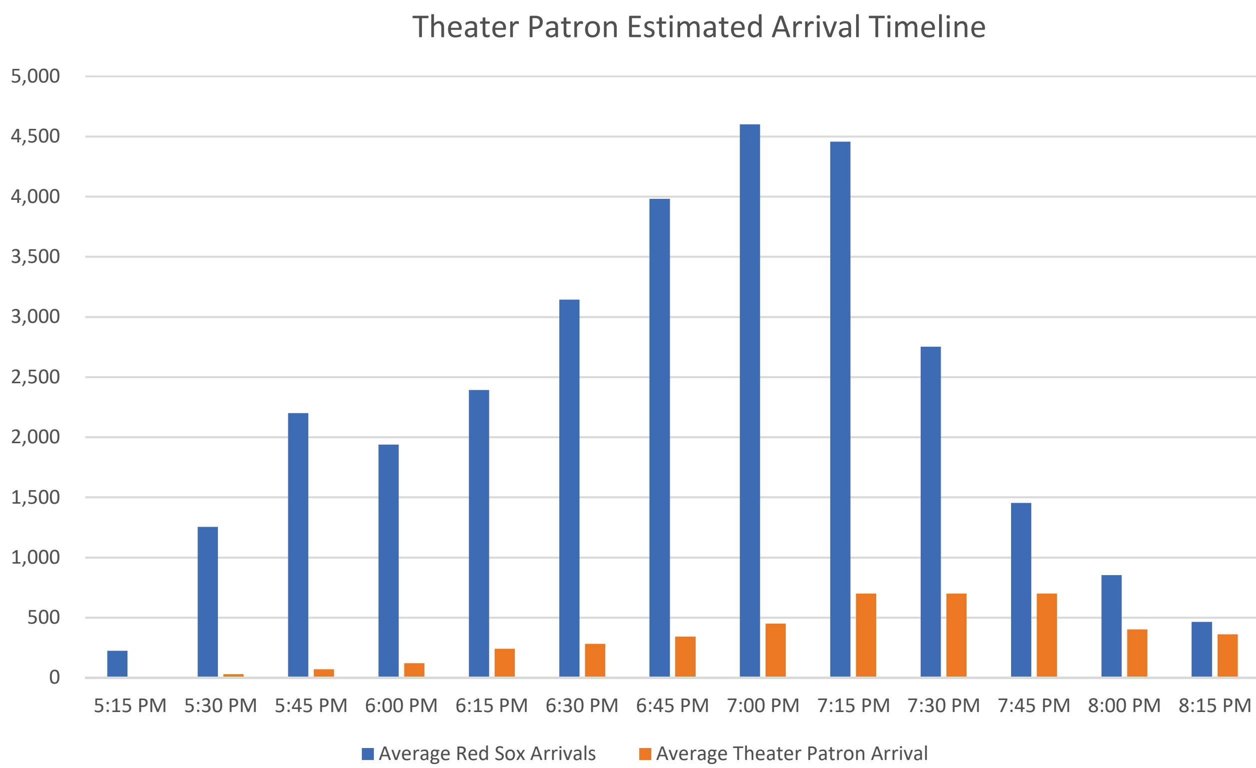


Figure 4.13

Fenway Theater Arrival Pattern

12 – 28 Lansdowne Street
Boston, Massachusetts

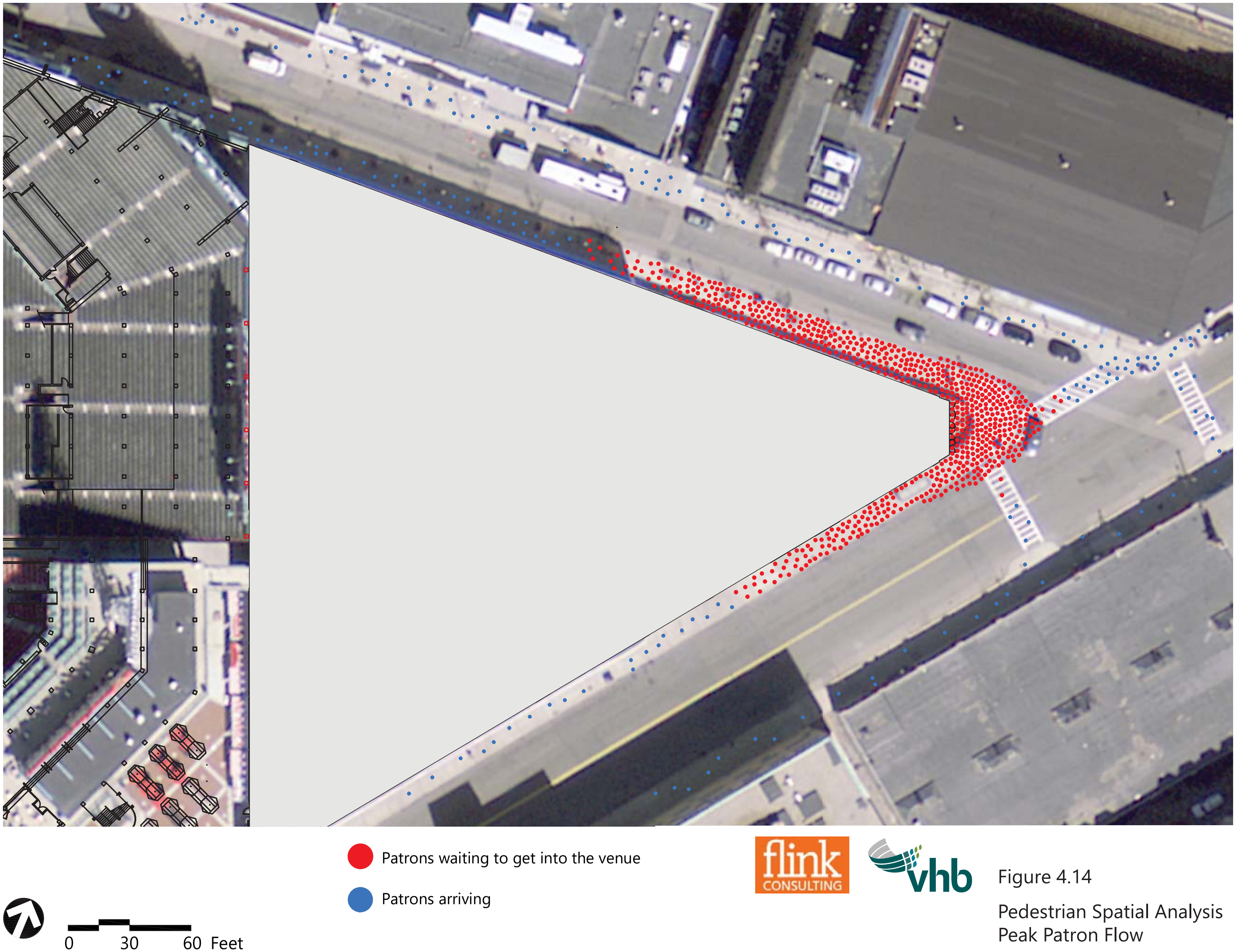


Figure 4.14

Pedestrian Spatial Analysis
Peak Patron Flow

12 – 28 Lansdowne Street
Boston, Massachusetts

This Page Left Intentionally Blank

5

Environmental Protection

This chapter presents information on the environmental conditions near the Project Site and the potential changes that may occur as a result of the Project. A key goal of the Project is to redevelop the Project Site for more efficient and improved uses, while avoiding or minimizing potential adverse environmental impacts.

As discussed in more detail below, Project-related impacts, which are to be expected in urban development of this scale, are counterbalanced by the significant benefits for the adjacent neighborhoods and the City. The following sections identify Project impacts and discuss steps that are expected to be taken through design and operations to avoid, minimize, and/or mitigate adverse effects. Temporary construction-period impacts will be managed to minimize disruption to the surrounding neighborhoods.

In compliance with the Article 80 Large Project Review guidelines of the Code, the Project will address potential environmental impacts in the following categories:

- Shadow
- Daylight
- Solar Glare
- Air Quality
- Flood Hazard
- Noise
- Hazardous Materials
- Geotechnical
- Groundwater
- Temporary Construction Impacts

Where the current state of the preliminary design allows, this EPNF provides a full assessment of Project impacts. The Proponent looks forward to working through the Article 80 process with City agencies and the community to further refine the Project and its associated benefits.

5.1 Summary of Key Findings and Benefits

In summary, the initial key findings and benefits of the analyses of potential environmental impacts associated with the Project are as follows:

- Shadow – Shadow impacts have been minimized through the scale and design of the Project to the maximum extent practicable to avoid any noticeable effect on pedestrian use patterns.
- Daylight – The Project will result in a reduction in the visible skydome when viewed from adjacent sidewalks compared to existing conditions. Such changes are consistent with the Project's urban context.
- Solar Glare – The Project will minimize solar glare impacts on the surrounding area through material selection and design.

- Flood Hazard – The Project Site is not located within a special flood hazard area and is not at high risk of inundation from sea level rise and flooding during the Project's design life.
- Noise – The internal and external sound levels associated with the Project will be attenuated and, therefore, will have no adverse noise impacts at nearby sensitive receptor locations. Potential noise impacts associated with deliveries are expected to be negligible as the majority of loading will primarily be enclosed off-street, and will be managed.
- Air Quality – The Project will not result in adverse localized air quality impacts.
- Hazardous Materials – The Project Site does not contain any known reported releases of oil and hazardous materials and no related impacts are anticipated.
- Geotechnical/Groundwater – There is limited potential for groundwater impacts at the Project Site. The geotechnical engineer and contractor will work closely throughout excavation and foundation construction to avoid adverse impacts on adjacent structures.
- Construction – The Project has been designed to avoid, minimize and mitigate potential construction-related impacts. The Project Team will work with the City to reduce potential construction period impacts.

5.2 Shadow

5.2.1 Regulatory Context

An analysis of the shading impact under the No-Build and Build Conditions is a requirement of the Article 80, Large Project Review (Section 80B-2(c) of the Boston Code). The shading analysis was prepared in accordance with the requirements of Section B.2. of the BPDA Development Review Guidelines.

5.2.2 Methodology

A shadow impact analysis was conducted at regular time intervals to investigate the effect that the Project will have throughout the year. In order to represent a variety of shadow conditions at various times of the day, and times of the year, three-time intervals (9:00 AM, 12:00 PM, 3:00 PM) are represented for the Vernal Equinox (March 21^{st}), Summer Solstice (June 21^{st}), Autumnal Equinox (September 21^{st}), and Winter Solstice (December 21^{st}). 6:00 PM was also run for June 21st.

The shadow study takes into consideration Daylight Savings Time and, therefore, times are presented in Eastern Standard Time ("EST") and Eastern Daylight Time ("EDT"), as identified in Table 6-2 below. The study shows both existing shadows in and around the Project Site, and the limited net new shadow impact of the Project. The shadow analysis focuses on dedicated public parkland, public open spaces, historic resources, major pedestrian areas, sidewalks, and plazas in the Project vicinity. Shadows were determined using the Boston altitude and azimuth data provided in Table 5-1 below.

Table 5-1 Azimuth and Altitude Data

		Solar Position	
Date	**Local Time**	***Altitude****	***Azimuth*****
March 21	9:00 AM EDT	23.5	112.6
	12:00 PM EDT	46.6	161.2
	3:00 PM EDT	39.2	-136.6
June 21	9:00 AM EDT	39.9	93.5
	12:00 PM EDT	68.8	149.4
	3:00 PM EDT	56.5	-113.7
	6:00 PM EDT	23.9	-79.3
September 21	9:00 AM EDT	25.9	115.3
	12:00 PM EDT	47.4	166.0
	3:00 PM EDT	37.4	-132.9
December 21	9:00 AM EST	14.2	141.9
	12:00 PM EST	24.1	-175.6
	3:00 PM EST	10.0	-135.1

* Altitude is measured up from the horizon
** Azimuth is measured in degrees clockwise from the North
EST Eastern Standard Time
EDT Eastern Daylight Time

The incremental impact of net new shadow cast by the Project is shown in dark blue in Figures 5.1a through 5.1d, while existing shadows are shown in gray. Based on guidance from the BPDA, the existing shadow condition assumes future/planned developments, or background projects, surrounding the Project Site, including the new BAA building. The shadow projections are based on the currently proposed building height and massing, which are subject to change as part of the community review process.

5.2.3 Article 80B Shadow Study Results

The shadow impact analysis looked at net new shadow created by the Project during 13 time periods (Table 5-1). The incremental net new shadows produced are consistent with the existing urban shadow patterns, and are not expected to have any material effect on pedestrian use patterns. Most of the net new shadow will land on existing buildings, creating minimal adverse effects on the pedestrian environment.

March 21st

The net new shadows associated with the Project for March 21 are illustrated in Figure 5.1a. March 21 is the vernal equinox, when the length of daytime and nighttime are equal. The sun rises on March 21 at 6:45 AM EDT in the southeastern sky and sets at 6:57 PM EDT. September 21st is the autumnal equinox and the daytime and nighttime hours are equal. The sun rises at 6:31 AM EDT in the southeastern sky and sets at 6:42 PM EDT. The shadows cast on this date are almost identical to those on March 21, the vernal equinox.

At 9:00 AM EDT on the vernal equinox, net new shadow from the Project will be cast to the northwest over Lansdowne Street, including sidewalks, and onto a negligible portion of the Fenway Park bleacher seats.

At 12:00 noon EDT, the sun is in the south-southeasterly sky and shadows are cast to the north and northwest. The majority of net new shadow cast by the Project will fall on a limited portion of Lansdowne Street, including sidewalks.

At 3:00 PM EDT, the sun is in the southwestern sky and shadows are cast to the northeast. Net new shadow from the Project will shade a limited portion of Lansdowne Street, including sidewalks to the northeast, and a limited portion of the western sidewalk along Ipswich Street.

Summer Solstice (June 21)

The net new shadows associated with the Project for June 21 are illustrated in Figure 5.1b. June 21 is the summer solstice and the longest day of the year. The sun rises at 5:07 AM EDT in the southeastern sky and sets at 8:24 PM EDT.

At 9:00 AM EDT on the summer solstice, net new shadow from the Project will largely fall within the Project Site, and on an incremental portion of Lansdowne Street, including sidewalks.

At 12:00 noon EDT, the sun is in the southwestern sky and shadows are cast to the north. The majority of net new shadow cast by the Project will fall within the Project Site, and on an incremental portion of Lansdowne Street, including sidewalks.

At 3:00 PM EDT, the sun is in the western sky and shadows are cast east-northeast. The majority of net new shadow cast by the Project will fall within the Project site, on a limited portion of the sidewalks on Lansdowne Street, and on Ipswich Street, including sidewalks.

At 6:00 PM EDT, the sun is in the west-northwestern sky and shadows are cast toward the east-southeast. Net new shadows from the Project will extend southeast over limited portions of Ipswich Street, including the sidewalks, and onto the rooftops of existing buildings.

September 21st

The net new shadows associated with the Project for September 21 are illustrated in Figure 5.1c. September 21st is the autumnal equinox and the daytime and nighttime hours are equal. The sun rises at 6:31 AM EDT in the southeastern sky and sets at 6:42 PM EDT. The shadows cast on this date are almost identical to those on March 21, the vernal equinox, as described above.

The sun sets at 6:42 PM EDT on the autumnal equinox and, therefore, the majority of the Project area will be in existing shadow at 6:00 PM EDT. At this time, the Project will result in minimal net new shadow that extends east over building rooftops.

Winter Solstice (December 21)

The net new shadows associated with the Project on December 21 are depicted on Figures 5.1d. December 21 is the winter solstice and the shortest day of the year. The sun is at its lowest inclination above the horizon at each hour of the day. Even low buildings cast long shadows in northerly latitudes, such as Boston. The sun rises at 7:10 AM EST and sets at 4:14 PM EST in December.

At 9:00 AM EST on the winter solstice, the Project casts a shadow to the northwest direction, filling in gaps in the heavily shaded urban landscape. The net new shadow cast by the Project will cover a portion of Lansdowne Street. Small sidewalk portions of Lansdowne Street will also be shaded, but the majority of new net shadows will land on existing buildings, creating minimal adverse effects on the pedestrian environment.

At 12:00 EST noon, the sun is in the southern sky and the Project will cast limited net new shadows in a northeastern direction extending toward Lansdowne Street, including limited areas of sidewalk. However, the majority of net new shadows will fall within the Project Site or on existing buildings, creating minimal net new shadow on the pedestrian environment.

At 3:00 PM, net new shadows from the Project are fairly long, and will extend northeast across a limited portion of Lansdowne and Ipswich Streets, and an incremental portion of the Massachusetts Turnpike. The majority of net new shadows will land on existing buildings, creating minimal adverse effects on the pedestrian environment.

5.3 Daylight Analysis

The following section describes the anticipated effect on daylight coverage at the Project Site as a result of the Project. An analysis of the percentage of skydome obstructed under the No-Build and Build Conditions is a requirement of Article 80 (Section 80B-2(c)).

5.3.1 Methodology

The daylight analysis was prepared using the BPDA’s Daylight Analysis Program (“BRADA”) and has been completed in accordance with the requirements of Article 80. The daylight analysis estimates the pedestrian’s view of the skydome taking into account building massing and building materials used. The software approximates a pedestrian’s view of a site based on input parameters such as: location of viewpoint; length and height of buildings and the relative reflectivity of the building façades. The model typically uses the midpoint of an adjacent right-of-way or sidewalk as the analysis viewpoint. Based on these data, the model calculates the perceived skydome obstruction and provides a graphic depicting the analysis conditions. The results of the analysis are presented in Figures 5.2a-b.

The model inputs used for the study presented herein were taken from an existing conditions survey, and schematic design plans prepared by the Project Architect. As described above, the BRADA software considers the relative reflectivity of building façades when calculating perceived daylight obstruction. Highly reflective materials are thought to reduce the perceived skydome obstruction when compared to non-reflective materials. For the purposes of this daylight analysis, the building façades are considered non-reflective, resulting in a conservative estimate of daylight obstruction.

Viewpoints

The following three viewpoints were studied in the daylight analysis:

- **Lansdowne Street**– This viewpoint is located on the centerline of Lansdowne Street, centered on the northern side of the Project Site.
- **Ipswich Street** – This viewpoint is located on the centerline of Ipswich Street centered on the southeastern side of the Project Site.

These points represent the proposed building façades when viewed from the adjacent public ways.

5.3.2 Daylight Study Findings

Daylight Existing/No-Build Conditions

Under the Existing/No-Build Condition, the majority of the Project Site is undeveloped so the skydome is largely unobstructed. The existing skydome obstructed based on the viewpoint is approximately six (6) percent at both the Lansdowne and Ipswich Street study points. The existing skyplane obstruction is associated with the existing Fenway Garage building.

Daylight Build Conditions

The Project-related daylight impacts for the viewpoints are presented in Figure 5.2a-b. Under the Proposed Conditions, the viewpoints along the two roadways are expected to experience an increase in skydome obstruction, as would be expected when increasing the height and massing on an urban site. The increase in skydome obstruction will be offset by improvements to the public realm which are anticipated to improve the overall pedestrian experience as compared to existing conditions.

Skydome obstruction impacts are as follows:

- **Lansdowne Street** – The skydome obstructed from the Lansdowne Street study point will increase from 6.1 percent to 68.2 percent (Figure 5.2a).
- **Ipswich Street** – The skydome obstructed at the Ipswich Street study point will increase from 5.9 percent to 56.4 percent (Figure 5.2b).

Table 5-2 Existing/No-Build and Build Daylight Conditions

Viewpoint	Existing/No-Build Condition Skydome Obstruction	Build Condition Skydome Obstruction
Lansdowne Street	6.1%	68.2%
Ipswich Street	5.9%	56.4%

5.4 Solar Glare Analysis

The City of Boston BPDA Development Review Guidelines require projects undergoing Large Project Review to analyze the potential impacts from solar glare if there is a potential for visual impairment or discomfort due to reflective spot glare on: potentially affected streets; public open spaces; or pedestrian areas.

Furthermore, projects must consider the potential for solar heat buildup in any nearby buildings receiving reflective sunlight from the building, if applicable.

It is not anticipated that the exterior facade materials will employ highly-reflective glass on the Fenway Theater building or Fenway Park Improvements. The Project will be designed to minimize the potential for solar glare that could adversely impact traffic safety along nearby roadways and solar heat gain in nearby buildings through the consideration of low/non-reflecting exterior building materials as design progresses. Please refer to Section 2.5.2 for a summary of the Project's character and exterior materials. The absence of solar glare impacts will be confirmed during the design review process in connection with the selection of facade materials.

5.5 Air Quality

This section presents an overview of the air quality assessment for the Project. The purpose of the air quality assessment is to demonstrate that the Project will not result in a violation of applicable local, state, and federal air quality standards. The Clean Air Act Amendments resulted in states being divided into attainment and non-attainment areas, with classifications based upon the severity of their air-quality problems. Air quality control regions are classified and divided into one of three categories: attainment, non-attainment, and maintenance areas, depending upon air quality data and ambient concentrations of pollutants. Attainment areas are regions where ambient concentrations of a pollutant are below the respective National Ambient Air Quality Standards (NAAQS). Non-attainment areas are those where concentrations exceed the NAAQS. A maintenance area is an area that used to be non-attainment but has demonstrated that the air quality has improved to attainment. After 20 years of clean air quality, maintenance areas can be re-designated to attainment. Boston, in Suffolk County, is in attainment for all NAAQS criteria pollutants except carbon monoxide, for which it has a maintenance designation.[1]

The Project will not require a quantitative mesoscale analysis per the BPDA Development Review Guidelines, as demonstrated in Section 5.5.1. A discussion of the microscale assessment is presented, per BPDA Development Review Guidelines in Section 5.5.2.

5.5.1 Mesoscale Analysis

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

The BPDA requires a mesoscale air quality analysis if a project produces 10,000 or more vehicle trips per day. The Project is projected to generate approximately 1,640 new daily trips, which is well under 10,000 vehicle trips per day threshold. Therefore, no mesoscale analysis is required for the BPDA and no mesoscale air quality impacts are anticipated.

5.5.2 Microscale Analysis

The Project is located in the Fenway neighborhood within the City of Boston, Suffolk County, Massachusetts, which under the EPA designation is a CO (carbon monoxide) Maintenance area. Projects located in a CO Maintenance area are required to evaluate their CO concentrations with the NAAQS, as has been done for this Project. The City of Boston is in attainment for the remainder of the criteria pollutants.

5.5.2.1 Air Quality Standards

The EPA has established the NAAQS to protect the public health. Massachusetts has adopted similar standards as those set by the EPA for CO. Table 5-3 presents the NAAQS for carbon monoxide.

[1] *Nonattainment Areas for Criteria Pollutants (Green Book),* United States Environmental Protection Agency, **https://www3.epa.gov/airquality/greenbook/cbcs.html#MA**, accessed 1/21/18.

Table 5-3 National Ambient Air Quality Standards

	Primary Standards		
Pollutant	**Level**	**Averaging Time**	**Form**
Carbon Monoxide	9 ppm (10 mg/m^3)	8-hour	Not to be exceeded more than once per year
	35 ppm (40 mg/m^3)	1-hour	

MassDEP maintains a network of air-quality monitors to measure background CO concentrations. Background concentrations are ambient pollution levels from all stationary, mobile, and area sources. Background CO concentrations are determined by choosing the maximum of the second-highest annual values from the previous three years. Looking at the air-quality monitor closest to the Project Site (Harrison Avenue) for the years 2015-2017, the CO background values are 2.4 ppm for the 1-hour averaging time and 1.3 ppm for the 8-hour averaging time. These values are much less than the 1-hour and 8-hour NAAQS. The background values are presented in Table 5-4.

Table 5-4 Air Quality Background Concentrations

	Background Concentrations		NAAQS	
Pollutant	**Level**	**Averaging Time**	**Level**	**Averaging Time**
Carbon Monoxide	1.3 ppm	8-hour	9 ppm	8-hour
	2.4 ppm	1-hour	35 ppm	1-hour

Monitoring Location: Harrison Avenue, Boston, MA. Years 2015-2017.

The potential CO concentrations from motor vehicle traffic related to the Project are considered in conjunction with these background concentrations to demonstrate that the Project will comply with the NAAQS Standards.

5.5.2.2 BPDA Development Review Guidelines

The BPDA Development Review Guidelines require "a microscale analysis predicting localized carbon monoxide concentrations should be performed, including identification of any locations projected to exceed the National or Massachusetts Ambient Air Quality Standards, for projects when:

- Project traffic would impact intersections or roadway links currently operating at LOS D, E, or F or would cause LOS to decline to D, E, or F during typical peak periods; or
- Project traffic would increase traffic volumes on nearby roadways by 10 percent or more (unless the increase in traffic volume is less than 100 vehicles per hour); or
- The Project will generate 3,000 or more new average daily trips on roadways providing access to a single location."

5.5.2.3 Traffic Data

The air quality study uses traffic data (volumes, delays, and speeds) developed for the analysis condition based upon the traffic study. The traffic study area includes the following intersections:

- Jersey Street at Van Ness Street (Unsignalized)
- Boylston Street at Jersey Street (Signalized)
- Boylston Street at Ipswich Street (Signalized)
- Boylston Street at Hemenway Street / Ipswich Street (Signalized)
- Lansdowne Street at Ipswich Street (Unsignalized)
- Lansdowne Street at Brookline Avenue (Unsignalized)
- Ipswich Street at Van Ness Street (Unsignalized)

Based on the traffic study presented in Chapter 4, *Transportation*, the Project is expected to generate approximately 102 vehicle trips in the evening peak hour and approximately 1,640 daily trips. The Project is not expected to impact the morning peak period.

5.5.2.4 Microscale Screening Analysis

An evaluation of the traffic data was conducted under the review guidelines developed by the BPDA for determination of the potential for CO impacts. It was determined that:

- The Project would not cause a decline in LOS at any intersection in the study area during the typical weekday evening peak hour. Signalized intersections in the study area are expected to operate at a LOS B or C in both the No Build and Build Conditions. As no intersections will operate at a LOS D, E, or F, the Project does not exceed this criterion.
- The Project is generally expected to increase traffic volumes at intersections in the study area by less than three (3) percent when comparing the Build and No Build Conditions. The Project will increase traffic by 11 percent at the intersection of Ipswich Street and Van Ness Street, but the increase is only 60 vehicles. As volume increases will be less than 10 percent or less than 100 vehicles at the study intersections, the Project does not exceed this criterion.
- The Project will generate fewer than 3,000 or more new average daily trips on the study area roadways. The Project is expected to generate approximately 1,640 weekday vehicle trips, fewer than the 3,000-vehicles-per-day threshold. As such, the Project does not exceed this criterion.

Based on the microscale screening results discussed above, it has been determined that a quantitative CO hotspot analysis is not required for the Project and that no microscale air quality impacts are anticipated.

5.6 Flood Hazard

The Project Site is not at high risk of inundation from sea level rise during its design life. As shown in Figure 5.3, on the FEMA Flood Map Panel 25025C0076G, dated September 25, 2009, the Project Site is not located within the 100-year flood plain. Section 3.5 of Chapter 3, *Sustainability/Green Building Design and Climate Change Resiliency*, provides a more in-depth discussion of sea level rise and extreme flooding.

5.7 Noise

The noise assessment evaluated the potential noise impacts associated with the Project's activities, including internal event activities, rooftop mechanical equipment, and loading activities. This section discusses the fundamentals of noise, noise impact criteria, noise analysis methodology, and potential noise impacts. The analysis demonstrates that the Project will comply with City of Boston noise regulations.

5.7.1 Fundamentals of Noise

Noise is defined as unwanted or excessive sound. Sound becomes unwanted when it interferes with normal activities such as sleep, communication, work, or recreation. How people perceive sound depends on several measurable physical characteristics, which include the following:

- Intensity - Sound intensity is often equated to loudness.
- Frequency - Sounds are comprised of acoustic energy distributed over a variety of frequencies. Acoustic frequencies, commonly referred to as tone or pitch, are typically measured in Hertz. Pure tones have all their energy concentrated in a narrow frequency range.

Sound levels are most often measured on a logarithmic scale of decibels (dB). The decibel scale compresses the audible acoustic pressure levels which can vary from the threshold of hearing (zero dB) to the threshold of pain (120 dB). Because sound levels are measured in dB, the addition of two sound levels is not linear. Adding two equal sound levels creates a 3 dB increase in the overall level. Research indicates the following general relationships between sound level and human perception:

- A 3 dB increase is a doubling of acoustic energy and is the threshold of perceptibility to the average person.
- A 10 dB increase is a tenfold increase in acoustic energy but is perceived as a doubling in loudness to the average person.

The human ear does not perceive sound levels from each frequency as equally loud. To compensate for this phenomenon in perception, a frequency filter known as A-weighted [dB(A)] is used to evaluate environmental noise levels. Table 5-5 presents a list of common outdoor and indoor sound levels.

Table 5-5 Common Outdoor and Indoor Sound Levels

Outdoor Sound Levels	Sound Level dB(A)**	Indoor Sound Levels
	110	Rock Band at 5 m
Jet Over Flight at 300 m	105	
	100	Inside New York Subway Train
Gas Lawn Mower at 1 m	95	
	90	Food Blender at 1 m
Diesel Truck at 15 m	85	
Noisy Urban Area—Daytime	80	Garbage Disposal at 1 m
	75	Shouting at 1 m
Gas Lawn Mower at 30 m	70	Vacuum Cleaner at 3 m
Suburban Commercial Area	65	Normal Speech at 1 m
	60	
Quiet Urban Area—Daytime	55	Quiet Conversation at 1 m
	50	Dishwasher Next Room
Quiet Urban Area—Nighttime	45	
	40	Empty Theater or Library
Quiet Suburb—Nighttime	35	
	30	Quiet Bedroom at Night
Quiet Rural Area—Nighttime	25	Empty Concert Hall
Rustling Leaves	20	
	15	Broadcast and Recording Studios
	10	
	5	
Reference Pressure Level	0	Threshold of Hearing

Source: Highway Noise Fundamentals. Federal Highway Administration, September 1980.
* μPA – MicroPascals, which describe pressure. The pressure level is what sound level monitors measure.
** dB(A) – A-weighted decibels, which describe pressure logarithmically with respect to 20 μPa (the reference pressure level).

A variety of sound level indicators can be used for environmental noise analysis. These indicators describe the variations in intensity and temporal pattern of the sound levels. The following is a list of common sound level descriptors used for environmental noise analyses:

- L90 is the sound level which is exceeded for 90 percent of the time during the time period. The L90 is generally considered to be the ambient or background sound level.
- Leq is the A-weighted sound level, which averages the background sound levels with short-term transient sound levels and provides a uniform method for comparing sound levels that vary over time.

5.7.2 Methodology

The noise analysis evaluated the potential noise impacts associated with the Project's operations, which include internal events, rooftop mechanical equipment, and loading/service activities. The noise analysis included measurements of existing ambient background sound levels and a qualitative evaluation of potential noise impacts associated with the proposed internal events, rooftop mechanical equipment (e.g., HVAC units), and loading activities. The study area was evaluated and sensitive receptor locations near the Project were identified and examined. The Site layout and building design, as it relates to the loading area and management of deliveries at the Project Site were also considered. The analysis considered sound level reductions due to distance, proposed building design, and obstructions from surrounding structures.

5.7.2.1 Receptor Locations

The noise analysis included an evaluation of the study area to identify nearby sensitive receptor locations, which typically include areas of sleep and areas of outdoor activities. The noise analysis identified three nearby receptor locations near the Project. The sensitive receptor locations include the following:

- R1 – Residential apartments on Boylston Street to the east;
- R2 – Boston Arts Academy; and
- R3 – Commercial use on Lansdowne Street to the west.

These receptor locations, selected based on land use considerations, represent the most sensitive locations near the Project site.

5.7.3 City of Boston Noise Impact Criteria

The City of Boston has adopted Regulations for the Control of Noise, under Chapter 40 Section 21 of the General Laws of the Commonwealth of Massachusetts and Title 7 Section 50 of the City of Boston Code that establish noise thresholds deemed to result in adverse impacts. These regulations establish maximum allowable sound levels based upon the land use affected by the proposed development. The noise analysis for the Project used these standards, presented in Table 5-6, to evaluate whether the proposed development will generate sound levels that result in potential adverse impacts.

Table 5-6 City of Boston Noise Standards by Zoning District, dB(A)

Land Use Zone District	Daytime (7:00 AM – 6:00 PM)	All Other Times (6:00 PM – 7:00 AM)
Residential	60	50
Residential/Industrial	65	55
Business	65	65
Industrial	70	70

Source: Regulations for the Control of Noise in the City of Boston, Air Pollution Control Commission.

For a residential zoning district, the maximum noise level affecting residential uses shall not exceed the Residential Noise Standard. The residential land use noise standard is 60 dB(A) for daytime periods (7:00 AM to 6:00 PM) and 50 dB(A) for nighttime conditions (6:00 PM to 7:00 AM). These standards govern typical daily activities.[2]

The City of Boston's regulations contain a separate threshold for construction activities, which states that operation of any construction devices, excluding impact devices, may not exceed 86 dB(A) during any time period. Under certain circumstances, the City may grant variances for special events that may exceed the noise standards presented in Table 5-6.

5.7.4 Existing Noise Conditions

Noise measurements were conducted to establish existing ambient sound levels in vicinity of the Project Site. The existing sound levels were measured using Type 1 sound analyzers (Larson Davis SoundExpert LxT). Measurements were conducted between December 19, 2018 and December 20, 2018 to capture sound levels representative of typical existing ambient conditions. Short-term measurements (20 minutes) during the daytime period was conducted between 1:00 PM to 3:00 PM. The nighttime period measurements were conducted between 3:00 AM to 5:00 AM. The existing measured sound level data are summarized in Table 5-7.

Table 5-7 Existing Ambient Sound Levels, dB(A)

	City of Boston Noise Standard		Measured L90 Sound Levels	
Monitoring Location	**Daytime**	**Nighttime**	**Daytime**	**Nighttime**
M1 – Lansdowne Street	60	50	59	**58**
M2 – Ipswich Street	60	50	58	**56**
M3 – Boylston Street	60	50	58	46

Source: VHB
Note: Refer to Figure 6.3 for monitoring locations.
* Measured sound levels represent average of hourly L90 levels during each period.
Bold values exceed City of Boston noise standards.

The measured L90 sound levels range from approximately 58 dB(A) to approximately 59 dB(A) during the daytime period in the surrounding neighborhoods. During the nighttime period, the neighborhoods experience sound levels ranging from approximately 46 dB(A) to approximately 58 dB(A). The results of the ambient noise measurements indicate that the daytime ambient sound levels are below the City standards. The nighttime sound levels in the area adjacent to the Project site are currently greater than the City of Boston's standards for residential uses. During the daytime period, the measured sound levels data were composed of noise from building mechanical equipment and vehicles traveling on the surrounding roadways,

[2] Please refer to Section 5.11.5 for a discussion of temporary noise impacts associated with construction.

such as Lansdowne Street and Boylston Street. The nighttime period sound levels were generally associated with similar noise sources. However, noise from mechanical equipment was more audible during the nighttime period.

5.7.5 Future Noise Conditions

The noise analysis assessed the potential noise impacts associated with the Project's proposed mechanical equipment and loading activities. The analysis evaluated the potential sound level impacts at the nearby sensitive receptor locations.

5.7.5.1 Mechanical Equipment

Since the Project is in the early stages of the design process, the specific details related to the final selection of mechanical equipment are not confirmed at the time of this noise assessment. Based on preliminary design plans, the anticipated mechanical equipment associated with the Project may include the following:

- Chillers,
- Cooling tower,
- Air handling units,
- Exhaust fans, and
- Generator.

This mechanical equipment will be located on the rooftop of the proposed building. During the design and selection process, the appropriate low-noise mechanical equipment will be selected, including potential noise attenuation measures, such as a screening wall, acoustical enclosures, and/or acoustical silencers. The Project will incorporate noise attenuation measures necessary to comply with City of Boston's noise standards at the sensitive receptors.

The mechanical systems would be strategically located on the rooftop, utilizing the height of the building in providing noise attenuation. Noise attenuation is expected to be achieved by the height of the proposed building and equipment screening to break the direct line of exposure between the noise sources and nearby exterior ground receptors. The upper levels of the nearby residential apartment buildings along Boylston Street and the Boston Arts Academy do not have areas of exterior uses; therefore, the interior of these facilities are considered the sensitive receptor locations. The sound levels associated with the Project's rooftop mechanical equipment would have minimal impacts on the interior sound level of these buildings as the building and window construction would attenuate the mechanical equipment's sound. As such, the sound levels associated with the Project's mechanical equipment are expected to be negligible at the surrounding sensitive receptor locations.

The Project is expected to install an emergency generator for life safety purposes, such as emergency exit lighting. The Project will be required to adhere to MassDEP's regulations that require such equipment to be certified and registered when installed. As part of the permitting process, the Project will be required to comply with additional noise requirements described in MassDEP regulations under the Codes of Massachusetts Regulations (310 CMR 7.00). At the proper time during the construction phase, the proponent will submit the appropriate permit application to MassDEP, which may include noise mitigation measures (such as acoustic enclosures and exhaust silencers) that are necessary to meet MassDEP's noise criteria.

Theater Use

The Proponent is currently evaluating options in developing the Fenway Theater space. The design of the proposed theater space will influence the layout and material selections as well as the utilization of acoustical treatments. Mitigation of noise impacts into and out of the theater space are of primary concern and will be carefully evaluated by the Project team. The Project will incorporate building construction material with treatments that not only provide suitable acoustical properties within the theater space, but also minimize noise impacts exterior to the Fenway Theater.

Service and Loading Activities

Service and deliveries associated with the Project will utilize a designated loading area located at the ground floor within the building structure. The loading area will consist of three (3) loading docks and two (2) trash/recycling spaces. The loading activities will be managed so that service and loading operations minimally impact traffic on Ipswich Street. Since loading activities will be enclosed and will be managed, potential noise impacts to nearby sensitive receptor locations are expected to be negligible.

5.7.6 Conclusion of Noise Impact Assessment

The noise analysis determined that the sensitive receptor locations near the Project Site currently experience sound levels above the City of Boston's nighttime noise standard for residential uses. With the proposed equipment located on the rooftop, the sound levels associated with the Project's mechanical equipment are expected to have no adverse noise impacts at nearby sensitive receptor locations. While potential noise impacts associated with the emergency generator are also expected to be negligible, a separate MassDEP permitting process will allow for further review of this equipment during the construction process. The Project will be designed such that the loading areas will be internalized within the proposed building structure, thereby containing noise associated with the loading activities. According to the preliminary design, the Project's operations will have no adverse noise impacts at nearby sensitive receptor locations.

5.8 Hazardous Waste

Site Assessment

The area of the proposed work is comprised of historic urban fill and commercial activity. Abutters surrounding the Project Site work area have reported releases of oil and hazardous materials (OHM) regulated under the Massachusetts Contingency Plan or MCP. Urban fill is known to contain residual levels of OHM. Because of these potential impacts to the work area, a pre-construction site assessment program is currently being completed. To date, the results of waste characterization sampling indicate that the targeted excavation areas contain OHM characteristic of urban fill, which if excavated, will have to be managed for off-site disposal in accordance with state and federal regulations.

During subsurface excavation work, a qualified environmental professional (QEP) or Licensed Site Professional's (LSP) representative will be on-site to collect field screening data and observe excavated soil for evidence of OHM. Excavated soil that is designated for off-site disposal will be managed and disposed of under an LSP's direction in accordance with the Massachusetts Contingency Plan (310 CMR 40.0000) and MassDEP Waste Management Regulations (310 CMR 30.0000).

Demolition Activities

Initial phases of construction will focus on Project components that impact the operation of Fenway Park, including the partial demolition, addition to, and renovation of the existing Fenway Garage building. Demolition activities will comply with the current Massachusetts Air Pollution Control regulations governing nuisance conditions at 310 CMR 7.01, 7.09 and 7.10. Refer to sections 5.11.4 and 5.11.5 for a summary of best management practices that the Project will employ to alleviate dust, noise, and odor nuisance conditions, which may occur during the demolition. If asbestos abatement is required, a licensed asbestos abatement contractor will be hired. All code and applicable laws and regulations will be followed, and MassDEP will be notified as necessary.

Additionally, a Construction Waste Management Plan (CWMP) will be developed and implemented by the construction manager with the goal to divert as much nonhazardous demolition debris and construction waste from area landfills as possible.

5.9 Groundwater

One observation well was installed in the completed borehole of a recent test boring HA18-1(OW). The observation well was installed to provide information on the static groundwater levels at the Site. The measured water level on 12 December 2018 was approximately 9.5 feet below existing ground surface (El. 7.5, Boston City Base (BCB) datum).

In general, groundwater levels at and near the Project Site could be influenced by leakage into and out of sewers, storm drains, water utilities, and other below-grade structures, and environmental factors such as precipitation, season, and temperature.

As discussed further in Chapter 6, *Infrastructure*, the Project Site is located within the limits of the Groundwater Conservation Overlay District (GCOD). Accordingly, the Project must comply with Article 32 of the Boston Zoning Code to the maximum extent practicable.

5.10 Geotechnical

This section describes existing site conditions, subsurface soil conditions, and foundation requirements for the project.

Existing Site Conditions

The Project will be constructed on the site of the current Triangle Lot, the site of the current Fenway Garage building, and a portion on the Fenway Park parcel. The Triangle Lot is paved and relatively flat, with existing ground surface elevations ranging from approximately El. 17 to 18 (BCB).

Subsurface Soil and Bedrock Conditions

Site and subsurface conditions at the Project Site are based on results of test boring explorations completed at the subject site in 2018. Subsurface conditions generally indicate the following sequence of subsurface units in order of increasing depth below ground surface. One or more of the soil (overburden) units may be absent at any specific location.

Table 5-8 Subsurface Conditions

Stratum	Depth to Top of Layer	Layer Thickness
Urban Fill	Ground Surface	12 to 14 ft
Organic Deposits	12 to 14 ft	4 to 7 ft
Fluvial Deposits (sand and gravel)	16 to 21 ft	10 to 11 ft
Marine Deposits (clay)	27 to 32 ft	>100 ft

Proposed Foundation Construction

Development of the Project Site will require selective demolition of the existing Fenway Garage building prior to excavation for foundations and below-grade walls. The existing Fenway Garage building is supported on footings bearing on the Fluvial Deposits. The new foundations for new structural loads are anticipated to be supported on Pressure Injected Footings and/or Drilled Micropiles bearing in the Fluvial Deposits.

Proposed Temporary Earth Support System

The limited below-grade space planned for the Project will likely require a temporary support of excavation system likely consisting of interlocking steel sheet piles (cantilevered). The type and design of both the temporary earth support system and foundation system will provide for adequate support of the structures and utilities and be compatible with the subsurface conditions.

5.11 Temporary Construction Impacts

The following section generally describes the potential temporary impacts resulting from construction activities and proposed mitigation measures anticipated to reduce these impacts. As design progresses and in advance of construction commencement of the Project, construction mitigation techniques will be reviewed by appropriate regulatory agencies through the development and submission of a component-specific Construction Management Plan ("CMP").

5.11.1 Site Preparation and Staging

Prior to the start of construction, existing utilities will be surveyed and mapped. No excavations will be performed until Dig Safe has been notified, and utilities marked. Existing public and private infrastructure located within the public right-of-way will be protected during construction. The installation of proposed utilities within the public way will be in accordance with the Massachusetts Water Resources Authority, BWSC, Boston Public Works Department, Dig Safe, and the governing utility company requirements, as applicable. All necessary permits will be obtained before the commencement of the specific utility installation. Specific methods for constructing proposed utilities will be reviewed by BWSC as part of its Site Plan Review process.

During construction, measures will be implemented to avoid impacts to adjacent properties. These will include pre-construction surveys and vibration monitoring. The Geotechnical Engineer and contractor will work closely throughout the excavation and foundation construction to avoid adverse impacts on adjacent structures and infrastructure. Instrumentation monitoring will be implemented and data will be reported to the design and construction team to provide information on potential impacts to adjacent structures. This program will likely include:

- Monitoring lateral movement of the temporary support of excavation system using deflection monitoring points.
- Vertical movements of existing utilities beneath Ipswich and Lansdowne Streets.
- Building reference points located on adjacent structures within 50 feet of Pressure Injected Footings or sheeting installation.
- Vibration levels using an engineering seismograph during sheeting and Pressure Injected Footings installation. Background vibration measurements should be obtained prior to start of construction.

5.11.2 Stormwater Runoff/Erosion Control

A federal NPDES Permit is likely required because construction of the Project is anticipated to disturb over one acre of land. An overall site-specific Stormwater Pollution Prevention Plan (SWPP) will be developed in accordance with BWSC standards.

During Project construction, Erosion and Sediment Control (ESC) measures will be implemented to minimize the transport of Project Site soils to off-site areas and BWSC storm drain systems. The existing catch basins will be protected with filter fabric or silt sacks to provide for sediment removal from runoff. These ESC controls will be inspected and maintained throughout the construction phase until all areas of disturbance have been stabilized through the placement of pavement, or structure.

Other sediment controls, which will be implemented as needed during construction, will include the following:

- Staked hay bales and/or silt fence barriers will be installed at the base of stockpiled soils and at erosion-prone areas throughout the construction phase of the Project. The erosion controls will be maintained and replaced as necessary to assure their effectiveness;
- Where necessary, temporary sedimentation basins will be constructed to prevent the transport of sediment off-site;
- Measures to control dust will be implemented during construction. All debris will be properly contained on the Project Site; and
- Erosion controls will be maintained and replaced as necessary until the installation of pavement and the establishment of stabilized vegetation at the Project Site.

5.11.3 Soil Management

The Project will retain an LSP to manage the environmental aspects of the Project, including proper management and/or disposal of contaminated soil and groundwater encountered during construction. A pre-construction site assessment program will be completed in the winter of 2019. To date, the results of waste characterization sampling indicate that the targeted excavation areas contain OHM characteristic of urban fill, which if excavated, will have to be managed in accordance with current MassDEP policies and procedures.

5.11.4 Air Quality

Construction activities may result in a slight, short-term increase in air pollution emissions. The primary source of potential construction emissions is from dust resulting from construction operations, and emissions from the construction machinery. Fugitive dust mitigation measures may include, as necessary:

- 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 soil cement or calcium chloride overnight and on weekends, and securely covering long-term material stock piles;
- Compacting of the soil or the use of gravel to stabilize the site access points;
- Washing vehicle wheels before leaving the Project Site, as necessary, with provisions for runoff control;
- Periodic cleaning of paved streets near the entrances to the Project Site to minimize vehicle mud/dirt carryout;
- Installing fencing around the perimeter of the Project Site to assist in containing wind-blown dust;
- Requiring that trucks hauling excavated material from the Project Site install secure covers over their loads; and
- Encouraging the construction contractors for the Project to implement the Massachusetts Diesel Retrofit Program control measures for heavy-duty diesel equipment.

5.11.5 Noise

The construction of the Project will be performed in a manner that complies with the MassDEP and City of Boston noise regulations. To ensure compliance with these regulations during construction, the Proponent, to the extent practicable, will seek to incorporate into the general construction contract the following mitigation measures:

- Limit vehicle idling to five minutes;
- Limit construction vehicle warm-up to ten minutes;
- Insure construction vehicles have ambient leveling sensors on the back up alarms; and
- Limit construction to the hours allowable by City of Boston regulations.

5.11.6 Construction Traffic and Parking

The Project is relatively small in scale compared to the construction underway at the BAA project, and other construction projects in the Fenway Neighborhood. It is anticipated that the Project will generate a relatively modest number of construction truck trips per day. Construction truck routes are expected to be along Ipswich Street or Lansdowne Street subject to the approved CMP. Best efforts will be made to schedule major deliveries on non-peak traffic hours. Signage will be prevalent throughout the Project Site and surrounding streets informing vehicular and construction truck traffic alike of detours, as needed. Also, a security detail will be utilized to safely direct and manage construction-related traffic as well as routine traffic. The intent of the construction truck route will be to minimize the impact of construction truck traffic in the Project area and on other nearby roadways. The

Proponent will take into consideration the BAA's current CMP in the development of the Project's CMP in order to minimize potential impacts of the concurrent projects during construction.

Construction Worker Parking

Because the workforce will arrive and depart prior to peak commuter traffic periods, the workforce trips are not expected to have a large impact on the area's transportation system. 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, and on-site lockers, etc). Construction workers will also be encouraged to use public transportation to access the Project Site because no parking will be provided for them.

5.11.7 Odor

The Project Team will undertake appropriate mitigation measures to control the odor associated with the removal of any organic soils on-site, such as:

- Cut and cover utility trenches whenever possible;
- Protection of excavated materials with plastic sheathing to encapsulate odors; and
- Removal of excavated materials from the site in a covered vehicle on a frequent basis.

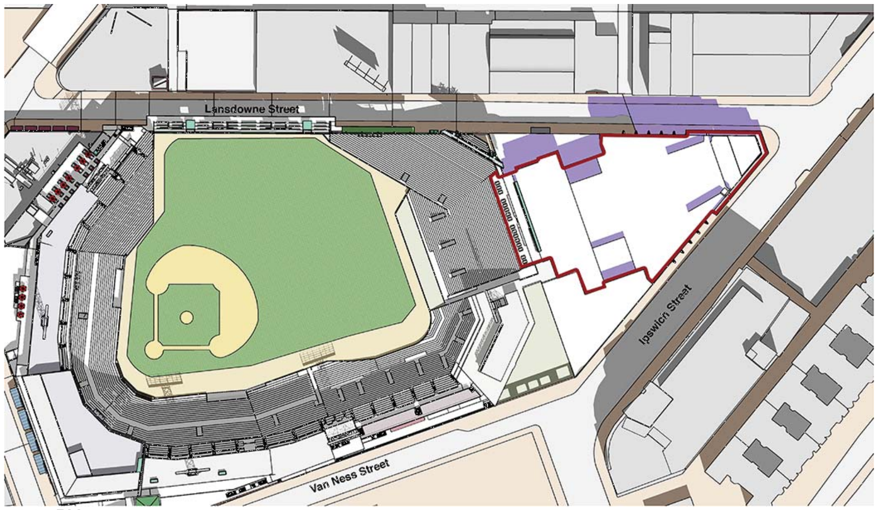
5.11.8 Rodents

The City of Boston has declared the infestation of rodents a severe problem. To control this infestation, the City enforces the requirements established under the Massachusetts State Sanitary Code, Chapter 211, 105 CMR 410.550 and the State Building Code, Section 108.6. Policy Number 87-4 (City of Boston) established that preparation of a program for the extermination of rodents shall be required for issuance of permits for demolition, excavation, foundation, and basement rehabilitation. The Proponent will prepare and adhere to a rodent control program prior to demolition and on a regular basis throughout the duration of construction.

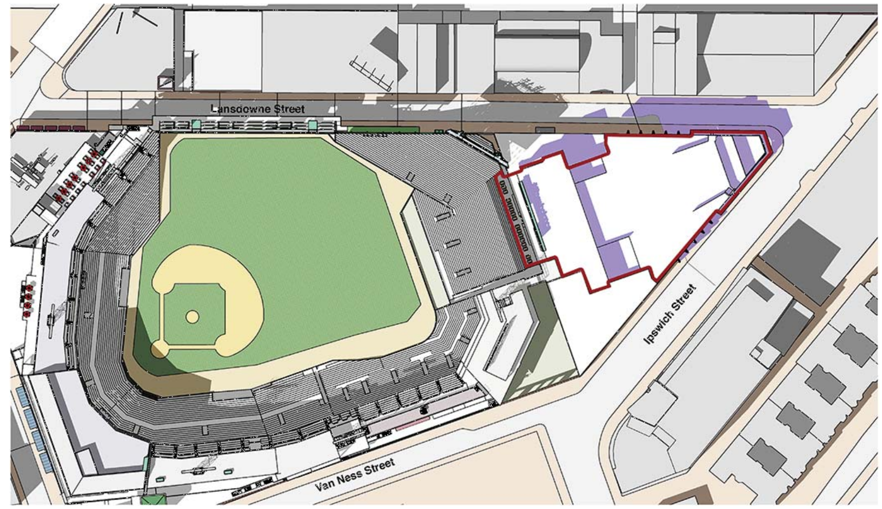
5.11.9 Construction Staging – Public Safety

Prior to the beginning of construction, the Construction Manager will produce a Site-Specific Safety Plan to be reviewed and approved by the City as well as all other agencies impacted in conjunction with the CMP.

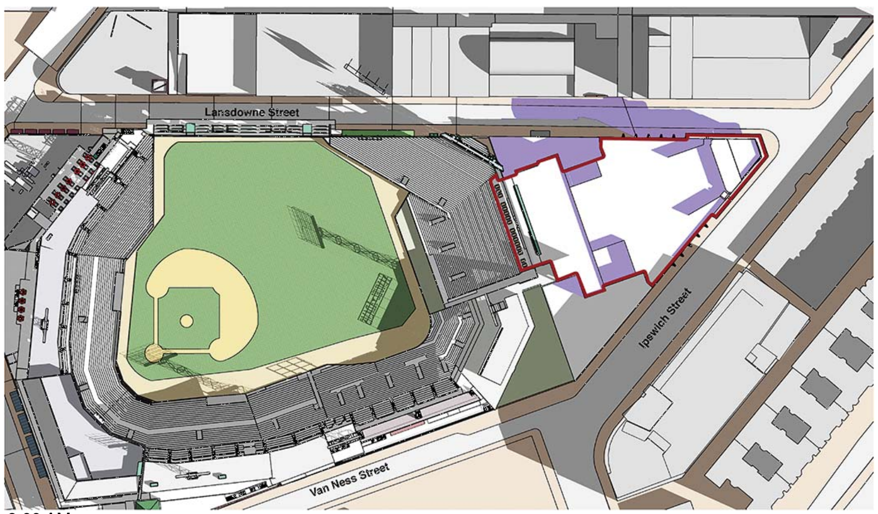
The entire perimeter of the construction site will be protected with a construction fence with debris net on top of concrete barriers to separate the construction activities and general public. Vehicular gates will be provided for construction traffic in alignment with the flow of traffic on perimeter roads to allow safe entrance and exiting for construction vehicles. Overhead protection will be utilized in areas where the new construction is near the general public.



12;00 PM



3:00 PM



9:00 AM

Proposed Building

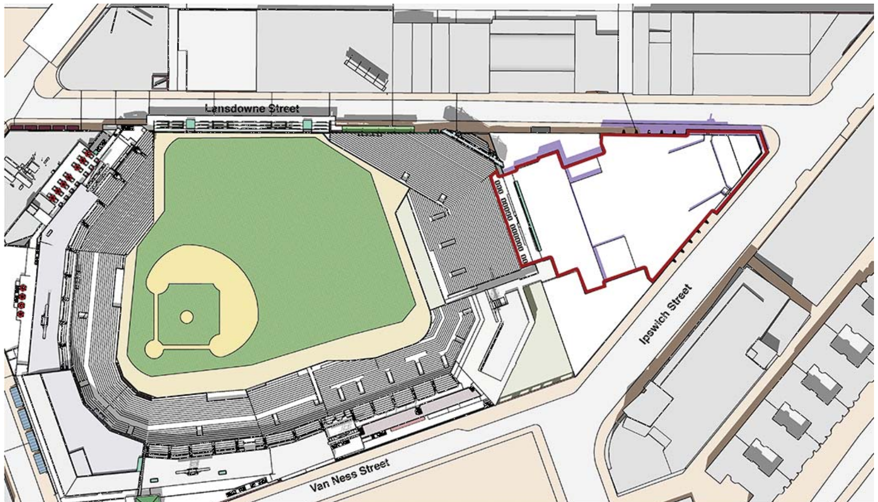
Existing Shadow

New Shadow

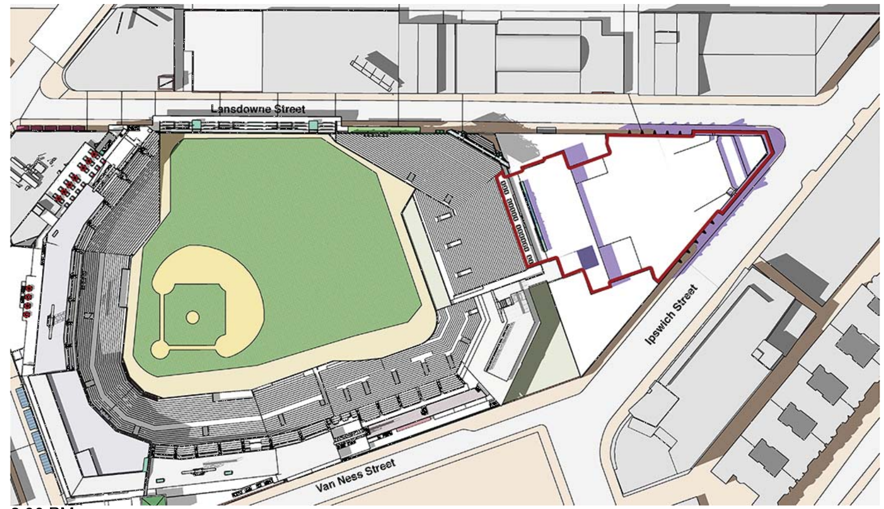
Figure 5.1a

Shadow Studies - March 21

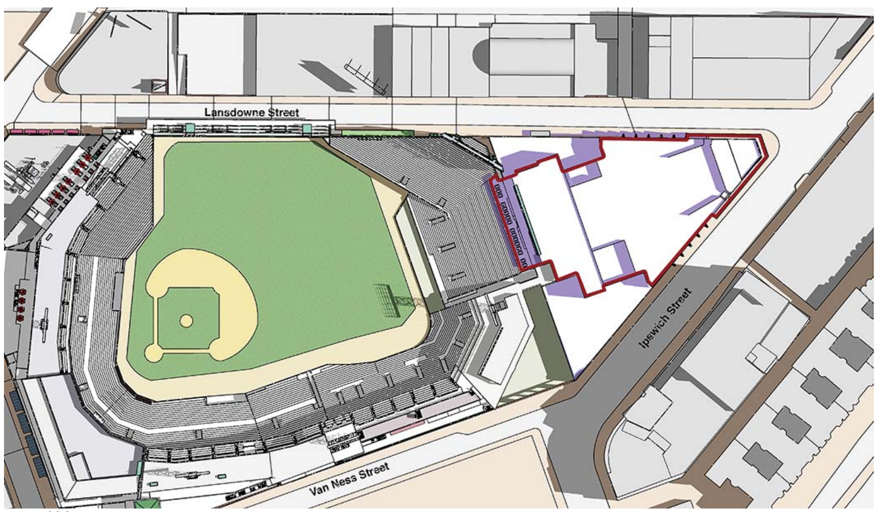
12 – 28 Lansdowne Street
Boston, Massachusetts



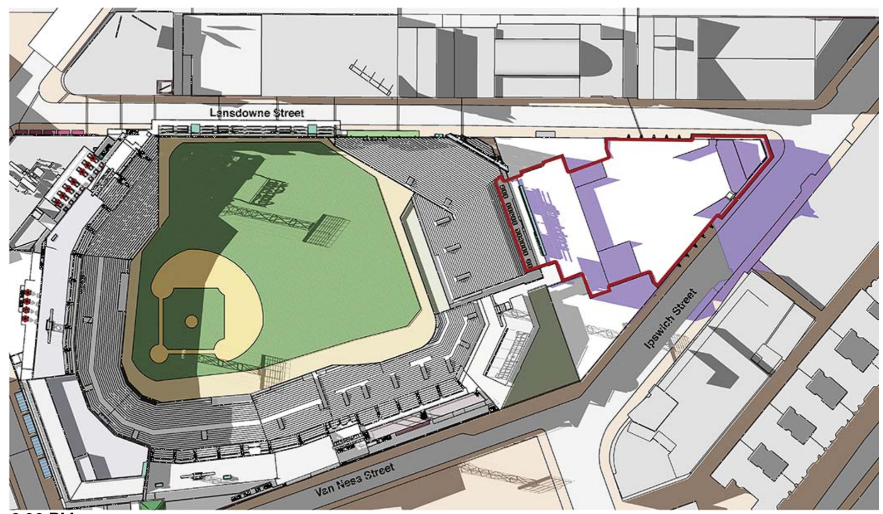
12;00 PM



3:00 PM



9:00 AM



6:00 PM

Proposed Building

Existing Shadow

New Shadow

Figure 5.1b

Shadow Studies - June 21

12 – 28 Lansdowne Street
Boston, Massachusetts

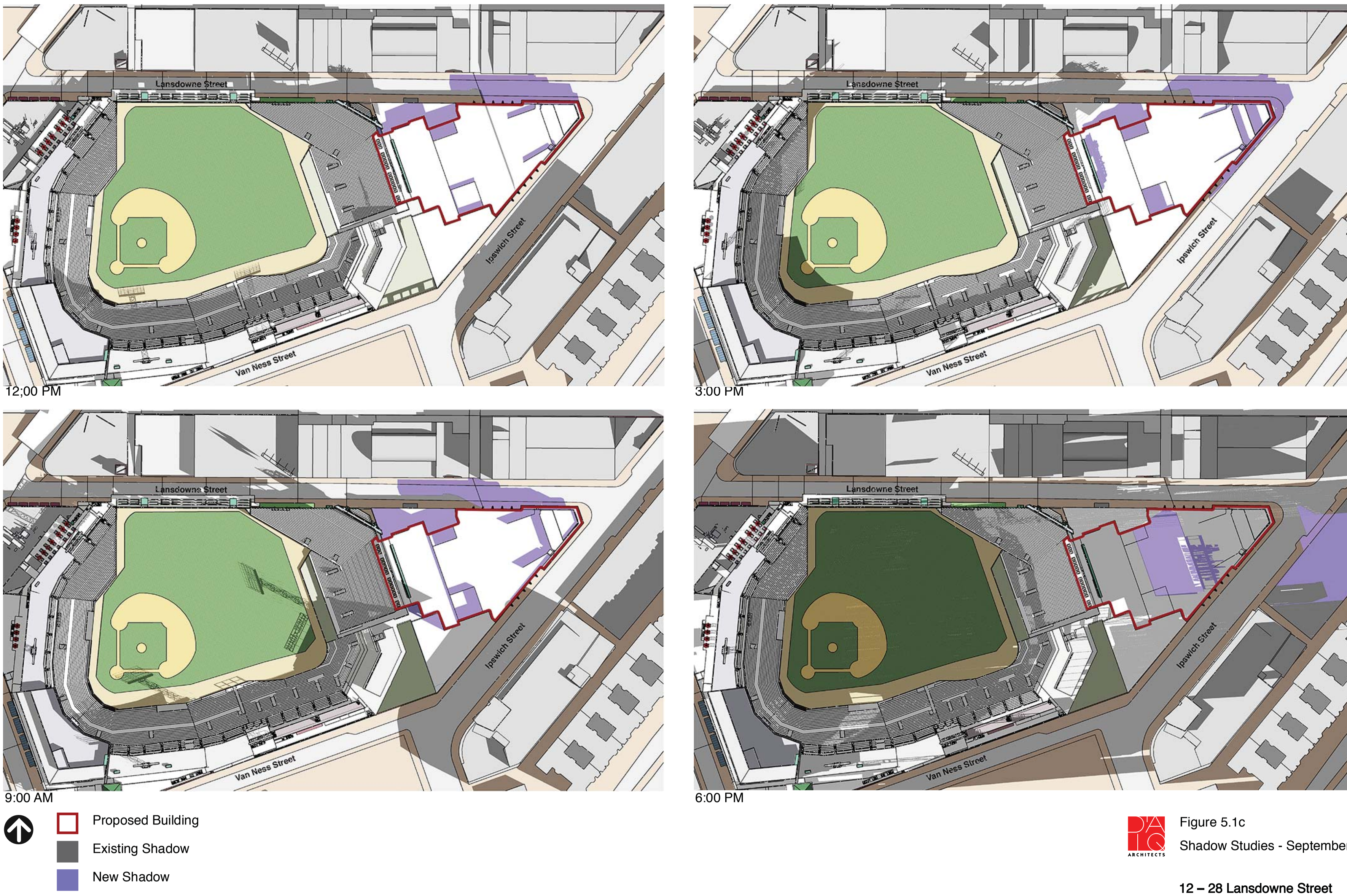


Figure 5.1c

Shadow Studies - September 21

12 – 28 Lansdowne Street
Boston, Massachusetts

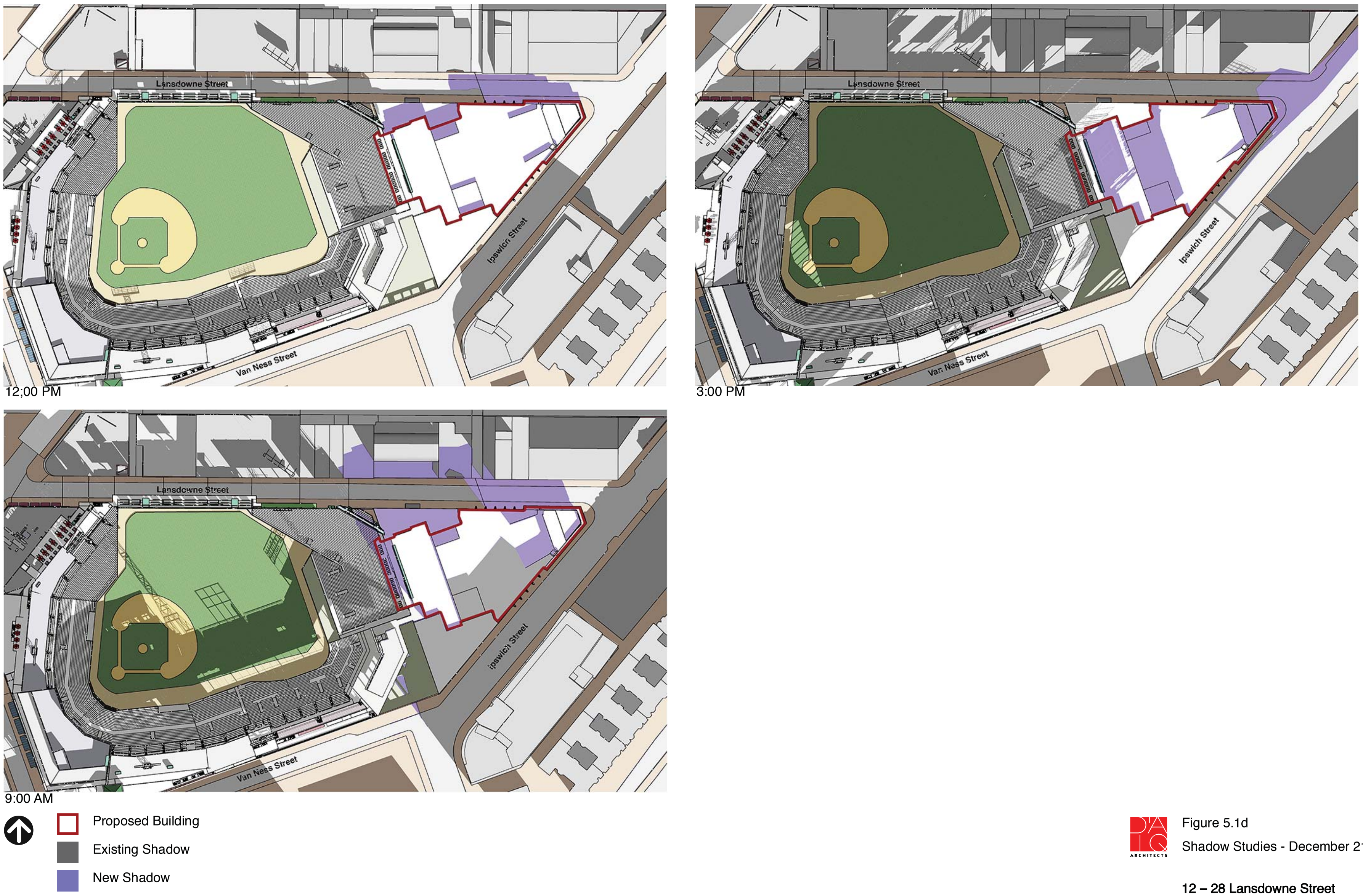


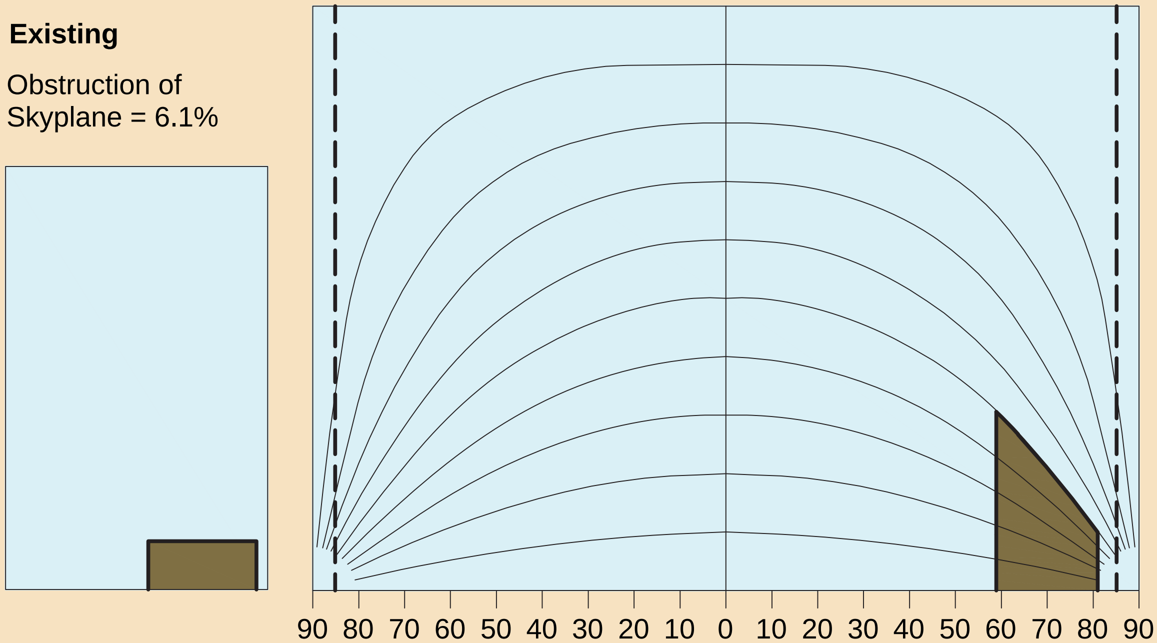
Figure 5.1d

Shadow Studies - December 21

12 – 28 Lansdowne Street
Boston, Massachusetts

Existing

Obstruction of
Skyplane = 6.1%



Proposed

Obstruction of
Skyplane = 68.2%

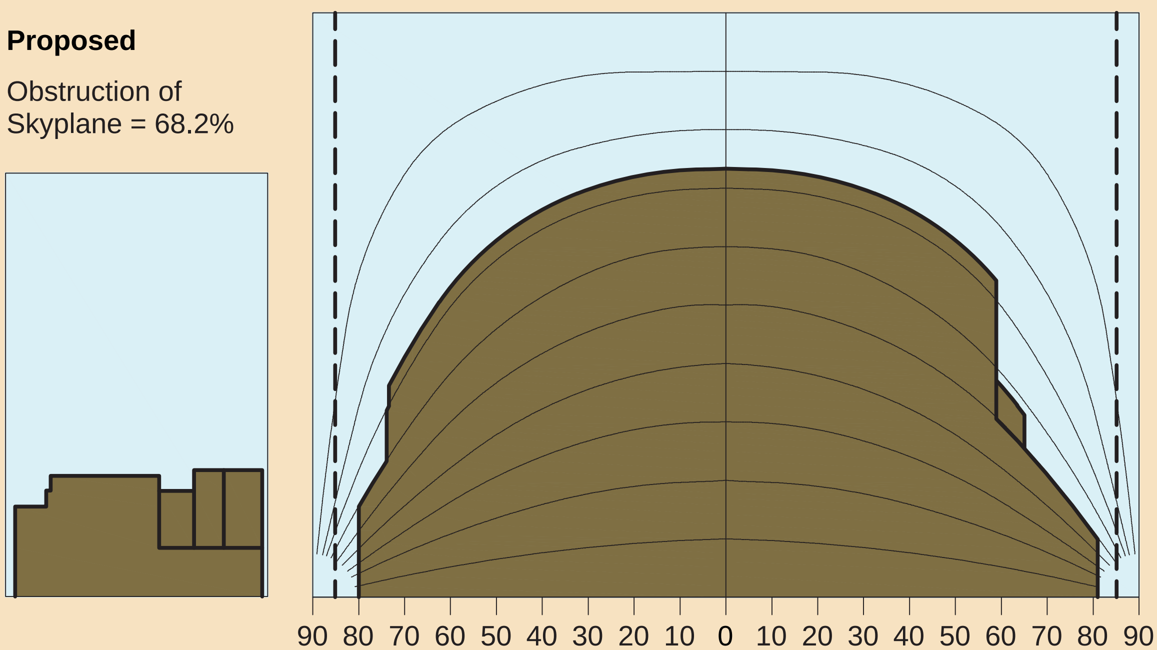


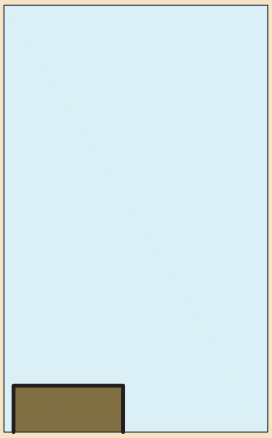
Figure 5.2a

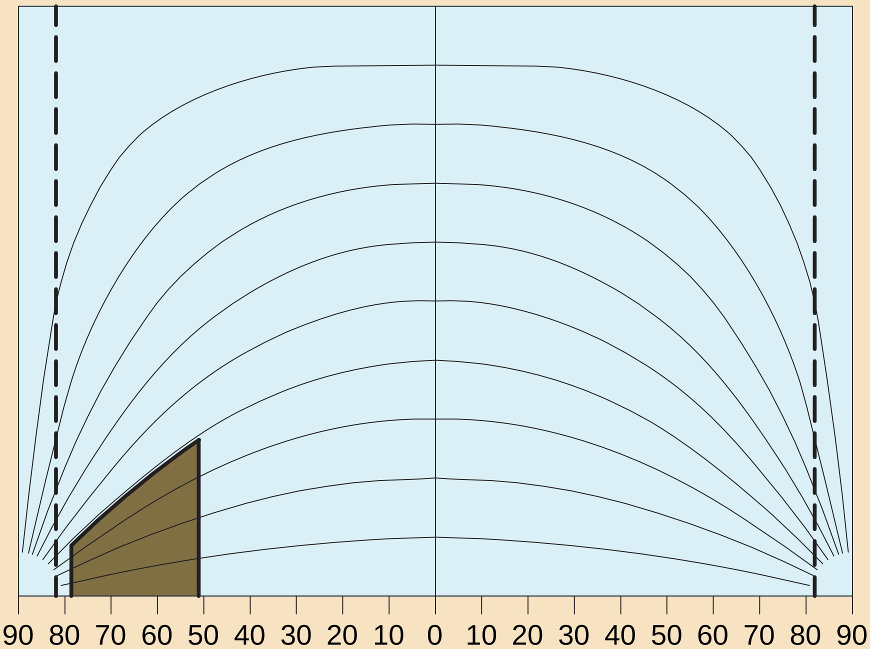
Daylight Analysis
Center of Lansdowne Street

12 - 28 Lansdowne Street
Boston, Massachusetts

Existing

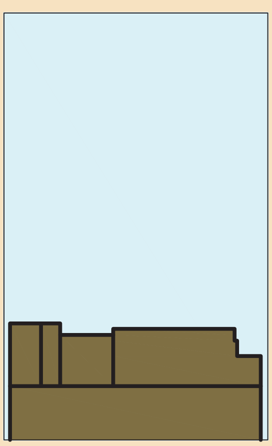
Obstruction of
Skyplane = 5.9%





Proposed

Obstruction of
Skyplane = 56.4%



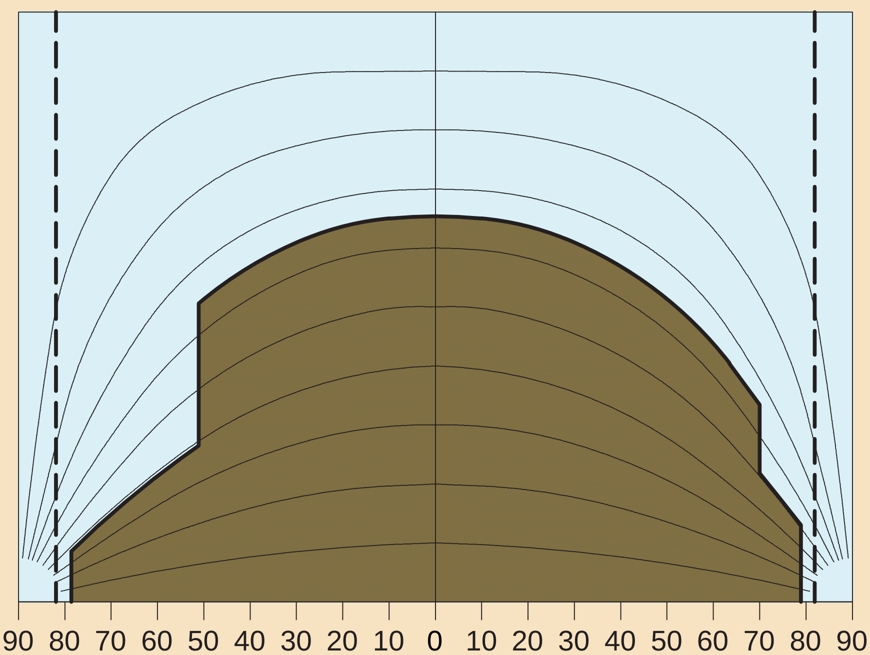
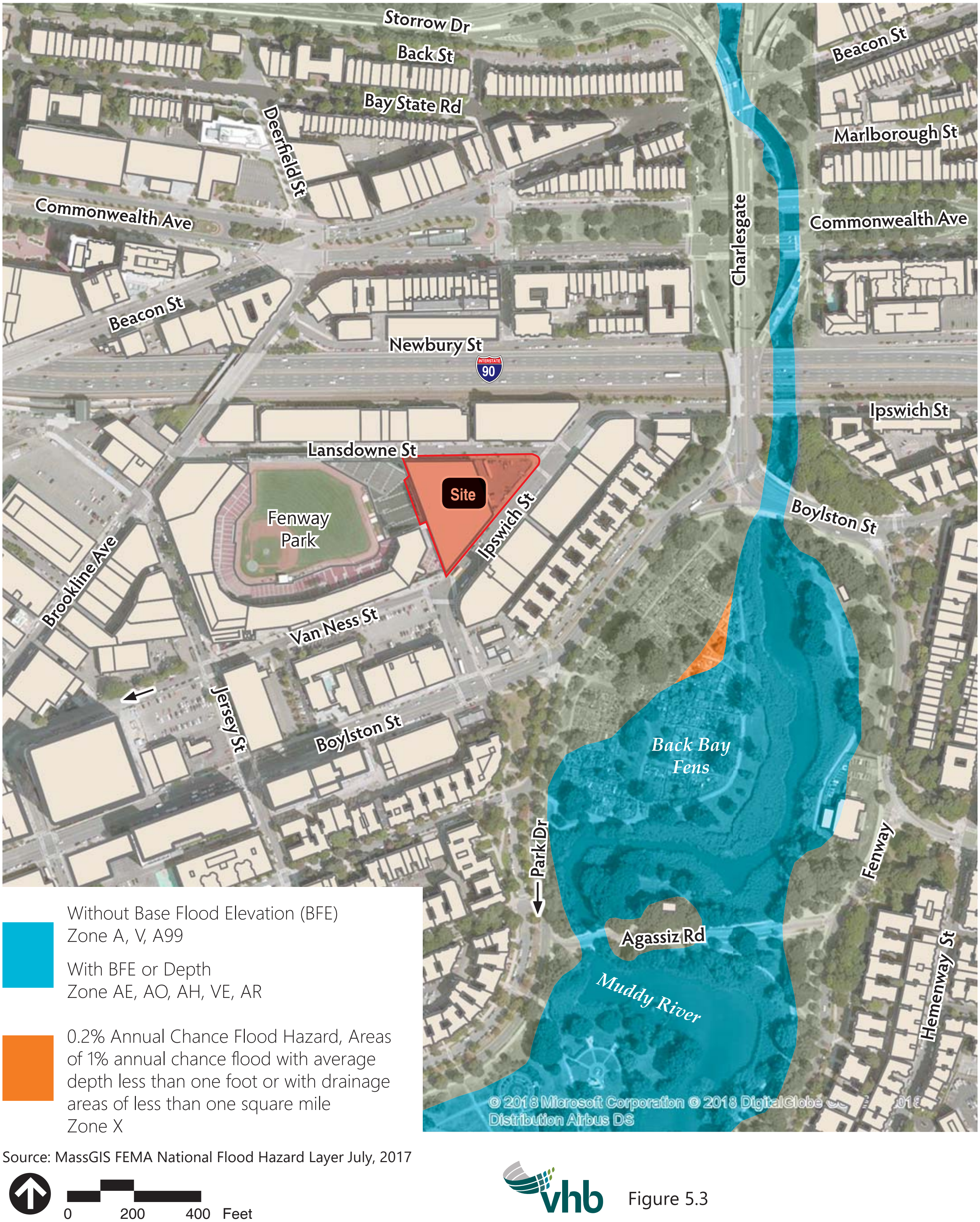


Figure 5.2b

Daylight Analysis
Center of Ipswich Street

12 - 28 Lansdowne Street
Boston, Massachusetts



Source: MassGIS FEMA National Flood Hazard Layer July, 2017

Figure 5.3

Effective FEMA 100 Year Flood Plain

12 – 28 Lansdowne Street
Boston, Massachusetts

This Page Left Intentionally Blank

6

Infrastructure

This chapter describes the existing infrastructure systems surrounding the Project Site and discusses utility requirements of the Project and potential utility impacts. The following utilities are discussed: storm drainage; sanitary sewage; domestic water and fire protection; natural gas; electrical; and telecommunications. Chapter 3, *Sustainability/Green Building and Climate Change Resiliency*, discusses energy conservation measures being considered as part of the Project.

The Project is expected to connect to existing utility systems available in public streets adjacent to the Project Site. These utility systems include those owned or managed by the Boston Water and Sewer Commission (BWSC) and private utility providers.

The Proponent will coordinate the design of the proposed utility connections with the BWSC and applicable private utility providers. All utility connections will be designed to minimize adverse effects to the existing systems and surrounding areas. Figures 6.1 and 6.2 depict the existing infrastructure at and adjacent to the Project Site.

6.1 Summary of Key Findings and Benefits

The key impact assessment findings related to infrastructure systems include:

- The existing city and private utility infrastructure systems are expected to be adequately sized to accept the demand associated with the development and operation of the Project.
- The Project will comply with the *2008 MassDEP Stormwater Management Policy and Standards* to the maximum extent practicable, and will improve both the quality and quantity of stormwater runoff from the Project Site compared to existing conditions.
- Groundwater will be recharged in accordance with GCOD and BWSC requirements, to the maximum extent practicable.
- Based on the current development program, the Project is estimated to generate approximately 42,350 gallons per day of sanitary sewage and will require approximately 46,600 gallons of water per day.
- The Project is expected to incorporate on-site stormwater management and treatment systems to improve water quality, reduce runoff volumes, and control peak rates of runoff in comparison to existing conditions.

- The Project is not expected to result in the introduction of any increased peak flows, pollutants, or sediments that would potentially impact the local storm drainage systems.

6.2 Regulatory Control

This section discusses the regulatory framework for utility connection reviews and standards. A complete list of the anticipated state and local permits associated with Project-related infrastructure is included in Table 1-2 of Chapter 1, *Project Description*. For the Project:

- BWSC approval will be required for all storm drain, sanitary sewer, and water service connections to BWSC infrastructure.
- The Boston Fire Department ("BFD") will review the Project with respect to fire protection measures such as fire department connections, hydrants, and standpipes.
- Design of the Project Site access, hydrant locations, and energy systems (gas and electric) will also be coordinated with the respective system owners.
- Where new utility connections are needed and existing connections are to be capped, the excavation will be authorized by the Boston Public Works Department ("BPWD") through the street opening permit process, as required.
- The Green Infrastructure requirements of the BPDA Smart Utilities Policy will apply as the Project exceeds 100,000 square feet of proposed floor area.

6.2.1 EPA National Pollutant Discharge Elimination System

The United States Environmental Protection Agency (EPA) requires that all projects that disturb greater than one acre of land obtain a permit for stormwater discharges through the National Pollutant Discharge Elimination System ("NPDES") Construction General Permit ("CGP") for Stormwater Discharges from Construction Activity (2012, EPA). Compliance with the CGP is achieved by the following:

- Developing and implementing a Stormwater Pollution Prevention Plan ("SWPPP");
- Completing, certifying, and submitting a Notice of Intent ("NOI") to the EPA; and
- Complying with the requirements contained in the CGP.

Compliance with the CGP and its Standard Permit Conditions is the responsibility of the site contractor and/or site operator.

6.2.2 MassDEP Stormwater Standards

In March 1997, MassDEP adopted a new Stormwater Management Policy to address non-point source pollution. In 1997, MassDEP published the Massachusetts Stormwater Handbook as guidance on the Stormwater Policy, which it subsequently revised in February 2008. The Stormwater Management Standards are regulated under the Wetlands Protection Act Regulations at 310 CMR 10.05(6)(k) through (q).

The Policy prescribes specific stormwater management standards for redevelopment projects, including urban pollutant removal criteria for projects that may impact environmental resource areas.

6.2.3 Groundwater Conservation Overlay District (GCOD)

Under Article 32 of the Code, a conditional use permit is required for projects within the GCOD involving paving or other surfacing of lot area, erection or extension of any structure occupying more than 50 square feet of lot area, or construction of a structure involving excavation below grade to a depth of seven (7) or more feet below Boston City Base. Accordingly, the Project will be expected to infiltrate not less than one (1) inch of rainfall across the portion of the Project Site to be occupied by the proposed improvements to ensure that the Project does not cause a reduction in groundwater levels on the Project Site or on adjacent lots.

6.2.4 BWSC Site Plan Review

All improvements and connections to BWSC infrastructure will be reviewed by BWSC as part of the Site Plan Review process. This process includes a comprehensive design review of the proposed service connections, assessment of system demands and capacity, and establishment of service accounts for water, sewer, and stormwater systems.

6.2.5 BPDA Smart Utilities Policy

Adopted in June of 2018, the BPDA's Smart Utilities Policy seeks to develop a more equitable, sustainable, affordable, resilient, and integrated planning approach among energy, transportation, water and communication utilities in the City of Boston. Per the policy, Smart Utility Technologies (SUTs) required for Article 80 projects will depend on: (a) the floor area of the project; and/or (b) the project's required mitigation of traffic, street lighting, and surface water runoff.

The Project proposes 136,360 square feet of floor area, which exceeds a development review threshold of 100,000 square feet in floor area. Therefore, the BPDA, in consultation with BWSC, shall recommend the use of Green Infrastructure to retain, on site, a volume of runoff equal to 1.25 inches of rainfall times the total impervious area, prior to discharge. Additionally, the Project proposes right-of-way improvements including street light installation, and therefore the BPDA and PIC shall recommend that all street lights include additional electrical connection and fiber optic service, consistent with any applicable DPW standards or guidelines.

Projects at or above 1.5 million square feet of floor area are subject to more stringent requirements, such as conducting a Feasibility Assessment for a District Energy Microgrid and incorporating a Telecommunications Utilidor. These more stringent requirements do not apply to the Project.

6.3 Storm Drainage/Stormwater Management

This section describes the storm drain infrastructure around the Project Site in the existing condition and describes how this infrastructure will service the Project in the future.

6.3.1 Existing Drainage Conditions

Under existing conditions, the Project Site is occupied by the two-story Fenway Garage building, which comprises a majority of the existing land area, and the paved Triangle Lot. The Fenway Garage building is bordered by public concrete sidewalks on the north side of Ipswich Street and the south side of Lansdowne Street. Based on the existing conditions survey and available record information, there is no evidence of stormwater quality treatment best management practices ("BMPs") or infiltration/detention BMPs on the Project Site.

On-site surface runoff from the Triangle Lot sheet flows into the adjacent public roadways where it is collected by BWSC-owned catch basins.

6.3.2 Proposed Drainage Conditions

To address the City's stormwater management requirements and Smart Utilities Policy and MassDEP's stormwater guidelines, the Project plans to incorporate on-site stormwater management and treatment systems which collectively are expected to improve water quality, reduce runoff volume, and control peak rates of runoff in comparison to existing conditions. Additionally, the Project is expected to reduce peak runoff rates and volumes for various design storm events for the post-development condition as compared to the pre-development condition, including the 2-, 10-, and 25-year design storms. Stormwater runoff from proposed and modified impervious surface areas is expected to be treated using new infrastructure such as deep-sump, hooded catch basins and proprietary treatment devices to reduce the Total Suspended Solids ("TSS") concentrations by at least 80 percent.

Under Article 32 of the Code for projects located with the GCOD, the Project will be expected to infiltrate not less than one (1) inch of rainfall across the portion of the Project Site to be occupied by the proposed improvements. In addition, the Project will comply with the standards of the Smart Utilities Policy, which increases the infiltration requirement from 1 inch of rainfall to 1.25 inches. BWSC has pledged to enforce the new infiltration requirement of 1.25 inches through their Site Plan Review process.

As the design progresses, a stormwater infiltration system or equivalent recharge system will be designed to accommodate a volume of 1.25 inches of stormwater over the Project Site's impervious area, consistent with the requirements of Section 32-6 of the Code and the standards of the Smart Utilities Policy. In accordance with the Smart Utilities Policy, the Proponent will work with BWSC to evaluate the potential for integrating Green Infrastructure elements with the goal of retaining a greater volume of stormwater runoff and increasing infiltration capacity for the Project.

6.3.3 Compliance with EPA NPDES

The Project Site is approximately 1.5 acres. Therefore, the Project will be required to obtain coverage under the EPA NPDES CGP, as the disturbance area for the Project is greater than one acre. Therefore, the Proponent will:

- Develop and implement a SWPPP;
- Certify and submit a NOI to the EPA; and
- Comply with the requirements contained in the CGP.

The Proponent will ensure that the site contractor and/or site operator perform the NPDES requirements during construction.

6.3.4 Compliance with MassDEP Stormwater Standards

The Project will comply with the Stormwater Management Standards as established in the Massachusetts Stormwater Handbook issued by MassDEP in 1997 and revised in 2008. A brief explanation of each standard and the Project compliance is provided below.

Standard 1: *No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.*

- Compliance: The proposed design will comply with Standard 1. All proposed stormwater conveyances for the Project will not discharge untreated stormwater directly to or cause erosion or scour to wetlands or receiving waters.

Standard 2: *Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.*

- Compliance: The proposed design will comply with Standard 2. As a result of the improvements associated with the Project, the post-development peak discharge rates will not exceed the pre-development peak discharge rates.

Standard 3: *Loss of annual recharge to groundwater should be minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type.*

- Compliance: The proposed design will comply with Standard 3. The Project is currently expected to incorporate a subsurface infiltration system or injection wells to provide the required groundwater recharge. Further geotechnical explorations are planned to establish recharge rates and the seasonal high groundwater elevation.

Standard 4: *Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids ("TSS"). This Standard is met when: a) Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained; b) Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and c) Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.*

- Compliance: The proposed design will fully comply with Standard 4. Stormwater runoff will be captured in a series of deep-sump hooded catch basins and/or directed to proprietary particle separators to provide 80 percent TSS removal prior to discharging to the existing drainage systems. Infiltration systems also provide highly effective pollutant removal during low intensity storms.

Standard 5: *For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If, through source control and/or pollution prevention, all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated there under at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.*

- Compliance: The proposed design will comply with Standard 5. The Project does not provide parking facilities.

Standard 6: *Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "storm water discharge" as defined in 314 CMR 3.04(2)(a)1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply.*

- Compliance: The proposed design will comply with Standard 6. The Project is not located within and will not discharge untreated stormwater to a critical area, as defined by Standard 6.

Standard 7: *A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural stormwater best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.*

- Compliance: The Project is considered a redevelopment but will be designed to comply with applicable Standards.

Standard 8: *Erosion and sediment controls must be implemented to prevent impacts during construction or land disturbance activities.*

- Compliance: The proposed design will comply with Standard 8. Sedimentation and erosion controls are expected to be incorporated as part of the design of the Project and be employed during construction. Erosion and sedimentation control plans would be submitted to the BWSC on a component by component basis and the contractor would be required to implement the measures as part of the BWSC general service application process.

Standard 9: *A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed.*

- Compliance: The proposed design will comply with Standard 9. An operations and maintenance plan (O&M Plan), including long-term BMP operation requirements, will be prepared for the Project to ensure proper maintenance and functioning of the proposed stormwater management system.

Standard 10: *All illicit discharges to the stormwater management system are prohibited.*

- Compliance: The proposed design will comply with Standard 10. There will be no new illicit connections associated with the proposed Project. Additionally, the Project Team will work with BWSC to repair existing illicit connections, to the maximum extent practicable.

6.3.5 Compliance with GCOD

The Project Site is located within the GCOD, as established by Article 32 of the Code. Therefore, the Project will include facilities to capture stormwater runoff and direct it to infiltration systems consistent with the requirements of Article 32, to the maximum extent practicable, with the goal of replenishing the groundwater table.

To provide groundwater recharge, to the maximum extent practicable, the proposed stormwater management system will include recharge chambers or wells designed to infiltrate runoff over a 72-hour period.

Prior to the issuance of a building permit, the Proponent will provide the BPDA, BWSC, and Boston Groundwater Trust a letter stamped by a professional engineer registered in Massachusetts that details how the Project will meet the GCOD requirement for no reduction in groundwater levels on Site or on adjoining lots.

6.3.6 BWSC Site Plan Review

The Project will require BWSC Site Plan Review and approval. The Proponent will coordinate with BWSC on the design of any proposed connections to ensure there is adequate capacity for Project flows in the existing storm drain systems. Mitigation measures to be provided by the Proponent will also be agreed upon with BWSC once the proposed design for the Project reaches an appropriate level of detail. The Project will also evaluate the use of BMPs during the BWSC Site Plan Review process.

6.3.7 BPDA Smart Utilities Policy

The Project will be subject to the Green Infrastructure requirements of the Smart Utilities Policy, as it exceeds 100,000 square feet of proposed floor area. To meet these requirements, the Site design will aim to retain on-site stormwater runoff prior to discharge, as discussed previously in Section 6.3.2.

In collaboration with BWSC, the BPDA will review the Project utility connections and recommend improvements in compliance with the Smart Utility Standards, set forth by the BPDA and City of Boston.

6.4 Sanitary Sewage

The following sections describe the sanitary sewer infrastructure around the Project Site and describe how this infrastructure will service the Project.

6.4.1 Existing Sewer System

The BWSC owns and maintains sanitary sewer lines near the Project Site. As shown in Figure 6.1, the infrastructure includes:

- An existing 30-inch by 36-inch sanitary sewer line within Ipswich Street. This sanitary sewer line flows in a southerly direction in Ipswich Street and discharges to MWRA mains in the Fenway area. Sanitary flows from the MWRA mains are then conveyed to the Deer Island Wastewater Treatment Plant.
- An existing 30-inch by 36-inch sanitary sewer line within Lansdowne Street. This sanitary sewer line flows in an easterly direction in Lansdowne Street and discharges to the existing sanitary sewer main within Ipswich Street described above.

6.4.2 Proposed Sewage Flow and Connection

Based on the anticipated development program, the Project is estimated to generate approximately 42,350 net new gallons per day of sanitary sewage. Table 6-1 below summarizes the proposed estimated sewer generation based on Massachusetts State Environmental Code (Title 5) generation rates.

Changes to the proposed building program will vary sanitary flow. Final flow estimates will be determined as the Project design moves forward.

Table 6-1 Future Sewer Generation

Program Type	Approx. Units	Generation Rate [1]	Sewer Generation (GPD)
Fenway Theater			
Performance Hall [2]	5,400 Seats	5 GPD / Seat	27,000
Theater Office	2,000 SF	75 GPD / KSF	150
Sub Total			**27,150**
Fenway Park Improvements			
New Concessions, Bar, New Restrooms and Seats [3]	310 Seats	20 GPD / Seat	6,200
New Function Space [4]	600 Person Capacity	15 GPD / Seat	9,000
Sub Total			15,200
TOTAL			**42,350**

1 Generation rates based on Title 5, 310 CMR 15.203 guidelines
2 Title 5 generation rate for Movie Theater used.
3 Title 5 generation rate for Lounge, Tavern used.
4 Title 5 generation rate for Function Hall used.

6.4.3 Inflow and Infiltration (I/I) Mitigation

Since the Project is expected to generate an increase of net new sanitary flows of approximately 42,350 gallons per day, certain required regulatory thresholds are triggered. BWSC requires than new developments generating greater than 15,000 gallons per day of net new wastewater flows mitigate the impacts of the development by removing inflow and infiltration ("I/I") present in the existing sanitary sewer system. I/I is the component of flows in sanitary sewer systems that does not come from wastewater generated by building uses. I/I includes groundwater infiltration from leaking/broken sewer infrastructure as well as illicit stormwater connections from roof leaders and drainage infrastructure. Following DEP and BWSC policy, projects that generate flows greater than the 15,000-gallon threshold are responsible for mitigating I/I at a ratio of 4:1 relative to the net-new wastewater generated. The Proponent is committed to working with BWSC to define the appropriate I/I mitigation.

6.5 Domestic Water and Fire Protection

The following sections describe the water infrastructure around the Project Site and how this infrastructure will service the Project.

6.5.1 Existing Water Supply System

The BWSC owns and maintains the water mains near the Project Site. BWSC record drawings show that the Project Site is serviced by southern low-service pipes. A 12-inch main is located on the north side of Ipswich Street. This water main is pit cast iron, originally constructed in 1899. BWSC cleaned and lined the main in 1990. In addition, a 12-inch main is located on the north side of Lansdowne Street, which ties into the 12-inch main in Ipswich Street. This water main is also pit cast iron, and originally constructed in 1899.

There is an existing service line to the Fenway Garage building from the 12-inch main in Ipswich Street. In addition, two existing hydrants along the Project frontage along Ipswich Street are fed from the 12-inch main in Ipswich Street.

6.5.2 Proposed Water Demand and Connection

Domestic water demand is based on estimated sewage generation with an added factor of 10 percent for consumption, system losses, and other use. Based upon standard sewage generation rates outlined in the MassDEP System Sewage Flow Design Criteria, 310 CMR 15.203, the Project will require approximately 46,600 gallons of water per day. The Proponent will continue to consider and evaluate methods to conserve water as building design evolves.

New water connections to BWSC infrastructure will be designed in accordance with BWSC design standards and requirements. Water services to the new buildings will be metered in accordance with BWSC's Site Plan Requirements and Site Review Process. The review includes, but is not limited to, sizing of domestic water and fire protection services, calculation of meter sizing, backflow prevention design, and location of hydrants and fire department connections to ensure conformity with BWSC and BFD requirements. The Proponent will provide for the connection of the meter to BWSC's automatic meter reading system. Fire protection connections on the Project Site will also need approval of the BFD.

6.6 Other Utilities

The following sections describe other utility infrastructure (natural gas, electrical, and telecommunications) around the Project Site and describe how this infrastructure will service the Project.

6.6.1 Natural Gas Service

Natural gas service is provided by National Grid near the Project Site. The existing natural gas service includes a 6-inch main on the south side of Ipswich Street and a 3-inch main on the south side of Lansdowne Street. There are two existing service connections to the Fenway Garage, and an existing service connection to the Triangle Lot from the 6-inch main in Ipswich Street.

The total estimated natural gas demand for the Project is 12,880 MBH (1 MBH = 1,000 BTU per hour). As the energy system designs for the proposed buildings are developed, the Proponent will coordinate service connection locations and system requirements with National Grid to ensure adequate capacity for natural gas service is available for the Project. Final design and installation of natural gas services will similarly be coordinated with National Grid.

6.6.2 Electrical Service

Electric service is provided by Eversource Energy near the Project Site and available in Ipswich Street and Lansdowne Street. A duct bank originating from an electrical manhole on the south side of Ipswich Street near the western limit of the Project provides service to the existing Fenway Garage building. Two duct banks originating from an electrical manhole on the south side of Ipswich Street and an electrical manhole on the north side of Lansdowne Street feed the existing electrical equipment within the Triangle Lot.

The estimated electricity demand for the entire Project based on the current building program is approximately 2,500 kWh.

It is anticipated that the existing electrical service and connections will be expanded, modified and/or relocated as determined to be necessary in accordance with Eversource's standards.

As the electric system designs for the Project are further developed, the Proponent will coordinate service connection locations and system requirements with Eversource. On-site transformer facilities are required and will be subject to design and construction approval from Eversource. Final design and installation of electric services and components will similarly be coordinated with Eversource.

6.6.3 Telecommunications

Record survey information indicates that telecommunication service is available in Ipswich Street and Lansdowne Street. Existing telecommunications manholes are located in Ipswich Street on the western limit of the Project near Van Ness Street and on the eastern limit of the Project near Lansdowne Street.

The Proponent will select private telecommunications companies to provide telephone, cable TV and data services. Upon confirmation of a provider or providers, the Proponent will coordinate service connection locations and system requirements and obtain appropriate approvals.

The Proponent intends to design a robust distributed antennae system, and wireless infrastructure similar to what is provided for Fenway Park. Wireless coverage will be designed to include the exterior sidewalk and queuing areas.

6.6.4 Protection of Utilities During Construction

Existing public and private infrastructure located within the public right-of-ways in the vicinity of the Project Site will be protected during construction of the Project. The installation of proposed utilities within the public ways will be constructed in accordance with BWSC, BPWD, the Dig-Safe Program, and applicable private utility company requirements. Specific methods for constructing proposed utilities where they are near, or connect with existing BWSC water, sanitary sewer, and storm drain facilities are subject to review by the BWSC as part of its Site Plan Review process.

The Proponent will continue to coordinate with BWSC and applicable private utility companies to ensure safe and coordinated utility operations in connection with the Project. All necessary permits will be obtained before the commencement of any work.

6.7 BPDA Smart Utilities Policy

The following section summarizes the approach to addressing the City of Boston's Smart Utilities Policy for the Project.

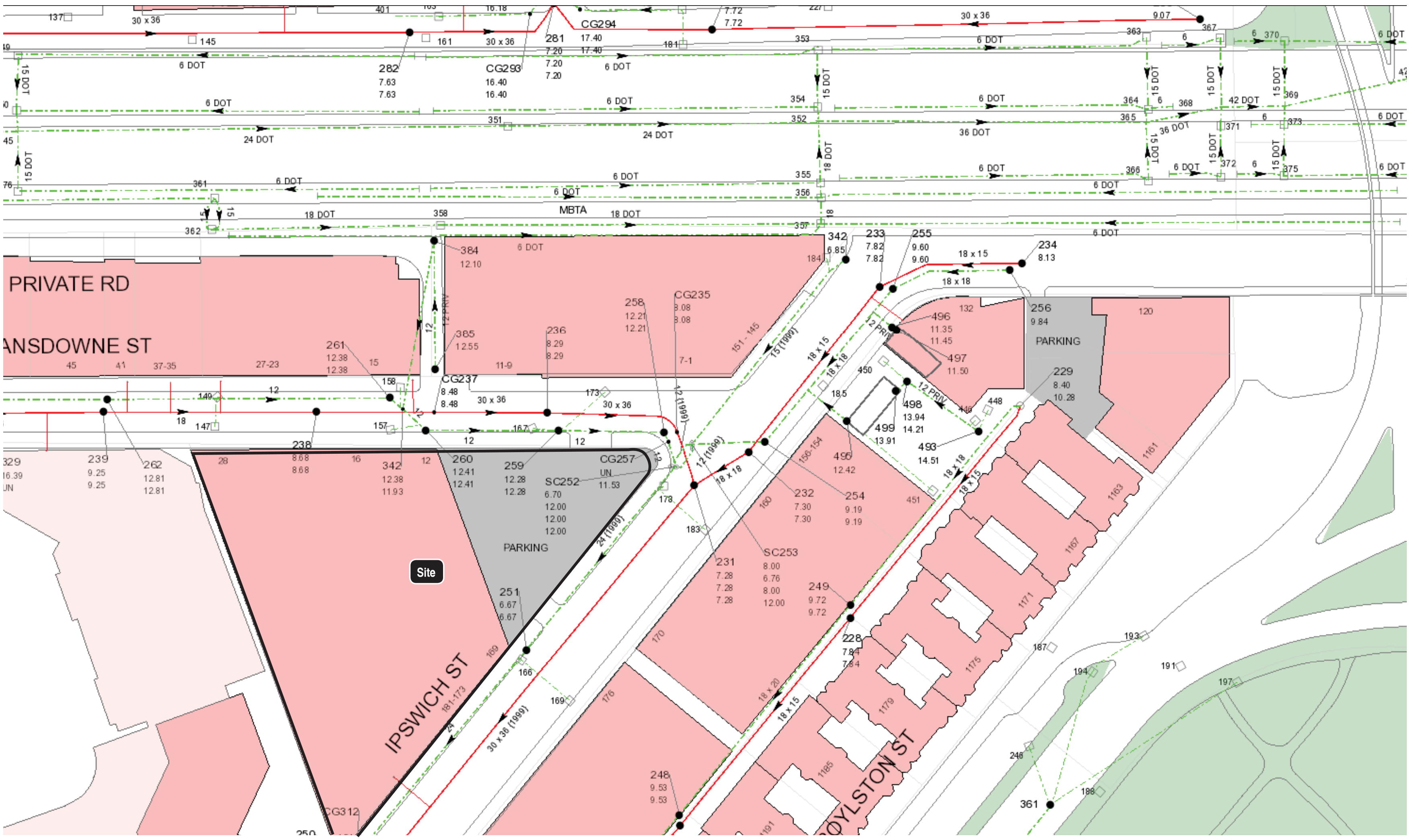
6.7.1 Green Infrastructure

The Project will incorporate Green Infrastructure, where feasible, to assist in absorbing, delaying, detaining and treating stormwater to reduce flooding and pollution at the Project Site. The Smart Utilities Policy recommends that projects utilize Green Infrastructure to retain, on site, a volume of runoff equal to 1.25 inches of rainfall times the total impervious area, prior to discharge. As recommended by the BPDA, the Proponent will work with BWSC to evaluate Green Infrastructure elements capable of retaining the required 1.25 inches over the Project Site impervious area.

6.7.2 Streetlight Installation

It is anticipated that all proposed street lights will be designed with electrical and fiber optics connections. Smart sensors, Wi-Fi, or cameras will have the potential be installed on these street lights in the future, due to the availability of electrical and fiber optic connections. Smart street lighting is expected to be incorporated into the Project design in order to reduce energy usage while maximizing safety for both pedestrians and drivers. As the design progresses, the Proponent will evaluate the feasibility of incorporating these features into the proposed street light design.

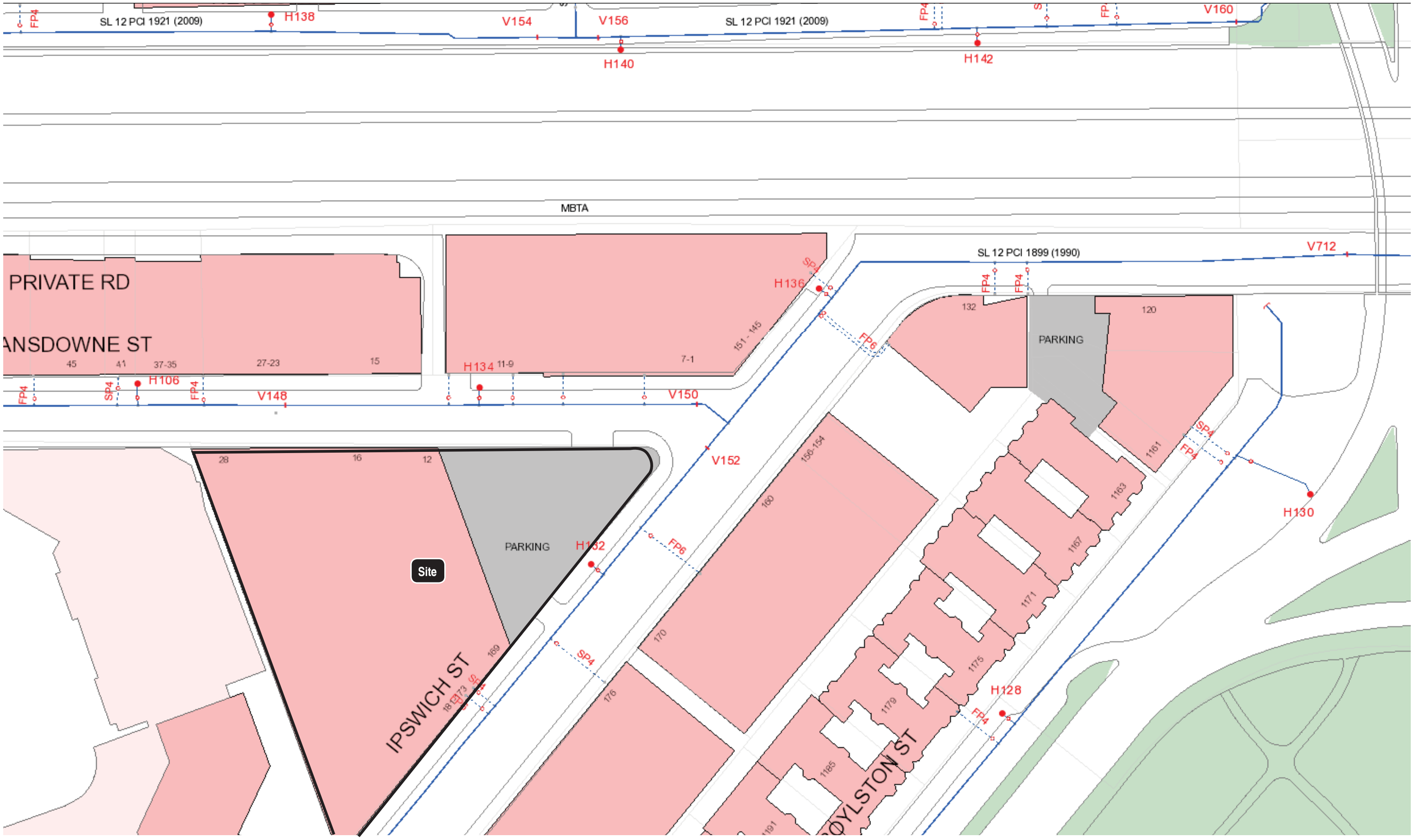
This Page Left Intentionally Blank



Source: BWSC

Figure 6.1
Existing Sewer and Drain Infrastructure

12 – 28 Lansdowne Street
Boston, Massachusetts



Source: BWSC

Figure 6.2
Existing Water Infrastructure

12 – 28 Lansdowne Street
Boston, Massachusetts

7

Historic Resources

This chapter identifies properties that are either in the Inventory of Historic and Archaeological Assets of the Commonwealth (the "Inventory") or listed in the National or State Registers of Historic Places that are located on, or are within proximity to, the Project Site. This chapter also describes potential effects the Project may have on these properties.

A search of the Massachusetts Historical Commission (MHC) Massachusetts Cultural Resource Information System (MACRIS) database and mapping tool, the Boston Landmarks Commission survey (1984) and of historic atlases and maps was completed to identify previously recorded above-ground and archaeological resources located on or within a one-quarter mile radius of the Project Site. Figure 7.1 depicts the location and the proximity of these resources.

7.1 Summary of Key Findings and Benefits

The key findings related to historic resources are:

- Fenway Park and the John B. Smith Building comprise one site that is listed in the National Register of Historic Places. The eastern edge of the Fenway Park Bleachers is within the Project Site boundary, although the encroachment at the Bleacher Concourse consists only of new concrete columns.
- Fenway Studios (1906, 30 Ipswich Street) and the Massachusetts Historical Society (1899, 1154 Boylston Street) have each been designated a National Historic Landmark.
- Five (5) historic districts located within a one-quarter mile radius are listed in the National and/or State Registers.
- An additional two (2) individual buildings within the one-quarter mile radius are included in the Inventory and have been recommended for further study by the Boston Landmarks Commission.

The key findings associated with the impacts and benefits of the Project on historic resources include:

- Geotechnical Effects – No impacts to abutting historic resources are anticipated, due to the monitoring of soil movement and groundwater during construction, which will assist in identifying whether modifications to construction methods will be necessary to protect nearby buildings.
- Urban Design Effects – The Project proposes to incorporate materials that are compatible with the current streetscape and skyline visible from the public way.

- View Corridors – The Project will create new opportunities for the public to view the interior of Fenway Park, and will have minimal impact to views from inside Fenway Park. The Project will not hinder views of historic buildings from the public way within ¼ mile of the Project.
- Shadow Effects – The results of the shadow analysis indicate that the Project will not result in any significant new shadows on historic resources in the vicinity of the Project Site.
- Solar Glare – The Project will have no solar glare impact to historic properties and will minimize solar glare impacts on the surrounding area through material selection.

7.2 Historic Context

The Project Site is located in the Fenway neighborhood of Boston in a section identified as West Fens/Fenway Park in the Boston Landmarks Commission historic resources survey. Named for the Back Bay Fens, which is part of the Emerald Necklace designed by noted landscape designer Frederick Law Olmsted, this area was transformed by Olmsted's project, which drained the marshy area around the Muddy River and created a naturalistic public park.[1] The West Fens, still an area of pasture and marsh in the first decade of the 20th century, was the last of the Fenway neighborhoods to be developed.

The Project Site is located at the east end of an irregular block bounded by Van Ness and Ipswich streets to the south, by Jersey Street and Brookline Avenue to the west, and by Lansdowne Street to the north. The surrounding streets slope down slightly from west to east and from north to south.

Brookline Avenue (named Western Ave. in the 1870s) was laid out in the early 19th century but the streets between Park Drive (formerly Audubon Road) and Boylston Street were not platted until the mid-1890s. The East Fens, on the other side of the Olmsted-designed Back Bay Fens, was developed with primarily residential blocks in the 1880s and later with institutional buildings. Meanwhile, streetcar service was extended to Kenmore Square (formerly Governor's Square) by 1889, although it too was initially surrounded by vacant land. In general, the streetcars were a catalyst to development in Boston, and Fenway Park itself also served as a catalyst to commercial development around Kenmore Square. When Fenway Park was completed in 1912, there were two large garages, a riding school and one private stable on Lansdowne Street. There was one brick commercial building across Brookline Avenue from Fenway Park and otherwise the immediate vicinity was still vacant land. After this, new development appeared first near Fenway Park on

1 The Emerald Necklace is a series of connected parks, green parkways and water ways that extends in an approximate horse-shoe alignment from the Boston Common to Franklin Park. Olmsted's plan, which he began in the 1870s, encompassed existing parks and his designs for new park areas, which together eventually included a variety of landscapes from formal gardens to recreational areas to a country park designed for pleasure and contemplation.

Brookline Avenue. Through the 1910s and 1920s, open parcels along Brookline Avenue, Lansdowne Street, Ipswich Street, and Jersey Street filled, and much of the north side of Boylston Street was developed. Garages were the predominant use, mixed with commercial buildings. The one notable exception was Fenway Studios (1924, NHL), a building constructed as artist lofts that retains its original use today. According to the city directories, changes in use were evident by the 1930s. For example, the garages on Lansdowne Street were occupied by liquor companies and the riding stable was used by Buck Printing Company.

Automobile District

An independent survey conducted in 2007 of buildings surrounding the Project Site and Fenway Park revealed there are many properties built prior to 1930, which represent the development of the West Fens during a period of transition between the use of horses and motor vehicles for transportation. The area appears to be eligible for listing as a National Register district based on the density and integrity of these buildings. The development period is from 1889 to 1930 and the structures range from one story, to multi-story garages and one multi-story riding stable. Some had ramps and the Smith Building had two automobile elevators. A list and a map of some of the buildings within the Automobile District are provided in Appendix E.

7.3 Historic Resources

A 1984 historic resources survey of the West Fens area has resulted in listed and inventoried historic resources as shown in Table 7-1 and identified in Figure 7.1. Within a one-quarter mile radius are seven (7) National Register and/or State Register-listed buildings or districts, which are wholly or partially contained within the radius, as well as two (2) individually-designated building. The area immediately around Fenway Park was not thoroughly surveyed in the 1984 Boston Landmarks Commission survey of the Fenway area.

Table 7-1 Historic Resources in the Vicinity of the Project Site

Map No.	Resource Name	Location	MHC Inventory No.	Designation
1	Fenway Studios	30 Ipswich Street	BOS.7500	NHL
2	Massachusetts Historical Society Building	1154 Boylston Street	BOS.7352	NHL
3	Fenway Park	24 Jersey Street	BOS.ZT	NRDIS
4	John B. Smith Building	64 - 76 Brookline Ave.	BOS.ZT	NRDIS
5	Park Riding School	145-151 Ipswich Street	BOS.7501	Recommended for further study
6	Richardson Building	76-88 Brookline Avenue	BOS.7502	Recommended for further study
A	Fenway-Boylston Street Historic District	N/A	BOS.JF	NHL
B	Back Bay Architectural District	N/A	BOS.BW	NRDIS, LHD
C	Bay State Road – Back Bay West Architectural Conservation District	N/A	BPS.JC	LHD
D	Commonwealth Avenue Mall	N/A	BOS.BX	NRDIS, LL
E	Back Bay Fens-Muddy River	N/A	BOS.JD/ BOS.IO	NRDIS, LL (portions)

Notes: NRDIS National Register of Historic Places, District
NHL National Historic Landmark
LHD Local Historic District (State Register of Historic Places)

7.4 Evaluation of Significance of On-Site Buildings

The Project Site consists of the Triangle Lot, an open-air service yard enclosed by a chain link fence at the east end of the block, the footprint of the existing Fenway Garage building, and the east edge of the Fenway Park bleachers. The city block on which it is located contains three buildings: the John B. Smith Building, a two-story brick and concrete structure which is a parallelogram in plan; Fenway Park, a 7.6-acre property with the ball playing field and the ballpark stands; and the Fenway Garage building, a two-story brick and concrete structure. A narrow, one-story brick building attached along the entire east elevation of the Fenway Garage building appeared in the 1928 and 1938 atlases, but is no longer extant. The Fenway Garage building appears to be eligible for listing in the State and National Registers of Historic Places.

Fenway Park (1912) and its attached neighbor, the John B. Smith Building (1915), are listed together as one property in the National Register of Historic Places. Although they were built by different owners for different purposes, they have functioned together since they were connected in 1947 by a second-story pedestrian bridge, which provided direct access to the ball park from the Smith Building, where there were TV and radio stations and the Red Sox offices. This made it possible to enter the upper level of the left field grandstand from the second floor of the Smith Building, thus shortening the only previous route, which required walking down one floor in the Smith Building, exiting outside to Brookline Avenue and then entering Fenway Park.

Construction began in the fall of 1912 on the Fenway Garage building (sometimes referred to as the "Laundry Building"), after Fenway Park was completed that year for the baseball season. John E. McLaughlin, the architect for the Jersey Street façade of Fenway Park, was hired by Charles Taylor and his son John I. Taylor to design the Fenway Garage building. At that time, Charles Taylor was part of the ownership entity that owned the real estate occupied by Fenway Park and John I. Taylor was listed as President of the Fenway Garage Company. The Fenway Garage building was converted in the 1960s for use as a laundry that served the Children's Hospital Medical Center and other nearby hospitals. In 1988 it was sold again and was returned to use as a garage and warehouse space for Fenway Park. Today, the western portion of the Fenway Garage building is occupied by restrooms, concessions (including food storage and food preparation) and concession offices at the first floor, and function spaces, and a lounge displaying historical exhibitions on the second floor. The exterior facades on Lansdowne and Ipswich Streets were rehabilitated during a certified rehabilitation project undertaken at Fenway Park between 2002 and 2012.

7.4.1 Archaeological Resources

There are no known archaeological resources within the Project Site that are listed in the State and/or National Registers of Historic Places. The Project Site appears to have been marsh land according to an 1873 atlas. By 1909, Lansdowne Street was a graded dirt road with sidewalks lined with crude wood railings. Until 1912, when Fenway Park was completed, the Project Site was an area that was minimally maintained with uneven grade, debris and depressions. In order to develop Fenway Park and the lots around it, the area would have been filled and graded. It is assumed that the top several feet of soil at the Triangle Lot is fill installed around 1912.

7.5 Evaluation of Potential Impacts

Impacts to historic resources include short-term impacts, typically those associated with construction, and long-term impacts, typically related to impacts after construction. The evaluation of impacts is separated into the two categories.

7.5.1 Short-Term Impacts

Geotechnical

As described in Section 5.10, existing subsurface conditions and geotechnical considerations will be thoroughly assessed by the Project's geotechnical consultant.

That consultant will provide design recommendations with respect to foundation design, will prepare geotechnical specifications, and will review the construction contractor's proposed procedures. As described in Section 5.11, the Project team will monitor the contractor's conformance to protect nearby structures and minimize groundwater level impacts outside the Project Site. Performance criteria will be established to monitor soil movement and groundwater during construction, and the contractor will be required to modify construction methods to protect nearby buildings, if necessary. These best management practices will be implemented to avoid impacts to abutting and nearby historic resources.

7.5.2 Long-Term Impacts

The following section evaluates potential long-term impacts to historic resources related to urban design, demolition, view corridors, shadow, and solar glare.

Demolition

The current Project design calls for demolition of two (2) exterior bays of the Fenway Garage building on each of the Ipswich Street and the Lansdowne Street elevations. Some door openings will be converted to windows in the Ipswich Street elevation and one new entrance will be located in a window bay at the Lansdowne Street elevation. The Project will remove approximately 40 percent of the Fenway Garage building's interior structure, ramps, roof and floors.

The Project design calls for the demolition of the top (eastern most) six rows of the Fenway Park bleachers (dating from 1934). At this location, the Project design has a two-story vertical addition at the level of the Fenway Garage building roof. The vertical expansion will be supported on concrete columns and beams creating a clear span over the roof of the Fenway Garage building and over the bleacher concourse. The Fenway Park Improvements component of the Project is designed as a lightweight steel framed structure clad with green vertical metal panels with flat battened seams. It is a construction methodology and materials palette consistent with earlier vertical additions to the ballpark that differentiates areas of new construction from those of the original historic structure, and will appear seamless to Fenway Park patrons and pedestrians.

Design

The Project has been designed to enhance the pedestrian experience in the neighborhood. Having evolved from primarily an industrial and automobile-related area to an entertainment district centered around Fenway Park, the West Fens is an ideal location for the proposed use due to its proximity to public transportation, its existing entertainment uses, its densely developed residential neighborhoods and the presence of existing academic institutions including but not limited to the BAA (with its new school under construction), the Berklee College of Music, the Boston Conservatory at Berklee and the New England Conservatory of Music.

The proposed design has considered the architectural compatibility of the Project with Fenway Park, and the historic character of the surrounding area including the existing historic structures, height, massing, streetscape, setbacks and materials. The early-20th-century character of buildings within this district are utilitarian at the secondary structures but even some of the garages exhibit interesting architectural details such as patterned brick, glazed, colored tile and colossal round-arched openings at the upper stories. The design will not impact sunlight inside Fenway Park.

Refer to Sections 2.4 and 2.5 for a summary of the Project's design goals and concepts, and Section 2.6 for a description of proposed pedestrian realm improvements.

View Corridors

Due to the nature of Fenway Park, which is closed off from the street, views of the interior of the ballpark are limited when no events are scheduled inside the park. The upper level of the proposed Fenway Park Improvements contains a multi-purpose function room with views of Fenway Park that can accommodate approximately 500 persons at a banquet, or 600 in a standing group. This space can be used for group events before or after games or concerts, or for private functions on non-game days, creating new opportunities for the public to view Fenway Park.

Impacts to views from inside Fenway Park will be minimized such that signs to be reinstalled above their current height (such as the rear bleacher signs) will have open, individual letters or logos rather that a solid back where possible.

The Project will not hinder views of historic buildings from the public way within ¼ mile of the Project.

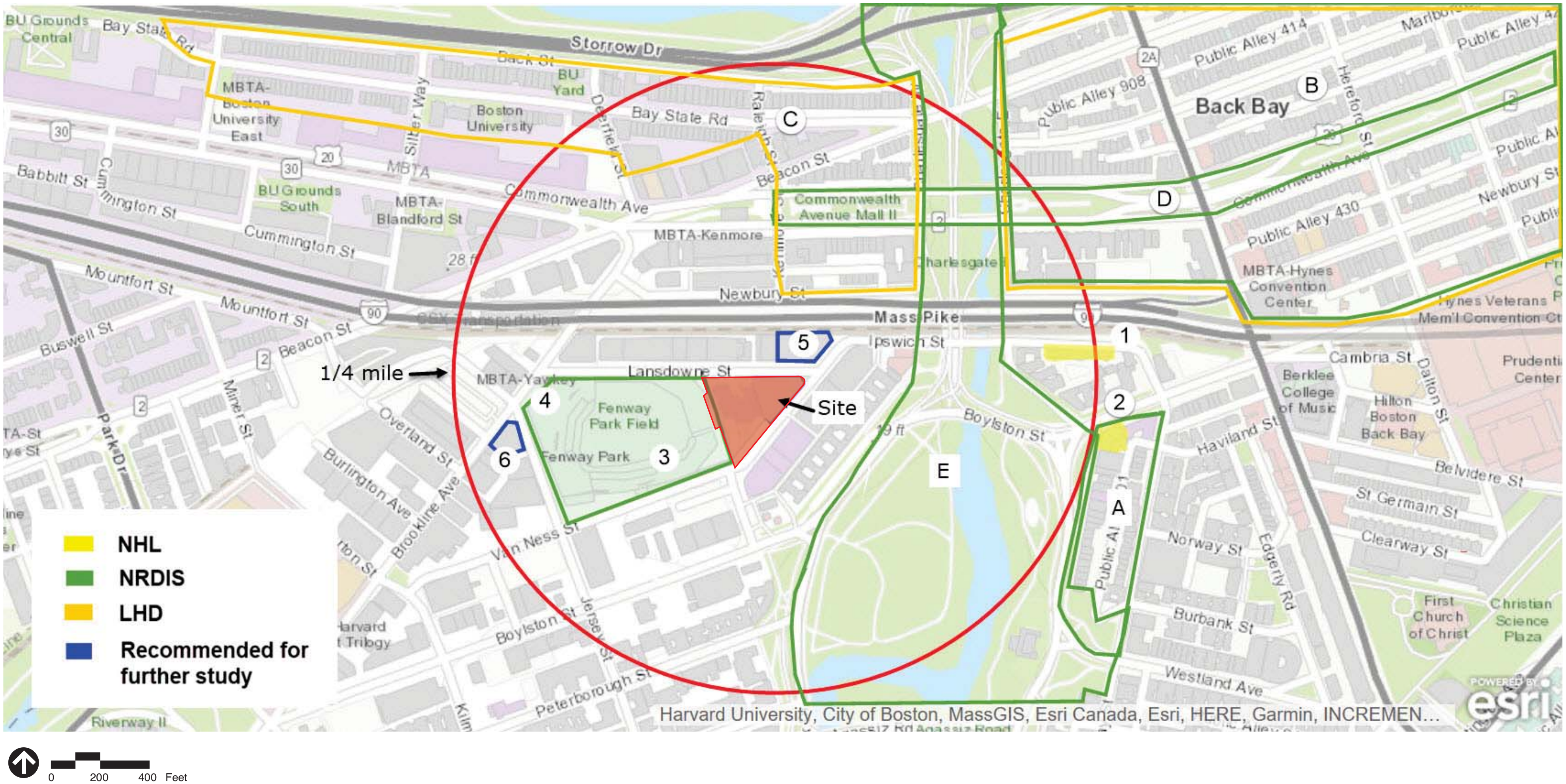
Shadows

A shadow impact analysis was conducted for the Project, consistent with Section 80B-2(c) of the Boston Zoning Code. The results of the shadow analysis are provided in Chapter 5, *Environmental Protection*, Section 5.2. The construction of the Project will result in incremental net new shadows consistent with the existing urban shadow patterns. The Project has been designed to minimize to the maximum extent practicable any noticeable effect on pedestrian use patterns and historic resources.

In general, new shadows outside Fenway Park will be found on the Lansdowne Street and Ipswich Street sidewalks. At 6:00 PM EDT. on June 21, new shadows reach the row of one-story garage buildings on the south side of Ipswich Street. The buildings are not individually architecturally notable, and they have been altered since their original construction. At 6:00 PM EDT. on September 21, net new shadows will appear on the roof of the row of town houses along the Fenway, filling in gaps in the heavily shaded landscape. The December 21 studies show net new shadows on the sidewalks and roofs of buildings on the north side of Lansdowne Street. A new building was constructed at 15 Lansdowne Street (House of Blues) ca. 2009, so the minimal new impact will be to the pedestrians on the sidewalk. The primary use on the north side of Lansdowne Street across from the Project Site is associated with existing entertainment uses, which most often occur during the evening and nights when shadows would not have an effect.

Solar Glare

The exterior building materials have not yet been finalized for the Project, however, it is not anticipated that highly-reflective glass will be employed on the Project facade. Therefore, no impact to historic properties from solar glare is anticipated. The Project will be designed to minimize the potential for solar glare that could adversely impact traffic safety along nearby roadways and solar heat gain in nearby buildings through the consideration of low/non-reflecting exterior building materials as design progresses. Please refer to Section 2.5.2 for a summary of the Project's character and exterior materials.



1	Fenway Studios	A	Fenway-Boylston Street Historic District
2	Massachusetts Historical Society Building	B	Back Bay Architectural District
3	Fenway Park	C	Bay State Road – Back Bay West Architectural Conservation District
4	John B. Smith Building	D	Commonwealth Avenue Mall
5	Park Riding School	E	Back Bay Fens-Muddy River
6	Richardson Building		

NRIND National Register of Historic Places, Individual Listing
NRDIS National Register of Historic Places, District
LHD Local Historic District (State Register of Historic Places)
LL Local Landmark

Figure 7.1
Historic Resources

12 – 28 Lansdowne Street
Boston, Massachusetts

This Page Left Intentionally Blank

Appendix A: Letter of Intent

This Page Left Intentionally Blank

4 Jersey Street, Boston, MA 02215 USA
TEL +1.617.226.6000 FAX +1.617.226.6789

December 18, 2018

Mr. Brian Golden, Director
Boston Planning and Development Agency
One City Hall, 9th Floor
Boston, MA 02201

Attn: Tim Czerwienski, Project Manager

RE: Letter of Intent to File Project Notification Form - Article 80 Large Project Review
Fenway Theater and Fenway Park Improvements, Boston

Dear Director Golden:

The purpose of this letter is to notify the Boston Planning and Development Agency (the "BPDA") of our intent to file an Expanded Project Notification Form (the "Expanded PNF") for the proposed development of a performing arts center adjacent to Fenway Park (the "Fenway Theater"), construction of associated improvements to Fenway Park (the "Fenway Park Improvements"), and renovation of existing spaces to serve both the Fenway Theater and Fenway Park (the "Interior Renovations") (collectively, the "Project"). This Letter of Intent is submitted by 175 Ipswich Street, LLC, (the "Proponent"), an affiliate of Fenway Sports Group Real Estate, pursuant to Article 80B of the Boston Zoning Code (the "Code").

The planned project is to be located on certain property at 175 Ipswich Street (also having the address 12-28 Lansdowne Street) in the Fenway neighborhood of Boston. The Project will be developed on an approximately 67,400 square foot site ("Project Site") bounded by Lansdowne Street to the north, Ipswich Street to the south and east, and Fenway Park to the west. The Project Site is currently comprised of a paved lot and a building that houses dining/function spaces, back of house service areas and parking for Fenway Park.

The surrounding neighborhood, notably home to Fenway Park, is a vibrant mix of cultural, retail, entertainment, educational, and residential uses. The Lansdowne Street entertainment district is known for its music venues and nightlife, including the House of Blues, and is activated with fans when Fenway Park hosts Red Sox games, other sporting events (i.e., hockey, football, soccer, winter sports), concerts, charity events and other public events.

The primary component of the Project, as currently conceptualized, involves the new construction of the Fenway Theater, an approximately 5,000 person capacity performing arts center. The theater would host a wide variety of entertainment and civic events on a year-round basis, enlivening the Lansdowne Street entertainment district on both Fenway Park event days and non-event days and providing a steady stream of patrons for the neighborhood's many restaurants and retail establishments. The Fenway Park Improvements would include a new area connected to the back of the ballpark's bleachers that will feature concession stands, restrooms and other elements designed to enhance the fan experience in the bleachers. Additionally, the Fenway Park Improvements would include a new function space with sweeping views of Fenway Park suitable for large groups and private events. The Interior Renovations would modify existing spaces to enable them to be shared between the operators of Fenway Park and the Fenway Theater (including a shared lobby, commissary, loading dock, trash and utility areas).

The proposed Project is located within the Fenway Triangle Neighborhood Development Area zoning sub-district of the Fenway Neighborhood District. Article 66 of the Boston Zoning Code (the "Code"), which governs the site, allows for the mixed-use buildings of the sort contemplated by the proposed Project. The Fenway Theater has been designed to fit within the zoning envelope for the site and is not expected to require zoning relief from dimensional requirements of the Code.

The size of the proposed Project will trigger Large Project Review under Article 80 of the Code. The Expanded PNF filing is expected to analyze many issues normally contained in a Draft Project Impact Report, including transportation, urban design and public realm, infrastructure, historic resources, and other environmental resources, all of which will help explain the potential benefits and impacts arising from the Project.

We are appreciative of the BPDA's guidance during our pre-filing meetings and look forward to working with the BPDA on the successful completion of the Article 80B Large Project Review process. We are committed to continuing to work closely with your staff, other City agencies, elected officials, and with the community in order to arrive at a final project that will enhance the vibrant urban fabric of the Fenway neighborhood and strengthen the performing arts scene in the City of Boston.

Very truly,

Jonathan Gilula

Jonathan Gilula
175 Ipswich Street, LLC

cc: Mr. Jonathan Greeley, BPDA
Mr. Tim Czerwienski, BPDA
Mr. Michael Christopher, BPDA
Ms. Yissel Guerrero, Mayor's Office of Neighborhood Services
Boston City Councilor Josh Zakim
State Senator William Brownsberger

Appendix B: BPDA Checklists

Contents

This Page Left Intentionally Blank

Article 80 – Accessibility Checklist

A requirement of the Boston Planning & Development Agency (BPDA)
Article 80 Development Review Process

The Mayor's Commission for Persons with Disabilities strives to reduce architectural, procedural, attitudinal, and communication barriers that affect persons with disabilities in the City of Boston. In 2009, a Disability Advisory Board was appointed by the Mayor to work alongside the Commission in creating universal access throughout the city's built environment. The Disability Advisory Board is made up of 13 volunteer Boston residents with disabilities who have been tasked with representing the accessibility needs of their neighborhoods and increasing inclusion of people with disabilities.

In conformance with this directive, the BDPA has instituted this Accessibility Checklist as a tool to encourage developers to begin thinking about access and inclusion at the beginning of development projects, and strive to go beyond meeting only minimum MAAB / ADAAG compliance requirements. Instead, our goal is for developers to create ideal design for accessibility which will ensure that the built environment provides equitable experiences for all people, regardless of their abilities. As such, any project subject to Boston Zoning Article 80 Small or Large Project Review, including Institutional Master Plan modifications and updates, must complete this Accessibility Checklist thoroughly to provide specific detail about accessibility and inclusion, including descriptions, diagrams, and data.

For more information on compliance requirements, advancing best practices, and learning about progressive approaches to expand accessibility throughout Boston's built environment. Proponents are highly encouraged to meet with Commission staff, prior to filing.

Accessibility Analysis Information Sources:

1. Americans with Disabilities Act – 2010 ADA Standards for Accessible Design
   http://www.ada.gov/2010ADAstandards_index.htm
2. Massachusetts Architectural Access Board 521 CMR
   http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html
3. Massachusetts State Building Code 780 CMR
   http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/csl/building-codebbrs.html
4. Massachusetts Office of Disability – Disabled Parking Regulations
   http://www.mass.gov/anf/docs/mod/hp-parking-regulations-summary-mod.pdf
5. MBTA Fixed Route Accessible Transit Stations
   http://www.mbta.com/riding_the_t/accessible_services/
6. City of Boston – Complete Street Guidelines
   http://bostoncompletestreets.org/
7. City of Boston – Mayor's Commission for Persons with Disabilities Advisory Board
   www.boston.gov/disability
8. City of Boston – Public Works Sidewalk Reconstruction Policy
   http://www.cityofboston.gov/images_documents/sidewalk%20policy%200114_tcm3-41668.pdf
9. City of Boston – Public Improvement Commission Sidewalk Café Policy
   http://www.cityofboston.gov/images_documents/Sidewalk_cafes_tcm3-1845.pdf

Glossary of Terms:

1. ***Accessible Route*** – A continuous and unobstructed path of travel that meets or exceeds the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 20
2. ***Accessible Group 2 Units*** – Residential units with additional floor space that meet or exceed the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 9.4
3. ***Accessible Guestrooms*** – Guestrooms with additional floor space, that meet or exceed the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 8.4
4. ***Inclusionary Development Policy (IDP)*** – Program run by the BPDA that preserves access to affordable housing opportunities, in the City. For more information visit: http://www.bostonplans.org/housing/overview
5. ***Public Improvement Commission (PIC)*** – The regulatory body in charge of managing the public right of way. For more information visit: https://www.boston.gov/pic
6. ***Visitability*** – A place's ability to be accessed and visited by persons with disabilities that cause functional limitations; where architectural barriers do not inhibit access to entrances/doors and bathrooms.

1. Project Information: *If this is a multi-phased or multi-building project, fill out a separate Checklist for each phase/building.*			
Project Name:	12 – 28 Lansdowne Street		
Primary Project Address:	12 – 28 Lansdowne Street, Boston MA 02215 (Also having the address 175 Ipswich Street)		
Total Number of Phases/Buildings:	One Building, One Phase		
Primary Contact (Name / Title / Company / Email / Phone):	Michael Lamphier Jones Lang LaSalle, michael.lamphier@am.jll.com, 617-523-8000		
Owner / Developer:	175 Ipswich Street, LLC c/o Fenway Sports Group Real Estate		
Architect:	D'Agostino Izzo Quirk Architects, Inc.		
Civil Engineer:	VHB		
Landscape Architect:	VHB		
Permitting:	Flink Consulting/VHB		
Construction Management:	Gilbane		
At what stage is the project at time of this questionnaire? Select below:			
	PNF / **Expanded PNF** Submitted	Draft / Final Project Impact Report Submitted	BPDA Board Approved
	BPDA Design Approved	Under Construction	Construction Completed:
Do you anticipate filing for any variances with the Massachusetts Architectural Access Board (MAAB)? *If yes,* identify and explain.	No		
2. Building Classification and Description: *This section identifies preliminary construction information about the project including size and uses.*			
What are the dimensions of the project?			
Site Area:	*67,400 SF*	Building Area:	*136,360 GFA*
Building Height:	*Fenway Theater: 67 Ft.*	Number of Stories:	*Fenway Theater: 3 Stories.*

	Fenway Park Improvements: 67 Ft.			*Fenway Park Improvements: 4 Stories*
First Floor Elevation:	*17.00 Ft*	Is there below grade space:		*One (1) Story*
What is the Construction Type? (Select most appropriate type)				
	Wood Frame	Masonry	Steel Frame	Concrete
What are the principal building uses? (IBC definitions are below – select all appropriate that apply)				
	Residential – One - Three Unit	Residential - Multi-unit, Four +	Institutional	Educational
	Business	Mercantile	Factory	Hospitality
	Laboratory / Medical	Storage, Utility and Other	Performing arts center, function room, Fenway Park fan amenity space	
List street-level uses of the building:	Fenway Theater and back of house areas, lobby, and service and loading areas.			

3. Assessment of Existing Infrastructure for Accessibility:

This section explores the proximity to accessible transit lines and institutions, such as (but not limited to) hospitals, elderly & disabled housing, and general neighborhood resources. Identify how the area surrounding the development is accessible for people with mobility impairments and analyze the existing condition of the accessible routes through sidewalk and pedestrian ramp reports.

Provide a description of the neighborhood where this development is located and its identifying topographical characteristics:	The Project is to be located on certain property at 12-28 Lansdowne Street (also having the address 175 Ipswich Street) in the Fenway neighborhood of Boston, consisting of approximately 1.5 acres (67,400 square feet) bounded by Lansdowne Street to the north, Ipswich Street to the south and east, and Fenway Park to the west (the "Project Site"). The Project Site, and the adjacent roadways are very flat with little grade change.
List the surrounding accessible MBTA transit lines and their proximity to development site: commuter rail / subway stations, bus stops:	The Project Site is well served by public transportation, including the following: • MBTA Subway: Kenmore Station, Fenway Station, Hynes Convention Center Station • MBTA Commuter Rail: Yawkey Station • MBTA Bus Routes: 8, 19, 55, 57, 60, 65 and the CT2 Three Green Line branches are available for inbound and outbound travel (B, C, and D Branches) at Kenmore Station, which is located within a 10-minute walk from the Project Site on Commonwealth Avenue.
List the surrounding institutions: hospitals, public housing, elderly and disabled housing	<u>Educational facilities:</u> Boston Arts Academy, Berklee College of Music and Boston Conservatory at Berklee, New England Conservatory, Boston

developments, educational facilities, others:	University, Northeastern University, Simmons University, Emmanuel University, Boston Latin, and Winsor School. <u>Senior Housing</u>: West Fenway Elderly Housing, Sant Cecilia's House, Peterborough Senior Center. <u>Hospitals/Medical Institutions</u>: The Longwood Medical Area (including Beth Israel Deaconess Medical Center, Boston Children's Hospital, Brigham and Women's Hospital, and Dana-Farber Cancer Institute).
List the surrounding government buildings: libraries, community centers, recreational facilities, and other related facilities:	<u>Parks:</u> The Emerald Necklace, The Fenway Victory Gardens, Charlesgate Park. <u>Community Centers</u>: Fenway Community Center <u>Museums</u>: Isabella Stuart Gardner Museum, The Museum of Fine Arts.
4. Surrounding Site Conditions – Existing: *This section identifies current condition of the sidewalks and pedestrian ramps at the development site.*	
Is the development site within a historic district? ***If yes,*** identify which district:	No
Are there sidewalks and pedestrian ramps existing at the development site? ***If yes***, list the existing sidewalk and pedestrian ramp dimensions, slopes, materials, and physical condition at the development site:	Yes, public concrete sidewalks and pedestrian ramps occur on both Lansdowne (+/- 15 ft. wide) and Ipswich (15 - 22 ft. wide) Streets.
Are the sidewalks and pedestrian ramps existing-to-remain? ***If yes,*** have they been verified as ADA / MAAB compliant (with yellow composite detectable warning surfaces, cast in concrete)? ***If yes,*** provide description and photos:	Existing sidewalks immediately adjacent to the Project Site will be modified to accommodate accessibility to/from the facility and within the public way.
5. Surrounding Site Conditions – Proposed *This section identifies the proposed condition of the walkways and pedestrian ramps around the development site. Sidewalk width contributes to the degree of comfort walking along a street. Narrow sidewalks do not support lively pedestrian activity, and may create dangerous conditions that force people to walk in the street. Wider sidewalks allow people to walk side by side and pass each other comfortably walking alone, walking in pairs, or using a wheelchair.*	

Are the proposed sidewalks consistent with the Boston Complete Street Guidelines? ***If yes***, choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, or Boulevard.	Yes, the proposed sidewalks will be consistent with the Neighborhood Connector Street Type. During Fenway Park events, Lansdowne Street is shut down to vehicle traffic and operates as a pedestrian, shared space.
What are the total dimensions and slopes of the proposed sidewalks? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone:	The existing sidewalks are to remain, and will be upgraded. The proposed slopes are around approximately two (2) percent and widths/frontage are as follows: <u>Lansdowne Street</u> Overall: +/- 15 ft. wide Furnishing Zone: 5 -7' Pedestrian Zone: 8 -10' Frontage Zone: N/A 365 Linear Feet (LF) of frontage <u>Ipswich Street</u> Overall: 15 to 22 ft. wide Furnishing Zone: 5 -10' Pedestrian Zone: +/- 12' Frontage Zone: N/A 400 LF of frontage Closer to the loading bays along Ipswich Street is where the dimension is reduced to 15 feet, with an approximate 5' furnishing zone.
List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?	The majority of the existing concrete sidewalks along Ipswich and Lansdowne Streets are within the City of Boston right-of-way. The existing sidewalks on the south side of Ipswich Street and north side of Lansdowne Street, within the proposed limit of work, will be reconstructed as part of the Project. The Project streetscape design proposes the following materials for each Zone: • Furnishing Zone: permeable unit pavers and tree grates • Pedestrian Zone: scored concrete • Frontage Zone: decorative unit pavers – located at the Theater entrance on the corner of Ipswich and Lansdowne Streets
Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way? ***If yes,***	No

what are the proposed dimensions of the sidewalk café or furnishings and what will the remaining right-of-way clearance be?	
If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the Public Improvement Commission (PIC)?	No
Will any portion of the Project be going through the PIC? ***If yes,*** identify PIC actions and provide details.	The anticipated PIC actions for the Project are: • Specific Repairs • Engineering Report • Utility Notifications
6. Accessible Parking: *See Massachusetts Architectural Access Board Rules and Regulations 521 CMR Section 23.00 regarding accessible parking requirement counts and the Massachusetts Office of Disability – Disabled Parking Regulations*.	
What is the total number of parking spaces provided at the development site? Will these be in a parking lot or garage?	No new parking will be provided by the Project. The Project will result in the net reduction of approximately 105 vehicle parking spaces.
What is the total number of accessible spaces provided at the development site? How many of these are "Van Accessible" spaces with an 8-foot access aisle?	No new parking will be provided by the Project. The Project will result in the net reduction of approximately 105 vehicle parking spaces.
Will any on-street accessible parking spaces be required? ***If yes,*** has the proponent contacted the Commission for Persons with Disabilities regarding this need?	No on-street accessible parking spaces are anticipated to be required, and none are provided at this time.
Where is the accessible visitor parking located?	No dedicated visitor parking will be provided on-site.
Has a drop-off area been identified? ***If yes,*** will it be accessible?	Yes, a drop-off area for the Fenway Theater will be provided along the north side of Ipswich Street adjacent the Project's loading and service area.
7. Circulation and Accessible Routes:	

The primary objective in designing smooth and continuous paths of travel is to create universal access to entryways and common spaces, which accommodates persons of all abilities and allows for visitability-with neighbors.	
Describe accessibility at each entryway: Example: Flush Condition, Stairs, Ramp, Lift or Elevator:	Flush condition will be provided at all entrances.
Are the accessible entrances and standard entrance integrated? ***If yes,*** *describe.* ***If no,*** what is the reason?	Yes, all primary entrances and exits are integrated and will be ADA-accessible.
If project is subject to Large Project Review/Institutional Master Plan, describe the accessible routes way-finding / signage package.	Accessible Routes and entrances will be provided along Ipswich and Lansdowne Streets. Refer to Figure B.1, Diagram of Accessible Routes for additional details.
8. Accessible Units (Group 2) and Guestrooms: (If applicable) *In order to facilitate access to housing and hospitality, this section addresses the number of accessible units that are proposed for the development site that remove barriers to housing and hotel rooms.*	
What is the total number of proposed housing units or hotel rooms for the development?	0 (zero)
If a residential development, how many units are for sale? How many are for rent? What is the breakdown of market value units vs. IDP (Inclusionary Development Policy) units?	NA
If a residential development, how many accessible Group 2 units are being proposed?	NA
If a residential development, how many accessible Group 2 units will also be IDP units? ***If none***, describe reason.	NA
If a hospitality development, how many accessible units will feature a wheel-in shower? Will accessible	NA

equipment be provided as well? ***If yes,*** provide amount and location of equipment.	
Do standard units have architectural barriers that would prevent entry or use of common space for persons with mobility impairments? Example: stairs / thresholds at entry, step to balcony, others. ***If yes,*** provide reason.	NA
Are there interior elevators, ramps or lifts located in the development for access around architectural barriers and/or to separate floors? ***If yes,*** describe:	NA
9. Community Impact: *Accessibility and inclusion extend past required compliance with building codes. Providing an overall scheme that allows full and equal participation of persons with disabilities makes the development an asset to the surrounding community.*	
Is this project providing any funding or improvements to the surrounding neighborhood? Examples: adding extra street trees, building or refurbishing a local park, or supporting other community-based initiatives?	The Project proposes to design and fund streetscape improvements along Lansdowne Street and Ipswich Street and at the intersection of Lansdowne and Ipswich Streets to include: new wide, accessible sidewalks, improved street lighting, street bollards to protect pedestrians from vehicles, and street trees, to the extent feasible, improved pedestrian crossings, consistent with the Boston Transportation Department's (BTD's) Complete Streets guidelines.
What inclusion elements does this development provide for persons with disabilities in common social and open spaces? Example: Indoor seating and TVs in common rooms; outdoor seating and barbeque grills in yard. Will all of these spaces and features provide accessibility?	The Fenway Theater will provide a wide array of common and amenity areas for employees and patrons of all abilities. The Project team is committed to ensuring all areas are welcoming and fully accessible to persons with disabilities. Fenway Park Improvements will provide additional seating options for persons with disabilities and enhanced circulation systems.
Are any restrooms planned in common public spaces? ***If yes,*** will any be single-stall, ADA compliant and designated as "Family"/ "Companion" restrooms? ***If no***, explain why not.	No

Has the proponent reviewed the proposed plan with the City of Boston Disability Commissioner or with their Architectural Access staff? ***If yes,*** did they approve? ***If no,*** what were their comments?	**The proposed plan has not yet been reviewed with the City of Boston Disability Commissioner.**
Has the proponent presented the proposed plan to the Disability Advisory Board at one of their monthly meetings? Did the Advisory Board vote to support this project? ***If no,*** what recommendations did the Advisory Board give to make this project more accessible?	**The Project has not yet been presented to the City of Boston Disability Advisory Board.**

10. Attachments

Include a list of all documents you are submitting with this Checklist. This may include drawings, diagrams, photos, or any other material that describes the accessible and inclusive elements of this project.

Provide a diagram of the accessible routes to and from the accessible parking lot/garage and drop-off areas to the development entry locations, including route distances. **Refer to Figure B.1**
Provide a diagram of the accessible route connections through the site, including distances. **Refer to Figure B.1**
Provide a diagram the accessible route to any roof decks or outdoor courtyard space? (if applicable) **Refer to Figure B.1**
Provide a plan and diagram of the accessible Group 2 units, including locations and route from accessible entry. **Not Applicable**
Provide any additional drawings, diagrams, photos, or any other material that describes the inclusive and accessible elements of this project.

This completes the Article 80 Accessibility Checklist required for your project. Prior to and during the review process, Commission staff are able to provide technical assistance and design review, in order to help achieve ideal accessibility and to ensure that all buildings, sidewalks, parks, and open spaces are usable and welcoming to Boston's diverse residents and visitors, including those with physical, sensory, and other disabilities.

For questions or comments about this checklist, or for more information on best practices for improving accessibility and inclusion, visit www.boston.gov/disability, or our office:

The Mayor's Commission for Persons with Disabilities

1 City Hall Square, Room 967,
Boston MA 02201.

Architectural Access staff can be reached at:

accessibility@boston.gov | patricia.mendez@boston.gov | sarah.leung@boston.gov | 617-635-3682

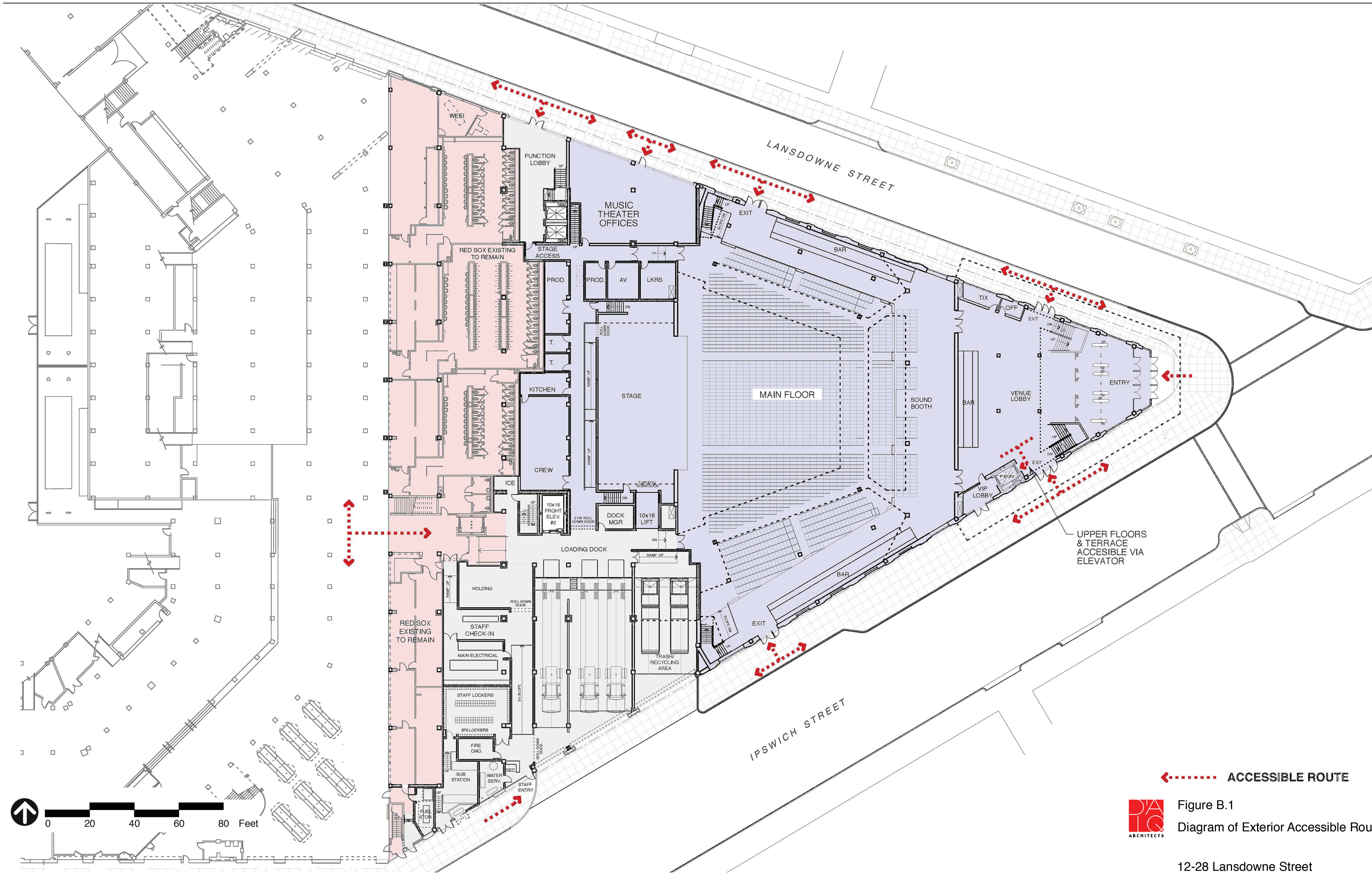


Figure B.1

Diagram of Exterior Accessible Routes

12-28 Lansdowne Street
Boston, Massachusetts

This Page Left Intentionally Blank

Climate Resiliency Checklist

NOT FOR FILING

NOTE: Project filings should be prepared and submitted using the online Climate Resiliency Checklist.

A.1 - Project Information

Project Name:	12 – 28 Lansdowne Street			
Project Address:	12 – 28 Lansdowne Street, Boston MA 02215 (Also having the address 175 Ipswich Street)			
Project Address Additional:				
Filing Type (*select*)	*Initial (PNF, **EPNF**, NPC or other substantial filing)* *Design / Building Permit (prior to final design approval), or* *Construction / Certificate of Occupancy (post construction completion)*			
Filing Contact	*Name* *Kyle*	*Company* *VHB*	*Email* *kgreaves@vhb.com*	*Phone* *617-607-2988*
Is MEPA approval required	*Yes/**NO***		*N/A*	

A.3 - Project Team

Owner / Developer:	175 Ipswich Street, LLC c/o Fenway Sports Group Real Estate
Architect:	D'Agostino Izzo Quirk Architects, Inc. (DAIQ)
Engineer:	WSP
Sustainability / LEED:	WSP
Permitting:	Flink Consulting / VHB
Construction Management:	Gilbane

A.3 - Project Description and Design Conditions

List the principal Building Uses:	Performing arts center, function room, Fenway Park fan amenity space
List the First Floor Uses:	Fenway Theater and back of house areas, lobby, and service and loading areas.
List any Critical Site Infrastructure and or Building Uses:	N/A

Site and Building:

Site Area:	*67,400 SF*	Building Area:	*136,360 GFA*
Building Height:	*Fenway Theater: 67 Ft. Fenway Park Improvements: 67 Ft.*	Building Height:	*Fenway Theater: 3 Stories. Fenway Park Improvements: 4 Stories*
Existing Site Elevation – Low:	*16.79 Ft BCB*	Existing Site Elevation – High:	*18.08 Ft BCB*
Proposed Site Elevation – Low:	*17.00 Ft BCB*	Proposed Site Elevation – High:	*17.75 Ft BCB*
Proposed First Floor Elevation:	*17.00 Ft BCB*	Below grade levels:	*One (1) Story*

Article 37 Green Building:

LEED Version - Rating System :	LEED v4 for: New Construction	LEED Certification:	TBD
Proposed LEED rating:	*Silver*	Proposed LEED point score:	54

Building Envelope:

When reporting R values, differentiate between R discontinuous and R continuous. For example, use "R13" to show R13 discontinuous and use R10c.i. to show R10 continuous. When reporting U value, report total assembly U value including supports and structural elements.

Roof:	*25.0 c.i.*	Exposed Floor:	*10 c.i.*
Foundation Wall:	*7.5 c.i*	Slab Edge (at or below grade):	*10 c.i.*

Vertical Above-grade Assemblies (%'s are of total vertical area and together should total 100%):

Area of Opaque Curtain Wall & Spandrel Assembly:	*0%*	Wall & Spandrel Assembly Value:	*N/A (U)*
Area of Framed & Insulated / Standard Wall:	*84%*	Wall Value	*R18ci (R)*
Area of Vision Window:	*15%*	Window Glazing Assembly Value:	*0.42 (U)*
		Window Glazing SHGC:	*0.4 (SHGC)*
Area of Doors:	*1%*	Door Assembly Value:	*0.42 (U)*

Energy Loads and Performance

For this filing – describe how energy loads & performance were determined	*eQuest energy modeling: Proposed design vs ASHRAE 90.1-2013 App. G baseline with MA Amendments*		
Annual Electric:	*1,558,892 (kWh)*	Peak Electric:	*52 (kW)*
Annual Heating:	*686 (MMbtu/hr)*	Peak Heating:	*24.6 (MMbtu)*
Annual Cooling:	*49,083 (Tons/hr)*	Peak Cooling:	*70.4 (Tons)*
Energy Use - Below ASHRAE 90.1 - 2013:	*21%*	Have the local utilities reviewed the building energy performance?:	*Not yet*
Energy Use - Below Mass. Code:	*17.2%*	Energy Use Intensity:	*37 (kBtu/SF)*

Back-up / Emergency Power System

Electrical Generation Output:	*500 (kW)*	Number of Power Units:	1
System Type:	*Diesel (kW)*	Fuel Source:	Diesel

Emergency and Critical System Loads (in the event of a service interruption)

Electric:	*400 (kW)*	Heating:	*N/A*
		Cooling:	*N/A)*

B – Greenhouse Gas Reduction and Net Zero / Net Positive Carbon Building Performance

Reducing GHG emissions is critical to avoiding more extreme climate change conditions. To achieve the City's goal of carbon neutrality by 2050 new buildings performance will need to progressively improve to net carbon zero and positive.

B.1 – GHG Emissions - Design Conditions

For this Filing - Annual Building GHG Emissions:	*620 Short Tons/Year*

For this filing - describe how building energy performance has been integrated into project planning, design, and engineering and any supporting analysis or modeling:

The Project components will be designed to be energy efficient to the extent possible. Buildings will include a high-performance envelope designed specifically for the building use and orientation. The Proponent plans to register the proposed buildings with the ENERGY STAR Portfolio Manager® program to record and monitor whole-building electricity, gas, and water use.

Describe building specific passive energy efficiency measures including orientation, massing, envelop, and systems:

The Fenway Theater building will include a high-performance envelope designed specifically for the building use and orientation. The Fenway Theater includes minimal fenestration due to program, reducing heating and cooling demand from the environment.

Describe building specific active energy efficiency measures including equipment, controls, fixtures, and systems:

The Project aims to achieve a reduction in stationary source CO_2 emissions below an ASHRAE 90.1-2013 baseline, currently estimated at seventeen (17) percent, by reducing overall energy consumption through the incorporation of Energy Efficiency Measures ("EEMs") and energy-efficient design strategies, such as:

- High-performance glazing and increased insulation;
- Condenser water plant that exceeds base energy code efficiency with variable speed technology;
- High-efficiency chillers with variable speed compressors;
- Low lighting power density;
- Ventilation air heat recovery;
- Commissioning to help ensure major energy-using equipment is installed correctly.

Whole building energy modeling was used for a preliminary analysis of possible energy efficient measures. Proposed HVAC systems significantly increase energy performance over MA Stretch Code baseline by incorporating variable air volume distribution and variable speed chilled water pumping.

Describe building specific load reduction strategies including on-site renewable, clean, and energy storage systems:

A variety of clean and renewable energy sources will continue to be evaluated including solar PV, battery energy storage for peak demand reduction, and cogeneration in the form of Combined Heat and Power (CHP). While not included in the base design assumptions of the preliminary energy models, these systems will continue to be evaluated as the Project design advances. The proposed building design achieves the energy savings and GHG reductions shown here without these systems included in the preliminary energy models.

Combined Heat and Power (CHP)
CHP systems are most efficient when there is a hot water demand year-round, so this technology has limited applicability for this Project. The Project team has not identified a suitable hot water demand that can be connected to the system (i.e. a laundry or shower load), and therefore is not exploring the feasibility of implementing a CHP system at this time.

Solar Photovoltaic (PV) System
Preliminary analysis indicates up to 70 kW of PV array could be installed on the Project Site. The system would generate an estimated 77,000 kWh per year of electricity, which could reduce the annual energy consumption of the Project by about five (5) percent.

A detailed technical analysis will be included in subsequent design phases, and will include details on economic feasibility and payback for all available federal and state incentives. The building will, at a minimum, be designed to be solar-ready; however, the Proponent will continue to explore a PV system for the Project as the design progresses.

Battery Energy Storage System
The Proponent is considering incorporating a battery energy storage system into the Project. On-site energy storage has the potential to reduce peak electrical demand, significantly reducing energy cost for the owner and minimizing impact of the new building to the local utility network.

A detailed technical analysis will be included in subsequent design phases and will take into account building peak load draw and duration, and any on-site renewables deemed feasible for the Project. Coordination with Eversource is currently underway to determine the regulations and financial incentives applicable to the Project.

Describe any area or district scale emission reduction strategies including renewable energy, central energy plants, distributed energy systems, and smart grid infrastructure:

N/A

Describe any energy efficiency assistance or support provided or to be provided to the project:

The Proponent has held initial meetings with representatives of local utility companies serving the area to discuss the potential utility incentives programs available for each building and will continue to work with these utilities throughout the design process.

B.2 - GHG Reduction - Adaptation Strategies

Describe how the building and its systems will evolve to further reduce GHG emissions and achieve annual carbon net zero and net positive performance (e.g. added efficiency measures, renewable energy, energy storage, etc.) and the timeline for meeting that goal (by 2050):

Strategies to potentially achieve carbon net zero or net positive performance need to be evaluated further for the Proposed Project.

C - Extreme Heat Events

Annual average temperature in Boston increased by about 2˚F in the past hundred years and will continue to rise due to climate change. By the end of the century, the average annual temperature could be 56° (compared to 46° now) and the number of days above 90° (currently about 10 a year) could rise to 90.

C.1 – Extreme Heat - Design Conditions

Temperature Range - Low:	7 ºF	Temperature Range - High:	87ºF
Annual Heating Degree Days:	5512	Annual Cooling Degree Days	776

What Extreme Heat Event characteristics will be / have been used for project planning

Days - Above 90°:	15	Days – Above 100°:	0
Number of Heatwaves / Year:	1 per year	Average Duration of Heatwave (Days):	3

Describe all building and site measures to reduce heat-island effect at the site and in the surrounding area:

At the street level, the Proponent aims to reduce the heat island effect through the use of reflective roof materials and light-colored paving materials and integration of street trees.

C.2 - Extreme Heat – Adaptation Strategies

Describe how the building and its systems will be adapted to efficiently manage future higher average temperatures, higher extreme temperatures, additional annual heatwaves, and longer heatwaves:

Incorporation of reflective roof materials and/or vegetated roofs will reduce heat island effect in Project vicinity. The Project's design team will run the HVAC load calculations to make sure that building systems can maintain safe indoor temperatures during heat wave conditions. This analysis will account for cooling capacity of the HVAC system, and building envelope performance.

Describe all mechanical and non-mechanical strategies that will support building functionality and use during extended interruptions of utility services and infrastructure including proposed and future adaptations:

- This building is not intended to be used as an event space during extended interruptions of utility services.
- As part of the energy modeling process, climate files that reflect the predicted increase in temperature will be used to better understand how the buildings and their systems would perform under different climate conditions. (This understanding may then be considered when designing major plant and overall HVAC systems.)
- The Proponent is exploring a variety of clean and renewable energy sources that could provide backup power in the event of an outage. Backup power coupled with peak demand reduction capability and flexible HVAC system control would allow the buildings to run HVAC system to create safe indoor temperatures for occupants in the case of a simultaneous heat wave and grid outage, which could enable the use of the space as a place of refuge.

D - Extreme Precipitation Events

From 1958 to 2010, there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-Year, 24-Hour Design Storm precipitation level is 5.25”. There is a significant probability that this will increase to at least 6” by the end of the century. Additionally, fewer, larger storms are likely to be accompanied by more frequent droughts.

D.1 – Extreme Precipitation - Design Conditions:

10 Year, 24 Hour Design Storm: 6.0 inches

Describe all building and site measures for reducing storm water run-off:

The Project will cover the majority of the Project Site. As such, in the proposed condition, the majority of rainfall will be collected on the roofs and will not flow overland. The stormwater runoff from the roof areas will be directed to stormwater detention facilities via a series of roof drains. This will reduce the peak discharge rate of runoff from the Project Site. The Proponent will also explore opportunities to infiltrate a portion of the stormwater runoff collected from the proposed roof areas. This would significantly reduce the volume of and improve the quality of stormwater runoff from the Project Site compared to existing conditions, and would include groundwater recharge in accordance with provisions applicable to the GCOD to the maximum extent practicable.

D.2 - Extreme Precipitation - Adaptation Strategies

Describe how site and building systems will be adapted to efficiently accommodate future more significant rain events (e.g. rainwater harvesting, on-site storm water retention, bio swales, green roofs):

Refer to the response to D.1 above. The Project is anticipated to make use of on-site stormwater retention in order to reduce the peak discharge rate of runoff. The Proponent will explore opportunities to infiltrate a portion of the stormwater runoff collected from the proposed roof areas in order to reduce the volume of stormwater runoff from the Project Site.

E – Sea Level Rise and Storms

Under any plausible greenhouse gas emissions scenario, sea levels in Boston will continue to rise throughout the century. This will increase the number of buildings in Boston susceptible to coastal flooding and the likely frequency of flooding for those already in the floodplain.

Is any portion of the site in a FEMA SFHA? NO

What Zone:

Current FEMA SFHA Zone Base Flood Elevation:

Is any portion of the site in a BPDA Sea Level Rise - Flood Hazard Area? Use the online BPDA SLR-FHA Mapping Tool to assess the susceptibility of the project site. NO

If you answered YES to either of the above questions, please complete the following questions.
Otherwise you have completed the questionnaire; thank you!

E.1 – Sea Level Rise and Storms – Design Conditions

Proposed projects should identify immediate and future adaptation strategies for managing the flooding scenario represented on the BPDA Sea Level Rise - Flood Hazard Area (SLR-FHA) map, which depicts a modeled 1% annual chance coastal flood event with 40 inches of sea level rise (SLR). Use the online BPDA SLR-FHA Mapping Tool to identify the highest Sea Level Rise - Base Flood Elevation for the site. The Sea Level Rise - Design Flood Elevation is determined by adding either 24” of freeboard for critical facilities and infrastructure and any ground floor residential units OR 12” of freeboard for other buildings and uses.

Sea Level Rise - Base Flood Elevation:	*Ft BCB*		
Sea Level Rise - Design Flood Elevation:	*Ft BCB*	First Floor Elevation:	*Ft BCB*
Site Elevations at Building:	*Ft BCB*	Accessible Route Elevation:	*Ft BCB*

Describe site design strategies for adapting to sea level rise including building access during flood events, elevated site areas, hard and soft barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Describe how the proposed Building Design Flood Elevation will be achieved including dry / wet flood proofing, critical systems protection, utility service protection, temporary flood barriers, waste and drain water back flow prevention, etc.:

Describe how occupants might shelter in place during a flooding event including any emergency power, water, and waste water provisions and the expected availability of any such measures:

Describe any strategies that would support rapid recovery after a weather event:

E.2 – Sea Level Rise and Storms – Adaptation Strategies

Describe future site design and or infrastructure adaptation strategies for responding to sea level rise including future elevating of site areas and access routes, barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Describe future building adaptation strategies for raising the Sea Level Rise Design Flood Elevation and further protecting critical systems, including permanent and temporary measures:

A pdf and word version of the Climate Resiliency Checklist is provided for informational use and off-line preparation of a project submission. NOTE: Project filings should be prepared and submitted using the online Climate Resiliency Checklist.

For questions or comments about this checklist or Climate Change best practices, please contact: John.Dalzell@boston.gov

This Page Left Intentionally Blank

Appendix C: Greenhouse Gas Emissions Supporting Documentation

This Page Left Intentionally Blank

12 - 28 Lansdowne Street - Energy Model Results
Annual Energy Use Breakdown (Baseline2013 v/s Proposed)

End Use	Unit	Fuel Type	ASHRAE 90.1-2013 (MA Energy Code)	Proposed Design
Interior Lighting	MMBtu	Electricity	2,356.0	2,094.0
Exterior Lighting	MMBtu	Electricity	0.0	0.0
Space Heating (electric)	MMBtu	Electricity	0.0	0.0
Space Heating (gas)	MMBtu	Natural Gas	1,004.0	686.3
Cooling Energy	MMBtu	Electricity	672.9	588.9
Pumps	MMBtu	Electricity	572.1	233.3
Heat Rejection	MMBtu	Electricity	13.7	11.3
Interior Fans	MMBtu	Electricity	1,682.0	1,345.0
Plug Loads	MMBtu	Electricity	1,048.0	1,048.0
DHW	MMBtu	Natural Gas	440.9	441.0
Electricity Total	MMBtu	Electricity	6,344.7	5,320.5
Gas Total	MMBtu	Natural Gas	1,444.9	1,127.3
Total Energy Consumption	MMBtu	Compare to ASHRAE 90.1-2013 (MA Energy Code)	7,789.6	6,447.8
Energy Consumption Reduction	%		0.0%	17.2%

12 - 28 Lansdowne Street

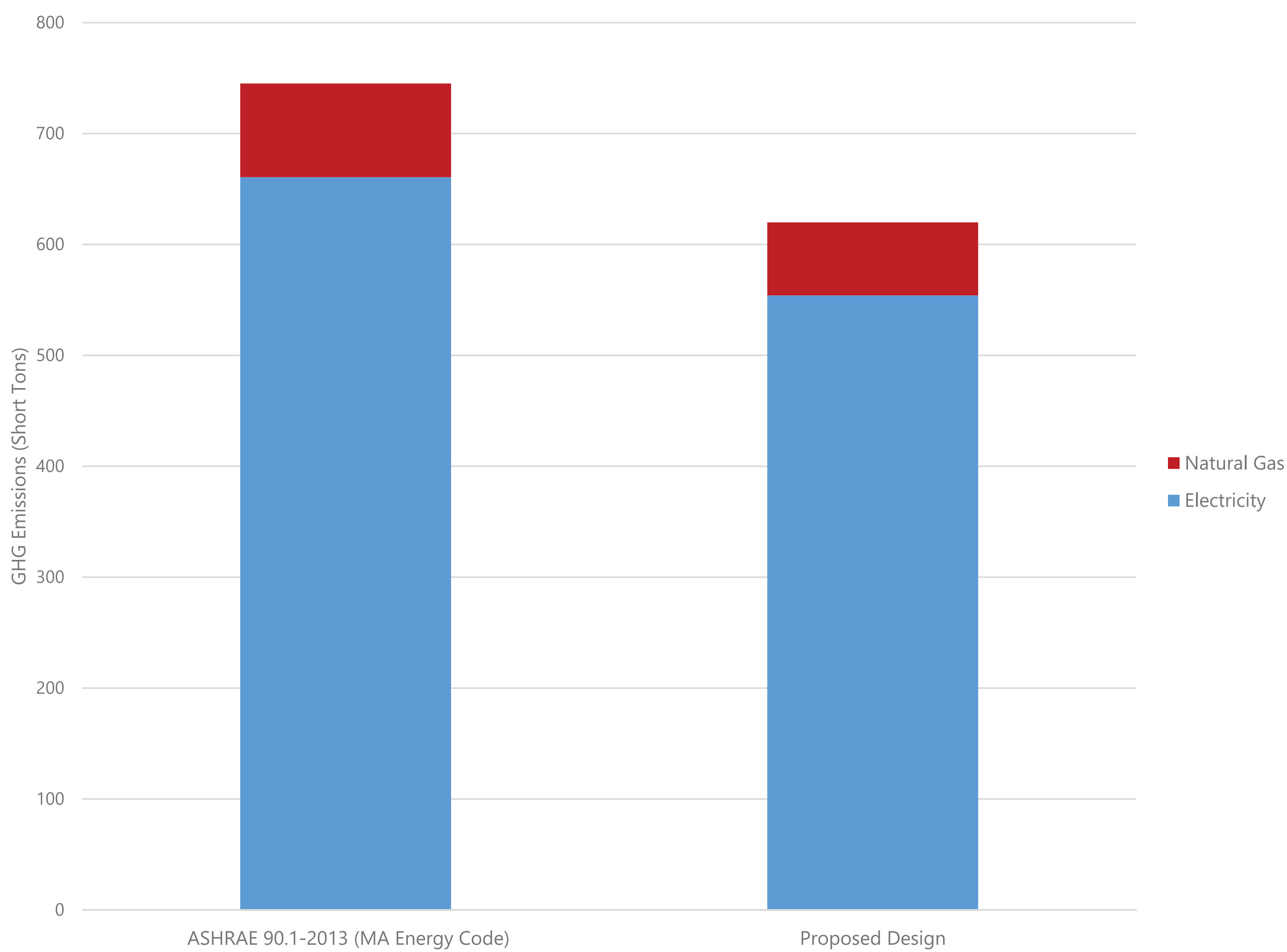
Energy Consumption			
	Electricity (MBtu)	Natural Gas (MBtu)	Total (kBtu/sf)
Base Case (ASHRAE 90.1-2013)	6,345	1,445	45
Design Case	5,321	1,127	37
Savings	1,024	318	8
Savings Target	-	-	10%
Percent Savings	16%	22%	17%

GHG Emission			
	Electricity (tpy)	Natural Gas (tpy)	Total (tpy)
Base Case (ASHRAE 90.1-2013)	660.6	84.5	745
Design Case	554.0	65.9	620
Savings	106.6	18.6	125
Percent Savings	16%	22%	17%

Notes:

Electricity conversion factor 710 lbs/MWh from 2016 ISO New England Electric Generator Air Emissions Report

Natural gas converstion factor 117 lbs/MMBtu from US Energy Information Adminstration


GHG Emissions (Short Tons)
800
700
600
500
400
300
200
100
0
ASHRAE 90.1-2013 (MA Energy Code)
Proposed Design
Natural Gas
Electricity

This Page Left Intentionally Blank

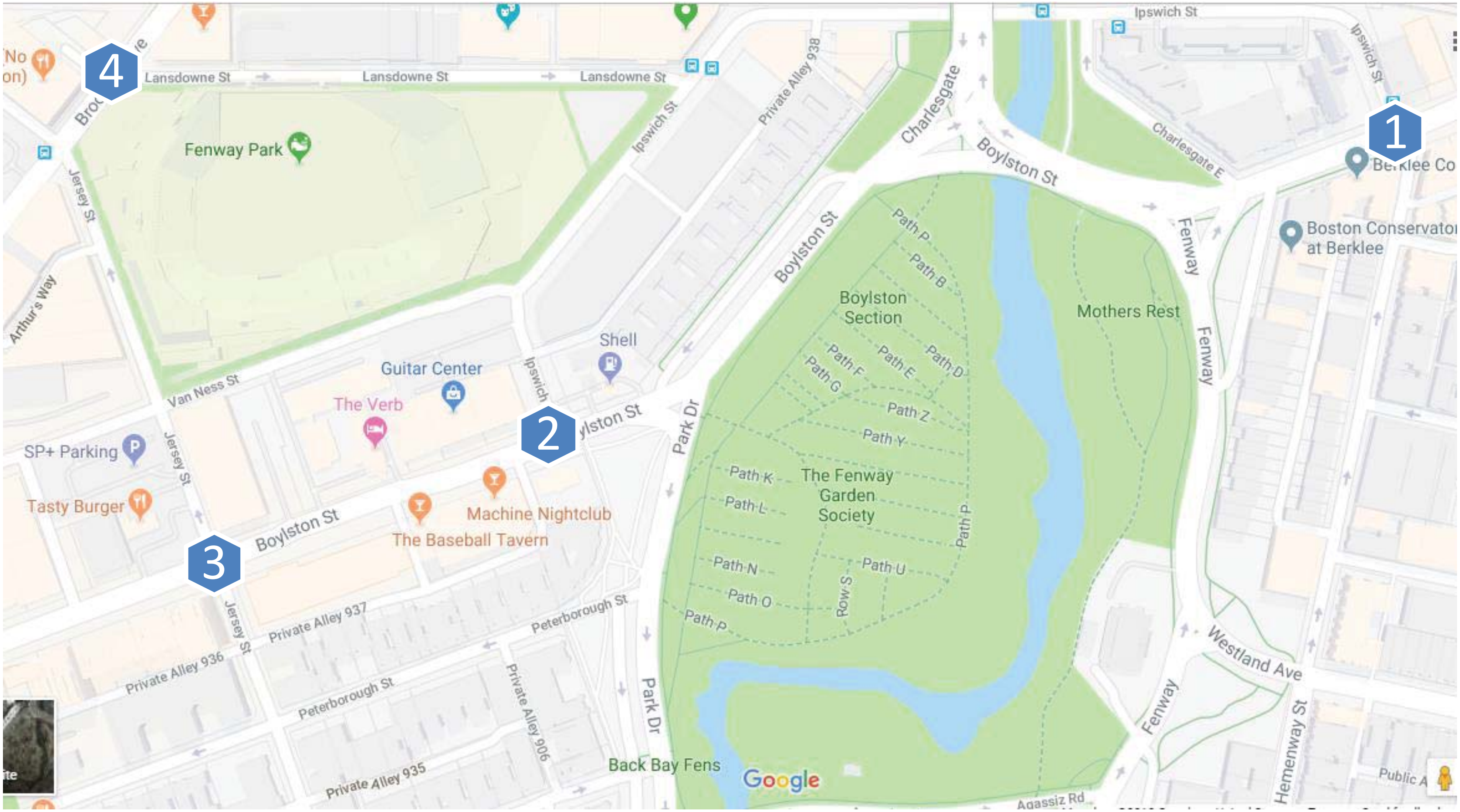
Appendix D: Transportation Supporting Documentation

Materials are provided on the enclosed CD-ROM.

Contents

- **Turning Movement Counts (TMC) and Automatic Traffic Recorder (ATR) Data**
- **No-Build Project Descriptions**
- **Synchro Outputs**
- **Loading Dock Turning Movement Analysis**

Turning Movement Counts (TMC) and Automatic Traffic Recorder (ATR)Data



Map Credit: Google.com

BOSTON TRAFFIC DATA	BTD ID: 255_001_ FLINK	Fenway Park, MA	# of TMC's: 04	Client: Flink Consulting, LLC
		Collected on Sept 26 to 28, 2018	# of ATR's: 00	Contact: Ruth Bonsignore

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 1
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Ipswich Street/ Hemenway Street
Count Date:	9/26/2018
Day of Week:	Wednesday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	42	24	25	0	39	0	50	0	4	53	0	0	0	19	10
4:45 PM	0	51	28	30	0	37	0	42	0	3	55	0	0	0	21	13
5:00 PM	0	54	30	32	0	36	0	30	0	2	59	0	0	0	24	14
5:15 PM	0	58	34	37	0	32	0	30	0	5	61	0	0	0	29	17
5:30 PM	0	62	38	42	0	24	0	17	0	9	65	0	0	0	31	19
5:45 PM	0	54	39	38	0	22	0	21	0	6	63	0	0	0	28	20
6:00 PM	0	38	41	27	0	24	0	25	0	4	57	0	0	0	22	22
6:15 PM	0	46	56	25	0	39	0	23	0	7	59	0	0	0	27	21
6:30 PM	0	52	59	21	0	45	0	24	0	8	64	0	0	0	29	19
6:45 PM	0	48	57	20	0	41	0	22	0	6	62	0	0	0	28	17

PM PEAK HOUR	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
5:00 PM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
6:00 PM	**0**	**228**	**141**	**149**	**0**	**114**	**0**	**98**	**0**	**22**	**248**	**0**	**0**	**0**	**112**	**70**
PHF	**0.91**				**0.80**				**0.91**				**0.91**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**13.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 1
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Ipswich Street/ Hemenway Street
Count Date:	9/26/2018
Day of Week:	Wednesday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	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	1	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
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

PM PEAK HOUR 5:15 PM to 6:15 PM	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**2**	**0**	**0**
PHF	**0.00**				**0.00**				**0.75**				**0.50**			

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 1
Location: Fenway Park, MA
Street 1: Boylston Street
Street 2: Ipswich Street/ Hemenway Street
Count Date: 9/26/2018
Day of Week: Wednesday
Weather: Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	0	0	114	7	1	0	133	0	1	0	76	0	0	9	57	
4:45 PM	1	1	0	86	8	1	0	101	0	0	0	58	0	1	9	43	
5:00 PM	0	2	0	48	9	2	0	56	0	1	0	32	0	1	8	24	
5:15 PM	1	2	0	54	7	1	0	63	0	1	0	36	0	1	7	27	
5:30 PM	0	1	0	60	6	2	0	70	0	0	0	40	0	2	8	30	
5:45 PM	1	2	1	75	5	2	0	88	0	1	0	50	0	2	9	37	
6:00 PM	1	2	1	90	7	1	0	105	0	2	0	60	0	1	9	45	
6:15 PM	1	1	0	93	8	1	0	109	0	2	0	62	0	0	8	46	
6:30 PM	1	2	0	96	9	1	0	112	0	2	0	64	0	3	7	48	
6:45 PM	0	0	2	92	8	2	0	107	0	1	0	61	0	2	6	45	

PM PEAK HOUR[1]	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
5:00 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
6:00 PM	2	7	1	237	27	7	0	277	0	3	0	158	0	6	32	118	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 1
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Ipswich Street/ Hemenway Street
Count Date:	9/27/2018
Day of Week:	Thursday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	40	17	29	0	19	0	7	0	0	84	0	0	0	21	10
4:45 PM	0	46	28	26	0	18	0	9	0	3	91	0	0	0	19	22
5:00 PM	0	48	30	25	0	17	0	9	0	5	93	0	0	0	18	24
5:15 PM	0	45	29	26	0	30	0	11	0	4	89	0	0	1	23	18
5:30 PM	0	37	28	27	0	32	0	12	0	4	80	0	0	0	27	10
5:45 PM	0	35	33	25	0	30	0	10	1	7	90	0	0	0	25	16
6:00 PM	0	37	38	24	0	25	0	7	2	8	95	0	0	1	18	18
6:15 PM	0	32	35	31	0	22	0	16	2	7	97	0	0	0	22	17
6:30 PM	0	28	28	34	0	18	0	23	1	5	100	0	0	0	23	17
6:45 PM	0	27	29	33	0	19	0	19	0	5	96	0	0	0	21	16

PM PEAK HOUR 5:30 PM to 6:30 PM	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**141**	**134**	**107**	**0**	**109**	**0**	**45**	**5**	**26**	**362**	**0**	**0**	**1**	**92**	**61**
PHF	**0.96**				**0.88**				**0.93**				**0.94**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**1.1%**	**0.0%**

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 1
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Ipswich Street/ Hemenway Street
Count Date:	9/27/2018
Day of Week:	Thursday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	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
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:15 PM	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
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
5:00 PM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
PHF	**0.00**				**0.00**				**0.50**				**0.00**			

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 1
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Ipswich Street/ Hemenway Street
Count Date:	9/27/2018
Day of Week:	Thursday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	0	0	16	3	1	0	25	0	3	0	18	0	3	4	11	
4:45 PM	1	0	1	25	1	0	1	35	0	1	1	25	1	1	4	15	
5:00 PM	0	0	0	30	1	0	0	42	1	2	0	30	0	2	5	18	
5:15 PM	1	1	1	31	2	1	0	46	0	0	2	33	0	3	5	20	
5:30 PM	0	0	0	35	3	2	0	49	1	3	0	35	1	5	5	21	
5:45 PM	0	1	1	36	1	1	1	51	1	2	1	36	0	3	6	22	
6:00 PM	1	1	1	36	1	2	0	53	1	1	1	38	1	2	4	23	
6:15 PM	1	1	0	34	2	0	0	47	0	2	1	34	0	3	9	20	
6:30 PM	1	1	1	26	2	2	0	39	2	2	1	28	0	2	7	17	
6:45 PM	0	0	0	30	3	1	0	42	0	6	0	30	0	4	6	18	

PM PEAK HOUR[1]	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
5:30 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
6:30 PM	2	3	2	141	7	5	1	200	3	8	3	143	2	13	24	86	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 1
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Ipswich Street/ Hemenway Street
Count Date:	9/28/2018
Day of Week:	Friday
Weather:	Mostly Cloudy, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	35	55	29	0	22	0	28	0	6	78	0	0	0	22	22
4:45 PM	0	56	48	28	0	31	0	34	0	5	67	0	0	0	21	21
5:00 PM	0	65	33	26	0	35	0	36	0	2	50	0	0	0	18	22
5:15 PM	0	60	39	30	0	33	0	33	0	4	55	0	0	0	24	20
5:30 PM	0	42	41	31	0	33	0	21	0	5	59	0	0	0	26	23
5:45 PM	0	43	51	28	0	44	0	22	0	4	53	0	0	0	23	33
6:00 PM	0	42	54	25	0	46	0	24	0	5	40	0	0	0	24	38
6:15 PM	0	44	50	27	0	40	0	20	0	5	43	0	0	0	29	41
6:30 PM	0	44	47	26	0	33	0	16	0	6	45	0	0	0	33	44
6:45 PM	0	40	45	26	0	31	0	15	0	5	41	0	0	0	30	38

PM PEAK HOUR	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
4:30 PM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
5:30 PM	**0**	**216**	**175**	**113**	**0**	**121**	**0**	**131**	**0**	**17**	**250**	**0**	**0**	**0**	**85**	**85**
PHF	**0.95**				**0.89**				**0.79**				**0.97**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.2%**	**0.0%**	**0.0%**	**0.0%**	**3.5%**	**1.2%**

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 1
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Ipswich Street/ Hemenway Street
Count Date:	9/28/2018
Day of Week:	Friday
Weather:	Mostly Cloudy, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
4:30 PM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**1**
PHF	**0.00**				**0.00**				**0.75**				**0.50**			

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 1
Location: Fenway Park, MA
Street 1: Boylston Street
Street 2: Ipswich Street/ Hemenway Street
Count Date: 9/28/2018
Day of Week: Friday
Weather: Mostly Cloudy, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	0	0	61	7	1	0	57	0	1	0	41	0	0	9	44	
4:45 PM	1	1	0	77	8	1	0	71	0	0	0	51	0	1	9	56	
5:00 PM	0	2	0	90	9	2	0	84	0	1	0	60	0	1	8	67	
5:15 PM	1	3	0	83	7	3	0	77	0	7	0	55	0	1	7	60	
5:30 PM	0	1	0	67	11	2	0	62	0	6	0	44	0	3	11	49	
5:45 PM	1	2	1	101	5	2	0	94	0	6	0	67	0	6	12	73	
6:00 PM	1	2	1	121	7	2	0	113	0	4	0	80	0	6	12	88	
6:15 PM	1	2	0	102	8	4	0	95	0	2	0	68	0	1	13	75	
6:30 PM	1	2	0	74	9	1	0	69	0	4	0	49	0	3	7	54	
6:45 PM	0	2	2	76	8	3	0	71	0	3	0	51	0	2	9	56	

PM PEAK HOUR[1]	Hemenway Street Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
4:30 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
5:30 PM	2	6	0	311	31	7	0	289	0	9	0	207	0	3	33	227	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 2
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Ipswich Street/Gas Station Driveway
Count Date:	9/26/2018
Day of Week:	Wednesday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	0	3	0	58	0	31	0	5	257	2	0	2	152	31
4:45 PM	0	0	0	2	0	53	0	48	0	7	289	1	0	3	153	39
5:00 PM	0	0	0	2	0	30	0	56	0	9	292	1	0	4	154	44
5:15 PM	0	0	0	0	0	35	1	51	0	12	289	1	0	4	179	40
5:30 PM	0	1	0	0	0	37	0	45	0	14	249	2	0	4	187	33
5:45 PM	0	0	1	0	0	39	0	49	0	15	258	2	0	3	178	40
6:00 PM	0	0	0	0	0	41	1	50	0	17	265	0	0	3	140	43
6:15 PM	0	1	0	0	0	44	0	49	0	15	250	3	0	2	141	51
6:30 PM	0	0	1	0	0	45	0	42	0	13	194	4	0	3	142	54
6:45 PM	0	0	0	0	0	42	0	40	0	14	189	2	0	2	139	52

PM PEAK HOUR	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
4:45 PM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
5:45 PM	**0**	**1**	**0**	**4**	**0**	**155**	**1**	**200**	**0**	**42**	**1119**	**5**	**0**	**15**	**673**	**156**
PHF	**0.63**				**0.88**				**0.97**				**0.94**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.0%**

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 2
Location: Fenway Park, MA
Street 1: Boylston Street
Street 2: Ipswich Street/Gas Station Driveway
Count Date: 9/26/2018
Day of Week: Wednesday
Weather: Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:00 PM	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
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
4:30 PM to 5:30 PM	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**2**	**0**
PHF	**0.00**				**0.00**				**0.75**				**0.50**			

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 2
Location: Fenway Park, MA
Street 1: Boylston Street
Street 2: Ipswich Street/Gas Station Driveway
Count Date: 9/26/2018
Day of Week: Wednesday
Weather: Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	0	0	0	1	0	2	90	0	1	0	86	0	0	1	44	
4:45 PM	0	0	0	0	1	0	2	83	0	2	0	79	0	1	2	40	
5:00 PM	0	0	0	0	2	0	1	52	0	5	0	49	0	1	2	25	
5:15 PM	0	0	0	0	3	0	3	49	0	3	0	47	0	0	3	24	
5:30 PM	0	0	0	0	3	0	4	50	0	3	0	47	0	1	2	24	
5:45 PM	0	0	0	0	2	0	2	46	0	2	0	43	0	1	3	22	
6:00 PM	0	0	0	0	5	0	1	37	0	3	0	35	0	0	0	18	
6:15 PM	0	0	0	0	2	0	2	45	0	2	0	43	0	1	0	21	
6:30 PM	0	0	0	0	1	0	1	47	0	1	0	45	0	0	0	23	
6:45 PM	0	0	0	0	0	0	4	43	0	0	0	41	0	1	0	22	

PM PEAK HOUR[1]	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
4:45 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
5:45 PM	0	0	0	0	9	0	10	234	0	13	0	222	0	3	9	113	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 2
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Ipswich Street/Gas Station Driveway
Count Date:	9/27/2018
Day of Week:	Thursday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	0	4	0	43	0	15	0	6	317	0	0	2	181	10
4:45 PM	0	0	2	6	0	35	0	21	0	5	333	0	0	2	210	8
5:00 PM	0	0	1	6	0	21	0	23	0	4	350	0	0	1	217	6
5:15 PM	0	0	2	12	0	30	1	20	0	7	346	0	0	1	209	9
5:30 PM	0	0	3	14	0	31	0	15	0	8	303	0	0	1	205	12
5:45 PM	0	1	0	13	0	29	0	17	0	8	298	0	0	0	219	11
6:00 PM	0	0	0	11	0	30	0	18	0	9	272	0	0	0	228	15
6:15 PM	0	0	0	11	0	31	0	19	0	11	267	0	0	1	222	17
6:30 PM	0	1	0	6	0	32	1	21	1	10	228	0	0	1	170	19
6:45 PM	0	0	0	7	0	30	0	20	0	9	225	0	0	0	176	18

PM PEAK HOUR	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
4:45 PM to 5:45 PM	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**8**	**38**	**0**	**117**	**1**	**79**	**0**	**24**	**1332**	**0**	**0**	**5**	**841**	**35**
PHF	**0.68**				**0.88**				**0.96**				**0.98**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**0.0%**

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 2
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Ipswich Street/Gas Station Driveway
Count Date:	9/27/2018
Day of Week:	Thursday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	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	1	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
5:15 PM	0	0	0	0	0	1	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
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
6:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR 5:00 PM to 6:00 PM	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**
PHF	**0.00**				**0.25**				**0.50**				**0.50**			

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 2
Location: Fenway Park, MA
Street 1: Boylston Street
Street 2: Ipswich Street/Gas Station Driveway
Count Date: 9/27/2018
Day of Week: Thursday
Weather: Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	0	0	0	0	0	1	16	0	1	1	3	0	0	0	20	
4:45 PM	0	0	0	0	1	0	0	30	0	2	0	8	0	1	0	38	
5:00 PM	0	0	0	0	1	0	1	31	0	1	0	7	0	0	0	39	
5:15 PM	0	0	0	0	0	0	2	32	0	1	1	8	0	1	0	41	
5:30 PM	0	0	0	0	1	0	1	34	0	2	0	8	0	0	0	42	
5:45 PM	0	0	0	0	0	0	2	33	0	2	0	9	0	1	0	41	
6:00 PM	0	0	0	0	1	0	1	32	0	2	1	8	0	0	0	40	
6:15 PM	0	0	0	0	1	0	1	31	0	3	0	9	0	2	0	39	
6:30 PM	0	0	0	0	1	0	0	29	0	3	1	7	0	1	0	36	
6:45 PM	0	0	0	0	0	0	1	29	0	2	1	7	0	1	0	37	

PM PEAK HOUR[1]	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
4:45 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
5:45 PM	0	0	0	0	3	0	4	127	0	6	1	31	0	2	0	160	

[1] *Peak hours corresponds to vehicular peak hours.*

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 2
Location: Fenway Park, MA
Street 1: Boylston Street
Street 2: Ipswich Street/Gas Station Driveway
Count Date: 9/28/2018
Day of Week: Friday
Weather: Mostly Cloudy, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	0	2	0	63	0	58	0	12	270	1	0	4	150	33
4:45 PM	0	0	1	3	0	34	0	55	0	15	266	2	0	3	148	46
5:00 PM	0	0	1	2	0	39	1	35	1	16	260	1	0	4	147	51
5:15 PM	0	0	0	3	0	36	1	44	0	17	278	1	0	3	166	60
5:30 PM	0	1	0	4	0	39	1	48	0	17	288	0	0	2	175	63
5:45 PM	0	2	1	4	0	42	2	50	0	14	270	1	0	2	169	59
6:00 PM	0	1	1	2	0	44	1	51	0	8	263	1	1	3	145	46
6:15 PM	0	1	1	7	0	45	1	49	0	10	256	0	0	9	190	86
6:30 PM	0	1	1	11	0	46	0	41	1	11	206	0	3	14	205	100
6:45 PM	0	1	0	8	0	42	0	39	0	9	210	0	0	10	199	96

PM PEAK HOUR 5:30 PM to 6:30 PM	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**5**	**3**	**17**	**0**	**170**	**5**	**198**	**0**	**49**	**1077**	**2**	**1**	**16**	**679**	**254**
PHF	**0.69**				**0.97**				**0.92**				**0.83**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.0%**

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 2
Location: Fenway Park, MA
Street 1: Boylston Street
Street 2: Ipswich Street/Gas Station Driveway
Count Date: 9/28/2018
Day of Week: Friday
Weather: Mostly Cloudy, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR 4:30 PM to 5:30 PM	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**4**	**0**
PHF	**0.00**				**0.50**				**0.75**				**0.50**			

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 2
Location: Fenway Park, MA
Street 1: Boylston Street
Street 2: Ipswich Street/Gas Station Driveway
Count Date: 9/28/2018
Day of Week: Friday
Weather: Mostly Cloudy, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	0	0	0	0	0	0	42	0	1	1	50	0	1	0	39	
4:45 PM	0	0	0	0	1	0	1	44	0	1	0	52	1	0	0	41	
5:00 PM	0	0	0	0	0	0	0	46	0	1	0	54	0	1	0	43	
5:15 PM	0	0	0	0	1	0	0	45	0	0	1	53	0	1	0	42	
5:30 PM	0	0	0	0	0	0	1	43	0	1	0	51	1	1	0	40	
5:45 PM	0	0	0	0	0	0	2	44	0	0	1	52	1	1	0	41	
6:00 PM	0	0	0	0	1	0	2	45	0	1	0	54	1	0	0	42	
6:15 PM	0	0	0	0	0	0	0	47	0	1	1	56	1	1	0	44	
6:30 PM	0	0	0	0	1	0	1	48	0	0	0	57	0	0	0	45	
6:45 PM	0	0	0	0	0	0	0	47	0	1	0	56	1	1	0	44	

PM PEAK HOUR[1]	Gas Station Driveway Northbound				Ipswich Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
5:30 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
6:30 PM	0	0	0	0	1	0	5	179	0	3	2	213	4	3	0	167	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 3
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Jersey Street
Count Date:	9/26/2018
Day of Week:	Wednesday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	8	4	38	0	1	0	0	0	7	189	9	0	13	139	29
4:45 PM	0	12	5	40	0	0	0	0	0	6	237	9	0	14	178	28
5:00 PM	0	13	6	40	0	0	0	0	0	6	248	10	0	17	180	20
5:15 PM	0	11	5	38	0	1	0	0	0	10	236	11	0	15	188	25
5:30 PM	0	11	6	31	0	0	0	0	0	11	230	9	0	11	194	27
5:45 PM	0	9	7	30	0	0	0	0	0	17	228	13	0	11	190	25
6:00 PM	0	6	7	32	0	0	0	0	0	20	215	17	0	12	172	20
6:15 PM	0	6	6	29	0	0	0	0	0	18	200	20	0	13	170	19
6:30 PM	0	5	5	27	0	0	0	0	0	15	180	21	0	15	150	20
6:45 PM	0	5	6	26	0	0	0	0	0	16	182	19	0	14	155	18

PM PEAK HOUR 5:00 PM to 6:00 PM	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**44**	**24**	**139**	**0**	**1**	**0**	**0**	**0**	**44**	**942**	**43**	**0**	**54**	**752**	**97**
PHF	**0.88**				**0.25**				**0.97**				**0.97**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.5%**	**0.0%**

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 3
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Jersey Street
Count Date:	9/26/2018
Day of Week:	Wednesday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0
5:15 PM	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	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR 4:30 PM to 5:30 PM	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**4**	**0**
PHF	**0.00**				**0.00**				**0.50**				**0.50**			

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 3
Location: Fenway Park, MA
Street 1: Boylston Street
Street 2: Jersey Street
Count Date: 9/26/2018
Day of Week: Wednesday
Weather: Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	0	0	43	0	0	0	53	0	1	0	197	0	3	0	187	
4:45 PM	0	0	1	35	0	0	0	44	0	2	0	163	0	1	1	155	
5:00 PM	0	0	0	22	0	0	0	27	0	2	1	99	0	3	0	94	
5:15 PM	0	1	0	23	0	0	0	28	0	2	0	105	0	3	1	100	
5:30 PM	0	0	0	24	0	0	0	30	0	2	0	111	0	3	0	106	
5:45 PM	0	1	1	26	0	0	0	33	0	1	0	123	0	3	2	117	
6:00 PM	0	0	0	27	0	0	0	34	0	1	1	125	0	5	2	119	
6:15 PM	0	0	1	35	0	0	0	43	0	2	0	159	0	3	1	152	
6:30 PM	0	1	0	38	0	0	0	47	0	1	0	174	0	1	2	166	
6:45 PM	0	0	0	33	0	0	0	41	0	1	0	152	0	5	0	144	

PM PEAK HOUR[1]	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
5:00 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
6:00 PM	0	2	1	95	0	0	0	118	0	7	1	438	0	12	3	417	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 3
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Jersey Street
Count Date:	9/27/2018
Day of Week:	Thursday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	3	3	30	0	0	0	0	0	8	229	15	0	3	179	12
4:45 PM	0	10	4	29	0	0	0	0	0	9	276	12	0	5	209	11
5:00 PM	0	11	4	30	0	0	0	0	0	8	297	10	0	9	212	13
5:15 PM	0	9	5	28	0	0	0	0	0	9	288	7	0	8	211	12
5:30 PM	0	7	6	25	0	0	0	0	0	10	256	8	0	6	212	11
5:45 PM	0	7	5	23	0	0	0	0	0	8	245	11	0	7	215	10
6:00 PM	0	5	2	24	0	0	0	0	0	6	229	14	0	5	218	14
6:15 PM	0	5	3	21	0	0	0	0	0	7	222	12	0	7	203	12
6:30 PM	0	2	3	19	0	0	0	0	0	9	212	12	0	6	180	12
6:45 PM	0	4	3	20	0	0	0	0	0	8	210	13	0	5	182	11

PM PEAK HOUR 4:45 PM to 5:45 PM	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**37**	**19**	**112**	**0**	**0**	**0**	**0**	**0**	**36**	**1117**	**37**	**0**	**28**	**844**	**47**
PHF	**0.93**				**0.00**				**0.94**				**0.98**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.4%**	**0.0%**

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 3
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Jersey Street
Count Date:	9/27/2018
Day of Week:	Thursday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	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	1	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
5:15 PM	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
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR 5:00 PM to 6:00 PM	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**
PHF	**0.00**				**0.00**				**0.00**				**0.50**			

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 3
Location: Fenway Park, MA
Street 1: Boylston Street
Street 2: Jersey Street
Count Date: 9/27/2018
Day of Week: Thursday
Weather: Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	1	0	21	0	0	1	24	0	2	0	26	0	1	0	24	
4:45 PM	0	0	0	39	0	1	0	45	0	1	1	48	0	3	0	46	
5:00 PM	0	1	0	41	0	0	0	47	1	1	0	50	0	2	1	49	
5:15 PM	0	0	0	40	0	0	0	46	0	2	0	49	0	2	0	47	
5:30 PM	0	0	0	33	0	1	0	37	0	1	0	40	0	2	0	39	
5:45 PM	0	1	0	36	0	0	0	41	0	2	1	45	0	2	0	43	
6:00 PM	0	0	0	37	0	1	1	42	0	2	0	45	0	1	1	43	
6:15 PM	0	1	0	36	0	0	0	41	0	2	0	44	0	2	1	43	
6:30 PM	0	0	0	35	0	1	1	40	0	1	0	43	0	1	2	40	

PM PEAK HOUR[1] 4:45 PM to 5:45 PM	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
	0	1	0	153	0	2	0	175	1	5	1	187	0	9	1	181	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 3
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Jersey Street
Count Date:	9/28/2018
Day of Week:	Friday
Weather:	Mostly Cloudy, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	11	6	33	0	0	0	0	0	20	229	10	0	19	184	28
4:45 PM	0	15	7	39	0	0	0	0	0	18	226	12	0	17	200	27
5:00 PM	0	17	7	44	0	0	0	0	0	15	225	14	0	17	205	26
5:15 PM	0	21	6	42	0	0	0	0	0	19	229	13	0	16	210	29
5:30 PM	0	22	5	36	0	0	0	0	0	20	234	8	0	15	211	30
5:45 PM	0	15	4	35	0	0	0	0	0	18	230	10	0	19	190	28
6:00 PM	0	3	3	33	0	0	0	0	0	12	210	11	0	22	173	23
6:15 PM	0	6	5	34	0	0	0	0	0	12	214	16	0	21	170	23
6:30 PM	0	8	6	36	0	0	0	0	0	13	216	23	0	20	168	25
6:45 PM	0	7	5	35	0	0	0	0	0	11	211	20	0	19	169	24

PM PEAK HOUR 4:45 PM to 5:45 PM	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**75**	**25**	**161**	**0**	**0**	**0**	**0**	**0**	**72**	**914**	**47**	**0**	**65**	**826**	**112**
PHF	**0.95**				**0.00**				**0.99**				**0.98**			
HV %	**0.0%**	**1.3%**	**0.0%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.4%**	**0.0%**

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 3
Location: Fenway Park, MA
Street 1: Boylston Street
Street 2: Jersey Street
Count Date: 9/28/2018
Day of Week: Friday
Weather: Mostly Cloudy, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR 4:30 PM to 5:30 PM	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**
PHF	**0.50**				**0.00**				**0.50**				**0.50**			

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 3
Location:	Fenway Park, MA
Street 1:	Boylston Street
Street 2:	Jersey Street
Count Date:	9/28/2018
Day of Week:	Friday
Weather:	Mostly Cloudy, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	0	0	21	0	0	0	28	0	2	1	86	0	3	1	79	
4:45 PM	0	0	1	22	1	0	1	29	0	1	1	88	0	2	0	81	
5:00 PM	0	1	0	22	0	0	0	30	0	1	0	91	0	2	1	84	
5:15 PM	0	1	1	30	0	0	1	40	0	0	1	122	0	1	0	113	
5:30 PM	0	0	0	32	1	0	0	42	0	1	0	128	0	2	0	119	
5:45 PM	0	1	0	31	0	1	0	41	0	1	1	126	0	2	0	116	
6:00 PM	0	0	0	28	0	0	0	36	0	2	0	112	0	1	0	103	
6:15 PM	0	0	0	31	0	0	0	39	0	1	1	120	0	2	1	111	
6:30 PM	0	0	0	33	0	0	0	42	0	1	1	130	0	2	0	120	
6:45 PM	0	1	0	32	0	0	1	42	0	1	0	128	0	2	0	118	

PM PEAK HOUR[1]	Jersey Street Northbound				Jersey Street Southbound				Boylston Street Eastbound				Boylston Street Westbound				
4:45 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
5:45 PM	0	2	2	106	2	0	2	141	0	3	2	429	0	7	1	397	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 4
Location:	Fenway Park, MA
Street 1:	Brookline Avenue
Street 2:	Lansdowne Street
Count Date:	9/26/2018
Day of Week:	Wednesday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	61	2	0	5	33	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	70	2	0	4	40	0	0	1	0	0	0	0	0	0
5:00 PM	0	1	74	2	0	4	70	0	0	2	0	0	0	0	0	0
5:15 PM	1	0	80	1	0	2	77	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	81	1	2	0	88	0	0	0	0	1	0	0	0	0
5:45 PM	0	1	79	0	1	0	96	0	0	0	0	1	0	0	0	0
6:00 PM	0	0	63	0	3	0	98	0	0	0	0	1	0	0	0	0
6:15 PM	0	0	65	0	3	0	98	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	65	0	0	0	105	0	0	0	0	1	0	0	0	0
6:45 PM	0	0	63	0	0	0	108	0	0	0	0	0	0	0	0	0

PM PEAK HOUR	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound			
5:30 PM to 6:30 PM	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	1	**1**	**288**	**1**	**9**	**0**	**380**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**
PHF	**0.88**				**0.96**				**0.75**				**0.00**			
HV %	**0.0%**	**0.0%**	**1.0%**	**0.0%**	**0.0%**	**0.0%**	**0.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 4
Location:	Fenway Park, MA
Street 1:	Brookline Avenue
Street 2:	Lansdowne Street
Count Date:	9/26/2018
Day of Week:	Wednesday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound			
4:30 PM to 5:30 PM	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**6**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.75**				**0.88**				**0.00**				**0.00**			

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 4
Location:	Fenway Park, MA
Street 1:	Brookline Avenue
Street 2:	Lansdowne Street
Count Date:	9/26/2018
Day of Week:	Wednesday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	3	0	98	0	4	0	0	0	0	0	0	0	0	0	880	
4:45 PM	0	4	1	96	1	5	0	0	0	0	0	0	0	0	0	705	
5:00 PM	0	5	0	82	1	2	0	0	0	0	0	0	0	0	1	568	
5:15 PM	0	3	1	85	0	5	0	0	0	0	0	0	1	0	0	536	
5:30 PM	0	4	0	80	0	4	0	0	0	0	0	0	0	0	0	491	
5:45 PM	0	4	1	88	1	5	0	0	0	0	0	0	1	0	1	503	
6:00 PM	0	4	2	71	0	4	0	0	0	0	0	0	0	0	0	524	
6:15 PM	0	5	1	123	0	2	0	0	0	0	0	0	0	0	0	539	
6:30 PM	0	3	2	118	1	1	0	0	0	0	0	0	1	0	0	560	
6:45 PM	0	4	1	131	0	2	0	0	0	0	0	0	0	0	0	555	

PM PEAK HOUR[1] 5:30 PM to 6:30 PM	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound				
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
	0	17	4	362	1	15	0	0	0	0	0	0	1	0	1	2057	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 4
Location:	Fenway Park, MA
Street 1:	Brookline Avenue
Street 2:	Lansdowne Street
Count Date:	9/27/2018
Day of Week:	Thursday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	82	20	0	9	58	0	0	1	1	1	0	0	0	0
4:45 PM	0	0	81	18	0	9	61	0	0	2	0	2	0	0	0	0
5:00 PM	0	0	80	14	0	11	55	0	0	2	0	0	0	0	0	0
5:15 PM	1	0	78	12	0	10	50	0	0	0	1	1	0	0	0	0
5:30 PM	0	1	75	12	1	12	53	0	0	0	0	1	0	0	0	0
5:45 PM	0	1	73	19	1	13	56	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	58	23	1	13	54	0	0	1	0	0	0	0	0	0
6:15 PM	0	1	55	22	0	16	51	0	0	1	0	0	0	0	0	0
6:30 PM	0	1	46	25	2	15	52	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	47	24	0	12	50	0	0	0	0	0	0	0	0	0

PM PEAK HOUR 4:30 PM to 5:30 PM	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	1	**0**	**321**	**64**	**0**	**39**	**224**	**0**	**0**	**5**	**2**	**4**	**0**	**0**	**0**	**0**
PHF	**0.95**				**0.94**				**0.69**				**0.00**			
HV %	**0.0%**	**0.0%**	**1.9%**	**0.0%**	**0.0%**	**0.0%**	**3.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 4
Location:	Fenway Park, MA
Street 1:	Brookline Avenue
Street 2:	Lansdowne Street
Count Date:	9/27/2018
Day of Week:	Thursday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	2	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
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR 4:30 PM to 5:30 PM	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**6**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.50**				**0.67**				**0.00**				**0.00**			

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 4
Location:	Fenway Park, MA
Street 1:	Brookline Avenue
Street 2:	Lansdowne Street
Count Date:	9/27/2018
Day of Week:	Thursday
Weather:	Sun & Clouds, 65°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	3	0	15	1	3	0	0	0	0	0	0	0	0	1	72	
4:45 PM	0	5	1	19	0	10	0	0	0	1	0	0	1	0	0	92	
5:00 PM	0	6	0	21	1	11	0	0	0	0	0	0	0	0	0	96	
5:15 PM	0	5	1	18	0	11	0	0	0	0	0	0	1	0	0	99	
5:30 PM	0	4	1	12	1	12	0	0	0	1	0	0	0	0	0	102	
5:45 PM	0	6	0	13	0	9	0	0	0	0	0	0	0	0	0	98	
6:00 PM	0	4	0	9	0	6	0	0	0	0	0	0	0	0	0	68	
6:15 PM	0	3	0	11	0	5	0	0	0	0	0	0	0	0	0	72	
6:30 PM	0	2	0	11	0	4	0	0	0	0	0	0	0	0	0	73	
6:45 PM	0	2	0	8	0	5	0	0	0	0	0	0	0	0	0	61	

PM PEAK HOUR[1]	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound				
4:30 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
5:30 PM	0	19	2	73	2	35	0	0	0	1	0	0	2	0	1	359	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 4
Location:	Fenway Park, MA
Street 1:	Brookline Avenue
Street 2:	Lansdowne Street
Count Date:	9/28/2018
Day of Week:	Friday
Weather:	Mostly Cloudy, 65°F

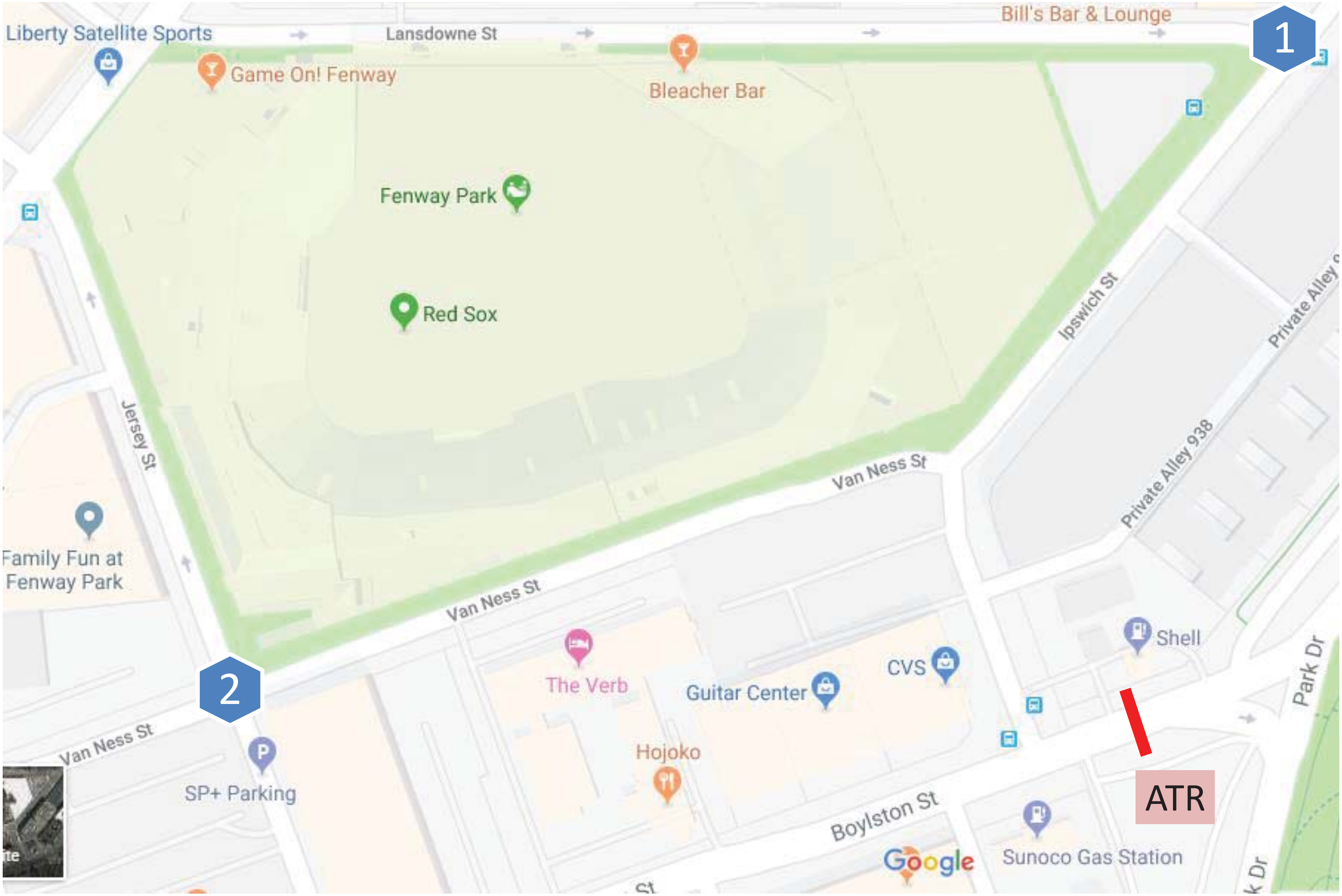
BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:30 PM	0	3	1	65	0	2	0	0	0	0	0	0	0	0	0	542	
4:45 PM	0	3	0	127	1	5	0	0	0	0	0	0	0	0	1	659	
5:00 PM	0	3	1	132	0	4	0	0	0	0	0	0	1	0	0	728	
5:15 PM	0	4	1	138	0	5	0	0	0	0	0	0	0	0	0	711	
5:30 PM	0	4	0	141	0	5	0	0	0	0	0	0	0	0	1	703	
5:45 PM	0	2	0	150	0	6	0	0	0	0	0	0	0	0	0	687	
6:00 PM	0	2	1	155	0	2	0	0	0	0	0	0	0	0	0	697	
6:15 PM	0	2	0	152	0	3	0	0	0	0	0	0	0	0	0	663	
6:30 PM	0	1	0	136	0	2	0	0	0	0	0	0	0	0	0	621	
6:45 PM	0	2	0	144	0	2	0	0	0	0	0	0	0	0	0	589	

PM PEAK HOUR[1]	Brookline Avenue Northbound				Brookline Avenue Southbound				Parking Lot Driveway Eastbound				Lansdowne Street Westbound				
4:30 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
5:30 PM	0	13	3	462	1	16	0	0	0	0	0	0	1	0	1	2640	

[1] *Peak hours corresponds to vehicular peak hours.*



Map Credit: Google.com

BOSTON TRAFFIC DATA	BTD ID: 288_002 _FLINK	Fenway, Boston, MA	# of TMC's: 02	Client: Ruth Bonsignore
		Collected on November 15 to 17, 2018	# of ATR's: 01	Contact: Ruth Bonsignore

Volume Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Thursday, November 29, 2018

Time	Total		EB		WB			Time	Total		EB		WB	
0000	147		80		67			1200	380		200		180	
0015	123		71		52			1215	417		212		205	
0030	109		58		51			1230	464		243		221	
0045	96	475	53	262	43	213		1245	390	1651	204	859	186	792
0100	110		57		53			1300	431		218		213	
0115	73		36		37			1315	380		178		202	
0130	78		40		38			1330	392		204		188	
0145	64	325	40	173	24	152		1345	429	1632	234	834	195	798
0200	59		30		29			1400	408		210		198	
0215	58		33		25			1415	388		201		187	
0230	71		33		38			1430	437		229		208	
0245	60	248	29	125	31	123		1445	426	1659	222	862	204	797
0300	46		24		22			1500	482		257		225	
0315	56		26		30			1515	507		259		248	
0330	49		16		33			1530	476		240		236	
0345	67	218	30	96	37	122		1545	518	1983	286	1042	232	941
0400	70		30		40			1600	465		259		206	
0415	73		30		43			1615	493		275		218	
0430	107		32		75			1630	521		273		248	
0445	133	383	42	134	91	249		1645	458	1937	234	1041	224	896
0500	137		37		100			1700	449		228		221	
0515	255		75		180			1715	473		248		225	
0530	364		131		233			1730	497		281		216	
0545	375	1131	132	375	243	756		1745	460	1879	215	972	245	907
0600	356		145		211			1800	442		240		202	
0615	378		151		227			1815	539		266		273	
0630	446		191		255			1830	465		238		227	
0645	393	1573	166	653	227	920		1845	457	1903	227	971	230	932
0700	435		200		235			1900	418		211		207	
0715	475		217		258			1915	442		232		210	
0730	507		254		253			1930	457		243		214	
0745	523	1940	240	911	283	1029		1945	419	1736	218	904	201	832
0800	451		211		240			2000	357		189		168	
0815	474		214		260			2015	392		209		183	
0830	435		209		226			2030	358		197		161	
0845	477	1837	235	869	242	968		2045	358	1465	189	784	169	681
0900	417		179		238			2100	378		213		165	
0915	506		247		259			2115	339		167		172	
0930	411		204		207			2130	352		175		177	
0945	411	1745	180	810	231	935		2145	308	1377	171	726	137	651
1000	392		177		215			2200	337		174		163	
1015	429		212		217			2215	332		167		165	
1030	421		193		228			2230	319		152		167	
1045	402	1644	198	780	204	864		2245	303	1291	149	642	154	649
1100	350		183		167			2300	269		134		135	
1115	387		202		185			2315	278		131		147	
1130	411		216		195			2330	239		119		120	
1145	400	1548	205	806	195	742		2345	253	1039	131	515	122	524
								Total	**32619**		**16146**		**16473**	

Volume Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Friday, November 30, 2018

Time	Total		EB		WB		Time	Total		EB		WB	
0000	226		121		105		1200	403		212		191	
0015	216		122		94		1215	430		204		226	
0030	171		87		84		1230	415		216		199	
0045	129	742	71	401	58	341	1245	415	1663	211	843	204	820
0100	132		69		63		1300	438		226		212	
0115	128		61		67		1315	414		214		200	
0130	115		56		59		1330	422		210		212	
0145	119	494	68	254	51	240	1345	459	1733	232	882	227	851
0200	109		66		43		1400	391		210		181	
0215	101		56		45		1415	477		244		233	
0230	97		51		46		1430	435		211		224	
0245	80	387	33	206	47	181	1445	406	1709	224	889	182	820
0300	73		34		39		1500	537		279		258	
0315	87		42		45		1515	520		263		257	
0330	59		26		33		1530	489		251		238	
0345	71	290	34	136	37	154	1545	508	2054	261	1054	247	1000
0400	66		33		33		1600	478		255		223	
0415	83		35		48		1615	458		249		209	
0430	130		40		90		1630	512		278		234	
0445	133	412	44	152	89	260	1645	482	1930	265	1047	217	883
0500	185		64		121		1700	516		276		240	
0515	246		80		166		1715	505		265		240	
0530	347		120		227		1730	477		256		221	
0545	317	1095	103	367	214	728	1745	496	1994	255	1052	241	942
0600	339		113		226		1800	507		264		243	
0615	415		154		261		1815	458		229		229	
0630	444		181		263		1830	468		243		225	
0645	458	1656	176	624	282	1032	1845	400	1833	212	948	188	885
0700	410		175		235		1900	436		228		208	
0715	463		208		255		1915	405		207		198	
0730	456		208		248		1930	422		230		192	
0745	404	1733	191	782	213	951	1945	388	1651	198	863	190	788
0800	447		210		237		2000	336		187		149	
0815	399		188		211		2015	415		225		190	
0830	402		167		235		2030	396		213		183	
0845	446	1694	212	777	234	917	2045	324	1471	168	793	156	678
0900	420		183		237		2100	354		198		156	
0915	415		186		229		2115	398		206		192	
0930	392		186		206		2130	370		204		166	
0945	391	1618	186	741	205	877	2145	352	1474	173	781	179	693
1000	359		161		198		2200	369		184		185	
1015	372		169		203		2215	352		176		176	
1030	385		189		196		2230	352		165		187	
1045	394	1510	209	728	185	782	2245	377	1450	184	709	193	741
1100	447		240		207		2300	319		153		166	
1115	369		177		192		2315	323		157		166	
1130	415		222		193		2330	334		163		171	
1145	453	1684	239	878	214	806	2345	302	1278	164	637	138	641
							Total	**33555**		**16544**		**17011**	

Volume Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Saturday, December 1, 2018

Time	Total		EB		WB			Time	Total		EB		WB	
0000	274		140		134			1200	360		177		183	
0015	259		127		132			1215	382		197		185	
0030	241		129		112			1230	380		204		176	
0045	237	1011	132	528	105	483		1245	395	1517	202	780	193	737
0100	205		109		96			1300	418		230		188	
0115	243		133		110			1315	391		211		180	
0130	208		101		107			1330	404		220		184	
0145	224	880	120	463	104	417		1345	390	1603	205	866	185	737
0200	208		119		89			1400	439		230		209	
0215	180		99		81			1415	401		218		183	
0230	201		108		93			1430	390		203		187	
0245	190	779	90	416	100	363		1445	432	1662	239	890	193	772
0300	108		55		53			1500	449		236		213	
0315	86		42		44			1515	415		218		197	
0330	102		54		48			1530	407		228		179	
0345	63	359	25	176	38	183		1545	438	1709	239	921	199	788
0400	96		41		55			1600	406		223		183	
0415	96		35		61			1615	367		181		186	
0430	63		23		40			1630	427		218		209	
0445	99	354	42	141	57	213		1645	413	1613	224	846	189	767
0500	104		40		64			1700	476		260		216	
0515	103		39		64			1715	448		242		206	
0530	179		67		112			1730	450		245		205	
0545	146	532	43	189	103	343		1745	461	1835	253	1000	208	835
0600	180		67		113			1800	406		204		202	
0615	262		84		178			1815	436		225		211	
0630	266		88		178			1830	438		217		221	
0645	238	946	95	334	143	612		1845	368	1648	196	842	172	806
0700	233		99		134			1900	440		228		212	
0715	244		106		138			1915	447		242		205	
0730	306		158		148			1930	427		227		200	
0745	336	1119	169	532	167	587		1945	420	1734	235	932	185	802
0800	280		141		139			2000	410		212		198	
0815	254		114		140			2015	395		210		185	
0830	300		156		144			2030	397		213		184	
0845	307	1141	139	550	168	591		2045	362	1564	187	822	175	742
0900	294		148		146			2100	351		185		166	
0915	335		164		171			2115	375		213		162	
0930	342		167		175			2130	371		198		173	
0945	329	1300	166	645	163	655		2145	348	1445	187	783	161	662
1000	319		155		164			2200	396		216		180	
1015	340		156		184			2215	376		204		172	
1030	343		165		178			2230	386		184		202	
1045	361	1363	179	655	182	708		2245	364	1522	183	787	181	735
1100	341		173		168			2300	331		172		159	
1115	351		179		172			2315	351		176		175	
1130	384		187		197			2330	302		166		136	
1145	378	1454	199	738	179	716		2345	314	1298	179	693	135	605
								Total	**30388**		**15529**		**14859**	

Volume Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Sunday, December 2, 2018

Time	Total		EB		WB		Time	Total		EB		WB	
0000	273		137		136		1200	389		197		192	
0015	283		163		120		1215	383		214		169	
0030	258		119		139		1230	390		201		189	
0045	230	1044	126	545	104	499	1245	404	1566	208	820	196	746
0100	245		131		114		1300	378		183		195	
0115	237		125		112		1315	332		173		159	
0130	202		108		94		1330	396		204		192	
0145	210	894	114	478	96	416	1345	426	1532	224	784	202	748
0200	271		143		128		1400	356		175		181	
0215	238		126		112		1415	416		207		209	
0230	209		110		99		1430	394		207		187	
0245	145	863	75	454	70	409	1445	383	1549	205	794	178	755
0300	140		78		62		1500	419		221		198	
0315	129		67		62		1515	404		217		187	
0330	115		47		68		1530	419		210		209	
0345	70	454	34	226	36	228	1545	392	1634	214	862	178	772
0400	72		34		38		1600	378		195		183	
0415	68		35		33		1615	414		225		189	
0430	51		22		29		1630	380		195		185	
0445	63	254	25	116	38	138	1645	412	1584	203	818	209	766
0500	73		27		46		1700	397		202		195	
0515	58		23		35		1715	352		183		169	
0530	108		41		67		1730	331		175		156	
0545	75	314	28	119	47	195	1745	362	1442	183	743	179	699
0600	120		42		78		1800	382		196		186	
0615	207		62		145		1815	415		213		202	
0630	264		79		185		1830	365		174		191	
0645	215	806	84	267	131	539	1845	358	1520	179	762	179	758
0700	219		95		124		1900	348		181		167	
0715	213		102		111		1915	377		187		190	
0730	271		133		138		1930	371		201		170	
0745	245	948	120	450	125	498	1945	367	1463	194	763	173	700
0800	209		93		116		2000	349		187		162	
0815	254		119		135		2015	326		170		156	
0830	236		101		135		2030	330		169		161	
0845	260	959	123	436	137	523	2045	283	1288	144	670	139	618
0900	234		102		132		2100	284		139		145	
0915	301		131		170		2115	252		126		126	
0930	319		152		167		2130	304		169		135	
0945	294	1148	133	518	161	630	2145	263	1103	139	573	124	530
1000	256		123		133		2200	265		139		126	
1015	288		153		135		2215	235		120		115	
1030	276		132		144		2230	223		121		102	
1045	340	1160	175	583	165	577	2245	256	979	126	506	130	473
1100	292		127		165		2300	244		103		141	
1115	359		186		173		2315	204		109		95	
1130	340		177		163		2330	200		86		114	
1145	364	1355	189	679	175	676	2345	174	822	83	381	91	441
							Total	**26681**		**13347**		**13334**	

Speed Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Dir Eastbound
Thursday, November 29, 2018

Time	Total	Speed Bins(mph)									
		5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55
0000	262	0	14	61	115	54	18	0	0	0	0
0100	173	0	5	41	94	29	3	1	0	0	0
0200	125	0	2	18	63	38	4	0	0	0	0
0300	96	0	3	19	28	42	4	0	0	0	0
0400	134	0	2	21	27	63	17	2	0	2	0
0500	375	0	6	42	102	133	75	15	0	0	0
0600	653	4	34	180	241	158	30	5	1	0	0
0700	911	13	145	347	250	126	28	2	0	0	0
0800	869	7	70	303	336	115	33	1	2	0	0
0900	810	9	84	220	267	174	50	4	2	0	0
1000	780	10	121	280	248	90	28	3	0	0	0
1100	806	9	95	294	243	136	28	1	0	0	0
1200	859	9	99	278	288	159	21	4	0	1	0
1300	834	14	108	249	257	167	39	0	0	0	0
1400	862	17	119	286	320	101	16	3	0	0	0
1500	1042	11	126	385	328	146	40	4	0	0	0
1600	1041	41	201	376	359	48	14	0	0	0	0
1700	972	63	159	323	336	84	7	0	0	0	0
1800	971	33	136	381	308	105	8	0	0	0	0
1900	904	9	125	320	308	115	27	0	0	0	0
2000	784	6	84	226	314	125	28	1	0	0	0
2100	726	9	68	243	269	121	15	1	0	0	0
2200	642	6	65	239	231	80	18	3	0	0	0
2300	515	7	33	134	223	91	21	3	3	0	0
00-00	**16146**	**277**	**1904**	**5266**	**5555**	**2500**	**572**	**53**	**8**	**3**	**0**
	100.00%	**1.72%**	**11.79%**	**32.61%**	**34.40%**	**15.48%**	**3.54%**	**0.33%**	**0.05%**	**0.02%**	**0.00%**

Maximum = 89.1 mph, Minimum = 6.2 mph, Mean = 20.6 mph
85% Speed = 25.95 mph, 95% Speed = 29.36 mph, Median = 20.52 mph
10 mph Pace = 16 - 26, Number in Pace = 10895 (67.48%)
Variance = 28.07, Standard Deviation = 5.30 mph

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

55 60	60 65	65 70	70 75	75 80	
0	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	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	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	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	0	0	
0	0	0	0	0	
5	**0**	**0**	**0**	**0**	
0.03%	**0.00%**	**0.00%**	**0.00%**	**0.00%**	

Speed Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Dir Eastbound
Friday, November 30, 2018

Time	Total	Speed Bins(mph)									
		5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55
0000	401	4	18	100	203	64	11	1	0	0	0
0100	254	1	7	64	131	46	5	0	0	0	0
0200	206	0	5	30	122	40	7	2	0	0	0
0300	136	0	1	24	63	40	7	1	0	0	0
0400	152	0	1	13	36	70	26	3	3	0	0
0500	367	1	7	35	95	161	56	12	0	0	0
0600	624	7	49	134	212	171	48	2	1	0	0
0700	782	16	114	294	227	98	28	3	2	0	0
0800	777	8	119	271	269	93	17	0	0	0	0
0900	741	16	110	264	235	89	24	2	1	0	0
1000	728	7	93	245	240	110	27	3	3	0	0
1100	878	10	85	372	291	106	12	2	0	0	0
1200	843	12	106	297	295	105	22	4	1	0	0
1300	882	12	129	289	278	156	16	1	1	0	0
1400	889	25	134	342	256	120	8	2	0	0	0
1500	1054	47	170	371	343	114	8	0	0	1	0
1600	1047	31	146	379	388	87	9	4	2	0	0
1700	1052	9	123	424	370	103	17	3	0	3	0
1800	948	15	97	401	327	92	15	1	0	0	0
1900	863	15	110	347	312	64	10	1	1	3	0
2000	793	4	109	289	317	67	7	0	0	0	0
2100	781	14	69	287	318	75	15	1	0	1	0
2200	709	17	82	276	267	54	13	0	0	0	0
2300	637	8	65	232	253	71	4	3	0	0	0
00-00	**16544**	**279**	**1949**	**5780**	**5848**	**2196**	**412**	**51**	**15**	**8**	**0**
	100.00%	**1.69%**	**11.78%**	**34.94%**	**35.35%**	**13.27%**	**2.49%**	**0.31%**	**0.09%**	**0.05%**	**0.00%**

Maximum = 67.2 mph, Minimum = 6.3 mph, Mean = 20.3 mph
85% Speed = 25.28 mph, 95% Speed = 28.73 mph, Median = 20.19 mph
10 mph Pace = 15 - 25, Number in Pace = 11665 (70.51%)
Variance = 25.41, Standard Deviation = 5.04 mph

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

55 60	60 65	65 70	70 75	75 80	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	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	0	0	
0	2	0	0	0	
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	1	0	0	
0	0	0	0	0	
0	0	1	0	0	
1	**3**	**2**	**0**	**0**	
0.01%	**0.02%**	**0.01%**	**0.00%**	**0.00%**	

Speed Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Dir Eastbound
Saturday, December 1, 2018

Time	Total	Speed Bins(mph)									
		5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55
0000	528	4	28	162	268	59	7	0	0	0	0
0100	463	2	19	111	273	51	7	0	0	0	0
0200	416	4	26	130	181	66	7	2	0	0	0
0300	176	0	12	39	83	25	15	1	1	0	0
0400	141	0	1	15	72	43	8	2	0	0	0
0500	189	0	0	9	89	72	15	3	0	1	0
0600	334	6	27	54	91	101	48	5	2	0	0
0700	532	5	50	111	139	113	105	8	0	1	0
0800	550	3	49	142	172	113	64	7	0	0	0
0900	645	7	75	195	216	113	30	5	1	0	2
1000	655	6	68	205	254	104	18	0	0	0	0
1100	738	15	90	279	230	95	28	1	0	0	0
1200	780	13	119	230	238	148	26	3	3	0	0
1300	866	19	121	325	302	85	14	0	0	0	0
1400	890	17	111	314	303	123	16	1	0	1	0
1500	921	27	129	453	252	48	8	2	2	0	0
1600	846	11	146	323	280	70	13	2	0	0	0
1700	1000	25	162	469	282	50	9	3	0	0	0
1800	842	26	126	339	294	50	7	0	0	0	0
1900	932	17	124	325	336	119	9	1	0	1	0
2000	822	19	133	259	289	104	18	0	0	0	0
2100	783	26	94	269	293	77	21	2	0	0	1
2200	787	14	77	362	232	75	22	0	4	0	0
2300	693	17	69	221	270	93	17	6	0	0	0
00-00	**15529**	**283**	**1856**	**5341**	**5439**	**1997**	**532**	**54**	**13**	**4**	**3**
	100.00%	**1.82%**	**11.95%**	**34.39%**	**35.02%**	**12.86%**	**3.43%**	**0.35%**	**0.08%**	**0.03%**	**0.02%**

Maximum = 90.4 mph, Minimum = 6.3 mph, Mean = 20.4 mph
85% Speed = 25.45 mph, 95% Speed = 29.30 mph, Median = 20.24 mph
10 mph Pace = 15 - 25, Number in Pace = 10877 (70.04%)
Variance = 27.67, Standard Deviation = 5.26 mph

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

55 60	60 65	65 70	70 75	75 80	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	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	0	
0	0	0	0	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	
1	0	0	0	0	
0	0	0	0	0	
3	**0**	**0**	**0**	**1**	
0.02%	**0.00%**	**0.00%**	**0.00%**	**0.01%**	

Speed Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Dir Eastbound
Sunday, December 2, 2018

Time	Total	Speed Bins(mph)									
		5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55
0000	545	7	44	131	274	73	16	0	0	0	0
0100	478	2	33	156	230	46	11	0	0	0	0
0200	454	5	27	128	236	53	4	0	1	0	0
0300	226	0	7	83	88	38	7	3	0	0	0
0400	116	0	1	8	14	23	18	32	16	3	1
0500	119	0	1	4	8	19	25	22	24	6	9
0600	267	1	7	21	14	70	34	58	17	28	5
0700	450	0	5	24	44	113	138	79	26	11	8
0800	436	1	7	30	68	112	103	60	24	24	4
0900	518	0	11	44	101	136	144	71	9	2	0
1000	583	11	73	171	154	118	51	5	0	0	0
1100	679	28	75	178	215	144	25	3	0	11	0
1200	820	8	81	267	270	154	35	5	0	0	0
1300	784	21	118	282	214	124	24	1	0	0	0
1400	794	16	116	310	223	99	30	0	0	0	0
1500	862	8	123	282	292	128	26	2	0	0	0
1600	818	13	119	284	217	159	20	5	0	0	0
1700	743	13	113	236	257	103	14	0	3	0	0
1800	762	13	95	236	267	118	32	1	0	0	0
1900	763	17	95	238	250	127	28	4	0	4	0
2000	670	11	55	189	262	113	38	1	1	0	0
2100	573	4	47	179	198	108	33	3	0	1	0
2200	506	6	23	143	202	101	22	7	1	0	1
2300	381	1	9	106	193	58	11	3	0	0	0
00-00	**13347**	**186**	**1285**	**3730**	**4291**	**2337**	**889**	**365**	**122**	**90**	**28**
	100.00%	**1.39%**	**9.63%**	**27.95%**	**32.15%**	**17.51%**	**6.66%**	**2.73%**	**0.91%**	**0.67%**	**0.21%**

Maximum = 69.8 mph, Minimum = 6.3 mph, Mean = 22.4 mph
85% Speed = 28.58 mph, 95% Speed = 34.67 mph, Median = 21.47 mph
10 mph Pace = 16 - 26, Number in Pace = 8139 (60.98%)
Variance = 47.15, Standard Deviation = 6.87 mph

BOSTON
TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

55 60	60 65	65 70	70 75	75 80	
0	0	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	
8	2	2	0	0	
1	1	0	0	0	
2	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	0	
1	0	0	0	0	
0	1	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	0	
12	**10**	**2**	**0**	**0**	
0.09%	**0.07%**	**0.01%**	**0.00%**	**0.00%**	

Speed Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Dir Westbound
Thursday, November 29, 2018

Time	Total	Speed Bins(mph)									
		5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55
0000	213	0	7	44	84	54	18	6	0	0	0
0100	152	1	7	50	60	14	14	5	0	1	0
0200	123	1	6	21	40	33	12	9	0	1	0
0300	122	0	2	2	20	20	45	29	4	0	0
0400	249	0	3	2	19	35	72	82	33	3	0
0500	756	0	1	9	42	147	312	189	47	8	0
0600	920	14	113	171	229	195	146	46	6	0	0
0700	1029	24	151	266	252	223	88	24	1	0	0
0800	968	22	78	256	300	212	83	13	2	0	0
0900	935	16	123	305	267	142	69	10	1	0	0
1000	864	33	184	238	208	132	50	19	0	0	0
1100	742	11	92	216	238	127	50	8	0	0	0
1200	792	18	89	217	213	175	67	11	0	2	0
1300	798	16	132	210	223	148	61	7	1	0	0
1400	797	28	168	205	223	117	47	8	1	0	0
1500	941	16	138	238	263	210	66	8	0	0	0
1600	896	28	157	261	253	158	32	5	0	0	0
1700	907	41	179	289	258	122	17	1	0	0	0
1800	932	12	175	245	300	168	30	2	0	0	0
1900	832	24	161	302	232	84	29	0	0	0	0
2000	681	26	134	203	201	85	28	3	1	0	0
2100	651	19	95	148	166	185	30	8	0	0	0
2200	649	14	102	160	189	138	36	8	2	0	0
2300	524	7	43	102	131	143	75	18	5	0	0
00-00	**16473**	**371**	**2340**	**4160**	**4411**	**3067**	**1477**	**519**	**104**	**15**	**0**
	100.00%	**2.25%**	**14.21%**	**25.25%**	**26.78%**	**18.62%**	**8.97%**	**3.15%**	**0.63%**	**0.09%**	**0.00%**

Maximum = 89.1 mph, Minimum = 6.2 mph, Mean = 21.9 mph
85% Speed = 29.25 mph, 95% Speed = 34.13 mph, Median = 21.53 mph
10 mph Pace = 15 - 25, Number in Pace = 8611 (52.27%)
Variance = 48.75, Standard Deviation = 6.98 mph

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

55 60	60 65	65 70	70 75	75 80	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
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	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	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	0	0	
0	0	0	0	0	
4	**0**	**0**	**0**	**2**	
0.02%	**0.00%**	**0.00%**	**0.00%**	**0.01%**	

Speed Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Dir Westbound
Friday, November 30, 2018

Time	Total	Speed Bins(mph)									
		5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55
0000	341	4	32	97	87	80	32	9	0	0	0
0100	240	2	12	50	86	57	27	6	0	0	0
0200	181	0	10	46	59	28	27	8	3	0	0
0300	154	0	2	4	11	42	73	17	5	0	0
0400	260	0	1	5	15	54	103	62	19	1	0
0500	728	2	1	14	54	176	280	174	27	0	0
0600	1032	16	106	199	296	258	130	21	6	0	0
0700	951	49	141	188	247	235	82	7	2	0	0
0800	917	16	162	232	285	160	55	7	0	0	0
0900	877	32	122	232	232	190	59	6	4	0	0
1000	782	12	156	203	156	183	59	5	4	0	0
1100	806	20	103	333	197	114	34	5	0	0	0
1200	820	56	122	228	237	148	25	4	0	0	0
1300	851	16	170	265	215	145	35	5	0	0	0
1400	820	58	171	210	184	154	37	4	1	0	0
1500	1000	30	184	285	329	138	32	0	0	2	0
1600	883	40	123	271	296	121	24	7	0	0	0
1700	942	41	193	299	262	118	22	4	0	3	0
1800	885	20	125	379	246	92	14	3	0	0	0
1900	788	54	241	271	136	74	7	1	2	2	0
2000	678	25	144	239	189	69	11	1	0	0	0
2100	693	12	137	260	176	92	13	2	0	0	0
2200	741	28	179	231	208	77	18	0	0	0	0
2300	641	30	117	218	170	88	17	1	0	0	0
00-00	**17011**	**563**	**2754**	**4759**	**4373**	**2893**	**1216**	**359**	**73**	**8**	**0**
	100.00%	**3.31%**	**16.19%**	**27.98%**	**25.71%**	**17.01%**	**7.15%**	**2.11%**	**0.43%**	**0.05%**	**0.00%**

Maximum = 78.0 mph, Minimum = 6.2 mph, Mean = 21.0 mph
85% Speed = 27.96 mph, 95% Speed = 32.83 mph, Median = 20.47 mph
10 mph Pace = 15 - 25, Number in Pace = 9176 (53.94%)
Variance = 46.17, Standard Deviation = 6.80 mph

BOSTON
TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

55 60	60 65	65 70	70 75	75 80	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
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	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	1	0	0	0	
0	0	0	0	0	
1	0	0	0	0	
0	0	0	0	0	
0	6	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	1	0	0	
0	0	0	0	0	
0	0	0	0	0	
1	**7**	**1**	**0**	**4**	
0.01%	**0.04%**	**0.01%**	**0.00%**	**0.02%**	

Speed Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Dir Westbound
Saturday, December 1, 2018

Time	Total	Speed Bins(mph)									
		5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55
0000	483	8	68	157	164	63	22	1	0	0	0
0100	417	8	62	158	128	45	14	2	0	0	0
0200	363	5	41	77	112	80	39	9	0	0	0
0300	183	0	6	15	42	78	31	10	1	0	0
0400	213	0	2	6	4	38	108	46	9	0	0
0500	343	0	0	5	11	57	125	118	21	6	0
0600	612	8	35	100	127	92	172	66	10	2	0
0700	587	13	93	76	130	115	114	43	2	1	0
0800	591	8	82	112	150	121	89	26	3	0	0
0900	655	9	90	205	142	127	68	13	0	0	0
1000	708	23	121	197	176	141	44	5	1	0	0
1100	716	33	163	203	159	94	58	6	0	0	0
1200	737	20	144	205	192	120	37	8	10	1	0
1300	737	35	136	218	231	91	23	3	0	0	0
1400	772	38	158	219	224	78	47	6	0	2	0
1500	788	74	182	291	145	77	13	4	2	0	0
1600	767	41	230	221	186	57	26	3	0	1	0
1700	835	65	223	316	174	48	7	1	0	0	0
1800	806	41	133	245	303	75	7	2	0	0	0
1900	802	78	192	277	167	77	6	3	0	2	0
2000	742	27	142	244	227	77	21	3	1	0	0
2100	662	20	92	221	234	70	21	4	0	0	0
2200	735	31	176	213	217	73	14	2	4	0	4
2300	605	11	117	208	156	85	26	2	0	0	0
00-00	**14859**	**596**	**2688**	**4189**	**3801**	**1979**	**1132**	**386**	**64**	**15**	**4**
	100.00%	**4.01%**	**18.09%**	**28.19%**	**25.58%**	**13.32%**	**7.62%**	**2.60%**	**0.43%**	**0.10%**	**0.03%**

Maximum = 80.0 mph, Minimum = 6.2 mph, Mean = 20.7 mph
85% Speed = 28.07 mph, 95% Speed = 33.44 mph, Median = 19.96 mph
10 mph Pace = 14 - 24, Number in Pace = 8188 (55.10%)
Variance = 48.65, Standard Deviation = 6.98 mph

BOSTON
TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

55 60	60 65	65 70	70 75	75 80	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
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	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	0	0	
0	0	0	0	0	
1	**0**	**0**	**0**	**3**	
0.01%	**0.00%**	**0.00%**	**0.00%**	**0.02%**	

Speed Report

Job 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Dir Westbound
Sunday, December 2, 2018

Time	Total	Speed Bins(mph)									
		5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55
0000	499	7	64	161	179	65	21	1	1	0	0
0100	416	5	50	111	120	92	37	1	0	0	0
0200	409	6	33	83	143	104	29	7	4	0	0
0300	228	0	3	12	36	61	76	34	5	1	0
0400	138	0	0	0	1	9	37	44	35	8	4
0500	195	0	0	1	1	9	19	65	56	30	9
0600	539	3	8	42	52	93	82	87	96	34	25
0700	498	7	26	57	54	99	68	119	38	23	4
0800	523	1	9	29	65	85	64	97	69	46	27
0900	630	4	41	114	125	110	101	90	33	8	3
1000	577	14	96	92	131	142	86	14	2	0	0
1100	676	17	98	160	164	157	61	19	0	0	0
1200	746	26	130	214	199	135	33	9	0	0	0
1300	748	25	150	166	149	181	71	6	0	0	0
1400	755	22	115	208	206	150	48	5	1	0	0
1500	772	25	178	308	161	71	25	3	0	0	0
1600	766	22	170	197	195	138	38	6	0	0	0
1700	699	24	132	193	204	108	26	4	0	0	4
1800	758	30	169	198	179	132	46	4	0	0	0
1900	700	32	71	202	226	116	39	8	1	5	0
2000	618	27	71	199	139	138	40	4	0	0	0
2100	530	14	78	152	119	107	46	12	0	2	0
2200	473	9	46	109	135	92	61	18	2	0	1
2300	441	10	51	102	104	100	62	10	2	0	0
00-00	**13334**	**330**	**1789**	**3110**	**3087**	**2494**	**1216**	**667**	**345**	**157**	**77**
	100.00%	**2.47%**	**13.42%**	**23.32%**	**23.15%**	**18.70%**	**9.12%**	**5.00%**	**2.59%**	**1.18%**	**0.58%**

Maximum = 79.2 mph, Minimum = 6.3 mph, Mean = 23.4 mph
85% Speed = 31.54 mph, 95% Speed = 39.82 mph, Median = 22.15 mph
10 mph Pace = 16 - 26, Number in Pace = 6280 (47.10%)
Variance = 76.98, Standard Deviation = 8.77 mph

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

55 60	60 65	65 70	70 75	75 80	
0	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	2	0	0	1	
11	5	0	1	0	
3	0	0	0	0	
14	14	2	1	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	
1	0	0	0	0	
0	0	0	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	0	
0	0	0	0	0	
0	0	0	0	0	
32	**21**	**2**	**2**	**5**	
0.24%	**0.16%**	**0.01%**	**0.01%**	**0.04%**	

Classification Report

Job # 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Direction Eastbound
Thursday, November 29, 2018

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	262	1	252	7	0	0	1	0	0	1	0	0	0	0
0100	173	2	165	2	0	1	0	2	1	0	0	0	0	0
0200	125	0	119	4	1	0	0	1	0	0	0	0	0	0
0300	96	0	94	1	0	0	1	0	0	0	0	0	0	0
0400	134	0	127	6	0	1	0	0	0	0	0	0	0	0
0500	375	0	366	9	0	0	0	0	0	0	0	0	0	0
0600	653	1	626	12	1	2	2	4	2	0	0	0	0	3
0700	911	3	874	12	1	2	3	5	4	3	0	0	0	4
0800	869	6	826	13	1	2	3	10	2	0	1	0	0	5
0900	810	1	765	21	0	6	1	8	3	0	0	1	0	4
1000	780	4	732	25	0	3	2	3	4	0	1	1	0	5
1100	806	3	749	34	0	1	3	9	4	1	0	0	0	2
1200	859	1	810	29	0	3	1	6	3	1	1	0	0	4
1300	834	0	785	25	1	2	2	9	4	2	0	1	0	3
1400	862	2	792	33	0	6	3	12	3	0	2	0	0	9
1500	1042	4	972	32	0	1	1	9	4	2	5	1	0	11
1600	1041	5	969	25	2	5	3	11	6	1	2	0	0	12
1700	972	2	919	16	0	1	1	14	6	1	2	0	0	10
1800	971	4	925	14	0	2	0	7	3	0	4	1	0	11
1900	904	1	866	18	0	2	1	8	1	1	0	1	0	5
2000	784	0	748	14	0	3	2	11	4	0	0	0	0	2
2100	726	1	696	16	0	0	4	7	0	0	1	0	0	1
2200	642	0	624	7	1	2	2	5	1	0	0	0	0	0
2300	515	1	498	9	0	0	1	3	2	0	0	0	0	1
00-00	**16146**	**42**	**15299**	**384**	**8**	**45**	**37**	**144**	**57**	**13**	**19**	**6**	**0**	**92**
	100.00%	**0.26%**	**94.75%**	**2.38%**	**0.05%**	**0.28%**	**0.23%**	**0.89%**	**0.35%**	**0.08%**	**0.12%**	**0.04%**	**0.00%**	**0.57%**

Classification Report

Job # 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Direction Eastbound
Friday, November 30, 2018

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	401	0	389	8	0	0	1	1	1	0	0	0	0	1
0100	254	0	244	6	0	1	2	0	0	1	0	0	0	0
0200	206	0	199	3	0	1	2	0	0	0	1	0	0	0
0300	136	0	130	2	0	1	2	0	0	0	0	0	0	1
0400	152	0	146	3	1	0	1	1	0	0	0	0	0	0
0500	367	0	354	11	0	0	1	1	0	0	0	0	0	0
0600	624	3	599	18	0	1	0	0	1	0	0	0	1	1
0700	782	3	732	18	1	5	2	10	1	1	2	0	0	7
0800	777	1	733	19	1	3	2	8	3	2	1	0	0	4
0900	741	2	700	17	2	4	3	9	1	0	2	1	0	0
1000	728	3	686	17	1	4	2	5	5	0	1	0	0	4
1100	878	0	831	25	0	3	5	5	2	1	0	0	0	6
1200	843	3	785	29	1	2	3	7	3	1	2	1	0	6
1300	882	2	830	32	1	0	5	5	4	0	1	0	0	2
1400	889	2	824	36	0	1	2	9	6	2	0	0	0	7
1500	1054	1	995	27	1	2	0	9	11	0	2	0	0	6
1600	1047	4	979	20	0	2	0	17	10	0	4	1	0	10
1700	1052	0	1008	15	0	3	0	12	5	1	1	0	0	7
1800	948	3	911	8	0	1	1	11	5	0	2	0	0	6
1900	863	0	832	16	0	1	3	2	3	1	1	0	0	4
2000	793	2	759	12	0	1	1	11	4	0	0	1	0	2
2100	781	8	742	16	0	0	3	8	2	0	0	0	0	2
2200	709	2	691	9	1	0	1	2	0	0	0	1	1	1
2300	637	1	619	9	0	0	3	4	1	0	0	0	0	0
00-00	**16544**	**40**	**15718**	**376**	**10**	**36**	**45**	**137**	**68**	**10**	**20**	**5**	**2**	**77**
	100.00%	**0.24%**	**95.01%**	**2.27%**	**0.06%**	**0.22%**	**0.27%**	**0.83%**	**0.41%**	**0.06%**	**0.12%**	**0.03%**	**0.01%**	**0.47%**

Classification Report

Job # 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Direction Eastbound
Saturday, December 1, 2018

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	528	0	514	7	0	0	0	4	1	0	0	1	0	1
0100	463	0	451	7	1	0	0	0	2	0	0	0	0	2
0200	416	0	400	8	0	1	3	4	0	0	0	0	0	0
0300	176	0	169	3	0	3	1	0	0	0	0	0	0	0
0400	141	0	132	6	0	1	2	0	0	0	0	0	0	0
0500	189	0	181	7	1	0	0	0	0	0	0	0	0	0
0600	334	0	319	7	0	0	4	1	1	0	0	1	0	1
0700	532	1	500	15	0	2	1	7	4	0	0	0	0	2
0800	550	0	508	19	0	2	3	11	4	0	0	0	0	3
0900	645	1	602	17	0	4	1	13	2	3	2	0	0	0
1000	655	0	621	17	0	2	0	8	3	1	0	0	0	3
1100	738	1	696	21	0	1	2	9	2	1	0	0	0	5
1200	780	2	742	20	1	0	1	9	4	0	0	0	0	1
1300	866	2	827	16	1	2	0	8	1	1	0	0	0	8
1400	890	3	832	29	1	1	3	10	5	0	1	0	0	5
1500	921	1	874	20	2	1	2	9	5	1	1	0	0	5
1600	846	4	807	15	1	1	3	9	1	1	1	0	0	3
1700	1000	1	951	23	0	1	6	11	2	1	0	1	0	3
1800	842	1	808	6	0	1	3	10	5	1	2	1	1	3
1900	932	3	899	14	0	1	4	6	2	0	0	0	0	3
2000	822	2	789	19	0	2	3	3	2	2	0	0	0	0
2100	783	0	759	10	0	0	5	7	2	0	0	0	0	0
2200	787	1	765	12	0	1	1	3	1	0	1	0	0	2
2300	693	0	674	12	1	0	2	4	0	0	0	0	0	0
00-00	**15529**	**23**	**14820**	**330**	**9**	**27**	**50**	**146**	**49**	**12**	**8**	**4**	**1**	**50**
	100.00%	**0.15%**	**95.43%**	**2.13%**	**0.06%**	**0.17%**	**0.32%**	**0.94%**	**0.32%**	**0.08%**	**0.05%**	**0.03%**	**0.01%**	**0.32%**

Classification Report

Job # 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Direction Eastbound
Sunday, December 2, 2018

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	545	0	530	7	0	1	2	3	1	0	1	0	0	0
0100	478	0	472	5	1	0	0	0	0	0	0	0	0	0
0200	454	0	441	7	0	0	3	2	0	0	0	0	0	1
0300	226	1	196	25	1	0	1	2	0	0	0	0	0	0
0400	116	0	86	20	1	2	6	1	0	0	0	0	0	0
0500	119	0	87	15	3	8	2	4	0	0	0	0	0	0
0600	267	0	212	33	4	15	0	3	0	0	0	0	0	0
0700	450	0	307	114	2	12	6	4	1	1	1	0	0	2
0800	436	1	334	67	6	17	2	9	0	0	0	0	0	0
0900	518	4	416	79	4	6	0	6	2	0	1	0	0	0
1000	583	1	536	26	0	4	0	10	2	0	0	0	0	4
1100	679	1	644	23	0	2	1	4	3	1	0	0	0	0
1200	820	1	772	21	1	3	1	16	1	0	3	0	0	1
1300	784	0	729	33	0	3	3	9	2	2	0	0	0	3
1400	794	1	740	28	1	3	2	8	7	0	0	0	0	4
1500	862	0	829	11	0	0	2	12	5	1	1	0	0	1
1600	818	1	787	17	0	2	0	4	3	1	0	0	0	3
1700	743	3	718	13	0	1	1	5	1	0	0	0	0	1
1800	762	2	735	14	1	0	2	7	1	0	0	0	0	0
1900	763	1	725	14	0	1	5	10	1	1	0	0	0	5
2000	670	0	645	17	0	1	1	4	0	1	0	0	0	1
2100	573	0	548	16	0	2	1	4	1	0	0	0	0	1
2200	506	2	482	13	0	2	3	2	1	1	0	0	0	0
2300	381	0	363	16	0	0	0	1	0	0	0	0	0	1
00-00	**13347**	**19**	**12334**	**634**	**25**	**85**	**44**	**130**	**32**	**9**	**7**	**0**	**0**	**28**
	100.00%	**0.14%**	**92.41%**	**4.75%**	**0.19%**	**0.64%**	**0.33%**	**0.97%**	**0.24%**	**0.07%**	**0.05%**	**0.00%**	**0.00%**	**0.21%**

Classification Report

Job # 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Direction Westbound
Thursday, November 29, 2018

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	213	0	195	14	0	3	0	0	0	1	0	0	0	0
0100	152	0	134	16	0	2	0	0	0	0	0	0	0	0
0200	123	1	105	15	2	0	0	0	0	0	0	0	0	0
0300	122	0	103	16	0	3	0	0	0	0	0	0	0	0
0400	249	0	202	36	0	9	2	0	0	0	0	0	0	0
0500	756	0	609	104	0	41	1	1	0	0	0	0	0	0
0600	920	1	815	88	2	10	0	3	1	0	0	0	0	0
0700	1029	5	958	54	3	4	2	1	1	0	0	0	0	1
0800	968	2	890	61	2	5	4	4	0	0	0	0	0	0
0900	935	7	843	68	2	7	4	1	0	0	0	0	0	3
1000	864	8	775	60	3	11	2	4	1	0	0	0	0	0
1100	742	1	673	58	0	6	1	2	0	0	0	0	0	1
1200	792	6	716	62	1	7	0	0	0	0	0	0	0	0
1300	798	2	737	52	0	3	2	2	0	0	0	0	0	0
1400	797	2	735	49	0	6	1	3	0	0	0	0	0	1
1500	941	4	887	36	2	4	1	5	0	0	0	0	0	2
1600	896	9	849	29	1	3	1	1	1	1	0	0	0	1
1700	907	4	851	41	1	4	0	5	0	0	0	0	0	1
1800	932	1	879	38	0	2	4	3	2	0	2	0	0	1
1900	832	7	767	52	0	4	1	0	0	0	0	0	0	1
2000	681	3	637	36	1	2	1	1	0	0	0	0	0	0
2100	651	3	605	40	0	1	1	0	0	0	1	0	0	0
2200	649	2	585	54	0	2	1	3	1	0	0	0	0	1
2300	524	1	465	53	1	3	1	0	0	0	0	0	0	0
00-00	**16473**	**69**	**15015**	**1132**	**21**	**142**	**30**	**39**	**7**	**2**	**3**	**0**	**0**	**13**
	100.00%	**0.42%**	**91.15%**	**6.87%**	**0.13%**	**0.86%**	**0.18%**	**0.24%**	**0.04%**	**0.01%**	**0.02%**	**0.00%**	**0.00%**	**0.08%**

Classification Report

Job # 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Direction Westbound
Friday, November 30, 2018

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	341	3	299	36	1	1	0	1	0	0	0	0	0	0
0100	240	0	215	23	0	1	1	0	0	0	0	0	0	0
0200	181	0	162	17	0	1	1	0	0	0	0	0	0	0
0300	154	0	140	12	0	2	0	0	0	0	0	0	0	0
0400	260	0	217	36	1	6	0	0	0	0	0	0	0	0
0500	728	0	607	102	0	13	2	3	1	0	0	0	0	0
0600	1032	2	926	90	1	10	0	1	0	0	2	0	0	0
0700	951	6	890	44	1	6	2	0	0	2	0	0	0	0
0800	917	3	857	45	0	3	3	2	1	0	1	0	0	2
0900	877	2	813	51	0	5	2	4	0	0	0	0	0	0
1000	782	4	699	65	0	4	2	5	0	0	0	0	0	3
1100	806	2	752	41	0	7	1	2	0	1	0	0	0	0
1200	820	2	766	42	2	3	3	0	2	0	0	0	0	0
1300	851	1	811	32	1	1	1	1	0	1	0	0	0	2
1400	820	6	770	37	2	3	1	1	0	0	0	0	0	0
1500	1000	6	949	39	1	3	0	1	0	0	0	0	0	1
1600	883	9	836	30	1	0	2	2	0	1	0	0	0	2
1700	942	5	906	24	2	1	2	1	0	0	1	0	0	0
1800	885	3	850	26	0	2	2	2	0	0	0	0	0	0
1900	788	4	749	23	2	5	4	0	0	1	0	0	0	0
2000	678	5	638	27	1	0	3	4	0	0	0	0	0	0
2100	693	3	651	32	2	1	2	1	1	0	0	0	0	0
2200	741	1	691	37	3	1	4	3	1	0	0	0	0	0
2300	641	3	596	29	0	0	6	4	0	2	0	0	0	1
00-00	**17011**	**70**	**15790**	**940**	**21**	**79**	**44**	**38**	**6**	**8**	**4**	**0**	**0**	**11**
	100.00%	**0.41%**	**92.82%**	**5.53%**	**0.12%**	**0.46%**	**0.26%**	**0.22%**	**0.04%**	**0.05%**	**0.02%**	**0.00%**	**0.00%**	**0.06%**

Classification Report

Job # 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Direction Westbound
Saturday, December 1, 2018

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	483	1	441	35	0	2	3	1	0	0	0	0	0	0
0100	417	1	390	24	0	1	0	1	0	0	0	0	0	0
0200	363	1	333	26	0	3	0	0	0	0	0	0	0	0
0300	183	1	167	12	0	2	0	0	0	1	0	0	0	0
0400	213	0	189	19	0	5	0	0	0	0	0	0	0	0
0500	343	0	282	49	1	11	0	0	0	0	0	0	0	0
0600	612	1	535	70	0	5	0	0	0	1	0	0	0	0
0700	587	4	503	58	1	18	1	1	0	1	0	0	0	0
0800	591	1	533	51	1	2	1	2	0	0	0	0	0	0
0900	655	5	607	37	1	0	1	3	0	0	0	0	0	1
1000	708	3	659	36	2	2	2	3	0	0	0	0	0	1
1100	716	8	665	36	0	1	3	0	2	0	1	0	0	0
1200	737	1	702	26	3	3	0	1	1	0	0	0	0	0
1300	737	7	700	28	0	0	0	1	0	0	1	0	0	0
1400	772	5	721	35	0	3	4	3	1	0	0	0	0	0
1500	788	6	745	31	0	2	0	2	1	1	0	0	0	0
1600	767	5	724	25	0	4	5	1	1	0	1	0	0	1
1700	835	5	788	31	1	1	2	4	2	1	0	0	0	0
1800	806	3	762	35	1	0	1	2	1	0	1	0	0	0
1900	802	5	753	28	1	1	5	7	1	0	0	0	0	1
2000	742	2	703	32	0	1	2	2	0	0	0	0	0	0
2100	662	0	630	25	1	0	1	1	1	1	1	0	0	1
2200	735	5	687	28	3	1	4	5	0	1	1	0	0	0
2300	605	1	566	34	0	2	2	0	0	0	0	0	0	0
00-00	**14859**	**71**	**13785**	**811**	**16**	**70**	**37**	**40**	**11**	**7**	**6**	**0**	**0**	**5**
	100.00%	**0.48%**	**92.77%**	**5.46%**	**0.11%**	**0.47%**	**0.25%**	**0.27%**	**0.07%**	**0.05%**	**0.04%**	**0.00%**	**0.00%**	**0.03%**

Classification Report

Job # 288_002_FLINK
Area Fenway, Boston, MA
Location Boylston Street, east of Ipswich Street
Direction Westbound
Sunday, December 2, 2018

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	499	2	475	20	0	0	0	2	0	0	0	0	0	0
0100	416	1	378	36	0	0	0	1	0	0	0	0	0	0
0200	409	0	376	32	1	0	0	0	0	0	0	0	0	0
0300	228	0	176	47	1	3	0	0	1	0	0	0	0	0
0400	138	0	78	46	3	10	0	1	0	0	0	0	0	0
0500	195	0	85	63	4	43	0	0	0	0	0	0	0	0
0600	539	0	238	195	18	86	0	2	0	0	0	0	0	0
0700	498	0	311	143	5	38	0	0	1	0	0	0	0	0
0800	523	1	316	92	23	89	0	0	1	0	0	1	0	0
0900	630	0	406	194	3	23	1	2	0	0	0	0	0	1
1000	577	2	493	73	1	4	0	1	1	0	0	0	0	2
1100	676	2	607	59	0	6	0	2	0	0	0	0	0	0
1200	746	4	694	40	0	5	1	1	0	0	0	0	0	1
1300	748	5	679	56	0	4	2	1	1	0	0	0	0	0
1400	755	2	705	42	0	3	1	2	0	0	0	0	0	0
1500	772	3	730	31	1	2	2	2	0	0	0	0	0	1
1600	766	4	723	34	0	1	1	3	0	0	0	0	0	0
1700	699	3	664	26	0	0	2	2	0	1	1	0	0	0
1800	758	4	715	35	1	0	1	2	0	0	0	0	0	0
1900	700	0	642	51	0	2	2	2	1	0	0	0	0	0
2000	618	2	566	43	0	3	0	2	1	0	0	0	0	1
2100	530	0	494	32	1	2	0	1	0	0	0	0	0	0
2200	473	0	438	32	1	1	0	1	0	0	0	0	0	0
2300	441	0	386	48	3	1	0	2	1	0	0	0	0	0
00-00	**13334**	**35**	**11375**	**1470**	**66**	**326**	**13**	**32**	**8**	**1**	**1**	**1**	**0**	**6**
	100.00%	**0.26%**	**85.31%**	**11.02%**	**0.49%**	**2.44%**	**0.10%**	**0.24%**	**0.06%**	**0.01%**	**0.01%**	**0.01%**	**0.00%**	**0.04%**

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 1
Location:	Fenway Park, MA
Street 1:	Lansdowne Street
Street 2:	Ipswich Street
Count Date:	11/16/2018
Day of Week:	Friday
Weather:	Mostly Cloudy, 41°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Ipswich Street Northbound				Ipswich Street Southbound				Lansdowne Street Eastbound				Parking Garage Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	1	0	13	1	0	0	63	0	0	12	1	27	0	6	0	1
4:15 PM	1	0	15	0	0	0	59	0	0	16	1	26	0	6	0	3
4:30 PM	0	0	16	0	0	0	46	0	0	18	0	25	0	5	0	4
4:45 PM	1	0	14	1	0	1	51	0	0	21	0	39	0	7	0	3
5:00 PM	0	0	10	0	0	1	53	0	0	23	0	43	0	7	0	3
5:15 PM	0	0	11	0	0	0	60	0	0	22	1	38	0	5	0	2
5:30 PM	0	0	12	0	0	0	64	0	0	18	0	25	0	0	0	2
5:45 PM	0	0	11	2	0	2	74	0	0	19	0	27	0	2	0	1
6:00 PM	1	0	12	2	0	1	76	0	0	20	1	29	0	2	0	1
6:15 PM	1	0	12	1	0	0	73	0	0	22	1	40	0	2	0	2
6:30 PM	2	0	8	0	0	0	57	0	0	24	1	42	0	3	0	1
6:45 PM	1	0	15	2	0	0	60	0	0	30	2	45	0	2	0	1
7:00 PM	1	0	17	3	0	1	62	0	0	35	2	46	0	0	0	0
7:15 PM	2	0	14	2	0	2	59	0	0	36	10	48	0	1	0	0
7:30 PM	0	0	11	1	0	1	44	0	0	35	14	49	0	1	0	0
7:45 PM	1	0	12	1	0	0	46	0	0	34	11	47	0	0	0	1

PM PEAK HOUR 6:45 PM to 7:45 PM	Ipswich Street Northbound				Ipswich Street Southbound				Lansdowne Street Eastbound				Parking Garage Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	4	**0**	**57**	**8**	**0**	**4**	**225**	**0**	**0**	**136**	**28**	**188**	**0**	**4**	**0**	**1**
PHF	**0.82**				**0.91**				**0.90**				**0.42**			
HV %	**0.0%**	**0.0%**	**12.3%**	**0.0%**	**0.0%**	**0.0%**	**2.7%**	**0.0%**	**0.0%**	**0.7%**	**0.0%**	**2.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 1
Location:	Fenway Park, MA
Street 1:	Lansdowne Street
Street 2:	Ipswich Street
Count Date:	11/16/2018
Day of Week:	Friday
Weather:	Mostly Cloudy, 41°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Ipswich Street Northbound			Ipswich Street Southbound			Lansdowne Street Eastbound			Parking Garage Westbound		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
4:00 PM	0	1	0	0	1	0	0	0	1	0	0	0
4:15 PM	0	1	0	0	2	0	0	0	1	0	0	0
4:30 PM	0	2	0	0	2	0	0	0	1	0	0	0
4:45 PM	0	2	0	0	1	0	1	0	1	0	0	0
5:00 PM	0	2	0	0	2	0	0	0	2	0	0	0
5:15 PM	0	1	0	0	2	0	0	0	2	0	0	0
5:30 PM	0	1	0	0	1	0	0	0	1	0	0	0
5:45 PM	0	1	0	0	1	0	1	0	1	0	0	0
6:00 PM	0	1	0	0	1	0	0	0	2	0	0	0
6:15 PM	0	2	0	0	1	0	0	0	2	0	0	0
6:30 PM	0	2	0	0	2	0	0	0	1	0	0	0
6:45 PM	0	2	0	0	1	0	1	0	1	0	0	0
7:00 PM	0	2	0	0	2	0	0	0	2	0	0	0
7:15 PM	0	2	0	0	2	0	0	0	1	0	0	0
7:30 PM	0	1	0	0	1	0	0	0	1	0	0	0
7:45 PM	0	1	0	0	1	0	0	0	1	0	0	0

PM PEAK HOUR 6:30 PM to 7:30 PM	Ipswich Street Northbound			Ipswich Street Southbound			Lansdowne Street Eastbound			Parking Garage Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	**8**	**0**	**0**	**7**	**0**	**1**	**0**	**5**	**0**	**0**	**0**
PHF		**1.00**			**0.88**			**0.75**			**0.00**	

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 1
Location:	Fenway Park, MA
Street 1:	Lansdowne Street
Street 2:	Ipswich Street
Count Date:	11/16/2018
Day of Week:	Friday
Weather:	Mostly Cloudy, 41°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Ipswich Street Northbound				Ipswich Street Southbound				Lansdowne Street Eastbound				Parking Garage Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:00 PM	0	1	0	10	0	3	0	12	1	0	0	0	0	0	0	12	
4:15 PM	0	1	0	8	0	2	0	9	0	0	1	0	0	0	0	9	
4:30 PM	0	0	0	5	0	0	1	9	0	0	0	0	0	0	0	6	
4:45 PM	0	1	0	5	0	1	0	8	0	0	0	0	0	0	0	12	
5:00 PM	0	0	0	8	0	0	0	11	1	0	0	0	0	0	0	11	
5:15 PM	0	0	0	8	0	1	0	10	0	0	0	0	0	0	0	7	
5:30 PM	0	1	0	8	0	0	0	9	0	0	1	0	0	0	0	13	
5:45 PM	0	0	0	6	0	0	1	11	0	0	0	0	0	0	0	8	
6:00 PM	0	0	0	12	0	1	0	7	1	0	0	0	0	0	0	11	
6:15 PM	0	1	0	11	0	0	0	12	0	0	0	0	0	0	0	17	
6:30 PM	0	1	0	13	0	0	0	17	0	0	0	0	0	0	0	15	
6:45 PM	0	0	0	13	0	2	0	15	0	0	0	0	0	0	0	19	
7:00 PM	0	0	0	18	0	0	0	18	0	0	1	0	0	0	0	14	
7:15 PM	0	0	0	16	0	0	1	19	0	0	0	0	0	0	0	18	
7:30 PM	0	0	0	19	0	2	0	22	0	0	0	0	0	0	0	14	
7:45 PM	0	0	0	12	0	1	0	18	0	0	0	0	0	0	0	20	

PM PEAK HOUR[1]	Ipswich Street Northbound				Ipswich Street Southbound				Lansdowne Street Eastbound				Parking Garage Westbound				
6:45 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
7:45 PM	0	0	0	66	0	4	1	74	0	0	1	0	0	0	0	65	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Ruth Bonsignore
Project #:	255_001_FLINK
BTD #:	Location 2
Location:	Fenway Park, MA
Street 1:	Van Ness St
Street 2:	Jersey St
Count Date:	11/16/2018
Day of Week:	Friday
Weather:	Mostly Cloudy, 41°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TOTAL (CARS & TRUCKS)

	Jersey St Northbound				Southbound				Eastbound				Van Ness St Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	10	16	8	0	0	0	0	0	0	0	0	0	1	49	29
4:15 PM	0	8	14	14	0	0	0	0	0	0	0	0	0	0	40	29
4:30 PM	0	6	12	16	0	0	0	0	0	0	0	0	0	0	18	28
4:45 PM	0	7	14	15	0	0	0	0	0	0	0	0	1	0	37	27
5:00 PM	0	8	15	10	0	0	0	0	0	0	0	0	0	0	41	24
5:15 PM	0	7	17	8	0	0	0	0	0	0	0	0	0	0	40	31
5:30 PM	0	5	19	3	0	0	0	0	0	0	0	0	1	0	41	34
5:45 PM	0	11	18	7	0	0	0	0	0	0	0	0	0	0	42	34
6:00 PM	0	14	16	9	0	0	0	0	0	0	0	0	0	0	44	35
6:15 PM	0	10	15	7	0	0	0	0	0	0	0	0	0	0	40	36
6:30 PM	0	3	12	4	0	0	0	0	0	0	0	0	0	0	25	35
6:45 PM	0	4	20	5	0	0	0	0	0	0	0	0	1	0	39	32
7:00 PM	0	5	23	5	0	0	0	0	0	0	0	0	0	0	43	27
7:15 PM	0	4	20	7	0	0	0	0	0	0	0	0	0	0	40	32
7:30 PM	0	4	19	8	0	0	0	0	0	0	0	0	1	0	35	34
7:45 PM	0	5	19	6	0	0	0	0	0	0	0	0	0	0	34	31

PM PEAK HOUR	Jersey St Northbound				Southbound				Eastbound				Van Ness St Westbound			
5:30 PM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
6:30 PM	**0**	**40**	**68**	**26**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**167**	**139**
PHF	**0.86**				**0.00**				**0.00**				**0.97**			
HV %	**0.0%**	**5.0%**	**10.3%**	**7.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.8%**	**1.4%**

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 2
Location: Fenway Park, MA
Street 1: Van Ness St
Street 2: Jersey St
Count Date: 11/16/2018
Day of Week: Friday
Weather: Mostly Cloudy, 41°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

TRUCKS

	Jersey St Northbound				Southbound			Eastbound			Van Ness St Westbound		
Start Time	U-Turn	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	2	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	1	2	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	2	1	0	0	0	0	0	0	0	1	0
5:00 PM	0	1	2	1	0	0	0	0	0	0	0	1	0
5:15 PM	0	1	1	0	0	0	0	0	0	0	0	1	1
5:30 PM	0	1	2	0	0	0	0	0	0	0	0	1	0
5:45 PM	0	0	1	2	0	0	0	0	0	0	0	1	1
6:00 PM	0	1	2	0	0	0	0	0	0	0	0	1	0
6:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	0	2	0	0	0	0	0	0	0	0	1	1
6:45 PM	0	1	1	0	0	0	0	0	0	0	0	1	0
7:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0

PM PEAK HOUR 5:00 PM to 6:00 PM	Jersey St Northbound				Southbound			Eastbound			Van Ness St Westbound		
	U-Turn	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	**3**	**6**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**2**
PHF	**0.75**				**0.00**			**0.00**			**0.75**		

Client: Ruth Bonsignore
Project #: 255_001_FLINK
BTD #: Location 2
Location: Fenway Park, MA
Street 1: Van Ness St
Street 2: Jersey St
Count Date: 11/16/2018
Day of Week: Friday
Weather: Mostly Cloudy, 41°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

	Jersey St Northbound				Southbound				Eastbound				Van Ness St Westbound				
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
4:00 PM	0	1	0	19	0	1	0	14	0	0	0	12	0	1	0	15	
4:15 PM	1	0	0	16	0	0	0	20	0	1	0	7	0	0	0	12	
4:30 PM	0	0	0	7	0	0	0	12	0	0	0	13	0	1	0	18	
4:45 PM	0	2	0	21	0	0	0	22	0	0	0	16	0	0	0	11	
5:00 PM	0	0	0	14	0	1	0	13	0	1	0	36	0	0	0	17	
5:15 PM	0	1	0	23	0	0	0	21	0	0	0	18	0	1	0	8	
5:30 PM	0	0	0	19	0	0	0	14	0	0	0	12	0	0	0	15	
5:45 PM	1	2	0	23	0	1	0	25	0	0	0	11	0	1	0	11	
6:00 PM	0	0	0	27	0	6	0	27	0	0	1	17	0	0	0	9	
6:15 PM	1	2	1	19	0	1	1	17	0	0	0	12	1	1	0	12	
6:30 PM	1	2	1	6	0	2	0	9	0	0	0	14	0	2	1	16	
6:45 PM	0	2	1	22	0	2	0	23	0	1	1	7	0	0	1	8	
7:00 PM	0	0	0	14	0	1	0	28	0	0	0	13	0	1	0	15	
7:15 PM	0	1	0	21	0	0	0	18	0	1	0	17	0	1	0	14	
7:30 PM	1	0	0	15	0	2	0	14	0	0	0	15	0	0	1	21	
7:45 PM	0	1	0	11	0	2	0	15	0	0	0	19	0	0	0	15	

PM PEAK HOUR[1]	Jersey St Northbound				Southbound				Eastbound				Van Ness St Westbound				
5:30 PM to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	
6:30 PM	2	4	1	88	0	8	1	83	0	0	1	52	1	2	0	47	

[1] *Peak hours corresponds to vehicular peak hours.*

No Build Project Descriptions

No Build Project List:

- 50-60 Kilmarnock (Under Review) - Involves the construction two eight story residential buildings totaling 420,800 SF with approximately 443 units. The project will provide 250 parking spaces.
- 560 Commonwealth Avenue (Under Review) - Involves the construction of two new hotel buildings. The Commonwealth Avenue Component of the project will demolish the existing Citizens bank and replace it with a new 161,000 SF, 382-room micro-hotel with ground floor retail space and rooftop amenity space. The Beacon Street Component of the project will demolish the existing parking structure and replace it with a new 186,000 SF, 295-room hotel with meeting space, a café/lounge, below grade parking, and rooftop amenity space. The existing Buckminster Hotel at the corner will be retailed. The project will provide approximately 145 parking spaces.
- 839 Beacon Street (Under Construction) - Involves the construction of a five-story mixed-use building containing 45 residential units and 4,500 SF of ground floor retail. The project will provide 30 parking spaces.
- 1241 Boylston Street (Under Review) - Involves the constriction of an eight story, 105,000 SF hotel which includes 184 hotel rooms and 4,600 SF of ground floor retail. The project will provide 82 parking spaces.
- Fenway Center Phase 1 (Under Construction) - Involves the construction of five buildings ranging from seven to 27 stories on land and along the air rights parcel 7 above the Mass Pike. The project includes residential, retail, office, and a shared garage. This project also includes an expansion of Yawkey Station. The project will provide 750 public spaces in the shared garage, and 590 private spaces below the two residential buildings.
- Kenmore Square Redevelopment (Board Approved) - Involves the construction of two new mixed-use buildings that include 253,735 SF of office and 28,765 SF of retail space. The project will provide 60 parking spaces.
- Landmark Center Phase 2 (Board Approved) - Involves two distinct phases. Phase 1 is under construction now and involves the reconfiguration of the parking lot and construction of an approximately 1.1-acre open space along Park Drive. Phase 2 involves the construction of a new 14-story mixed-use building with retail and office/laboratory uses. No new parking is being proposed for this project.
- 1252-1268 Boylston Street (Letter of Intent) – Involves the construction of approximately 205,500 SF of mixed-use programming, comprised of approximately 500 units of private academic accommodations and an activated ground-floor retail podium fronting on Boylston Street.

Synchro Outputs

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	165	125	30	70	30	0	0	0
Future Volume (Veh/h)	0	0	0	0	165	125	30	70	30	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	179	136	34	79	34	0	0	0
Pedestrians					76						21	
Lane Width (ft)					13.0						0.0	
Walking Speed (ft/s)					4.0						4.0	
Percent Blockage					7						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								324				
pX, platoon unblocked												
vC, conflicting volume	410	257	0	240	240	193	0			189		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	410	257	0	240	240	193	0			189		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.4			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.5			2.2		
p0 queue free %	100	100	100	100	70	83	98			100		
cM capacity (veh/h)	330	592	1091	623	603	783	1447			1301		

Direction, Lane #	WB 1	NB 1
Volume Total	315	147
Volume Left	0	34
Volume Right	136	34
cSH	670	1447
Volume to Capacity	0.47	0.02
Queue Length 95th (ft)	63	2
Control Delay (s)	15.1	1.9
Lane LOS	C	A
Approach Delay (s)	15.1	1.9
Approach LOS	C	

Intersection Summary			
Average Delay	10.9		
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	1216	953	229
v/c Ratio	0.76	0.69	0.81
Control Delay	15.5	10.2	47.4
Queue Delay	0.0	0.0	0.0
Total Delay	15.5	10.2	47.4
Queue Length 50th (ft)	175	91	98
Queue Length 95th (ft)	#347	112	110
Internal Link Dist (ft)	237	630	258
Turn Bay Length (ft)			
Base Capacity (vph)	1598	1382	408
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.76	0.69	0.56

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1085	35	30	850	45	35	20	105	0	0	0
Future Volume (vph)	35	1085	35	30	850	45	35	20	105	0	0	0
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	12	12	12	12	12	12
Total Lost time (s)		5.0			5.0			5.0				
Lane Util. Factor		0.95			0.95			1.00				
Frpb, ped/bikes		1.00			1.00			0.92				
Flpb, ped/bikes		1.00			1.00			0.98				
Frt		1.00			0.99			0.91				
Flt Protected		1.00			1.00			0.99				
Satd. Flow (prot)		2588			2539			1320				
Flt Permitted		0.90			0.87			0.99				
Satd. Flow (perm)		2326			2224			1320				
Peak-hour factor, PHF	0.95	0.95	0.95	0.97	0.97	0.97	0.70	0.70	0.70	0.92	0.92	0.92
Adj. Flow (vph)	37	1142	37	31	876	46	50	29	150	0	0	0
RTOR Reduction (vph)	0	2	0	0	3	0	0	60	0	0	0	0
Lane Group Flow (vph)	0	1214	0	0	950	0	0	169	0	0	0	0
Confl. Peds. (#/hr)	25		19	19		25	83		101			
Heavy Vehicles (%)	17%	1%	0%	3%	2%	22%	3%	0%	4%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	4	4	4	0	0	0
Parking (#/hr)			1			1						
Turn Type	pm+pt	NA		Perm	NA		Perm	NA				
Protected Phases	4	1			1			2				
Permitted Phases	1			1			2					
Actuated Green, G (s)		68.0			62.0			17.0				
Effective Green, g (s)		68.0			62.0			17.0				
Actuated g/C Ratio		0.68			0.62			0.17				
Clearance Time (s)		5.0			5.0			5.0				
Vehicle Extension (s)		2.0			2.0			2.0				
Lane Grp Cap (vph)		1597			1378			224				
v/s Ratio Prot		c0.05										
v/s Ratio Perm		c0.47			0.43			0.13				
v/c Ratio		0.76			0.69			0.76				
Uniform Delay, d1		10.6			12.6			39.5				
Progression Factor		1.00			0.54			1.00				
Incremental Delay, d2		3.5			2.3			12.1				
Delay (s)		14.1			9.1			51.6				
Level of Service		B			A			D				
Approach Delay (s)		14.1			9.1			51.6			0.0	
Approach LOS		B			A			D			A	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	104.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1405	988	129	88
v/c Ratio	0.95	0.61	0.37	0.34
Control Delay	25.1	14.6	36.9	37.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.1	14.6	36.9	37.4
Queue Length 50th (ft)	201	192	70	48
Queue Length 95th (ft)	#592	254	118	89
Internal Link Dist (ft)	630	38	222	
Turn Bay Length (ft)			50	
Base Capacity (vph)	1484	1617	346	257
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	0.95	0.61	0.37	0.34

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	25	1295	850	40	110	75
Future Volume (vph)	25	1295	850	40	110	75
Ideal Flow (vphpl)	1600	1600	1600	1000	1900	1900
Total Lost time (s)		6.0	6.0		6.0	6.0
Lane Util. Factor		0.95	0.95		1.00	1.00
Frt		1.00	0.99		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2699	2692		1577	1172
Flt Permitted		0.92	1.00		0.95	1.00
Satd. Flow (perm)		2475	2692		1577	1172
Peak-hour factor, PHF	0.94	0.94	0.90	0.90	0.85	0.85
Adj. Flow (vph)	27	1378	944	44	129	88
RTOR Reduction (vph)	0	0	3	0	0	0
Lane Group Flow (vph)	0	1405	985	0	129	88
Heavy Vehicles (%)	16%	1%	1%	0%	3%	24%
Turn Type	Perm	NA	NA		Prot	Prot
Protected Phases		1	1		5	5
Permitted Phases	1					5
Actuated Green, G (s)		60.0	60.0		22.0	22.0
Effective Green, g (s)		60.0	60.0		22.0	22.0
Actuated g/C Ratio		0.60	0.60		0.22	0.22
Clearance Time (s)		6.0	6.0		6.0	6.0
Vehicle Extension (s)		2.0	2.0		3.0	3.0
Lane Grp Cap (vph)		1485	1615		346	257
v/s Ratio Prot			0.37		c0.08	0.08
v/s Ratio Perm		c0.57				
v/c Ratio		0.95	0.61		0.37	0.34
Uniform Delay, d1		18.5	12.6		33.1	32.9
Progression Factor		0.70	1.00		1.00	1.00
Incremental Delay, d2		10.7	1.7		3.1	3.6
Delay (s)		23.6	14.3		36.2	36.5
Level of Service		C	B		D	D
Approach Delay (s)		23.6	14.3		36.3	
Approach LOS		C	B		D	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	402	179	309	114	163
v/c Ratio	0.31	0.14	0.72	0.20	0.83
Control Delay	10.5	7.0	42.2	5.2	60.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.5	7.0	42.2	5.2	60.5
Queue Length 50th (ft)	106	30	180	0	86
Queue Length 95th (ft)	209	75	235	34	152
Internal Link Dist (ft)	301	268	326		109
Turn Bay Length (ft)					
Base Capacity (vph)	1308	1275	718	870	314
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	0.31	0.14	0.43	0.13	0.52

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	350	0	0	95	70	165	120	105	110	0	40
Future Volume (vph)	20	350	0	0	95	70	165	120	105	110	0	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	16	12	12	16	16	12	12	12
Total Lost time (s)		5.0			5.0			5.0	5.0		5.0	
Lane Util. Factor		1.00			1.00			1.00	1.00		1.00	
Frt		1.00			0.94			1.00	0.85		0.96	
Flt Protected		1.00			1.00			0.97	1.00		0.96	
Satd. Flow (prot)		2105			1990			2052	1794		1733	
Flt Permitted		0.98			1.00			0.76	1.00		0.37	
Satd. Flow (perm)		2071			1990			1596	1794		671	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	380	0	0	103	76	179	130	114	120	0	43
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	83	0	17	0
Lane Group Flow (vph)	0	402	0	0	161	0	0	309	31	0	146	0
Turn Type	Perm	NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases		1			1			3			3	
Permitted Phases	1						3		3	3		
Actuated Green, G (s)		63.2			63.2			26.8	26.8		26.8	
Effective Green, g (s)		63.2			63.2			26.8	26.8		26.8	
Actuated g/C Ratio		0.63			0.63			0.27	0.27		0.27	
Clearance Time (s)		5.0			5.0			5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		1308			1257			427	480		179	
v/s Ratio Prot					0.08							
v/s Ratio Perm		c0.19						0.19	0.02		c0.22	
v/c Ratio		0.31			0.13			0.72	0.06		0.82	
Uniform Delay, d1		8.4			7.4			33.2	27.3		34.3	
Progression Factor		1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.6			0.2			6.0	0.1		24.1	
Delay (s)		9.0			7.6			39.2	27.3		58.4	
Level of Service		A			A			D	C		E	
Approach Delay (s)		9.0			7.6			36.0			58.4	
Approach LOS		A			A			D			E	

Intersection Summary			
HCM 2000 Control Delay	25.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	80	135	0	45	250	0
Future Volume (Veh/h)	80	135	0	45	250	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	87	147	0	49	272	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	321	272	272			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	321	272	272			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	81	100			
cM capacity (veh/h)	673	767	1291			

Direction, Lane #	EB 1	NE 1	SW 1
Volume Total	234	49	272
Volume Left	87	0	0
Volume Right	147	0	0
cSH	729	1700	1700
Volume to Capacity	0.32	0.03	0.16
Queue Length 95th (ft)	35	0	0
Control Delay (s)	12.3	0.0	0.0
Lane LOS	B		
Approach Delay (s)	12.3	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	0	0	305	55	45	215
Future Volume (vph)	0	0	305	55	45	215
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	332	60	49	234

Direction, Lane #	NE 1	SW 1
Volume Total (vph)	392	283
Volume Left (vph)	0	49
Volume Right (vph)	60	0
Hadj (s)	-0.06	0.07
Departure Headway (s)	4.1	4.3
Degree Utilization, x	0.45	0.34
Capacity (veh/h)	861	810
Control Delay (s)	10.4	9.6
Approach Delay (s)	10.4	9.6
Approach LOS	B	A

Intersection Summary			
Delay	10.1		
Level of Service	B		
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	11	19	29	34	159	226
Future Volume (Veh/h)	11	19	29	34	159	226
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	21	32	37	173	246
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)			302			
pX, platoon unblocked						
vC, conflicting volume	397	296	419			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	397	296	419			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	97	97			
cM capacity (veh/h)	591	743	1140			

Direction, Lane #	EB 1	NB 1	SW 1
Volume Total	33	69	419
Volume Left	12	32	0
Volume Right	21	0	246
cSH	680	1140	1700
Volume to Capacity	0.05	0.03	0.25
Queue Length 95th (ft)	4	2	0
Control Delay (s)	10.6	4.0	0.0
Lane LOS	B	A	
Approach Delay (s)	10.6	4.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	171	136	30	74	30	0	0	0
Future Volume (Veh/h)	0	0	0	0	171	136	30	74	30	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	186	148	34	83	34	0	0	0
Pedestrians					76						21	
Lane Width (ft)					13.0						0.0	
Walking Speed (ft/s)					4.0						4.0	
Percent Blockage					7						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								324				
pX, platoon unblocked												
vC, conflicting volume	430	261	0	244	244	197	0			193		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	430	261	0	244	244	197	0			193		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.4			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.5			2.2		
p0 queue free %	100	100	100	100	69	81	98			100		
cM capacity (veh/h)	310	589	1091	619	600	779	1447			1297		

Direction, Lane #	WB 1	NB 1
Volume Total	334	151
Volume Left	0	34
Volume Right	148	34
cSH	668	1447
Volume to Capacity	0.50	0.02
Queue Length 95th (ft)	70	2
Control Delay (s)	15.7	1.8
Lane LOS	C	A
Approach Delay (s)	15.7	1.8
Approach LOS	C	

Intersection Summary			
Average Delay	11.4		
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	1257	1005	218
v/c Ratio	0.78	0.72	0.80
Control Delay	16.1	10.4	47.6
Queue Delay	0.0	0.0	0.0
Total Delay	16.1	10.4	47.6
Queue Length 50th (ft)	182	96	95
Queue Length 95th (ft)	#384	117	108
Internal Link Dist (ft)	237	630	258
Turn Bay Length (ft)			
Base Capacity (vph)	1606	1389	405
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.78	0.72	0.54

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1124	35	30	895	49	35	20	97	0	0	0
Future Volume (vph)	35	1124	35	30	895	49	35	20	97	0	0	0
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	12	12	12	12	12	12
Total Lost time (s)		5.0			5.0			5.0				
Lane Util. Factor		0.95			0.95			1.00				
Frpb, ped/bikes		1.00			1.00			0.92				
Flpb, ped/bikes		1.00			1.00			0.98				
Frt		1.00			0.99			0.91				
Flt Protected		1.00			1.00			0.99				
Satd. Flow (prot)		2589			2537			1324				
Flt Permitted		0.90			0.87			0.99				
Satd. Flow (perm)		2321			2221			1324				
Peak-hour factor, PHF	0.95	0.95	0.95	0.97	0.97	0.97	0.70	0.70	0.70	0.92	0.92	0.92
Adj. Flow (vph)	37	1183	37	31	923	51	50	29	139	0	0	0
RTOR Reduction (vph)	0	2	0	0	3	0	0	55	0	0	0	0
Lane Group Flow (vph)	0	1255	0	0	1002	0	0	163	0	0	0	0
Confl. Peds. (#/hr)	25		19	19		25	83		101			
Heavy Vehicles (%)	17%	1%	0%	3%	2%	22%	3%	0%	4%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	4	4	4	0	0	0
Parking (#/hr)			1			1						
Turn Type	pm+pt	NA		Perm	NA		Perm	NA				
Protected Phases	4	1			1			2				
Permitted Phases	1			1			2					
Actuated Green, G (s)		68.5			62.5			16.5				
Effective Green, g (s)		68.5			62.5			16.5				
Actuated g/C Ratio		0.68			0.62			0.16				
Clearance Time (s)		5.0			5.0			5.0				
Vehicle Extension (s)		2.0			2.0			2.0				
Lane Grp Cap (vph)		1605			1388			218				
v/s Ratio Prot		c0.05										
v/s Ratio Perm		c0.49			0.45			0.12				
v/c Ratio		0.78			0.72			0.75				
Uniform Delay, d1		10.7			12.8			39.8				
Progression Factor		1.00			0.51			1.00				
Incremental Delay, d2		3.9			2.5			11.5				
Delay (s)		14.6			9.0			51.3				
Level of Service		B			A			D				
Approach Delay (s)		14.6			9.0			51.3			0.0	
Approach LOS		B			A			D			A	

Intersection Summary			
HCM 2000 Control Delay	15.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	105.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1440	1073	166	89
v/c Ratio	0.98	0.67	0.48	0.35
Control Delay	32.1	15.6	39.4	37.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	32.1	15.6	39.4	37.5
Queue Length 50th (ft)	388	218	93	48
Queue Length 95th (ft)	#626	290	148	89
Internal Link Dist (ft)	630	38	222	
Turn Bay Length (ft)			50	
Base Capacity (vph)	1462	1613	346	257
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	0.98	0.67	0.48	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	29	1324	888	77	141	76
Future Volume (vph)	29	1324	888	77	141	76
Ideal Flow (vphpl)	1600	1600	1600	1000	1900	1900
Total Lost time (s)		6.0	6.0		6.0	6.0
Lane Util. Factor		0.95	0.95		1.00	1.00
Frt		1.00	0.99		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2697	2678		1577	1172
Flt Permitted		0.90	1.00		0.95	1.00
Satd. Flow (perm)		2440	2678		1577	1172
Peak-hour factor, PHF	0.94	0.94	0.90	0.90	0.85	0.85
Adj. Flow (vph)	31	1409	987	86	166	89
RTOR Reduction (vph)	0	0	6	0	0	0
Lane Group Flow (vph)	0	1440	1067	0	166	89
Heavy Vehicles (%)	16%	1%	1%	0%	3%	24%
Turn Type	Perm	NA	NA		Prot	Prot
Protected Phases		1	1		5	5
Permitted Phases	1					5
Actuated Green, G (s)		60.0	60.0		22.0	22.0
Effective Green, g (s)		60.0	60.0		22.0	22.0
Actuated g/C Ratio		0.60	0.60		0.22	0.22
Clearance Time (s)		6.0	6.0		6.0	6.0
Vehicle Extension (s)		2.0	2.0		3.0	3.0
Lane Grp Cap (vph)		1464	1606		346	257
v/s Ratio Prot			0.40		c0.11	0.08
v/s Ratio Perm		c0.59				
v/c Ratio		0.98	0.66		0.48	0.35
Uniform Delay, d1		19.5	13.3		34.0	32.9
Progression Factor		0.71	1.00		1.00	1.00
Incremental Delay, d2		16.3	2.2		4.7	3.7
Delay (s)		30.1	15.5		38.7	36.6
Level of Service		C	B		D	D
Approach Delay (s)		30.1	15.5		38.0	
Approach LOS		C	B		D	

Intersection Summary			
HCM 2000 Control Delay	25.2	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)	17.0
Intersection Capacity Utilization	94.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	407	194	315	115	200
v/c Ratio	0.32	0.16	0.70	0.19	0.94
Control Delay	11.7	7.6	39.6	4.7	79.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	7.6	39.6	4.7	79.3
Queue Length 50th (ft)	113	33	180	0	113
Queue Length 95th (ft)	229	85	228	33	#204
Internal Link Dist (ft)	301	268	326		109
Turn Bay Length (ft)					
Base Capacity (vph)	1273	1239	708	870	322
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	0.32	0.16	0.44	0.13	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	354	0	0	96	83	167	122	106	136	0	48
Future Volume (vph)	20	354	0	0	96	83	167	122	106	136	0	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	16	12	12	16	16	12	12	12
Total Lost time (s)		5.0			5.0			5.0	5.0		5.0	
Lane Util. Factor		1.00			1.00			1.00	1.00		1.00	
Frt		1.00			0.94			1.00	0.85		0.96	
Flt Protected		1.00			1.00			0.97	1.00		0.96	
Satd. Flow (prot)		2105			1979			2052	1794		1733	
Flt Permitted		0.98			1.00			0.75	1.00		0.38	
Satd. Flow (perm)		2070			1979			1575	1794		689	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	385	0	0	104	90	182	133	115	148	0	52
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	82	0	16	0
Lane Group Flow (vph)	0	407	0	0	172	0	0	315	33	0	184	0
Turn Type	Perm	NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases		1			1			3			3	
Permitted Phases	1						3		3	3		
Actuated Green, G (s)		61.6			61.6			28.4	28.4		28.4	
Effective Green, g (s)		61.6			61.6			28.4	28.4		28.4	
Actuated g/C Ratio		0.62			0.62			0.28	0.28		0.28	
Clearance Time (s)		5.0			5.0			5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		1275			1219			447	509		195	
v/s Ratio Prot					0.09							
v/s Ratio Perm		c0.20						0.20	0.02		c0.27	
v/c Ratio		0.32			0.14			0.70	0.06		0.94	
Uniform Delay, d1		9.2			8.1			32.0	26.1		35.0	
Progression Factor		1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.7			0.2			5.0	0.1		47.7	
Delay (s)		9.8			8.3			37.0	26.2		82.7	
Level of Service		A			A			D	C		F	
Approach Delay (s)		9.8			8.3			34.1			82.7	
Approach LOS		A			A			C			F	

Intersection Summary			
HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	104	145	0	55	265	0
Future Volume (Veh/h)	104	145	0	55	265	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	113	158	0	60	288	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	348	288	288			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	348	288	288			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	83	79	100			
cM capacity (veh/h)	649	751	1274			

Direction, Lane #	EB 1	NE 1	SW 1
Volume Total	271	60	288
Volume Left	113	0	0
Volume Right	158	0	0
cSH	705	1700	1700
Volume to Capacity	0.38	0.04	0.17
Queue Length 95th (ft)	45	0	0
Control Delay (s)	13.3	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.3	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	0	0	306	77	56	253
Future Volume (vph)	0	0	306	77	56	253
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	333	84	61	275

Direction, Lane #	NE 1	SW 1
Volume Total (vph)	417	336
Volume Left (vph)	0	61
Volume Right (vph)	84	0
Hadj (s)	-0.09	0.07
Departure Headway (s)	4.1	4.4
Degree Utilization, x	0.48	0.41
Capacity (veh/h)	855	807
Control Delay (s)	10.9	10.3
Approach Delay (s)	10.9	10.3
Approach LOS	B	B

Intersection Summary			
Delay	10.6		
Level of Service	B		
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	11	19	61	43	172	238
Future Volume (Veh/h)	11	19	61	43	172	238
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	21	66	47	187	259
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)			302			
pX, platoon unblocked						
vC, conflicting volume	496	316	446			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	496	316	446			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	97	94			
cM capacity (veh/h)	502	724	1114			

Direction, Lane #	EB 1	NB 1	SW 1
Volume Total	33	113	446
Volume Left	12	66	0
Volume Right	21	0	259
cSH	624	1114	1700
Volume to Capacity	0.05	0.06	0.26
Queue Length 95th (ft)	4	5	0
Control Delay (s)	11.1	5.1	0.0
Lane LOS	B	A	
Approach Delay (s)	11.1	5.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	171	136	30	74	30	0	0	0
Future Volume (Veh/h)	0	0	0	0	171	136	30	74	30	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	186	148	34	83	34	0	0	0
Pedestrians					76						21	
Lane Width (ft)					13.0						0.0	
Walking Speed (ft/s)					4.0						4.0	
Percent Blockage					7						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								324				
pX, platoon unblocked												
vC, conflicting volume	430	261	0	244	244	197	0			193		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	430	261	0	244	244	197	0			193		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.4			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.5			2.2		
p0 queue free %	100	100	100	100	69	81	98			100		
cM capacity (veh/h)	310	589	1091	619	600	779	1447			1297		

Direction, Lane #	WB 1	NB 1
Volume Total	334	151
Volume Left	0	34
Volume Right	148	34
cSH	668	1447
Volume to Capacity	0.50	0.02
Queue Length 95th (ft)	70	2
Control Delay (s)	15.7	1.8
Lane LOS	C	A
Approach Delay (s)	15.7	1.8
Approach LOS	C	

Intersection Summary			
Average Delay	11.4		
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	1265	1005	218
v/c Ratio	0.79	0.73	0.80
Control Delay	16.4	10.8	48.0
Queue Delay	0.0	0.0	0.0
Total Delay	16.4	10.8	48.0
Queue Length 50th (ft)	185	97	96
Queue Length 95th (ft)	#397	132	110
Internal Link Dist (ft)	237	630	258
Turn Bay Length (ft)			
Base Capacity (vph)	1606	1386	404
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.79	0.73	0.54

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1131	35	30	895	49	35	20	97	0	0	0
Future Volume (vph)	35	1131	35	30	895	49	35	20	97	0	0	0
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	12	12	12	12	12	12
Total Lost time (s)		5.0			5.0			5.0				
Lane Util. Factor		0.95			0.95			1.00				
Frpb, ped/bikes		1.00			1.00			0.92				
Flpb, ped/bikes		1.00			1.00			0.98				
Frt		1.00			0.99			0.91				
Flt Protected		1.00			1.00			0.99				
Satd. Flow (prot)		2589			2537			1324				
Flt Permitted		0.90			0.87			0.99				
Satd. Flow (perm)		2322			2219			1324				
Peak-hour factor, PHF	0.95	0.95	0.95	0.97	0.97	0.97	0.70	0.70	0.70	0.92	0.92	0.92
Adj. Flow (vph)	37	1191	37	31	923	51	50	29	139	0	0	0
RTOR Reduction (vph)	0	2	0	0	3	0	0	53	0	0	0	0
Lane Group Flow (vph)	0	1263	0	0	1002	0	0	165	0	0	0	0
Confl. Peds. (#/hr)	25		19	19		25	83		101			
Heavy Vehicles (%)	17%	1%	0%	3%	2%	22%	3%	0%	4%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	4	4	4	0	0	0
Parking (#/hr)			1			1						
Turn Type	pm+pt	NA		Perm	NA		Perm	NA				
Protected Phases	4	1			1			2				
Permitted Phases	1			1			2					
Actuated Green, G (s)		68.4			62.4			16.6				
Effective Green, g (s)		68.4			62.4			16.6				
Actuated g/C Ratio		0.68			0.62			0.17				
Clearance Time (s)		5.0			5.0			5.0				
Vehicle Extension (s)		2.0			2.0			2.0				
Lane Grp Cap (vph)		1604			1384			219				
v/s Ratio Prot		c0.05										
v/s Ratio Perm		c0.49			0.45			0.12				
v/c Ratio		0.79			0.72			0.75				
Uniform Delay, d1		10.8			12.9			39.7				
Progression Factor		1.00			0.53			1.00				
Incremental Delay, d2		4.0			2.4			12.1				
Delay (s)		14.8			9.3			51.9				
Level of Service		B			A			D				
Approach Delay (s)		14.8			9.3			51.9			0.0	
Approach LOS		B			A			D			A	

Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	106.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1447	1139	166	89
v/c Ratio	1.01	0.71	0.48	0.35
Control Delay	40.0	16.6	39.4	37.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	40.0	16.6	39.4	37.5
Queue Length 50th (ft)	~490	240	93	48
Queue Length 95th (ft)	#644	319	148	89
Internal Link Dist (ft)	630	38	222	
Turn Bay Length (ft)			50	
Base Capacity (vph)	1426	1607	346	257
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	1.01	0.71	0.48	0.35

Intersection Summary

~ 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.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	36	1324	888	137	141	76
Future Volume (vph)	36	1324	888	137	141	76
Ideal Flow (vphpl)	1600	1600	1600	1000	1900	1900
Total Lost time (s)		6.0	6.0		6.0	6.0
Lane Util. Factor		0.95	0.95		1.00	1.00
Frt		1.00	0.98		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2695	2658		1577	1172
Flt Permitted		0.88	1.00		0.95	1.00
Satd. Flow (perm)		2378	2658		1577	1172
Peak-hour factor, PHF	0.94	0.94	0.90	0.90	0.85	0.85
Adj. Flow (vph)	38	1409	987	152	166	89
RTOR Reduction (vph)	0	0	12	0	0	0
Lane Group Flow (vph)	0	1447	1127	0	166	89
Heavy Vehicles (%)	16%	1%	1%	0%	3%	24%
Turn Type	Perm	NA	NA		Prot	Prot
Protected Phases		1	1		5	5
Permitted Phases	1					5
Actuated Green, G (s)		60.0	60.0		22.0	22.0
Effective Green, g (s)		60.0	60.0		22.0	22.0
Actuated g/C Ratio		0.60	0.60		0.22	0.22
Clearance Time (s)		6.0	6.0		6.0	6.0
Vehicle Extension (s)		2.0	2.0		3.0	3.0
Lane Grp Cap (vph)		1426	1594		346	257
v/s Ratio Prot			0.42		c0.11	0.08
v/s Ratio Perm		c0.61				
v/c Ratio		1.01	0.71		0.48	0.35
Uniform Delay, d1		20.0	13.9		34.0	32.9
Progression Factor		0.72	1.00		1.00	1.00
Incremental Delay, d2		23.7	2.7		4.7	3.7
Delay (s)		38.0	16.6		38.7	36.6
Level of Service		D	B		D	D
Approach Delay (s)		38.0	16.6		38.0	
Approach LOS		D	B		D	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	101.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	407	204	319	115	200
v/c Ratio	0.32	0.17	0.71	0.19	0.95
Control Delay	11.8	7.6	39.6	4.7	80.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	7.6	39.6	4.7	80.2
Queue Length 50th (ft)	114	34	182	0	113
Queue Length 95th (ft)	230	88	230	33	#205
Internal Link Dist (ft)	301	268	326		109
Turn Bay Length (ft)					
Base Capacity (vph)	1270	1234	710	870	319
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	0.32	0.17	0.45	0.13	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	354	0	0	96	92	167	126	106	136	0	48
Future Volume (vph)	20	354	0	0	96	92	167	126	106	136	0	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	16	12	12	16	16	12	12	12
Total Lost time (s)		5.0			5.0			5.0	5.0		5.0	
Lane Util. Factor		1.00			1.00			1.00	1.00		1.00	
Frt		1.00			0.93			1.00	0.85		0.96	
Flt Protected		1.00			1.00			0.97	1.00		0.96	
Satd. Flow (prot)		2105			1971			2053	1794		1733	
Flt Permitted		0.98			1.00			0.75	1.00		0.38	
Satd. Flow (perm)		2069			1971			1579	1794		682	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	385	0	0	104	100	182	137	115	148	0	52
RTOR Reduction (vph)	0	0	0	0	24	0	0	0	82	0	16	0
Lane Group Flow (vph)	0	407	0	0	180	0	0	319	33	0	184	0
Turn Type	Perm	NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases		1			1			3			3	
Permitted Phases	1						3		3	3		
Actuated Green, G (s)		61.4			61.4			28.6	28.6		28.6	
Effective Green, g (s)		61.4			61.4			28.6	28.6		28.6	
Actuated g/C Ratio		0.61			0.61			0.29	0.29		0.29	
Clearance Time (s)		5.0			5.0			5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		1270			1210			451	513		195	
v/s Ratio Prot					0.09							
v/s Ratio Perm		c0.20						0.20	0.02		c0.27	
v/c Ratio		0.32			0.15			0.71	0.06		0.94	
Uniform Delay, d1		9.3			8.2			32.0	26.0		34.9	
Progression Factor		1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.7			0.3			5.0	0.1		47.7	
Delay (s)		9.9			8.5			37.0	26.0		82.6	
Level of Service		A			A			D	C		F	
Approach Delay (s)		9.9			8.5			34.1			82.6	
Approach LOS		A			A			C			F	

Intersection Summary			
HCM 2000 Control Delay	29.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	104	145	0	55	265	0
Future Volume (Veh/h)	104	145	0	55	265	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	113	158	0	60	288	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	348	288	288			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	348	288	288			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	83	79	100			
cM capacity (veh/h)	649	751	1274			

Direction, Lane #	EB 1	NE 1	SW 1
Volume Total	271	60	288
Volume Left	113	0	0
Volume Right	158	0	0
cSH	705	1700	1700
Volume to Capacity	0.38	0.04	0.17
Queue Length 95th (ft)	45	0	0
Control Delay (s)	13.3	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.3	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	0	0	306	77	77	253
Future Volume (vph)	0	0	306	77	77	253
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	333	84	84	275

Direction, Lane #	NE 1	SW 1
Volume Total (vph)	417	359
Volume Left (vph)	0	84
Volume Right (vph)	84	0
Hadj (s)	-0.09	0.08
Departure Headway (s)	4.2	4.4
Degree Utilization, x	0.48	0.44
Capacity (veh/h)	850	805
Control Delay (s)	11.0	10.7
Approach Delay (s)	11.0	10.7
Approach LOS	B	B

Intersection Summary			
Delay	10.9		
Level of Service	B		
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

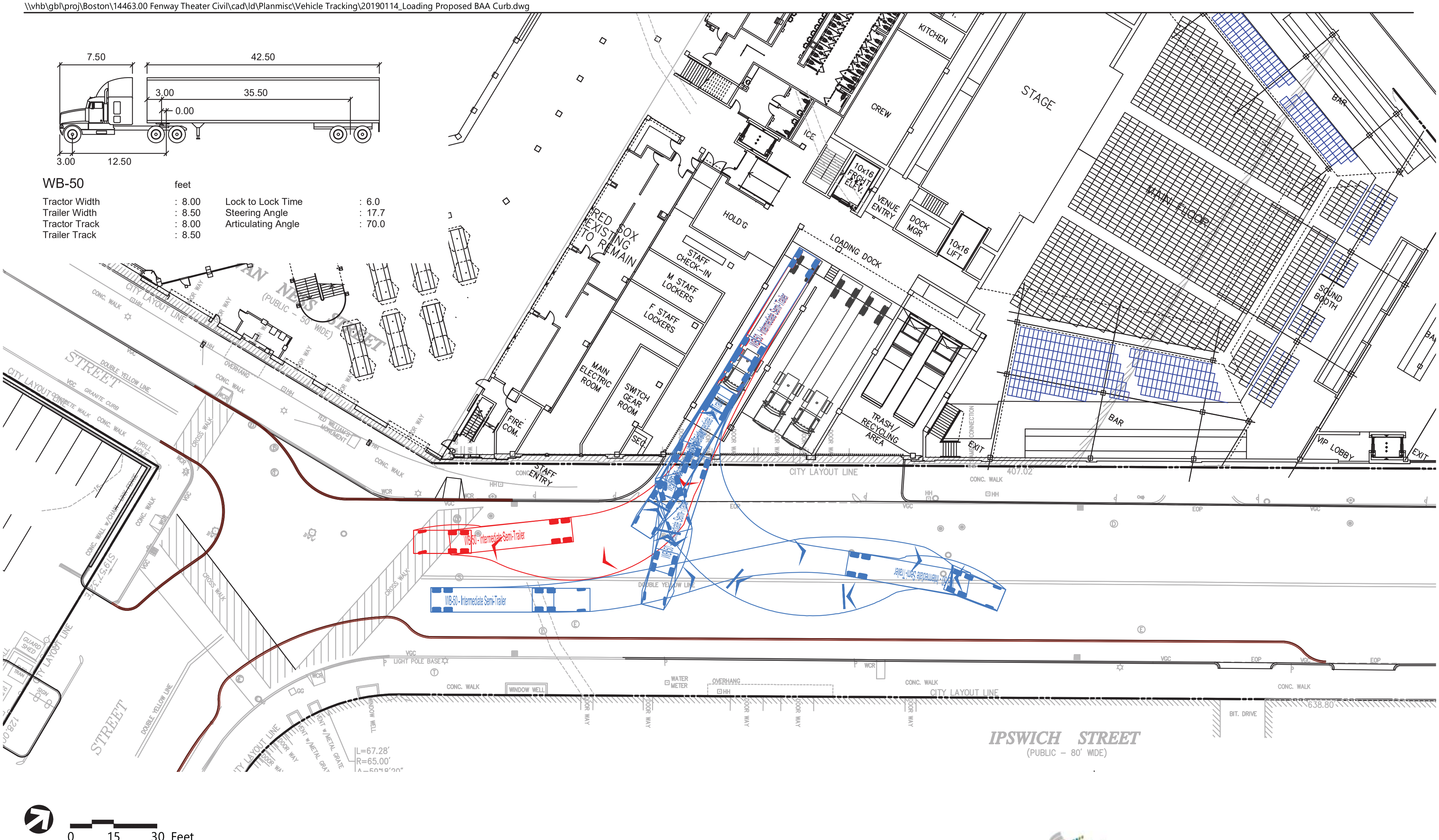
Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	11	19	61	103	172	238
Future Volume (Veh/h)	11	19	61	103	172	238
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	21	66	112	187	259
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)			302			
pX, platoon unblocked						
vC, conflicting volume	560	316	446			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	560	316	446			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	97	94			
cM capacity (veh/h)	460	724	1114			

Direction, Lane #	EB 1	NB 1	SW 1
Volume Total	33	178	446
Volume Left	12	66	0
Volume Right	21	0	259
cSH	599	1114	1700
Volume to Capacity	0.06	0.06	0.26
Queue Length 95th (ft)	4	5	0
Control Delay (s)	11.4	3.5	0.0
Lane LOS	B	A	
Approach Delay (s)	11.4	3.5	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		

Loading Dock Turning Movement Analysis

\\vhb\gbl\proj\Boston\14463.00 Fenway Theater Civil\cad\ld\Planmisc\Vehicle Tracking\20190114_Loading Proposed BAA Curb.dwg

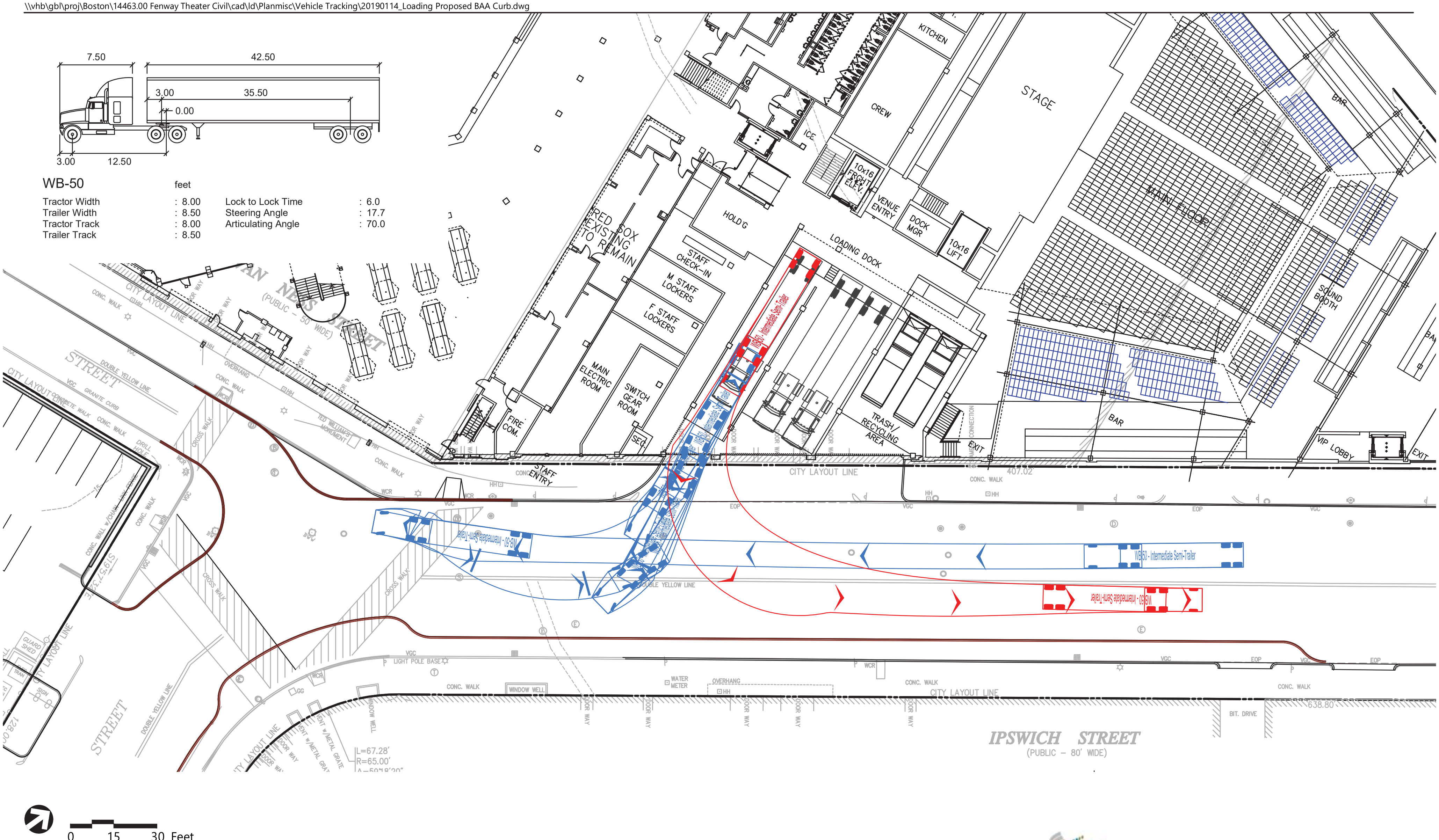


Loading Dock Analysis
Proposed BAA Curbline
To/From Boylston Street
Fenway Theater | Boston, MA

Figure 1A

January 28, 2019

\\vhb\gbl\proj\Boston\14463.00 Fenway Theater Civil\cad\ld\Planmisc\Vehicle Tracking\20190114_Loading Proposed BAA Curb.dwg

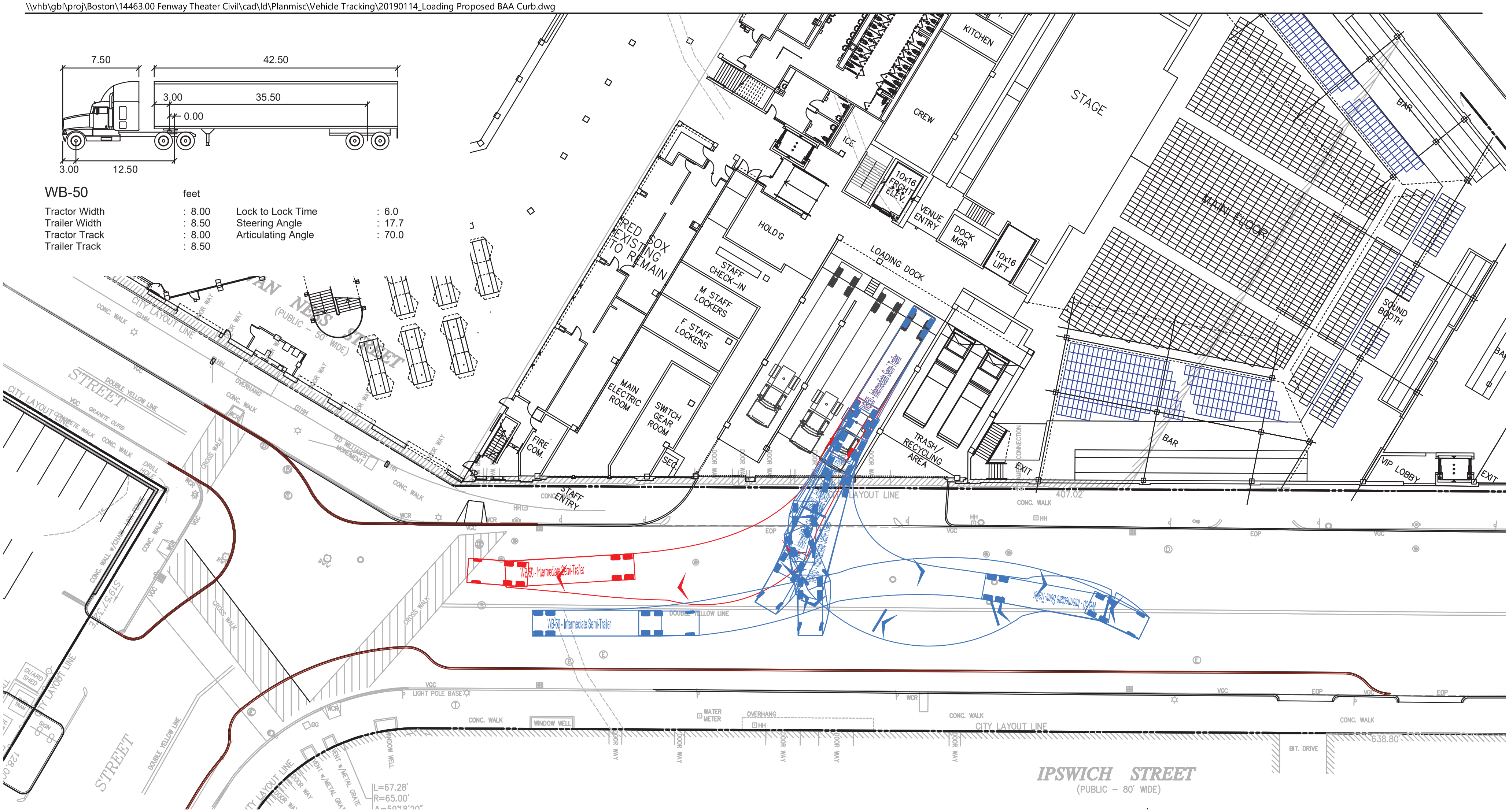


Loading Dock Analysis
Proposed BAA Curbline
To/From Lansdowne Street
Fenway Theater | Boston, MA

Figure 1B

January 28, 2019

\\vhb\gbl\proj\Boston\14463.00 Fenway Theater Civil\cad\ld\Planmisc\Vehicle Tracking\20190114_Loading Proposed BAA Curb.dwg



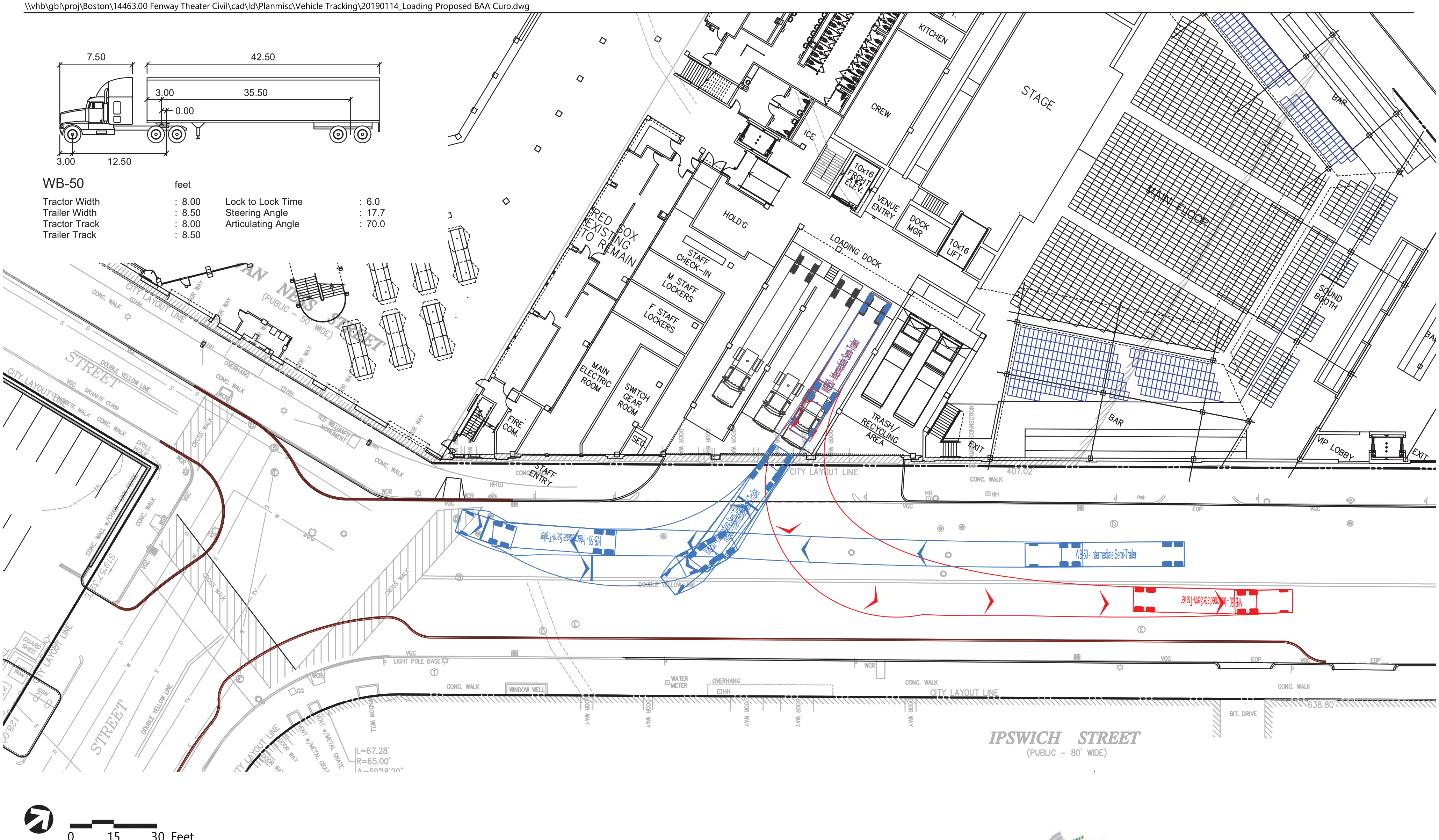
0 15 30 Feet

Loading Dock Analysis
Proposed BAA Curbline
To/From Boylston Street
Fenway Theater | Boston, MA

Figure 2A

January 28, 2019

\\vhb\gbl\proj\Boston\14463.00 Fenway Theater Civil\cad\ld\Planmisc\Vehicle Tracking\20190114_Loading Proposed BAA Curb.dwg



WB-50 feet

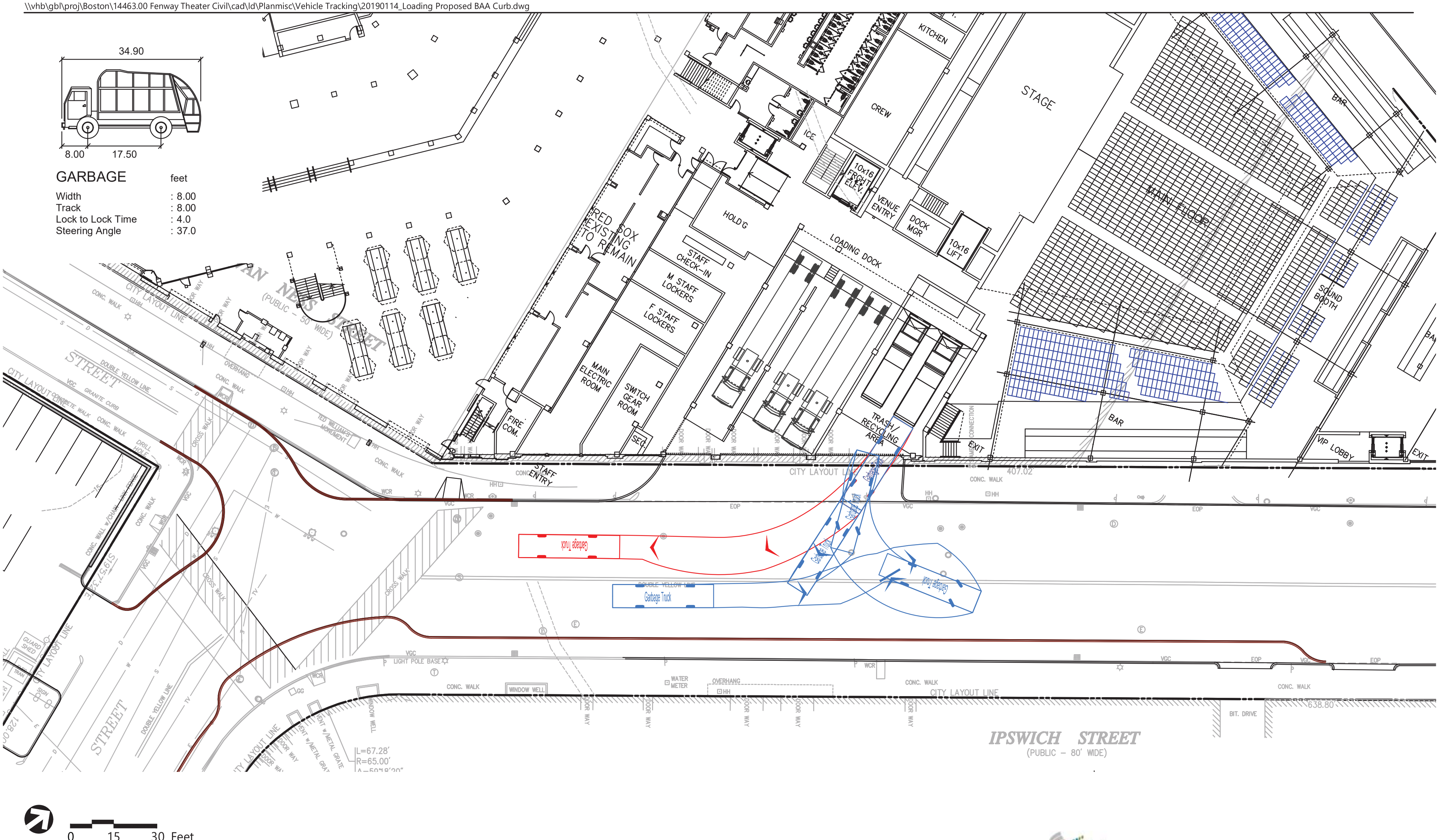
Tractor Width	: 8.00		Lock to Lock Time	: 6.0
Trailer Width	: 8.50		Steering Angle	: 17.7
Tractor Track	: 8.00		Articulating Angle	: 70.0
Trailer Track	: 8.50			

Loading Dock Analysis
Proposed BAA Curbline
To/From Lansdowne Street
Fenway Theater | Boston, MA

Figure 2B

January 28, 2019

\\vhb\gbl\proj\Boston\14463.00 Fenway Theater Civil\cad\ld\Planmisc\Vehicle Tracking\20190114_Loading Proposed BAA Curb.dwg

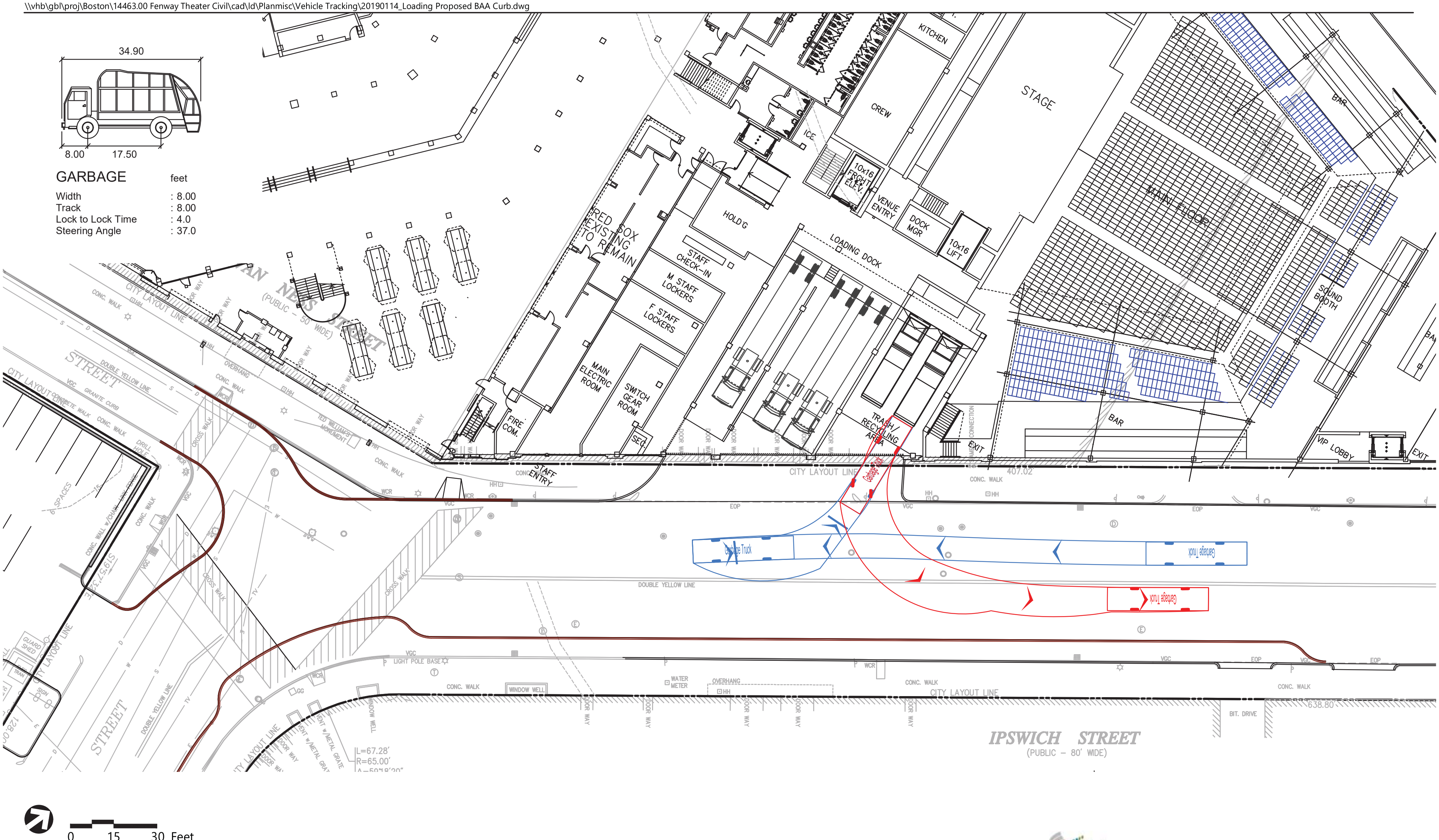


Loading Dock Analysis
Proposed BAA Curbline
To/From Boylston Street
Fenway Theater | Boston, MA

Figure 3A

January 28, 2019

\\vhb\gbl\proj\Boston\14463.00 Fenway Theater Civil\cad\ld\Planmisc\Vehicle Tracking\20190114_Loading Proposed BAA Curb.dwg



Loading Dock Analysis
Proposed BAA Curbline
To/From Lansdowne Street
Fenway Theater | Boston, MA

Figure 3B

January 28, 2019

Appendix E: Historic Resources Supporting Documentation

This Page Left Intentionally Blank

TABLE F- 1 POTENTIAL FENWAY AUTOMOBILE DISTRICT

Key to Map	Address #1	Address #2	Street	Date	Name	MACRIS #
1	64	78	Brookline Ave	1914	John B. Smith Building	BOS.ZT
	24	24	Jersey Street (Yawkey Way)	1912/1934/2002-2012	Fenway Park	BOS.ZT
2						
3	48	62	Brookline Ave	1913		
4	61		Brookline Ave	1913		
5	78	88	Brookline Ave	1916	Richardson Building	BOS.7502
6	96	98	Brookline Ave	1920		
8	104	106	Brookline Ave	1917		
9	110	114	Brookline Ave	1919		
10	120		Brookline Ave	1923		
11	121		Brookline Ave	1924		
12	122	130	Brookline Ave	1928		
13	19	23	Jersey Street	1918		
14	25	27	Jersey Street	1918		
15	31	37	Jersey Street	1918		
16	132		Ipswich Street	1922		
17	154	156	Ipswich Street	1922		
	160	170	Ipswich Street	post-1930		
19	175		Ipswich Street	1912		
20	176		Ipswich Street	1928	Fenway Garage	
21	7	11	Lansdowne Street		former US Post Office Garage, demolished 2019	
22	15	27	Lansdowne Street	ca.2009		
23	35	37	Lansdowne Street	1910	`	
24	1255		Boylston Street	1922		
25	1265		Boylston Street	1919	La France Fire Engine	
26	1295		Boylston Street	1923		

This Page Left Intentionally Blank

Figure F-1 MAP OF AUTOMOBILE-RELATED BUILDINGS NEAR SITE DATING 1899 - 1930