



36-70 Sprague Street, Readville

Draft Project Impact Report

SUBMITTED BY:

OMB Sprague LLC, c/o The Noannet Group
40 Trinity Place | Boston, MA 02116

SUBMITTED TO:

Boston Planning and Development Agency
One City Hall Square | Boston, MA 02201

August 1, 2018



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Submitted to:
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August 1, 2018

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Chapter 1.0

Project Information

1.0 PROJECT INFORMATION

1.1 Introduction

OMB Sprague LLC (the Proponent) proposes to redevelop the approximately 6.62 acre site comprised of several parcels located at 36-40 Sprague Street and 50-70 Sprague Street in the Readville neighborhood of Boston (the Project site) into a groundbreaking residential/mixed-use transit-oriented development that will help fill the desperate need in the City of Boston for housing that is not targeted at the top or bottom ends of the economic spectrum—in other words, housing for the middle class.

The Project site currently contains several warehouse and maintenance buildings, which will be demolished and replaced with four new residential buildings ranging from five to eight stories, a restaurant space, multiple new open spaces including a new pondside park area that will be open to the greater Readville community, and extensive on-site amenities (the Project). The steep pitch of the Project site down from Sprague Street enables nearly all of the Project parking to be located under the buildings and the Project's plaza, therefore enabling the creation of approximately 2.53 acres of green space on the Project site (as compared with approximately 0.85 acres of green space under the site's current use). Additional parking will be located in a drop-off area and on a surface lot dedicated to the restaurant use and pondside park.

In response to community feedback, the Project has been revised resulting in a number of changes that will reduce the Project and its impacts, including:

- ◆ **An approximately 13% reduction in Project square footage, a reduction of approximately 74,700 square feet (sf);**
- ◆ **Elimination of two floors from Building 2 along Sprague Street, as well as an increase in the building's setback from Sprague Street to approximately 20 feet, reducing the height of Building 2 by approximately 22 feet, minimizing the visual impact of the building along Sprague Street, West Milton Street and the surrounding area, and allowing for a wider sidewalk;**
- ◆ **Changes to the massing of Buildings 1 and 4, eliminating one wing of Building 4 and moving the restaurant space in Building 1 closer to Sprague Street in response to Boston Civic Design Commission (BCDC) input;**
- ◆ **Conversion of the Project's largest building from apartments to condominiums, resulting in approximately 128 of the residential units – more than 25% - now proposed to be condominium units;**

- ◆ A reduction in the number of apartments by over 30%, from approximately 521 to approximately 364 apartments; a reduction in total residential units by more than 5% - approximately 29 fewer units, and, due to an increase in studio and one-bedroom units, and decrease in two and three-bedroom units, a reduction in total bedrooms of approximately 13% or approximately 102 bedrooms;
- ◆ Decrease in parking by approximately 21 spaces, reflective of the decrease in the number of residential units; and
- ◆ Elimination of the “Readville Tower” shown in the prior plans.

The Project will transform an underutilized warehouse site and truck maintenance yard into a vibrant space that enhances the surrounding community. Ideally located next to Readville Station, nearly surrounded by train tracks, bridges, light industrial space and Sprague Pond, the Project creates a smooth transition between the nearby single-family neighborhoods, the adjacent Boston-Dedham Commerce Park, and the Readville Yard 5 development.

With its pedestrian entrance directly adjacent to the Sprague Street Bridge to Readville Station, and large on-site shared workspace, oversized fitness center and other community spaces, this transit-oriented development has been designed at every step—from choice of location to orientation of access points to design of amenities—to attract non-vehicle-oriented residents, and reduce its impact on surrounding area roadways.

The Project is an example of the kind of development Mayor Walsh’s housing plan is targeting: a transit-oriented development with quality middle-class housing. Target rents are proposed to be meaningfully below those in many new developments in the Seaport District, South End, Fenway and even Jamaica Plain, but the Project will include amenities and open space at a level seen in few if any new Boston apartment developments.

The Project will transform the site not only for new residents, but also for the existing neighborhood. Sprague Pond will become readily accessible to area residents for the first time in many decades, and the disturbed wetlands along the site’s pond frontage will be restored. The currently fenced-off site frontage will be replaced by landscaping, new buildings and a restaurant to serve area residents, Commerce Park employees and visitors, Project residents and the general public. The pondside park and restaurant will provide meeting places for Project and current area residents to interact, helping bring together the new residents and the greater community.

This Draft Project Impact Report (DPIR) is being submitted to the Boston Redevelopment Authority doing business as Boston Planning and Development Agency (herein, the “BPDA”) in response to the Scoping Determination issued to the BPDA on June 8, 2018.

1.2 Project Description

1.2.1 *Project Site*

The approximately 6.62-acre Project site, located in the Readville neighborhood of Boston, is comprised of several parcels located at 36-40 Sprague Street and 50-70 Sprague Street (see Figure 1-1). The Project site is generally bound by Sprague Street to the west; the MBTA Franklin Line to the north; the MBTA Providence/ Stoughton Line to the east; and Sprague Pond, a residential property and the Brinks site to the south. The site currently contains several two to three-story industrial buildings, surface parking and paved areas. See Figure 1-1 for an aerial map of the Project site and Figure 1-2 for existing conditions on the site.

1.2.2 *Area Context*

The area surrounding the Project site includes a mix of industrial, commercial and residential uses. Boston Dedham Commerce Park is located to the west of the site. This area includes one to two-story industrial and commercial buildings surrounded by paved areas used for parking. Residential neighborhoods are located to the northwest separated by the MBTA Franklin Line and Readville Station to the north, and to the east separated by the MBTA Providence/ Stoughton Line. Sprague Pond and residential neighborhoods are located to the south.

1.2.3 *Proposed Project*

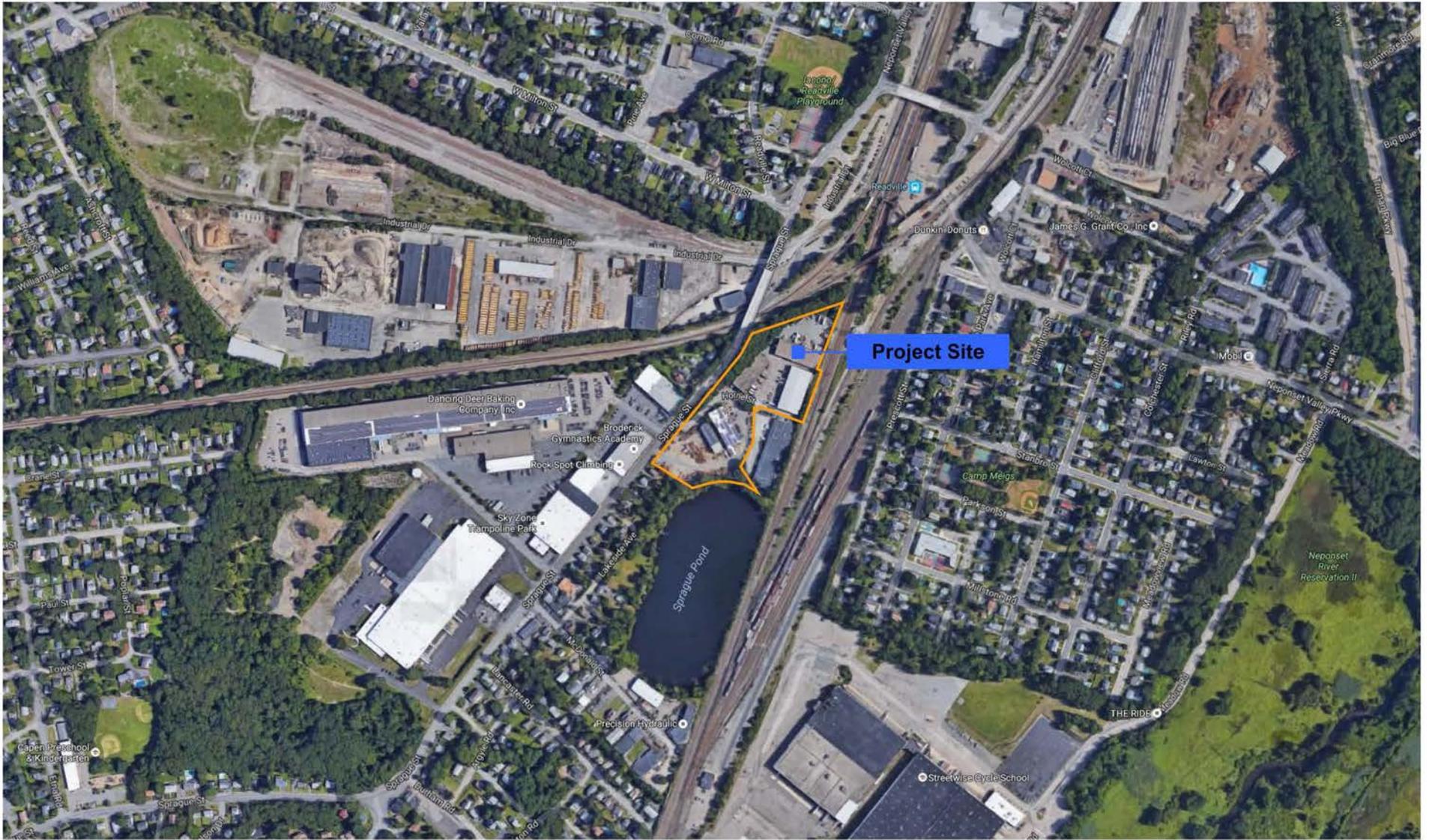
Following the changes outlined in Section 1.1 above, the Project now includes approximately 495,000 sf of residential and amenity space (reduced from approximately 550,645 sf of residential and amenity space) within four new buildings identified as Buildings 1 through 4. In total, the Project will include approximately 5,400 sf of restaurant space (approximately 150 seats), approximately 128 condominiums and approximately 364 rental apartments for a total of approximately 492 residential units and amenity spaces (approximately 500,400 sf) with approximately 511 parking spaces, including approximately 458 parking spaces below the residential buildings and plazas, approximately 34 surface parking spaces for the restaurant and pondside park, approximately 6 spaces for drop-off and short-term parking and approximately 13 outdoor spaces at the west side of the site. The site plan is shown on Figure 1-3. The proposed parking level plan is shown on Figure 1-4. In the event that additional parking is required, the Proponent has had preliminary discussions with the City of Boston regarding the purchase or utilization of a landlocked City of Boston parcel between Buildings 3 and 4 and the railroad right-of-way that would accommodate an additional approximately 30 parking spaces, subject to BPDA and City approval. The program will be allocated to Buildings 1 through 4 as shown in Table 1-1 and described below. Figures 1-5 to 1-14 show floor plans and renderings of the Project.

Table 1-1 Project Program

Project Element	Approximate Dimension
Building 1	
Residential Condominium ¹	134,500 sf / 128 units
Restaurant	5,400 sf
Number of Stories	5
Height	
Zoning Code ²	42 feet
Above Plaza Level	56 feet
Building 2,	
Residential Apartment ¹	108,700 sf / 106 units
Number of Stories	5 (previously 7)
Height	
Zoning Code ²	42 feet (previously 64 feet)
Above Plaza Level	56 feet (previously 78 feet)
Building 3	
Residential Apartment ¹	130,100 sf / 129 units
Number of Stories	8
Height	
Zoning Code ²	93 feet
Above Plaza Level	108 feet
Building 4	
Residential Apartment ¹	121,700 sf / 129 units
Number of Stories	7
Height	
Zoning Code ²	64 feet
Above Plaza Level	78 feet
Parking	
Garage	458 spaces
Surface (Restaurant and Pondsides Park)	34 spaces
Surface (Drop-off and Resident Use)	6 spaces
Surface (at rear of site)	13 spaces

¹ Residential space includes amenities open to all residents.

² Based on adjacent grades, as defined in Article 2A of the Boston Zoning Code.



36-70 Sprague Street Readville, Massachusetts



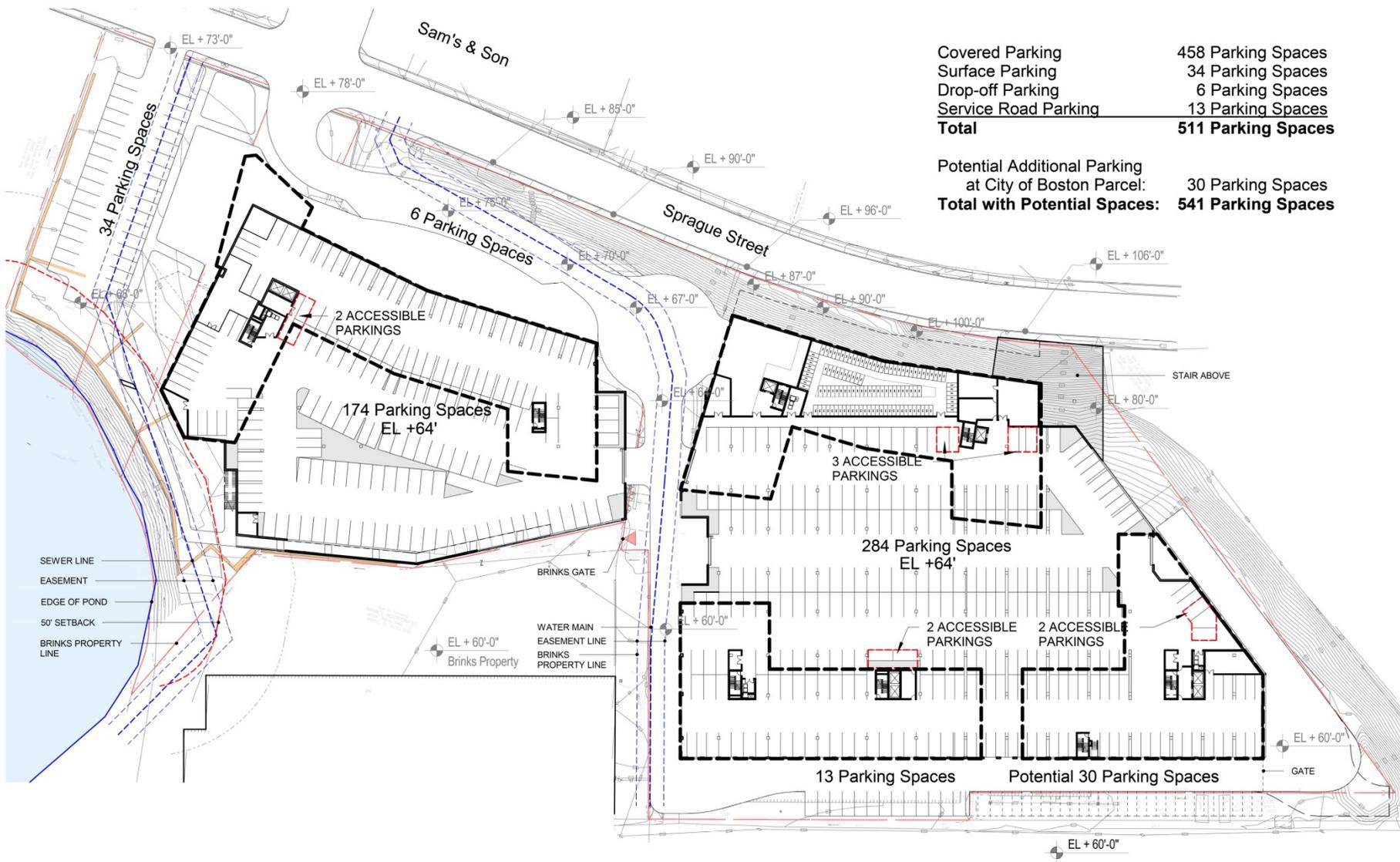
36-70 Sprague Street Readville, Massachusetts



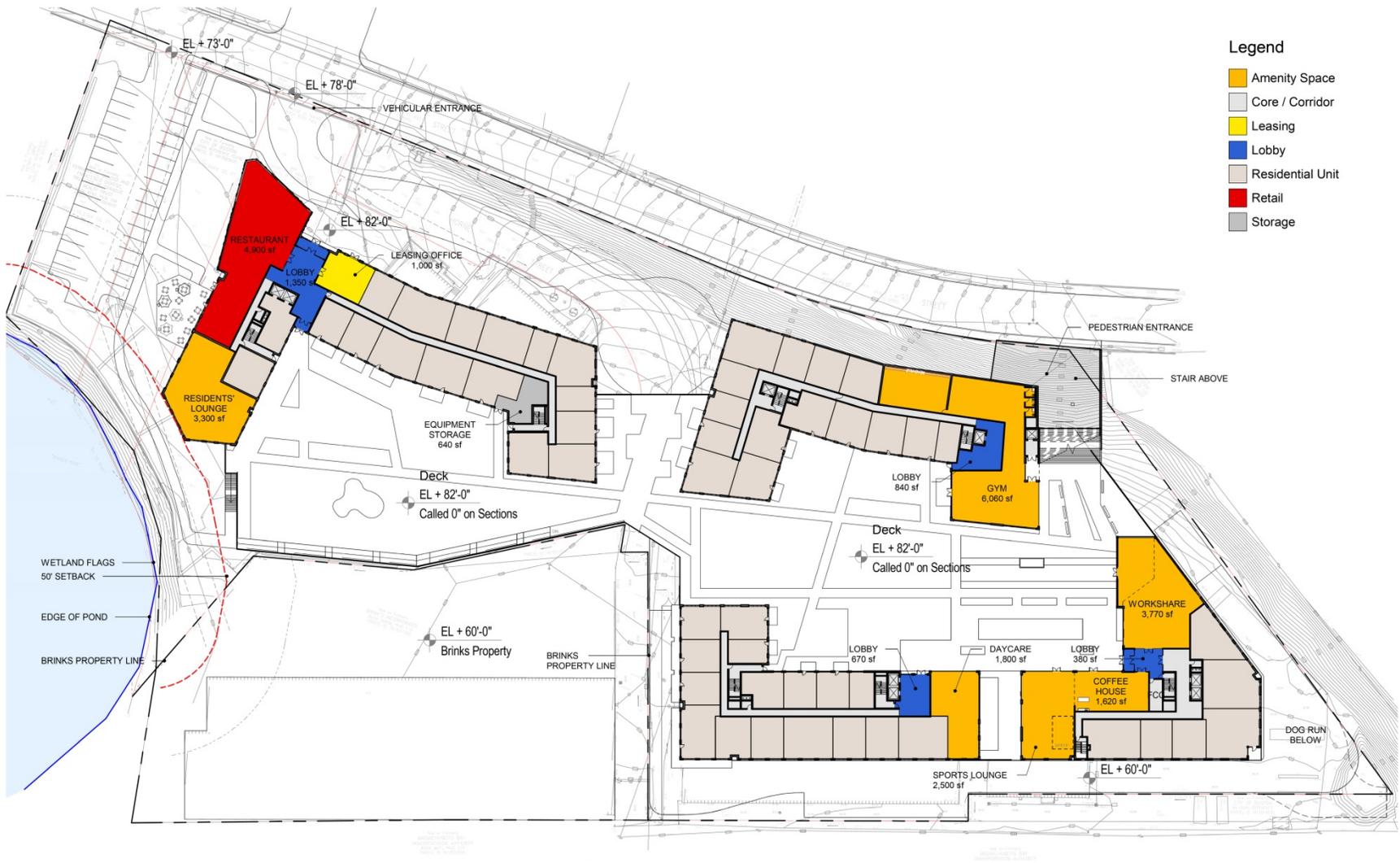
36-70 Sprague Street Readville, Massachusetts



Figure 1-3
Site Plan



36-70 Sprague Street Readville, Massachusetts



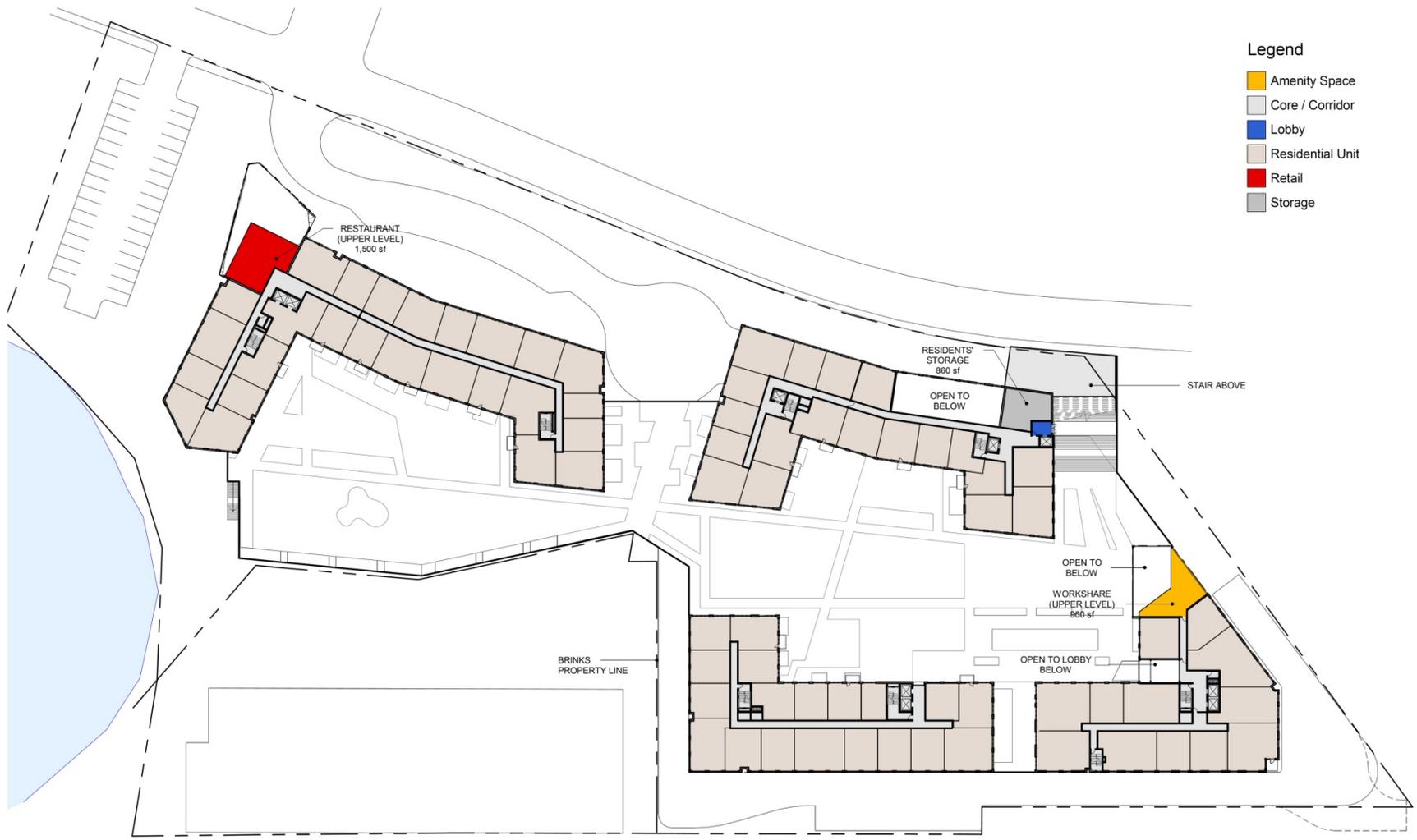
- Legend**
- Amenity Space
 - Core / Corridor
 - Leasing
 - Lobby
 - Residential Unit
 - Retail
 - Storage



36-70 Sprague Street Readville, Massachusetts



Figure 1-5
Courtyard First Floor Plan



- Legend**
- Amenity Space
 - Core / Corridor
 - Lobby
 - Residential Unit
 - Retail
 - Storage

36-70 Sprague Street Readville, Massachusetts



Figure 1-6
Second Floor Plan



36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts



Figure 1-8
Typical Floor Plan – Floors 4 and Above



36-70 Sprague Street Readville, Massachusetts



Figure 1-9
Perspective at North Entry



36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts



Figure 1-12
Perspective from the Courtyard



36-70 Sprague Street Readville, Massachusetts



Figure 1-13

Perspective from Sprague Street Facing North



36-70 Sprague Street Readville, Massachusetts



Figure 1-14
Perspective from Sprague Street Facing South

Building 1: Located on the southwest corner of the site on Sprague Street (see Figures 1-3 and 1-10), this five story building will include restaurant space, leasing offices, and approximately 17 units on the first floor, with an additional approximately 111 residential units above. To the south of the building will be new landscaped open space with outdoor dining for the restaurant, as well as a surface parking lot with parking spaces dedicated to use by visitors to the pondside park and patrons of the restaurant. To the east of the building will be private patios and a landscaped shared courtyard with BBQ grills and outdoor table and lounge seating for residents accessed through a common lounge amenity space. Given this building's slight separation from the other three buildings, its larger unit count, and the presence of the restaurant in this building, Building 1 will now be a condominium building, with full access to the amenities in Buildings 2, 3 and 4, but with a degree of privacy from the apartment portion of the Project.

Building 2: Located to the north of Building 1 and separated by private patios and a shared landscaped "pocket park", this five story building will include the Project's gym and indoor basketball court and approximately 14 residential units on the first floor with an additional approximately 87 residential units above. To the east of the building will be private patios and a landscaped shared courtyard with BBQ grills and outdoor table and lounge seating for residents that opens to the large central courtyard green space with active and passive activities connecting all four buildings. On the southern side of Building 2 will be a pedestrian bridge connecting the Project site to Sprague Street.

Building 3: Located at the northern tip of the site, northeast of Building 2 and due north of Building 4, and featuring the jewelbox-like two-story pavilion housing the Project's shared workspace as well as a coffee house and sports lounge, Building 3 will be at the fulcrum of the entire site. Wrapping around the landscaped "Town Square" with outdoor seating that anchors the north end of the central courtyard green space with views of Sprague Pond to the south, this eight story building will also contain approximately six residential units on the first floor, with an additional approximately 116 residential units above. A landscaped "bridge" is located to the west of the Town Square and allows access onto the site from Sprague Street directly across the Sprague Street Bridge from Readville Station. A rooftop amenity space including a pool, hot tub, dining/entertainment area, indoor and outdoor lounges and restrooms will be located on the roof of Building 3 offering views of the Blue Hills to the east and the Boston skyline to the north.

Building 4: Located to the east of Building 2 and separated by the central courtyard green space this seven story building will include a daycare and approximately 16 residential units on the first floor with an additional approximately 107 residential units above. To the west of the building will be a landscaped shared courtyard with BBQ grills and outdoor table and lounge seating for residents that opens to the central courtyard green space. The northwest wing of this building shown in the PNF plans has been removed, further opening up this building to the central courtyard and plaza.

Green Space

The site is currently primarily comprised of buildings, paved parking areas for vehicles and construction equipment, and supply staging areas. These paved areas collectively cover nearly 90% of the total site area. Presently, “green space” unpaved areas on the existing site amount to only 12.8% of the site, and are not usable open space. The vast majority of this space is on the steep slope along Sprague Street on the northwest edge of the Project site and is not usable other than for stormwater retention due to the grade of the slope. The site currently does not have a managed drainage system, and run-off from the site that is directed towards Sprague Pond is not contained or treated.

The proposed development when fully constructed will increase the green space of the site to approximately 38% of the total site area. This represents an increase of more than 1.5 acres of green space as compared with the current condition (approximately – 2.53 acres green space following completion of the Project as compared with approximately 0.85 acres of green space today, as shown in Figure 1-15). Including green space, plazas and pathways through the site, total open space will be more than 3.8 acres. In addition, following completion of the Project, all runoff from developed areas will be managed into a stormwater management system, and the majority of the green space on the site will be able to be enjoyed by residents and visitors.

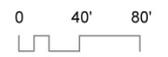
Green space for both the existing and proposed conditions is calculated to the edge of paved areas, as shown on Exhibits 1 and 2 of Figure 1-15.

1.2.4 *Project Changes Since the PNF*

As described in Section 1.1, the Project has been revised in a number of ways based on city and community feedback. The Project size has been reduced by approximately 74,700 sf; which reflects a reduction of approximately 157 apartments, addition of approximately 128 condominiums and change in unit mix from approximately 45% two- and three-bedroom units to approximately 35% two- and three-bedroom units. The number of parking spaces has also been reduced by approximately 21 spaces. Minor changes to the massing of Buildings 3 and 4, as well as the reduction of Building 2 by two stories and an increase in Building 2’s setback by approximately 20 feet have resulted in a significant increase in open space on the site and light and air on Sprague Street (see Figure 1-16).



36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts



Figure 1-16
PNF/DPIR Site Plan Overlay

1.2.5 *Alternative Site Uses*

While the Proponent continues to believe that residential use remains the optimal use for the site, the community and the City of Boston as a whole, continued use of the site as a warehouse/distribution facility and/or truck yard was also considered. These are considered potential viable uses for the site for two reasons.

First, the growing internet sales economy has created a near-insatiable demand for “last mile distribution” facilities close to heavy population centers and highways. As witnessed by distribution warehouses that have recently come to Sprague Street and the former Stop & Shop Warehouse site, Readville has apparently been seen by companies in this business as an ideal location for these facilities.

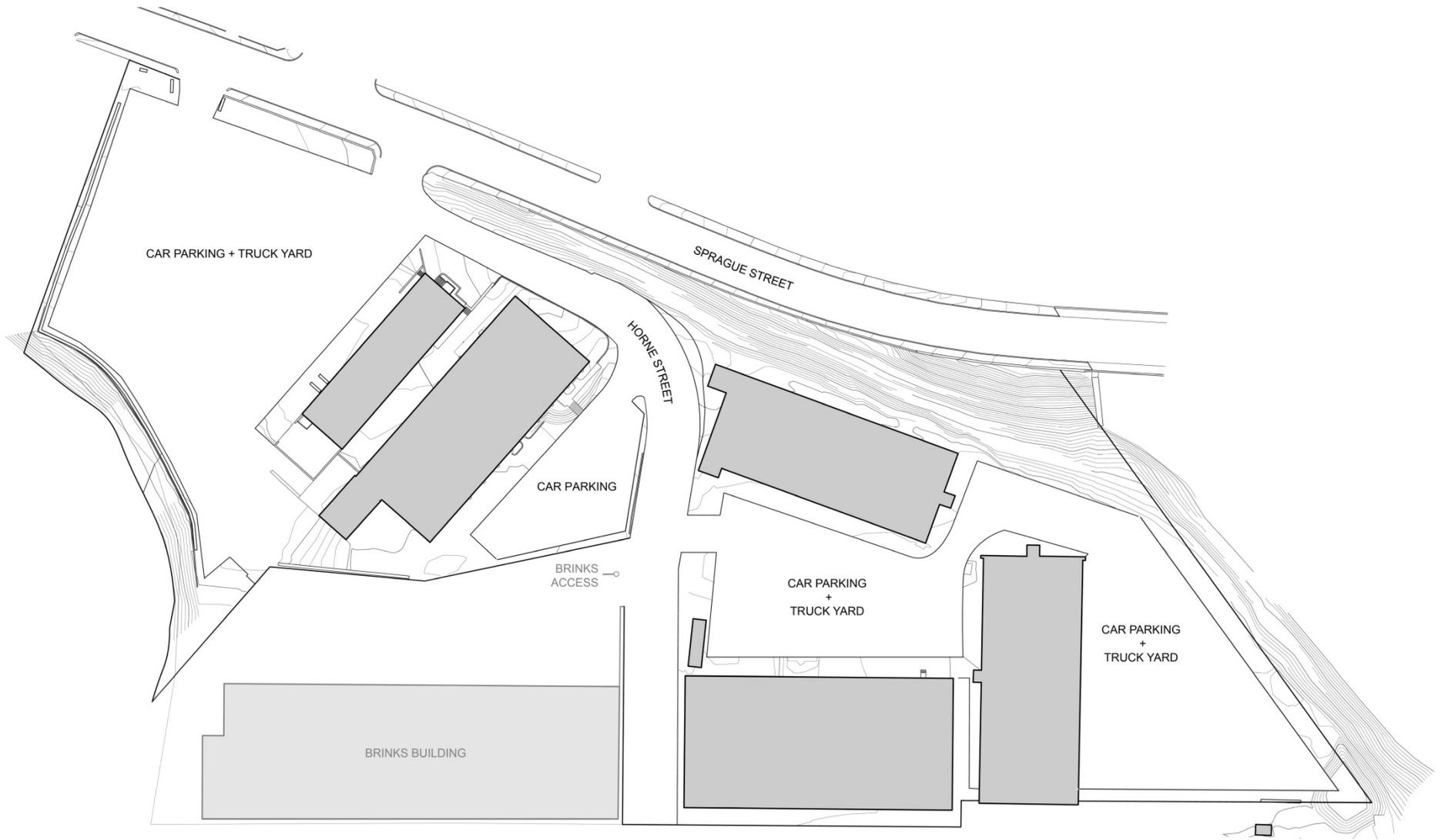
Second, many industrial and truck yards that have been located for decades in Dorchester, South Boston and other neighborhoods closer to downtown Boston have been and are in the process of being displaced, and are looking for replacement locations. For this use as well, Readville is now on the radar screens of users of this type.

Accordingly, three potential industrial configurations for the site were studied. The first is a reuse of the existing warehouse buildings on the site in their current configuration (see Figure 1-17). This is most conducive to small warehouse and distribution users. The second is a reuse of certain of the existing buildings and demolition of one or more of the other buildings, to create a larger truck yard (see Figure 1-18). The third is the demolition of all of the buildings at the lower level of the site and replacement of those buildings with a new, state of the art, high bay warehouse/distribution facility (see Figure 1-19).

These options are not considered by the development team to be preferable to use of the site as residential. As one of the major expressed concerns regarding the Project is with respect to area traffic, an analysis was undertaken on the effects on the local roads of the heavier truck traffic that would be created by use of the site as warehouse/truck yard compared to the effects of the predominantly car traffic that would result from residential use. The results of this study are summarized in Figure 1-20.

As traffic on Sprague Street has already been measured as carrying over 30% truck traffic, as compared with the 1-5% truck traffic that is typical in other neighborhoods, as Figure 1-20 demonstrates, the addition of more truck-intensive uses is likely to have more negative impact on the community than the more car-intensive residential reuse of the site – particularly given the site’s immediate proximity to Readville Station.

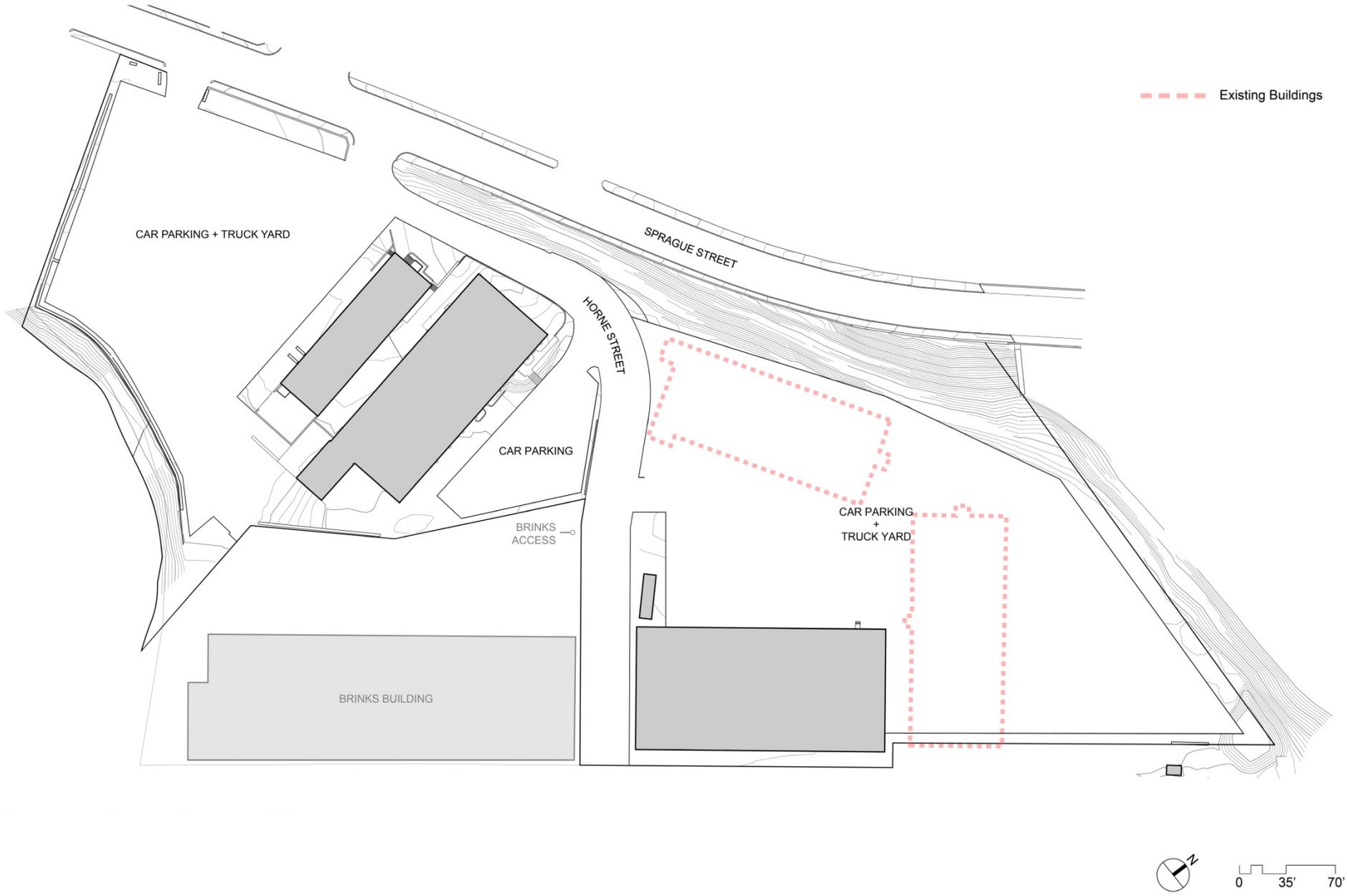
Additionally, while the Project increases green space and its attendant area benefits from approximately 0.85 acres to approximately 2.53 acres, an increase of approximately 38%, including the addition of the new pondside park, all warehouse/distribution/truck yard uses will require maintenance of all currently paved areas on the site, to enable the most efficient truck parking and access configuration.



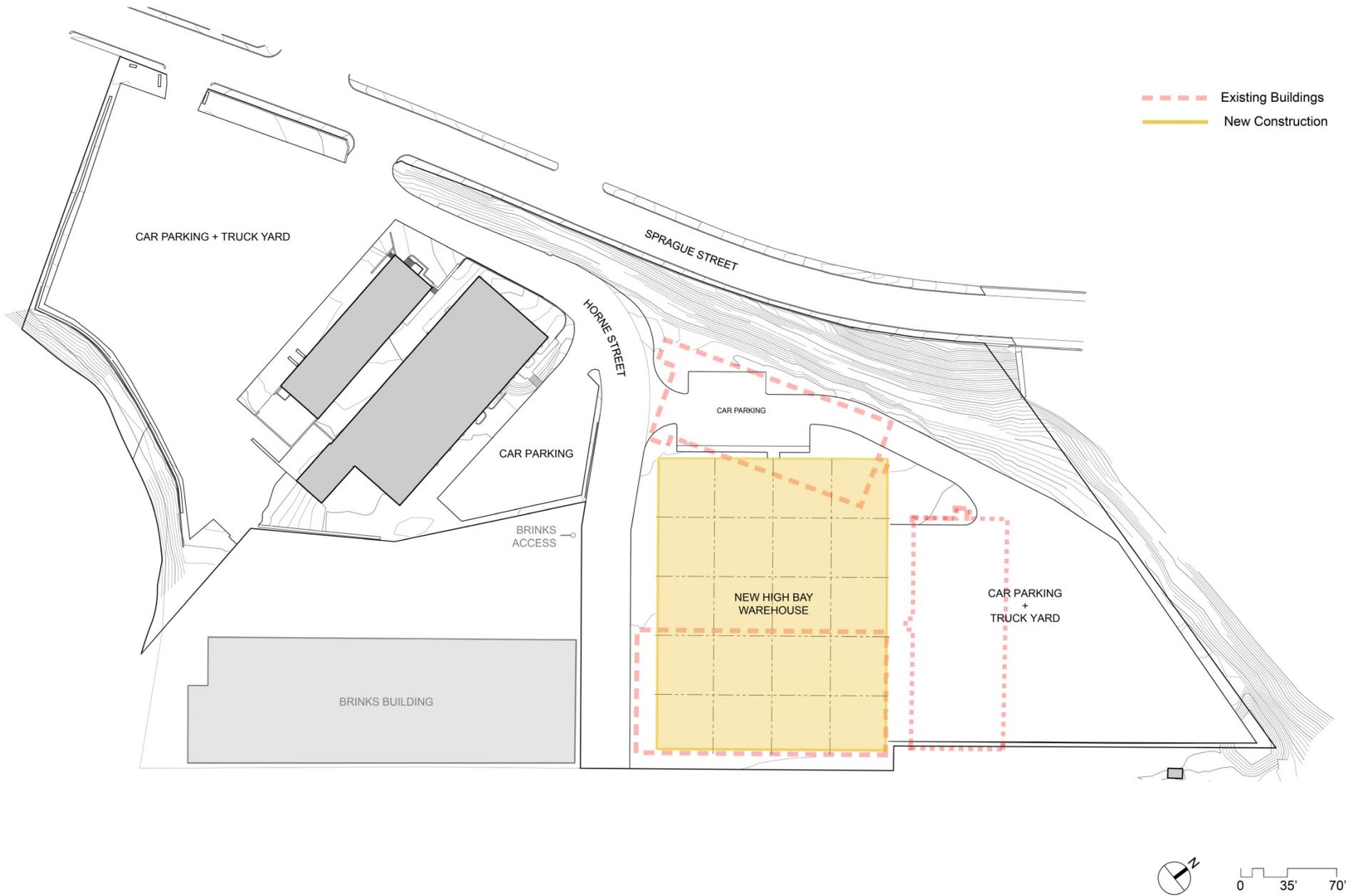
36-70 Sprague Street Readville, Massachusetts



Figure 1-17
Alternative Use Plan #1

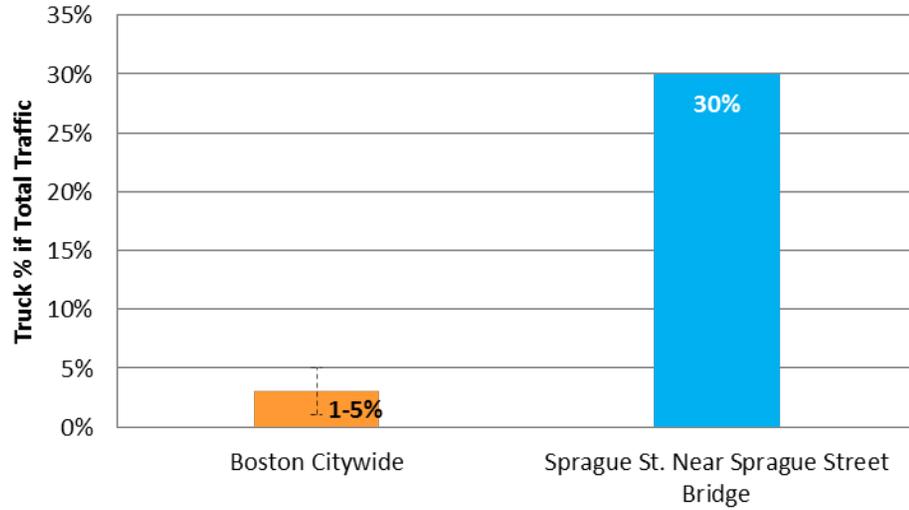


36-70 Sprague Street Readville, Massachusetts

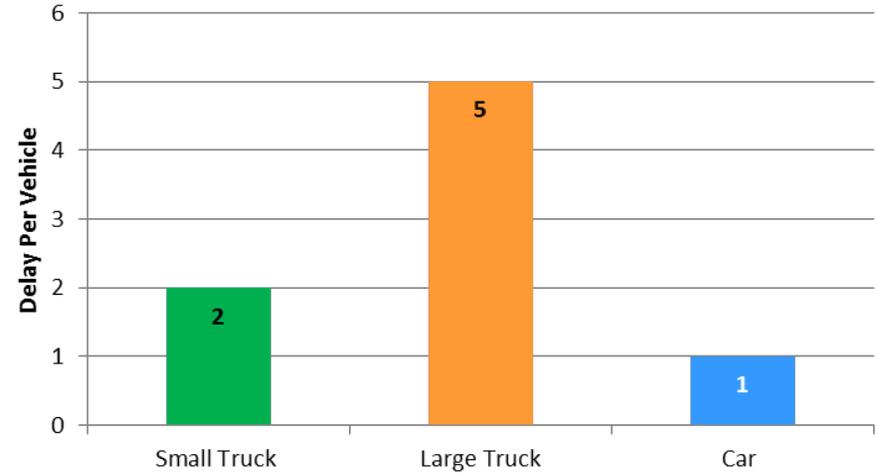


36-70 Sprague Street Readville, Massachusetts

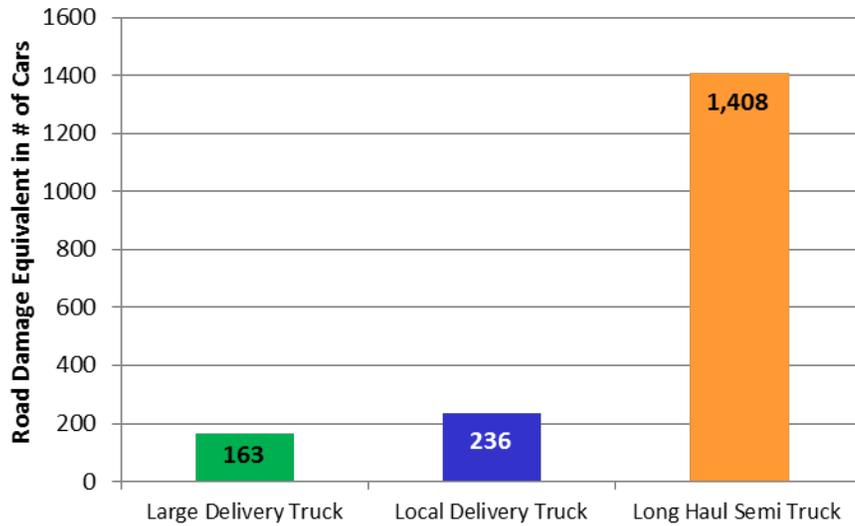
1. Sprague St. Truck/Car Ratio vs. City of Boston Truck/Car Ratio Citywide



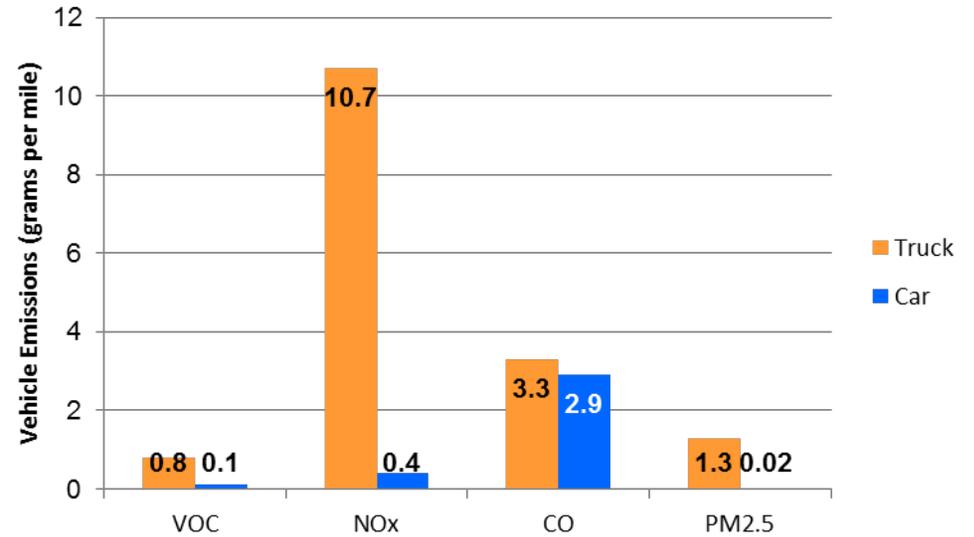
2. Traffic Delay Caused by Trucks vs. Passenger Cars



3. Road Damage Caused by Trucks vs. Passenger Cars



4. Motor Vehicle Emissions of Trucks vs. Passenger Cars



36-70 Sprague Street Readville, Massachusetts

It is important to note that there is little to no benefit to locating truck yards and distribution facilities immediately adjacent to a commuter rail station, since they are inherently vehicle-focused uses. Locating residential uses adjacent to transit stops is both smart planning and the policy direction of the City. The result is that commuters – those traveling during the busiest travel periods of the day – will have access to commuting options (i.e., the train) other than automobiles for their daily commute.

Finally, none of the community benefits described in the following section would be realized if the site were reused in this non-residential manner. As a result of all of the above, the Proponent continues to believe that the Project is the most beneficial use of the site.

1.3 Public Benefits

The development of the Project will generate significant public benefits for the surrounding neighborhoods and the City of Boston as a whole, both during construction and on an ongoing basis upon its completion. These public benefits are listed below.

- ◆ The Project delivers much-needed housing for the middle class to the City, notably to a neighborhood that has not seen substantial new housing stock in decades.
- ◆ The Project is a transit-oriented community located directly adjacent to the Readville commuter rail station, creating meaningful smart growth for the City and limiting vehicular impact.
- ◆ With a target market of millennials and empty-nesters, the Project will bring hundreds of new residents in the demographics that are most likely to spend money at area businesses, helping draw new retailers to and helping to revitalize Cleary, Logan and Wolcott Squares.
- ◆ The Project's newly created mix of rental apartments and individually owned residential condominiums will create a mixed-age demographic environment that will further help integrate the Project into the Readville and greater Hyde Park community.
- ◆ Additionally, the Project will now provide multiple attractive housing options for long-term Readville residents who want to shed the burdens of home ownership, but continue to live in their home community.
- ◆ The Project redevelops an unattractive, underutilized former industrial area, replacing dilapidated warehouse buildings and a truck maintenance yard with new residential buildings and connecting the residential neighborhoods surrounding the site to one another and to the Readville commuter rail station.

- ◆ The Project's architecture, featuring a modern take on classic industrial buildings with large, factory-style windows rather than generic multifamily architecture, will fit seamlessly into its context and help beautify the neighborhood without feeling out of place.
- ◆ The Project will be constructed to be certifiable under the Leadership in Energy and Environmental Design (LEED) rating system targeting the Gold level.
- ◆ The Project complies with the Inclusionary Development Policy by providing on-site affordable units, creating a mixed-income community.
- ◆ With site topography making possible parking primarily under the buildings, the Project creates a greener site than most comparable developments, with comparatively low impervious lot coverage and approximately 2.53 acres of green space as compared with only approximately 0.85 acres of green space in its current condition.
- ◆ The Project provides space for a new neighborhood restaurant, which will be open to the public and help integrate the new development into the neighborhood.
- ◆ The Project creates the first public access to Sprague Pond in many decades, with attractive walking, picnic and seating areas that will be open to the greater community, further connecting new Project residents with the existing community.
- ◆ The Project creates substantial construction jobs as well as permanent jobs.
- ◆ The Project will result in significant new tax revenues for the City of Boston through significantly increased property values.
- ◆ The Proponent will work with local community organizations to help with funding locally based projects, such as:
 - A feasibility/capital campaign study to restore the Everett Street Theatre;
 - Creation of a monument to the 54th Massachusetts Regiment;
 - The revitalization of Doyle Park and Greenway.

1.4 Legal Information

1.4.1 *Legal Judgments Adverse to the Proposed Project*

The Proponent is unaware of any legal judgments which might be adverse to the proposed Project.

1.4.2 History of Tax Arrears on Property

The Proponent is unaware of any tax arrears on the property and current taxes have been paid to date.

1.4.3 Site Control/Public Easements

The Project site, consisting of approximately 6.62 acres, is under the control of the Proponent. On December 14, 2015, the Proponent acquired a portion of the Project site containing approximately 3.87 acres (168,577 sf). The remaining portion of the Project site containing approximately 2.75 acres (119,705 sf) is under a land acquisition agreement with the present owner.

With respect to public easements through the Project site, portions of the site are impacted by takings for sewer, a 10-foot right-of-way, sidewalk widening, rights of way, and rights of others to use Horne Street. Portions of the Project site consist of land abutting on a railroad or formerly owned by a railroad.

1.5 City of Boston Zoning

The Project site, containing approximately 6.62 acres of land area (288,282 sf), is located in the Hyde Park Neighborhood District, Article 69 of the Boston Zoning Code (“Code”). A majority of the site is located within the Local Industrial subdistrict (LI-1) and a small portion of the site is located within the 1F-6000 residential subdistrict near the Boston/Dedham line.

The Project’s multi-family residential uses and the supporting retail/restaurant, day care, gym and workshare uses with accessory parking are either not allowed, conditional or limited within both districts. As currently contemplated, the Project will consist of four buildings with heights of five, seven and eight stories (approximately 70 feet to 129 feet) with a zoning height not to exceed 130 feet. The proposed total gross floor area (zoning) is approximately 500,400 sf resulting in a floor area ratio (FAR) for the Project of approximately 1.7 (500,400 sf/288,282 sf = 1.7). Article 69 of the Code limits FAR in both the Residential and Local Industrial subdistricts to 0.3 and 1.0.

Since the use and the dimensional requirements with respect to height and FAR are not consistent with the underlying zoning requirements, the Project will require Zoning Relief from the provisions of Article 69 of the Code. In addition, the Project is subject to demolition delay under Article 85 of the Code since the existing buildings are over fifty years old.

1.6 Anticipated Permits and Approvals

Table 1-2 presents a preliminary list of permits and approvals from governmental agencies that are expected to be required for the Project, based on currently available information. It

is possible that only some of these permits or actions will be required, or that additional permits or actions will be required.

Table 1-2 Anticipated Permits and Approvals

Agency	Approval
<i>Local</i>	
Boston Civic Design Commission	Design Review
Boston Committee on Licenses	Parking Garage Permit and Fuel Storage License
Boston Conservation Commission	Approval of construction within 100 feet of Sprague Pond
Boston Employment Commission	Construction Employment Plan
Boston Fire Department	Approval of Fire Safety Equipment; Fuel Oil Storage Permit (if required)
Boston Inspectional Services Department	Building Permit; Other construction-related permits; Certificates of Occupancy
Boston Landmarks Commission	Article 85 Demolition Delay Review; Design Review
Boston Parks and Recreation	Approval of Construction Within 100 feet of a Park
Boston Public Works Department	Curb Cut Permit(s); Sidewalk Occupancy Permit (as required)
Boston Redevelopment Authority	Article 80B Large Project Review; Cooperation Agreement; Affordable Housing Agreement;
Boston Transportation Department	Transportation Access Plan Agreement; Construction Management Agreement
Boston Water and Sewer Commission	Site Plan Review; Water and Sewer connection permits
Interagency Green Building Committee	Article 37 compliance
Office of Jobs and Community Services	Permanent Employment Agreement (as required)
Public Improvement Commission	Specific Repair Plan
<i>State</i>	
Department of Environmental Protection	Notification of Demolition and Construction
Massachusetts Department of Transportation	Chapter 40, Section 54A Approval of Buildings within a Former Railroad Right-of-way or land previously owned by a railroad company
Executive Office of Energy and Environmental Affairs (MEPA Office)	Secretary's Certificate
<i>Federal</i>	
Environmental Protection Agency	NPDES General Construction Permit

The Project requires approval under Chapter 40, Section 54A, and exceeds a Massachusetts Environmental Policy Act (MEPA) review threshold for transportation; therefore the Project is subject to review under MEPA. The Proponent will file an Environmental Notification Form (ENF) with the MEPA office to initiate review. A copy of the ENF will be sent to the BPDA.

1.7 Community Process

In addition to the numerous meetings that the Proponent has had with the BPDA and City agencies, the Proponent has had numerous conversations over the course of the Project's planning with stakeholders in the community. These meetings have included the following:

- ◆ 35 meetings with one or more residents or business owners occurred on 9/25/15, 9/26/15, 10/2/15, 10/9/15, 11/6/15, 11/9/15, 11/12/15, 11/16/15, 12/4/15, 12/24/15, 2/1/16, 4/12/16, 4/28/16, 4/29/16, 5/5/16, 5/5/16, 5/12/16, 7/27/16, 8/30/16, 9/28/16, 10/5/16, 10/6/16, 10/6/16, 10/13/16, 10/13/16, 11/1/16, 11/11/16, 11/28/16, 12/12/16, 12/13/16, 12/20/16, 4/19/17, 5/31/17, 7/10/17, and 7/14/17;
- ◆ Hyde Park Board of Trade - 4/26/16;
- ◆ 54th Regiment Reenactors - 5/12/16 and 5/28/16;
- ◆ Readville Neighborhood Watch - 5/19/16 and 6/21/18;
- ◆ Hyde Park Main Streets - 5/26/16 and 10/18/16;
- ◆ MBTA officials - 10/19/16 and 5/24/17;
- ◆ Manor Neighborhood Association (Dedham) - 11/30/16;
- ◆ Impact Advisory Group - 6/27/17 and 12/9/17;
- ◆ BTD-sponsored public traffic meeting - 10/10/17;
- ◆ BPDA-sponsored public meeting - 1/10/18; and
- ◆ Fairmont Indigo Transit Coalition - 3/20/18.

Chapter 7 includes a list of commenters which the Proponent believes comprises those individuals and groups that are substantially interested in, or would be substantially affected by the Project.

1.8 Schedule

Construction of the Project is expected to commence in early 2019. Construction is expected to take approximately 18-24 months, provided, however, that it is likely that construction of the buildings will be staggered, so as not to have all of the residential units be presented to the leasing market all at once, and also so as to provide building completions at the appropriate times of year so as to optimize building lease-up. This timeframe is anticipated to consist of approximately 2-3 months of mobilization, utility work and demolition, followed by approximately 14-17 months per building for each of the buildings (the larger of the buildings being at the longer end of the expected timeframe). Depending on the gaps between start times of each of the buildings, the total construction duration may be longer than the 18-24 months that would be required if the buildings were constructed concurrently. Figures 1-21 to 1-24 at the end of this section show anticipated construction phasing.

1.9 Project Team

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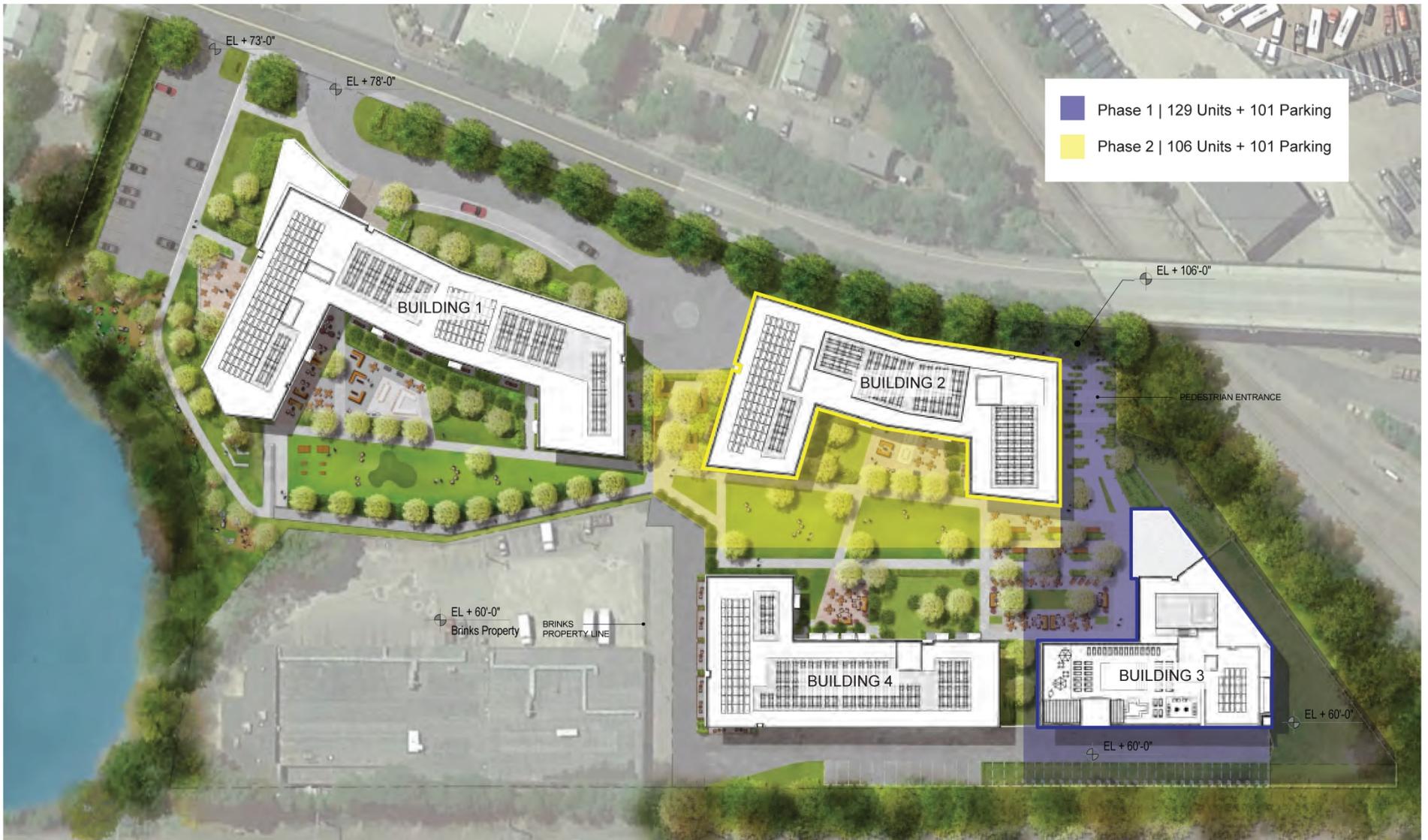
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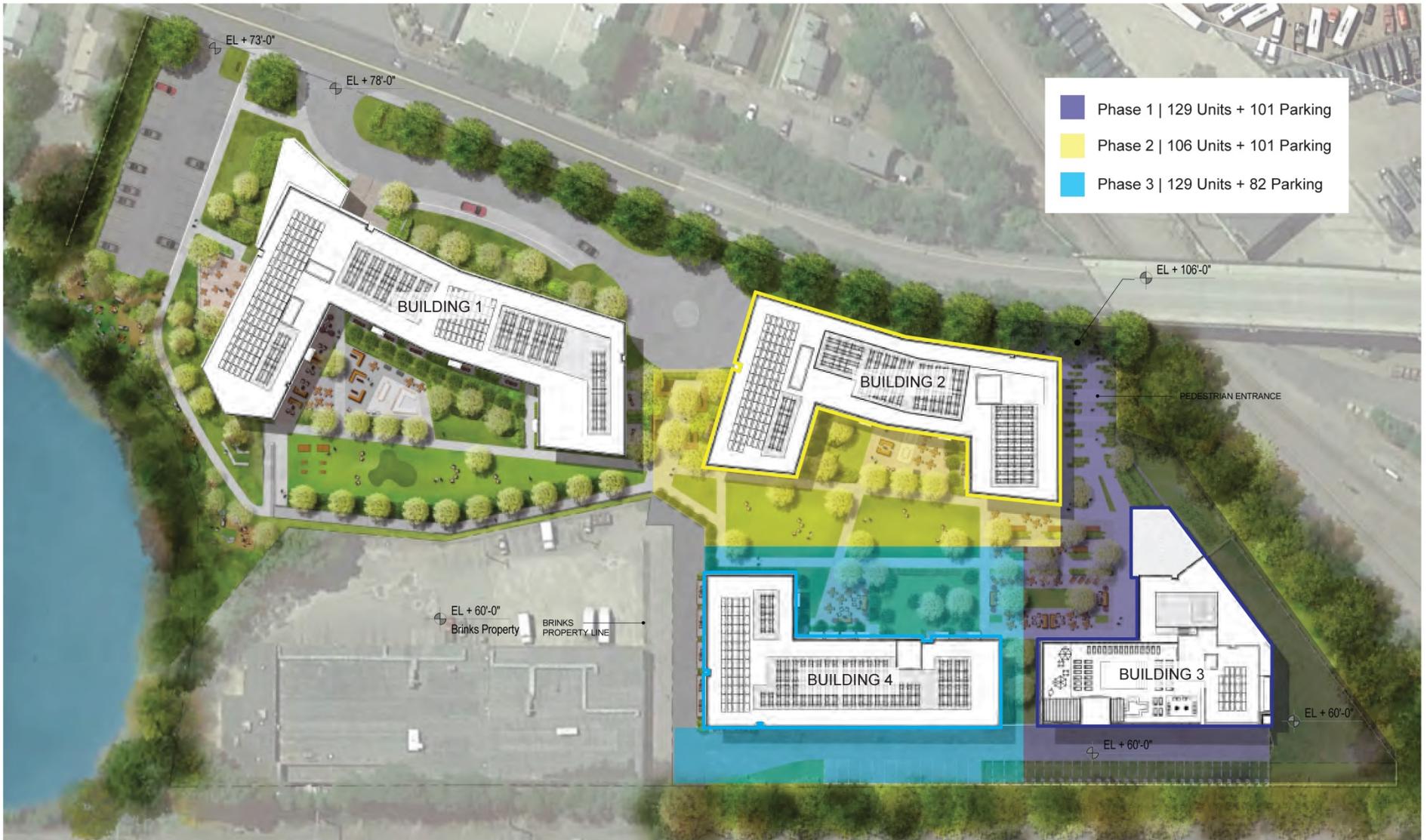
36-70 Sprague Street Readville, Massachusetts



Figure 1-21
Construction Phase 1



36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts

Chapter 2.0

Transportation

2.0 TRANSPORTATION

This chapter provides a detailed and comprehensive evaluation of the existing and proposed transportation conditions in the study area, and identifies the expected traffic impacts as a result of construction of the Project. The analysis captures in detail the operational characteristics of the Project, and it provides a basis for determining the extent Project-related traffic is likely to affect the wider transportation network.

The June 9, 2017 PNF filed with the BPDA for the Project contained a comprehensive transportation impact assessment of the Project. That assessment has been included in this DPIR but with a number of important updates to it. These include a traffic signal warrant analysis (based on 2018 traffic counts) for the intersection of Sprague Street at West Milton and Milton Streets, a set of traffic observations at a similarly sized TOD project in Chelsea, MA, and a new trip generation analysis for the downsized Project. Further, since the PNF filing, both the Project and the transportation mitigation programs proposed have been refined. All of these updates are available within this chapter. Readers should also note that there are also responses to transportation-related comments that have been addressed in Section 7.3.1

2.1 Project Overview

The Project site is composed of several parcels located at 36-40 Sprague Street and 50-70 Sprague Street adjacent to the MBTA's Readville commuter rail station on Sprague Street in Hyde Park near the Boston/Dedham line, as shown in Figure 2-1. The Project site contains approximately 6.62 acres, and is separated by Horne Street, a roadway which provides access to Sprague Street, as shown in Figure 2-2. The Proponent initially proposed to construct four residential buildings with a total of approximately 550,645 sf of residential space and 5,980 sf of restaurant space in the southwest corner of the site (the "PNF Project"). The Project as then planned would have provided approximately 521 units (53 studio, 234 one-bedroom, 208 two-bedroom, and 26 three-bedroom units).

Since the filing of the PNF, the Project has been downsized by approximately 74,700 sf, approximately 102 bedrooms and approximately 29 units, and one of the buildings is now planned to be a condominium building, rather than an apartment building. Chapter 1 provides a complete discussion of the changes to the Project.

The PNF Project proposed to provide approximately 532 parking spaces, including 492 parking spaces below the residential buildings and plazas, 34 surface parking spaces for the restaurant and pondside park, and 6 spaces for drop off and short term parking. The total number of spaces has since been reduced to approximately 511 spaces. Vehicle access to the site driveway and restaurant parking lot will be provided from Sprague Street. In the event that additional parking is required, the Proponent has had preliminary discussions with the City of Boston regarding the purchase or utilization of a landlocked City of Boston parcel between Buildings 3 and 4 and the railroad right-of-way that could accommodate an

additional approximately 30 parking spaces, subject to BPDA and City approval. A site plan is illustrated in Figure 2-3, and a circulation plan is illustrated in Figure 2-4.

The following analysis that is contained in this DPIR is based on the larger PNF Project. In the trip generation section, a table has been included that demonstrates the difference (in terms of trip generation) between the PNF project and the current Project proposed in this DPIR.

A summary of the proposed uses for the Project is provided in Table 2-1 below.

Table 2-1 Project Development Program Comparison

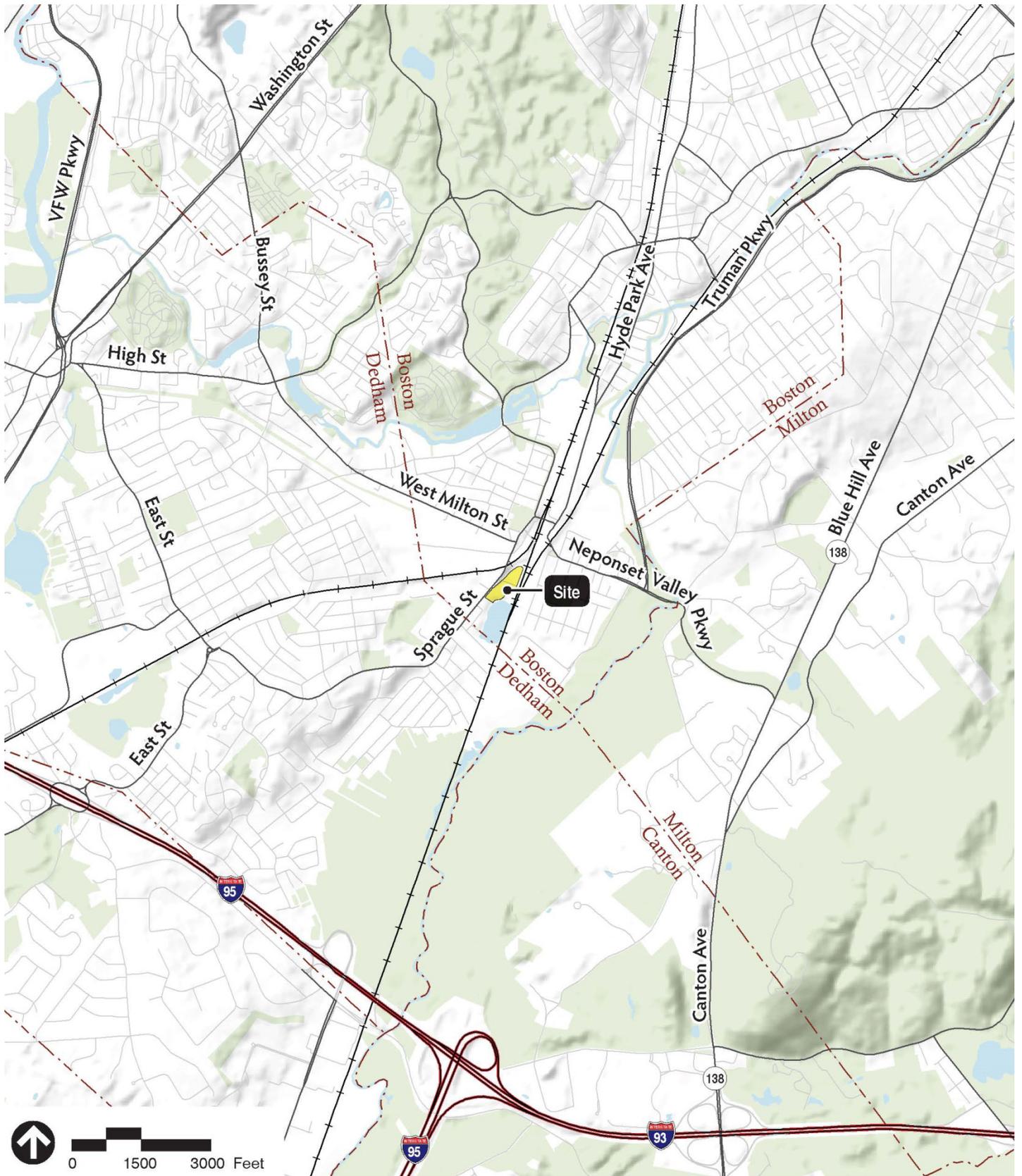
Land Use	PNF Project	Current Project
Residential	521 units	492 units
Bedrooms	781	679
Restaurant	5,980 sf	5,400 sf
Parking	532 spaces	511 spaces
Total SF	575,089	500,400

Note: All numbers approximate.

2.2 Summary of Findings

VHB has conducted a comprehensive transportation study to define existing traffic conditions in the Project study area. Seven intersections were monitored, and data regarding traffic volumes, pedestrian and bicycle activity, and operating conditions were collected. In addition, 24-hour traffic counts were taken over the course of four different days to help establish the traffic baseline.

The Proponent recognizes the traffic challenges experienced by area residents and businesses. Many local streets feel the effects of regional cut-through traffic during the morning and evening peak periods. Drivers seeking to avoid I-95 or I-93 use both Neponset Valley Parkway and Sprague Street, leading to what can be long delays on local streets. The challenges are exacerbated by the lack of lane markings and signalization. Drivers turning at both ends of the Father Hart Bridge (Milton Street) without benefit of any traffic control devices to control movements frequently block one another, adding to congestion. To compound matters, MBTA buses U-turn at Wolcott Square. Recognizing all of these factors is an important element to understanding the effects of Project traffic.



36-70 Sprague Street Readville, Massachusetts



Figure 2-1
Regional Context



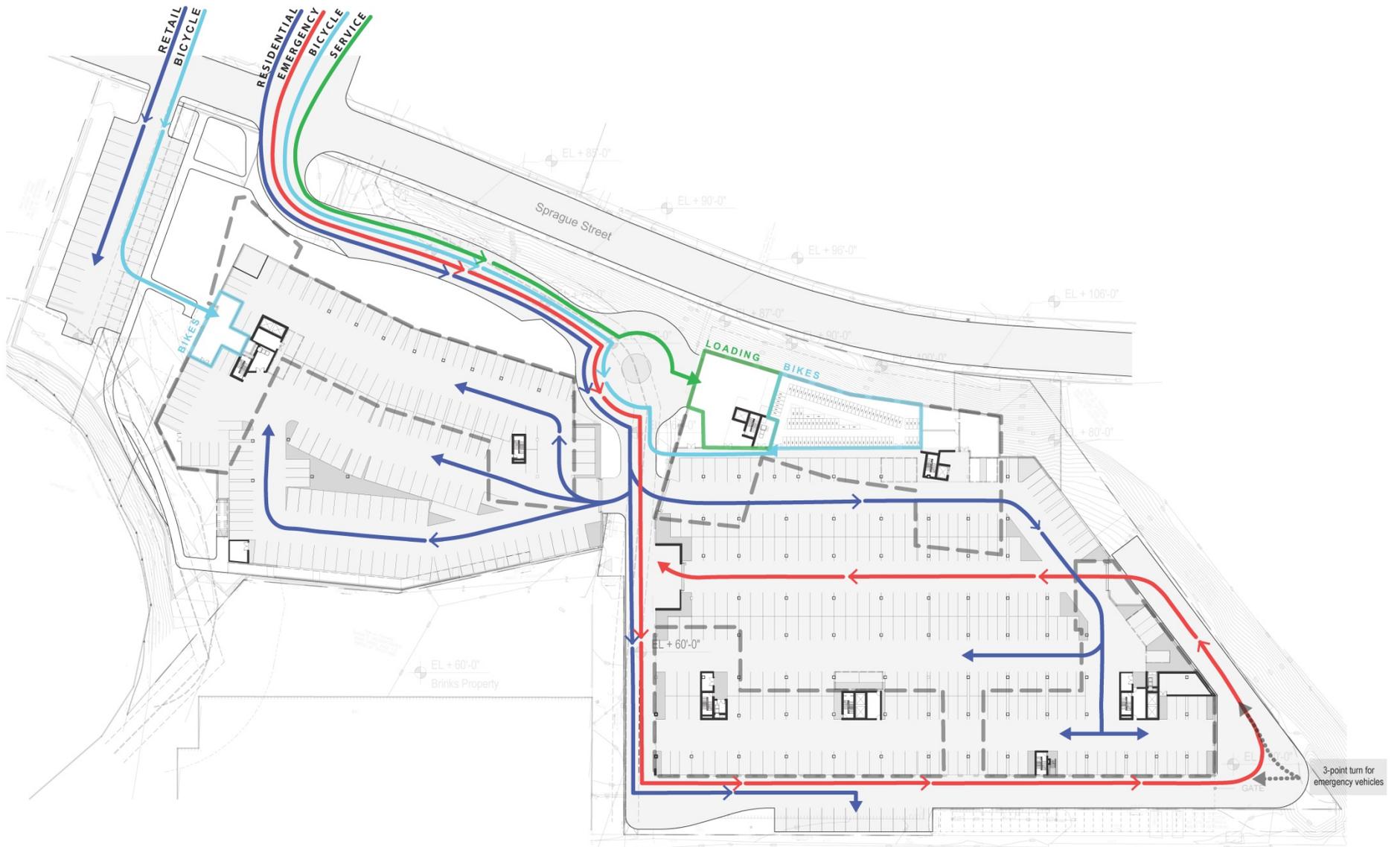
36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts



Figure 2-3
Site Plan



36-70 Sprague Street Readville, Massachusetts



Figure 2-4
Vehicular and Bicycle Circulation

The City of Boston has recognized that the traffic congestion situation from the Father Hart Bridge through Wolcott Square is an existing problem independent of what happens on the Project site. To help address the existing situation, Mayor Walsh and City Councilor Tim McCarthy first announced in March, 2017 the expenditure of \$75,000 to fund an independent traffic study of Wolcott Square and surrounding area traffic. This announcement was very quickly thereafter followed in April 2017 by the even more significant announcement by Mayor Walsh and Councilor McCarthy that the City would expend an additional \$1.4 million to signalize both ends of the Father Hart Bridge and upgrade the existing signals in Wolcott Square. These steps are expected to materially improve existing traffic conditions in the immediate area of the Project.

This study contains an explanation of the process used to estimate how much new traffic can be expected with the Project. Two approaches were taken, the first being a traditional analytical approach following procedures generally prescribed by the Boston Transportation Department (BTD). This traditional method relies on the Institute of Transportation Engineers (ITE) trip generation manual and its published trip rates. Because the ITE rates represent national rather than local travel characteristics, a traditional BTD methodology with respect to local neighborhood modal split characteristics and vehicle occupancy rates was applied in this first approach.

Because the traditional methodology does not take into account factors such as the site's very close proximity to transit, the important Project elements that have been developed and targeted to reduce automobile usage, and the expected demographics of the site's tenants, VHB has also prepared a second, site-specific traffic generation analysis that takes into account the Project's design as a "Transit Oriented Development" directly adjacent to a large commuter rail station served by multiple train lines.

The analysis then describes the procedures followed to estimate and account for background traffic growth, including Readville Yard 5. Finally, the analysis section concludes with an evaluation of traffic operations where level of service (LOS) is calculated.

The Proponent has already had extensive discussions with community members regarding the neighborhood traffic situation, and is committed to continuing to work with the City and the community to develop a thorough, comprehensive, and appropriate traffic mitigation plan. Key elements of the plan are the following:

- ◆ A thoughtful site design that makes walking to/from neighborhood services easy.
- ◆ Implementation of measures to encourage the use of public transit especially during peak periods to take advantage of the Project's proximity to multiple commuter rail service lines at the site.

- ◆ Construction of a new pedestrian connection to Sprague Street at the site's northern border to provide the shortest possible walk to the Readville MBTA Station and Wolcott Square.
- ◆ The incorporation into the Project of a large, two-story "Workshare" space with associated amenities such as a coffee shop and lounge, to make the Project especially attractive to the increasing number of (especially young) residents who work from home and do not commute at all.
- ◆ Establishment of a strong Travel Demand Management program, overseen by an on-site Transportation Coordinator.
- ◆ Coordination with the City of Boston on, and potential contribution towards the cost of, the planned design and construction of roadway improvements in the area including the potential signalization of the Sprague Street intersection with West Milton and Milton streets.
- ◆ Extensive on-site bicycle parking and an on-site bicycle maintenance facility.

Even using the traditional traffic forecasting methodology that relies on ITE trip generation rates and the broader neighborhood mode split ratios the PNF Project at full build was expected to generate only 205 vehicle trips (42 entering and 163 exiting) during the morning peak hour. That equates to just over three cars per minute, dispersed in several directions. During the evening peak hour, the traditional traffic forecasting methodology estimates the Project will generate 280 vehicle trips (183 in and 97 out). This equates to approximately 4.5 cars per minute, again dispersed from multiple directions. Expected traffic volume increases (using the traditional methodology) at nearby intersections were calculated; the increase at Wolcott Square is estimated from a transportation perspective to be three percent over the future No-Build Condition for both the morning and evening peak hours. The analysis indicates that there will be no substantial changes in the signalized intersection level of service at Wolcott Square from Project-related traffic. An analysis of unsignalized intersection level of service at the study area intersections indicates that any changes in level of service between the No-Build and Build conditions will be very limited using the traditional methodology.

At every location studied (other than at the site driveway), the impact of the Project, in terms of percent increase in entering traffic, will be less than the traffic increases due to background growth and the previously approved Readville Yard 5 development, even using the traditional traffic forecasting approach without taking TOD considerations into account. When TOD considerations are taken into effect, this impact is expected to be even less. Now that the Project has been reduced in size, the transportation impacts will likewise be reduced.

The residential parking under the podium will be limited to residents of the building, and the surface parking lot will be only for visitors to the pondside park and customers of the restaurant. Secure, covered bicycle storage and outdoor, public bike parking will be provided consistent with City of Boston Bike Parking Guidelines.

2.3 Study Methodology

The analysis presented in this Chapter provides a detailed description of the Project's transportation characteristics and evaluates key impacts to the area's transportation infrastructure. The transportation analysis presented in this chapter conforms to the BTDC Transportation Access Plans Guidelines.

The transportation analysis includes the estimation of Project-related trips based on ITE Trip Generation rates. Local travel characteristics established through the Access Boston 2000-2010 initiative were applied to estimate Project travel patterns. Synchro 8 software was used for the traffic operations evaluation based on Highway Capacity Manual¹ (HCM) methodologies.

2.3.1 *Traffic Study Area*

Based on the Project program and the surrounding vehicular network, seven study intersections were identified. As shown in Figure 2-5, the following intersections were included in the study area for the analysis:

1. Sprague Street at Industrial Park Driveway (unsignalized)
2. Sprague Street at Sprague Place/Horne Street (unsignalized)
3. Sprague Street at West Milton Street/Milton Street (unsignalized)
4. Milton Street at Neponset Valley Parkway (unsignalized)
5. Hyde Park Avenue at Milton Street/MBTA Driveway (unsignalized)
6. Hyde Park Avenue at Neponset Valley Parkway/Wolcott Court/Wolcott Square (signalized)
7. Milton Street at Industrial Drive/MBTA Parking (unsignalized)

2.3.2 *Analysis Conditions*

The transportation analysis considered the following analysis scenarios:

- ◆ **2016 Existing Condition** – based on traffic data collection conducted within the study area in March 2016. Generally consistent with the Massachusetts Department of Transportation (MassDOT) TIA Guidelines and standard practice in Boston, to be deemed current, the traffic volume data must be collected within two-years of the TIA initial submittal.

¹ Highway Capacity Manual; Transportation Research Board; Washington D.C.; 2000.

- ◆ **2021 No-Build Condition** – future conditions for a five-year time horizon as expected to occur if the Project was not constructed.
- ◆ **2021 Build Condition** – future conditions for a five-year time horizon assuming construction and full occupancy of the Project.
- ◆ **2021 Build Mitigated Condition** – future conditions for a five-year time horizon assuming construction and full occupancy of the Project with intersection improvements.

2.4 2016 Existing Conditions

This section describes existing transportation conditions, including an overview of roadway conditions, transit, pedestrian and bicycle facilities, and general site conditions.

2.4.1 *Roadways*

The Project site is located east of Sprague Street, with Milton Street to the north and Hyde Park Avenue across the Northeast Corridor railroad tracks to the east.

Sprague Street connects East and Cedar Streets in the west to the Readville neighborhood in the east. It terminates at its intersection with West Milton Street. The segment of Sprague Street bordering the Project site consists of one lane in each direction, and no parking is allowed along the street. The street is approximately 33 feet wide, and sidewalks are available along both sides of the street.

Milton Street connects Sprague Street and Hyde Park Avenue via the Father Hart Bridge across the railroad tracks. The roadway provides one travel lane in each direction. Along Milton Street is a driveway for the MBTA Readville Station parking lot. No parking is allowed along Milton Street, and there are sidewalks along both sides of the street.

Hyde Park Avenue connects Forest Hills in Jamaica Plain to the north with Wolcott Square. It is a two-way roadway with one travel lane in each direction with wide travel lanes of approximately 18 feet with additional striped shoulder markings on both sides of approximately two feet. No parking is allowed along Hyde Park Avenue. Sidewalks are provided along both sides of the street.

Neponset Valley Parkway is broken into two segments within Hyde Park. The northern segment connects River Street to the north with Milton Street to the south on the west side of the railroad tracks, and the eastern segment connects Wolcott Square to the west with Blue Hill Avenue to the east. The roadway is two-way with one travel lane in each direction. Sidewalks are provided along both sides of the roadway in both segments within the study area.

The roadways that comprise the study area are controlled by three different entities. These entities are the Department of Conservation and Recreation (DCR), the MassDOT, and the City of Boston. Figure 2-6 shows the roadway jurisdiction in the area and through the study area intersections.

2.4.2 Study Area Intersections

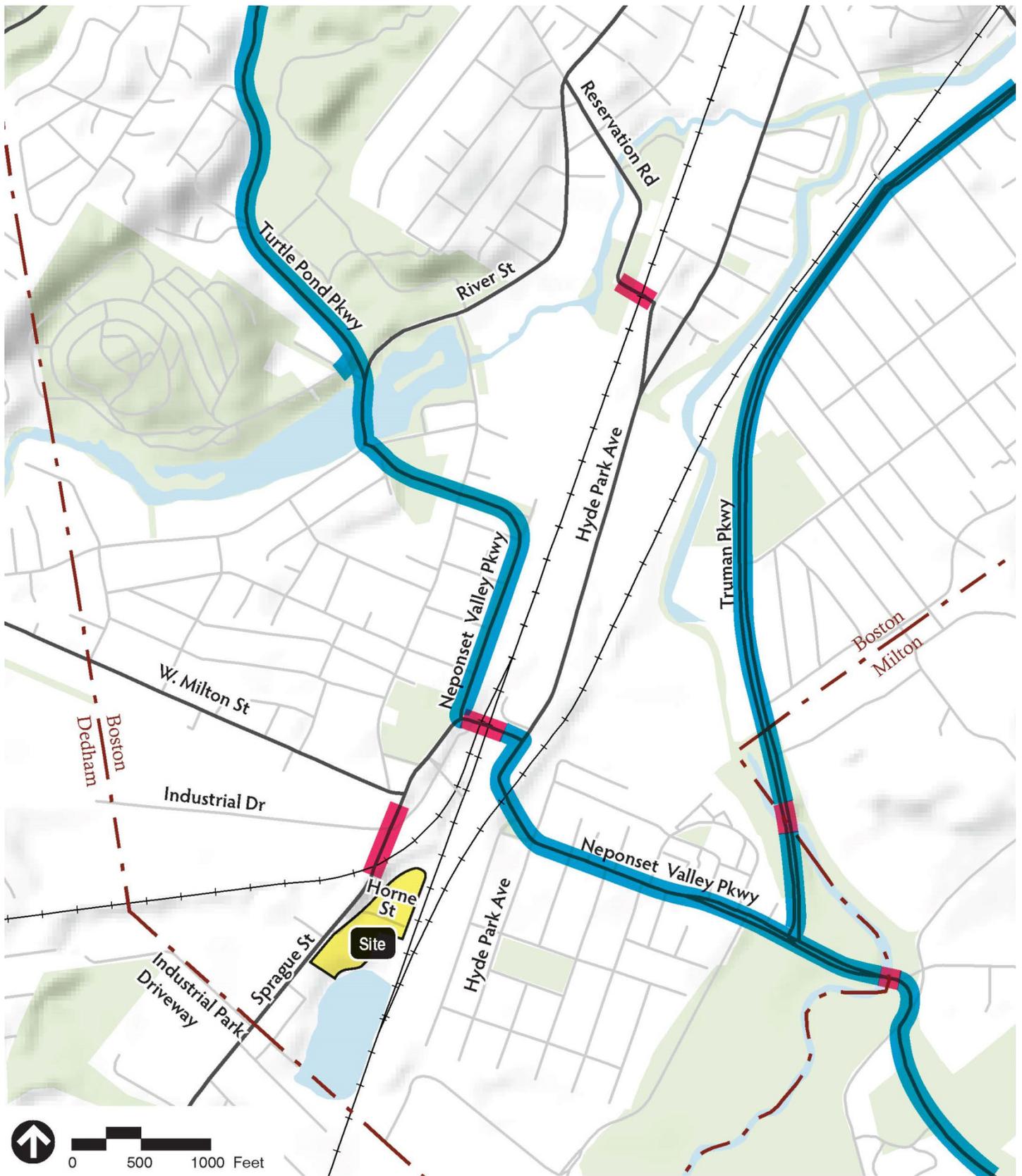
The study area consists of seven study intersections previously shown in Figure 2-5 and which are described below. Traffic operations and level of service (LOS) analysis are presented later in this chapter.

Sprague Street at Industrial Park Driveway – The intersection of Sprague Street at Industrial Park Driveway is a three-legged, unsignalized intersection to the southwest of the Project site. Sprague Street runs generally north/south, and the Industrial Park Driveway runs east/west. Industrial Park Driveway is a dead-end roadway serving several industrial parcels. There is no stop sign present at the driveway entrance/exit, but for analysis purposes, this approach is treated as stop-controlled; Sprague Street has free-flow conditions. Although crosswalks are not provided at this intersection, sidewalks are provided at the intersection approaches.

Sprague Street at Sprague Place/Horne Street – The intersection of Sprague Street at Sprague Place/Horne Street is a four-legged, offset, and unsignalized intersection located at the proposed driveway entrance to the Project. Sprague Place is a driveway for the Boston Dedham Commerce Park and extends west from the intersection. Horne Street extends east from the intersection into the Project site. Both of these site entrance/exit driveways have one general purpose travel lane, and are stop-controlled (although a stop sign and a painted stop bar are not provided at the approaches). Sprague Street runs north/south and operates at free-flow. Crosswalks are not provided at this intersection, but sidewalks are provided at each of the intersection approaches.

Sprague Street at West Milton Street/Milton Street – The intersection of Sprague Street at West Milton Street/Milton Street is a three-legged, unsignalized intersection located to the north of the Project. All three intersection approaches are stop-controlled. Sprague Street and West Milton Street have one travel lane in each direction, and the Milton Street southbound approach has one right-turn only lane and one through lane. Crosswalks are provided at the Milton Street southbound and West Milton eastbound approaches. Sidewalks are provided along both sides of all approaches to the intersection.

Milton Street at Neponset Valley Parkway – The intersection of Milton Street at Neponset Valley Parkway is a three-legged, unsignalized intersection north of the Project site. Milton Street features one lane of travel in each direction. Neponset Valley Parkway features one travel lane in each direction and the roadway becomes Milton Street south of the Father Hart Bridge. A crosswalk is provided only at the Father Hart Bridge approach; sidewalks are provided along all intersection approaches.



Source: MassGIS

Source: <http://services.massdot.state.ma.us/matemplate/roadinventory>

- Department of Conservation and Recreation
- Massachusetts Department of Transportation

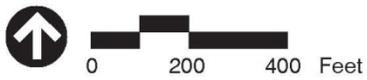
36-70 Sprague Street Readville, Massachusetts



Figure 2-5
State Roadway Jurisdiction



- 1 Sprague Street at Industrial Park Driveway
- 2 Sprague Street at Sprague Place/Horne Street
- 3 Sprague Street at West Milton Street/Milton Street
- 4 Milton Street at Neponset Valley Parkway
- 5 Hyde Park Avenue at Milton Street/MBTA Driveway
- 6 Hyde Park Avenue at Neponset Valley Parkway/Wolcott Court (Wolcott Square)
- 7 Milton Street at Industrial Drive/MBTA Parking



Source: ArcGIS Online Bing Aerial

- # Unsignalized Intersection
- # Signalized Intersection

36-70 Sprague Street Readville, Massachusetts



Figure 2-6
Study Area Intersections

Hyde Park Avenue at Milton Street/MBTA Driveway – The intersection of Hyde Park Avenue at Milton Street/MBTA Driveway is a four-legged, unsignalized intersection to the northeast of the Project. Hyde Park Avenue runs north/south with one travel lane in each direction. This intersection is located on the eastern end of the Father Hart Bridge (Milton Street), and it is stop-controlled at the bridge approach. The Milton Street eastbound approach has one marked travel lane, but the lane is wide enough at the intersection to allow for vehicles turning right to create a second lane. The MBTA Driveway westbound approach has one travel lane and is stop-controlled. A crosswalk is provided only across the Father Hart Bridge (Milton Street) approach, and sidewalks are provided along all sides of the intersection approaches.

Hyde Park Avenue at Neponset Valley Parkway/Wolcott Court/Wolcott Square – The intersection of Hyde Park Avenue at Neponset Valley Parkway/Wolcott Square/Wolcott Court is a five-legged, signalized intersection located east of the Project. The Hyde Park Avenue northbound approach has one travel lane. The Wolcott Court southbound approach has a channelized right-turn lane onto Hyde Park Avenue that is stop-controlled and a through lane. The Hyde Park Avenue eastbound approach has a single travel lane with an MBTA bus stop at the intersection approach. Wolcott Square has a single travel lane with parking allowed on both sides of the approach. Neponset Valley Parkway westbound approach has a single travel lane in each direction. Crosswalks and sidewalks are provided across all intersection approaches.

Milton Street at Industrial Drive/MBTA Parking – The intersection of Milton Street at Industrial Drive/MBTA Parking is a three-legged, unsignalized intersection located north of the Project. The Industrial Drive/MBTA Parking approach is stop-controlled, and although the approach does not have striped lane markings, it likely operates as a shared right-turn/left-turn approach lane to Milton Street. Milton Street has one travel lane north/south and it is free-flow. There is no parking allowed at the intersection approaches. Crosswalks are available at all approaches with sidewalks on both sides.

Perspectives on Existing Traffic Conditions in the Neighborhood

The neighborhood experiences considerable volumes and queuing during the morning and evening peak hours as commuters travel through Wolcott Square and over the Father Hart Bridge on Milton Street. This route is often used as a cut-through by drivers seeking to avoid congestion on I-95 and I-93. Due to the large volumes of regional traffic passing through, this reduces opportunities for drivers to turn at stop-controlled intersection approaches and driveways. A series of travel time runs were conducted through the area during both morning and evening peak hours on Tuesday, June 14, 2016, from the Neponset Valley Parkway east of the site to Neponset Valley Parkway north of the Father Hart Bridge. This roadway segment is approximately one-quarter of a mile long and runs through both sections of Readville east and north of the site. Drivers seeking to avoid I-95 or I-93 use

Neponset Valley Parkway and/or Sprague Street, leading to what can be long delays on local streets. The challenges are exacerbated by the lack of lane markings and signalization at both ends of the Father Hart Bridge (Milton Street). Drivers turning at both ends of the Father Hart Bridge without benefit of these controls frequently block one another, adding to congestion. As a result, traveling the quarter mile distance through Wolcott Square, over the Father Hart Bridge to the northern portion of the Neponset Valley Parkway during peak hour periods can take upwards of 5 and even 10 minutes in both directions, and the entire ride from Route 138 through Wolcott Square to and from the northern portion of the Neponset Valley Parkway (approximately 1.5 miles) can sometimes take much longer depending on congestion along I-93/I-95 and the number of drivers diverting through the neighborhood to avoid congestion on the regional highway system.

2.4.3 Data Collection

To properly assess the traffic conditions of the surrounding street network, traffic data was collected on multiple days in March and June, 2016. In addition, this data was compared with and found to be consistent with traffic data collected as part of the Readville Yard 5 permitting process in 2014.

Manual turning movement counts (TMCs) were collected at the study area intersections. TMCs were collected on Wednesday, March 30, 2016 during a typical weekday morning peak commuter period (7:00 a.m. – 9:00 a.m.) and evening peak commuter period (4:00 p.m. – 6:00 p.m.). Since the counts were completed while the area schools were in session, no further adjustments were made.

The TMCs were used to establish the study area network peak hour volumes for the 2016 Existing Condition analysis. The weekday morning peak hour was determined to be 7:15 a.m. to 8:15 a.m., and the weekday evening peak hour from 4:30 p.m. to 5:30 p.m. The existing morning peak hour traffic volumes are shown in Figure 2-7, and the existing evening peak hour traffic volumes are shown in Figure 2-8. Pedestrian morning and evening peak volumes are shown in Figure 2-9 and Figure 2-10, respectively. Bicycle morning peak volumes are shown in Figure 2-11, and the evening peak hour bicycle volumes are shown in Figure 2-12.

In comparison to the traffic volumes found in the Readville Yard 5² report from 2014, the TMCs from March 2016 reflect similar trends in movements during the peak hours with only slight volume variations. The bicycle and pedestrian activity in the area was also similar, demonstrating consistency over the past few years in this neighborhood.

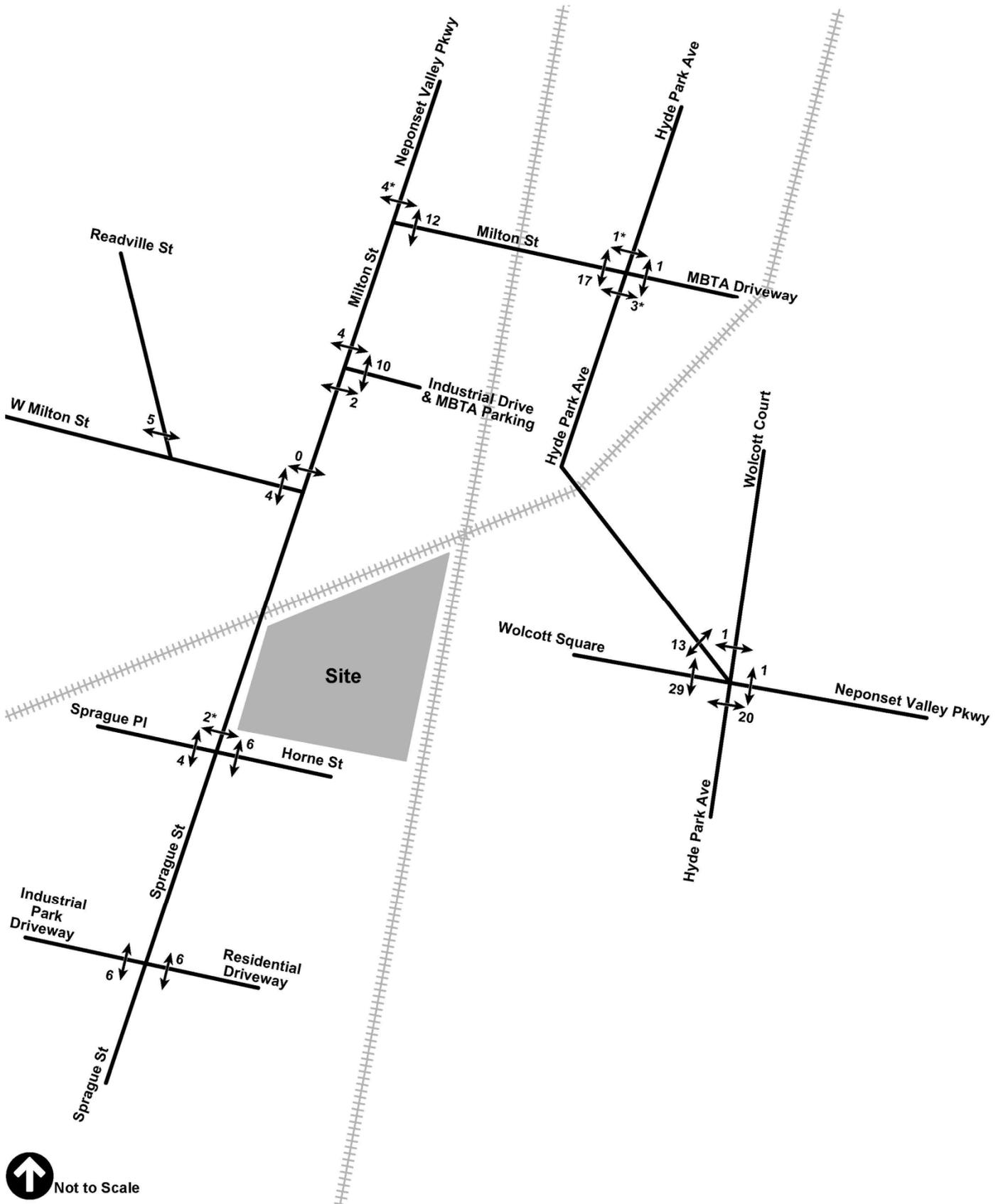
² <http://www.bostonredevelopmentauthority.org/getattachment/d0010560-6cae-4b78-a61d-11afe13cd4ad>

Automatic Traffic Recorder (ATR) counts were performed on Wednesday, March 20, 2016, and Thursday, March 31, 2016. An additional set of ATR data was collected on Wednesday, June 22, 2016, and Thursday, June 23, 2016.

The location of the counts was on Sprague Street just north of Horne Street, and vehicles traveling in both directions were counted.

The ATR data collected in June was used to help verify previous information and confirm the accuracy of the counts taken in March. The June data is slightly higher than the March data, but the same peak hour trends are apparent. It should be noted that Boston Public Schools had an early release on Thursday, June 23, 2016 and the last day of school was on Friday, June 24, 2016, so all counts were taken while schools were still in session. On all four days, northbound traffic was higher than southbound. Total volumes on Sprague Street ranged between approximately 10,250 – 11,050 vehicles. A summary of these four days of traffic count data is shown in Table 2-2. The raw count data are included in Appendix A.

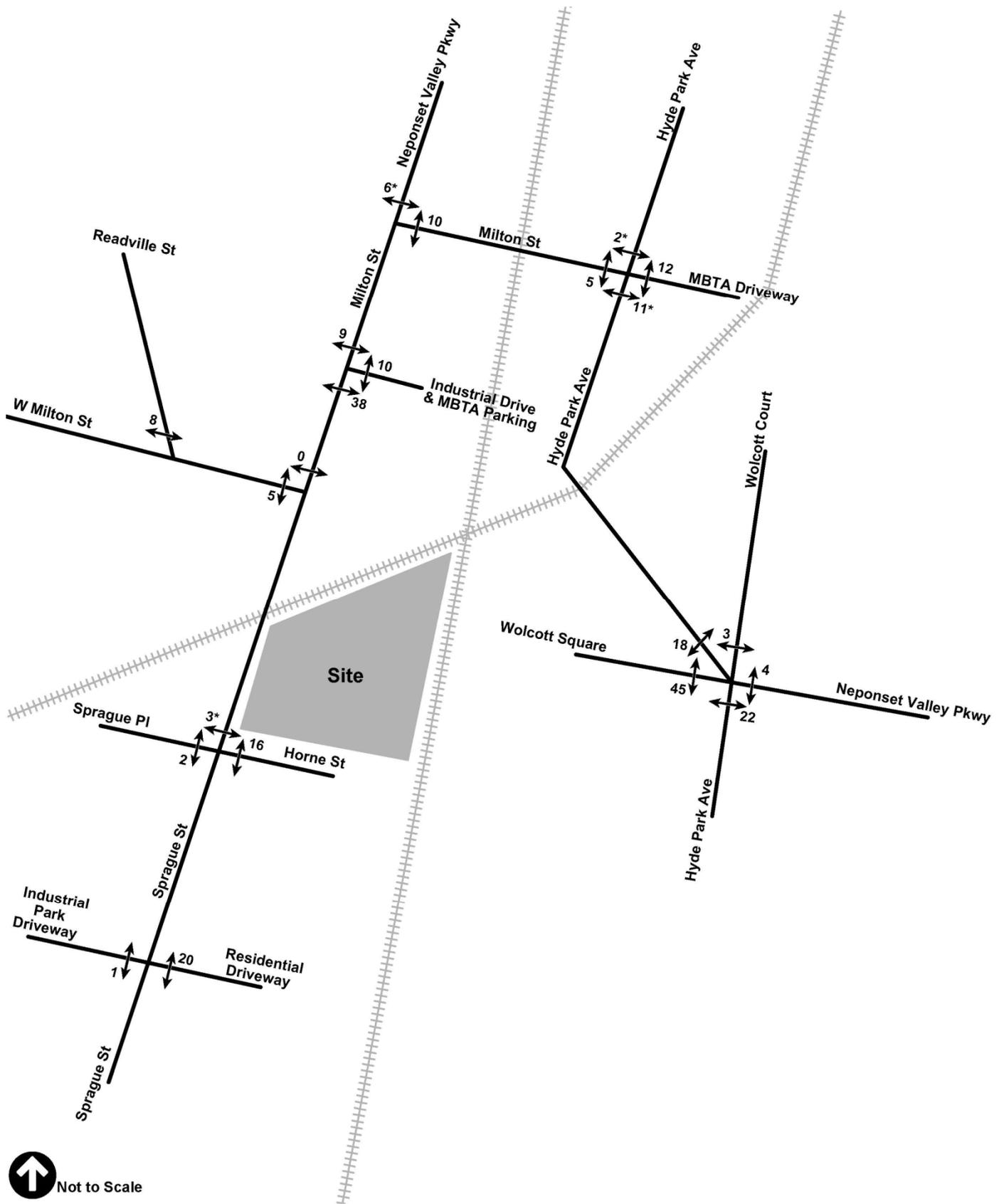
It is important to note that additional counts at the intersection of Sprague Street at West Milton and Milton streets were collected in January 2018. These counts were again similar to and very consistent with the earlier counts.



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Figure 2-9
2016 Existing Condition Pedestrian Volumes
AM Peak Hour (7:15 a.m. – 8:15 a.m.)

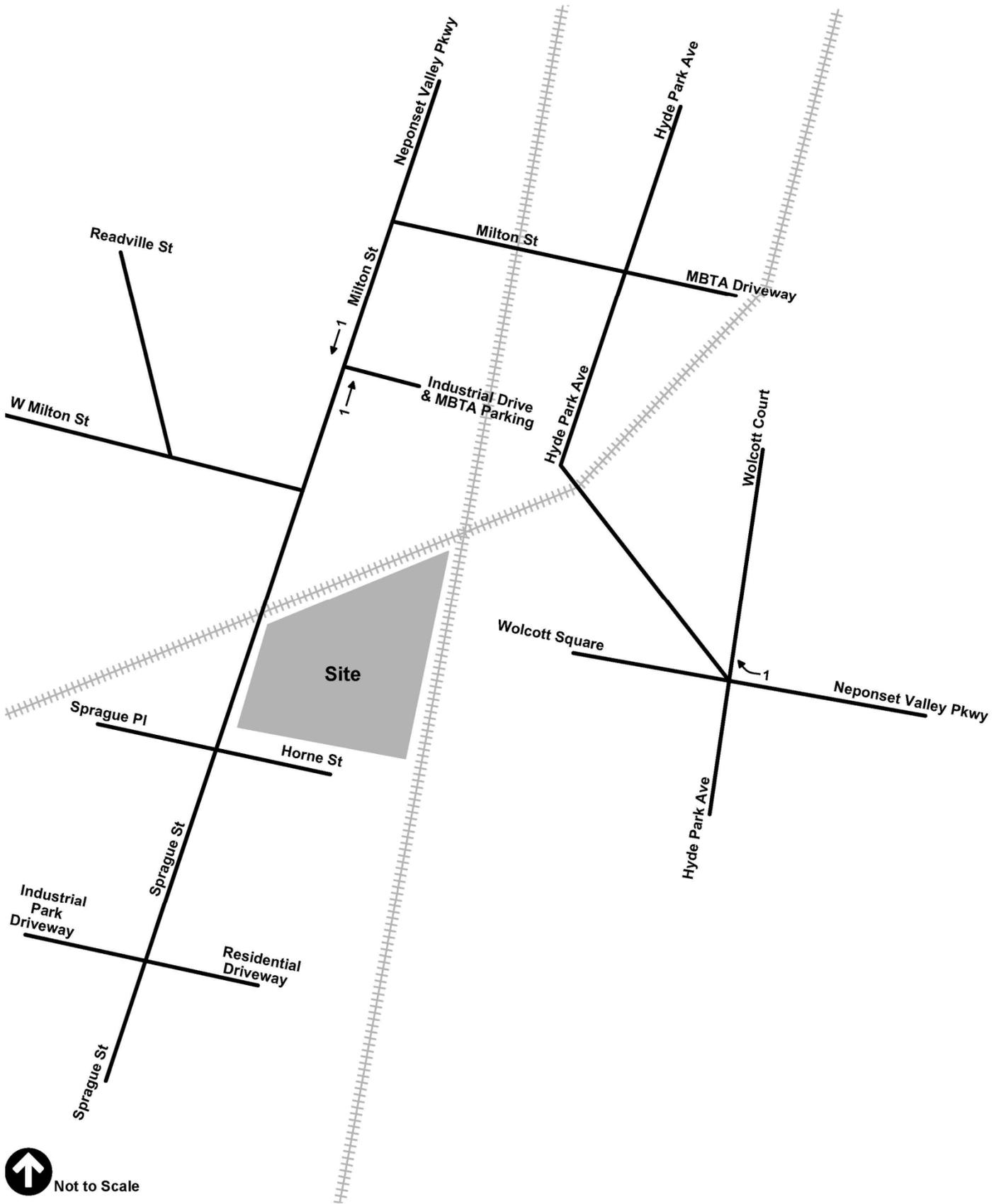


↑ Not to Scale

36-70 Sprague Street Readville, Massachusetts



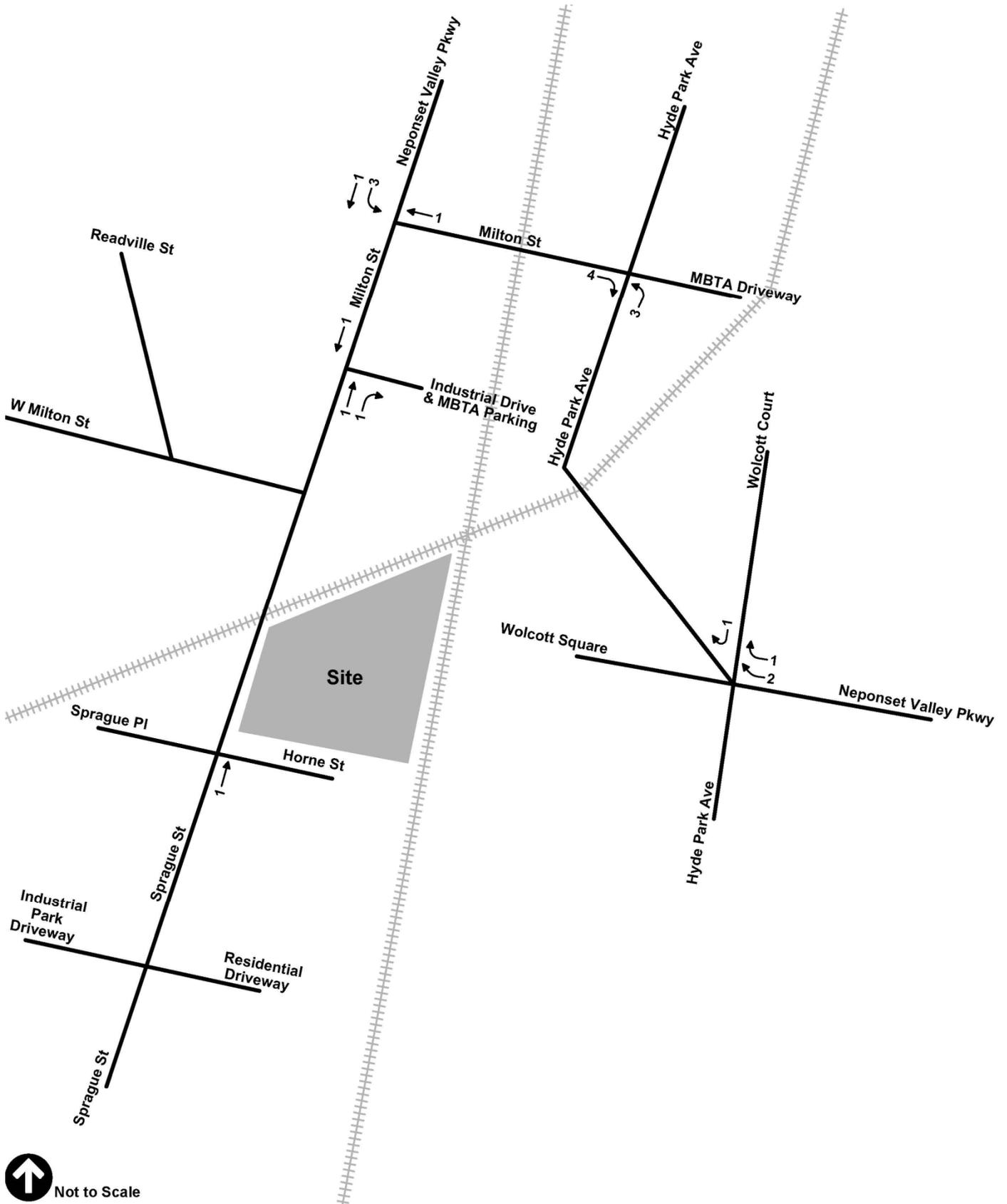
Figure 2-10
 2016 Existing Condition Pedestrian Volumes
 PM Peak Hour (4:30 p.m. – 5:30 p.m.)



36-70 Sprague Street Readville, Massachusetts



Figure 2-11
 2016 Existing Condition Bicycle Volumes
 AM Peak Hour (7:15 a.m. – 8:15 a.m.)



36-70 Sprague Street Readville, Massachusetts



Figure 2-12
 2016 Existing Condition Bicycle Volumes
 PM Peak Hour (4:30 p.m. - 5:30 p.m.)

Table 2-2 Hourly Traffic Volumes, March 2016 and June 2016 on Sprague Street North of Horne Street

Start Time	Wednesday, March 30, 2016			Thursday, March 31, 2016			Wednesday, June 22, 2016			Thursday, June 23, 2016		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 a.m.	24	18	42	22	31	53	21	23	44	43	26	69
1:00 a.m.	16	8	24	9	8	17	12	12	24	13	13	26
2:00 a.m.	10	12	22	10	9	19	42	24	66	24	21	45
3:00 a.m.	11	8	19	7	7	14	14	10	24	19	11	30
4:00 a.m.	28	47	75	31	31	62	29	33	62	29	30	59
5:00 a.m.	118	88	206	121	100	221	152	102	254	157	107	264
6:00 a.m.	301	250	551	271	249	520	349	267	616	329	264	593
7:00 a.m.	491	316	807	498	320	818	434	324	758	412	324	736
8:00 a.m.	371	316	687	399	293	692	388	321	709	368	309	677
9:00 a.m.	314	275	589	299	278	577	335	290	625	326	312	628
10:00 a.m.	258	252	510	288	247	535	301	246	547	305	255	560
11:00 a.m.	267	267	534	282	245	527	269	317	586	281	256	537
12:00 p.m.	285	261	546	320	291	611	322	332	654	300	303	603
1:00 p.m.	245	263	508	297	288	585	290	330	620	265	317	582
2:00 p.m.	296	305	601	312	322	644	326	401	727	295	368	663
3:00 p.m.	358	367	725	387	347	734	356	403	759	359	393	752
4:00 p.m.	391	407	798	370	407	777	401	392	793	421	401	822
5:00 p.m.	399	427	826	381	362	743	362	413	775	372	414	786
6:00 p.m.	349	377	726	320	396	716	320	349	669	319	357	676
7:00 p.m.	251	251	502	245	255	500	306	299	605	290	273	563
8:00 p.m.	186	168	354	207	179	386	266	207	473	241	219	460
9:00 p.m.	155	102	257	144	131	275	151	147	298	211	194	405
10:00 p.m.	100	91	191	95	93	188	111	113	224	131	118	249
11:00 p.m.	95	53	148	91	55	145	97	46	143	79	55	132
TOTAL	5,319	4,929	10,248	5,406	4,954	10,360	5,654	5,401	11,055	5,589	5,340	10,929

The traffic generated by the site's current mix of uses on the site is 40 vehicles in the morning peak hour (20 entering, 20 exiting) and 45 vehicles in the evening peak hour (15 entering, 30 exiting). The counts did not differentiate between the different users of Horne Street. Some of these trips are related to Brinks (a preliminary estimate is that the Brinks activity at the site accounts for perhaps half of the existing trips), so to be conservative in the analysis, the existing site trips were not subtracted from the proposed Project trips.

2.4.4 Pedestrian Environment and Accessibility

While the Project area provides sidewalks, they are generally lightly used and autos predominate. Sidewalks are provided along all major roads such as Sprague Street, Hyde Park Avenue, Neponset Valley Parkway, Milton Street, and West Milton Street, but only limited marked crosswalks are provided at many of the study area intersections. Many of the crosswalks in the area do not have ADA-compliant ramps. Wolcott Square has marked crosswalks that lead to a granite curb sidewalk with no ramp available at the pedestrian median at the Wolcott Court approach.

Pedestrian volumes at the study area intersections were collected in conjunction with the traffic counts on Wednesday, March 30, 2016. Figure 2-9 and Figure 2-10 present the 2016 Existing Condition Pedestrian Volumes. The highest pedestrian volumes in the study area were observed at the intersection of Hyde Park Avenue at Neponset Valley Parkway/Wolcott Square/Wolcott Court during both the morning and evening peak hours. This higher pedestrian activity is due to the nearby transit services and higher density of retail and residential land uses in the area. A total of 64 pedestrians crossed the street at Wolcott Square during the morning peak hour and 92 pedestrians crossed during the evening peak hour. All other study area intersection crosswalks had a total of approximately 20 pedestrians or less crossing at the study area intersections.

2.4.5 Bicycles

Bicycle volumes, shown in Figure 2-11 and Figure 2-12, at the study area intersections were collected simultaneously with the TMCs and pedestrian volume counts on Wednesday, March 30, 2016. One bicyclist was counted traveling through Wolcott Square westbound from Neponset Valley Parkway to Hyde Park Avenue in the morning peak hour. During the evening peak hour, four bicyclists crossed the bridge on Milton Street and four bicyclists traveled from Wolcott Square to the intersection of Hyde Park Avenue at Milton Street and the MBTA driveway. In general, the bicycle volumes were very low throughout the study area.

Within the immediate study area, there are no bicycle parking accommodations or shared bicycle lanes provided. There are currently no Blue Bikes (formerly Hubway) stations surrounding the Project site or in the Hyde Park neighborhood. An effort is currently underway to create a rail trail from the Sprague Street Bridge adjacent to the Project site along an abandoned rail line to Dedham Square. The portion of this potential trail, the

Dedham Heritage Rail Trail, that is within the City of Boston has already been taken into account in the planning of Readville Yard 5. If this trail is approved and built, it has the potential to materially increase bicycle usage in the area.

2.4.6 Public Transportation

The Project site has excellent public transit access due to its immediate adjacency to the MBTA’s Readville Station. Readville Station is one of the few stations in the MBTA’s commuter rail network served by multiple commuter rail lines, the Franklin Line and the Fairmount Line. With the Project’s pedestrian entrance, directly adjacent to the bridge to the station, residents of the Project site will have ready access to MBTA commuter rail services connecting the neighborhood to downtown Boston and the Back Bay.

The MBTA currently provides local bus and commuter rail service within walking distance (1/5 mile) of the Project site. Figure 2-13 illustrates existing MBTA services and Table 2-3 provides a summary of the bus and rail services. Transit frequency times are provided by the MBTA. A detailed description of each service is also provided.

Table 2-3 MBTA Services

Service	Origin / Destination	Peak Hour Frequency (minutes)	Closest Stop (distance in miles)
Commuter Rail – Franklin Line	Forge Park / 495 – South Station	15 – 43	Readville MBTA Station (0.2)
Commuter Rail – Fairmount Line	Readville – South Station	40 - 50	Readville MBTA Station (0.2)
Bus Route 32	Wolcott Square or Cleary Square – Forest Hills Station via Hyde Park Avenue	7 – 8	Hyde Park Avenue @ Milton Street (0.4)
Bus Route 33	Dedham Line – Mattapan Station via River Street	30 – 35	Readville Street @ West Milton Street (0.25)

Source: MBTA, Spring 2017

Commuter Rail – Franklin Line – This route connects Forge Park in Franklin to South Station in Boston via Walpole, Norwood, Hyde Park, and the Back Bay. The closest station to the Project site is the Readville Train Station, approximately 1,000 feet away. Detailed stop and schedule information is provided on the MBTA website. During the weekday, the Franklin Line operates from 3:50 a.m. to 12:53 a.m. with approximately 15 to 43 minute headways during peak hours. On Saturday, the Franklin Line operates from 6:35 a.m. to 12:19 a.m., and Sunday service is from 10:40 a.m. to 12:19 a.m.

Commuter Rail – Fairmount Line – This route connects Readville Station in Hyde Park to South Station in Boston via Fairmount, Uphams Corner, and New Market. The closest stop to the Project site is Readville Train Station, approximately 1,000 feet away. During the weekday, the Fairmount Line operates from 5:39 a.m. to 11:30 p.m. with approximately 40

to 50 minute headways during peak hours. On Saturday and Sunday, the Fairmount Line operates from 7:30 a.m. to 11:15 p.m.

As previously mentioned, the closest MBTA station is the Readville Station. Parking at Readville Station is \$4 per day, and there are a total of 354 spaces available in the parking lot. Readville is located in Commuter Rail Zone 2 making the cost for a one-way trip into downtown \$6.75. Monthly commuter passes cost \$217.75. Approximately two miles north of the site are two additional stations: the Fairmount MBTA Station and the Hyde Park MBTA Station. Parking at the Hyde Park Station is \$4 per day, and there are a total of 121 parking spaces available. Hyde Park Station is located in Commuter Rail Zone 1 with a one-way fare of \$6.25 and a monthly commuter pass of \$200.25. Parking at the Fairmount Station is \$4 per day, and there is a total of 51 parking spaces available as well as a significant number of free on-street parking spaces.

Fairmount Station is located in Commuter Rail Zone 1A, where the one-way fare is \$2.25 and a monthly commuter rail pass is \$84.50. With this significant daily and monthly fare differential between the Fairmount and Readville Stations, which are just one stop apart – there has been a disincentive for local residents to use the Readville Station and instead drive north to Fairmount Station creating additional traffic. The Project team as well as other groups and constituencies has been in discussions with the MBTA regarding this discrepancy.

It is worth noting that in June 2018, the MBTA took a careful look at its parking pricing policies. One goal of this effort was to try and promote parking at lots that have lower utilization by reducing the price of parking, and increasing parking rates at others where demands are higher. As a result, parking at the Readville Station is being reduced from \$4.00 per day to \$2.00 per day.

MBTA Bus Route 32 – Wolcott Square or Cleary Square – Forest Hills Station via Hyde Park Avenue – This route connects Wolcott Square in Hyde Park to the Forest Hills Station in Jamaica Plain via Hyde Park Avenue. The closest stop to the Project site is Hyde Park Avenue at Milton Street, less than half a mile away. The route also has a stop at Wolcott Square, and this bus stop affects the flow of traffic and contributes to congestion on Hyde Park Avenue eastbound. The bus stops at the Hyde Park Avenue bus stop at Wolcott Square and then must make a U-turn at Wolcott Square to reverse the route direction, causing delays for vehicles at the intersection. Route 32 is one of the busiest bus lines in the Hyde Park neighborhood. Stops along the route connect to the Orange Line, Needham Commuter Rail, Franklin Commuter Rail, Fairmount Commuter Rail, and Providence/Stoughton Commuter Rail. During the weekday, Route 32 operates from 4:53 a.m. to 1:34 a.m. with approximately 7 to 8 minute headways during peak hours. Saturday service runs from 5:05 a.m. to 1:30 a.m., and Sunday service is from 5:25 a.m. to 1:33 a.m.



Source: MassGIS

- 32** Wolcott Square or Cleary Square-Forest Hills via Hyde Park Avenue
- 33** Dedham Line-Mattapan Station via River Street

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Figure 2-13
Public Transit

MBTA Bus Route 33 – Dedham Line – Mattapan Station via River Street – This route connects Hyde Park to Mattapan via River Street. The closest stop to the Project site is Readville Street at West Milton Street, approximately a quarter-mile away. Stops along this route connect to the Red Line, the Mattapan High Speed Line, Franklin Commuter Rail, and Providence/Stoughton Commuter Rail. During the weekday, Route 33 operates from 5:20 a.m. to 7:52 p.m. with 30-35 minute headways during peak hours. On Saturday, the bus operates from 6:20 a.m. to 7:35 p.m., and there is no service on Sunday.

2.4.7 Existing Parking

The site currently has no striped parking spaces. It is a partially paved, partially dirt surfaced warehouse property and truck maintenance yard. Figure 2-14 shows on-street parking regulations within a quarter-mile radius of the site.

Carsharing

There is no carsharing location within a mile from the Project site. Approximately 1.7 miles north of the Project, there are two Zipcar locations near the Hyde Park MBTA Station. The Hyde Park Commuter Rail Zipcar location has two vehicles, and the Winthrop Street Zipcar location north of the Hyde Park Commuter Rail Station has one vehicle.

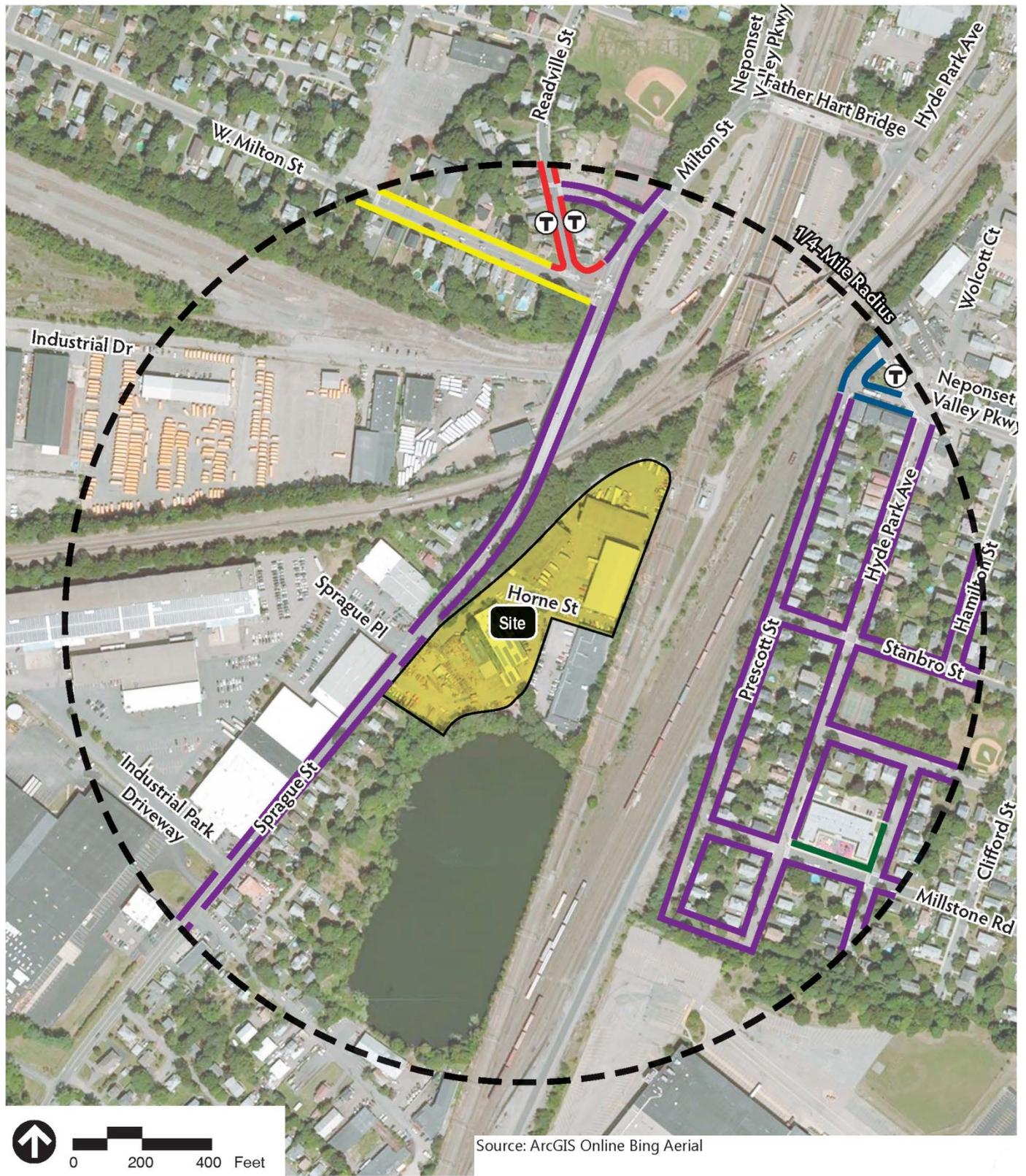
2.5 Future Conditions

To assess future transportation conditions, the analysis considered the following two future scenarios for a five-year time horizon (2021):

- ◆ **2021 No-Build Condition** – assumes no changes to the Project site, but with background traffic growth associated with other planned projects and general regional traffic growth, along with any planned infrastructure improvements; and
- ◆ **2021 Build Condition** – assuming the same background growth and any planned infrastructure improvements, but including Project generated trips.
- ◆ **2021 Build Mitigated Condition** – future conditions for a five-year time horizon assuming construction and full occupancy of the Project including a set of intersection improvements.

2.5.1 2021 No-Build Condition

The 2021 No-Build Condition was developed to evaluate future transportation conditions in the study area without consideration of the Project. In accordance with BTG Guidelines, this future analysis year represents a five-year horizon (2021) from Existing Conditions (2016). The No-Build Condition provides insight to future traffic conditions resulting from regional growth as well as traffic generated by specific projects that are expected to affect the local roadway network.



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Figure 2-14
On-Street Parking Regulations

Background Growth

Background growth is typically accounted for in two ways: general area-wide growth combined with the effects of nearby known projects. A background growth rate of one (1.0) percent per year was applied to the existing traffic volumes to account for population growth and projects that cannot be specifically identified. This background growth rate is consistent with normal practice on projects in Boston and that used by the nearby Readville Yard 5 project.

Other Area Developments

After a review of projects filed with the BPDA, one specific development project was incorporated into the background project volumes for the surrounding area. The Readville Yard 5 Project, approved by the BPDA October 2014, includes the construction of six buildings on a 21-acre parcel for light industrial and manufacturing uses and office space. The new traffic generated by the development was studied in 2014³.

2021 No-Build Condition Traffic Volumes

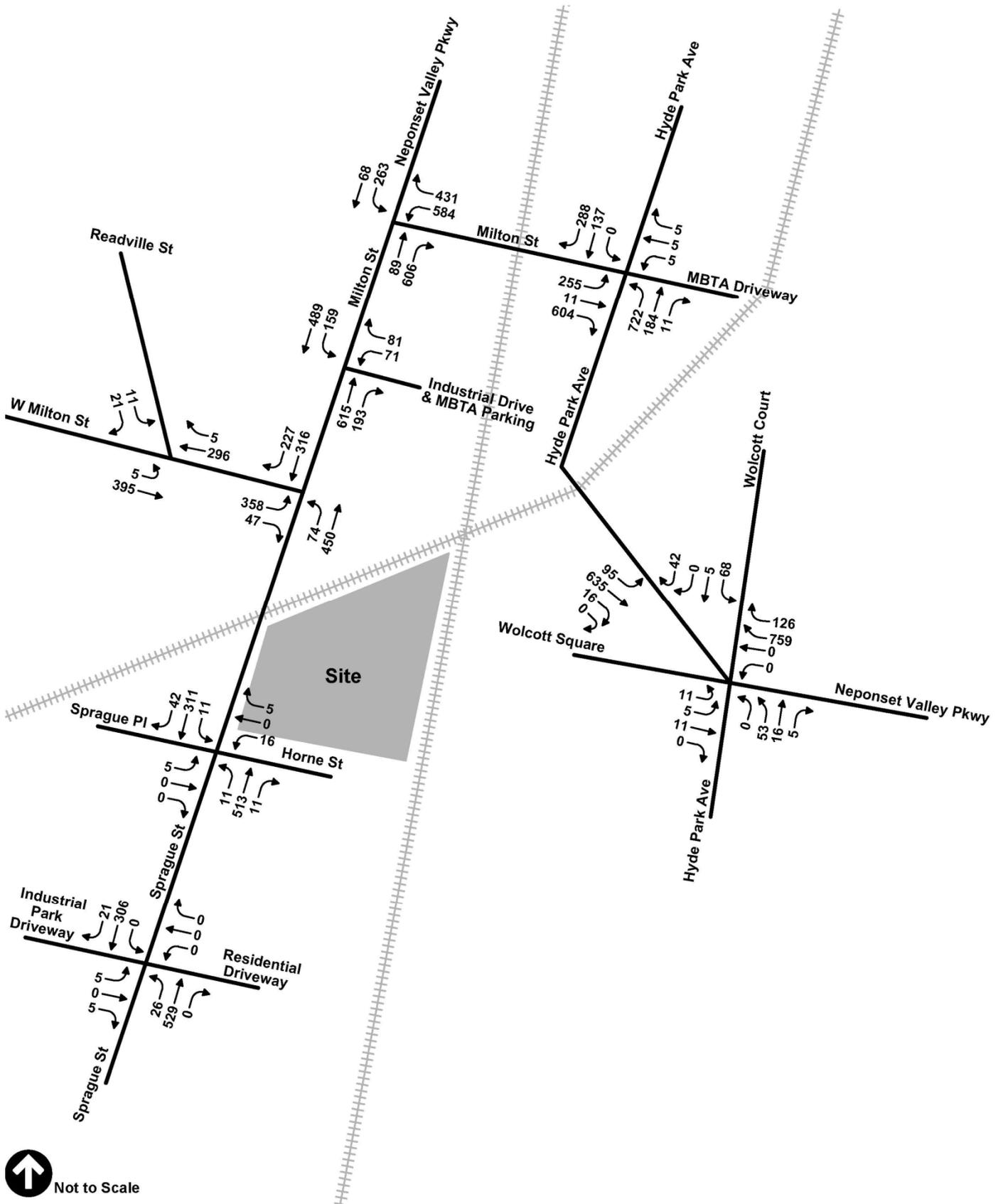
The 2021 No-Build Condition was developed by adding background growth plus the expected traffic from the Readville Yard 5 development to the existing traffic counts. A background growth of one percent was used to account for potential area projects and general regional growth.

Figures 2-15 and 2-16 present the 2021 No-Build Condition traffic volumes accounting for background growth for the weekday morning and evening peak hours, respectively.

2.5.2 2021 Build Condition

The 2021 Build Condition includes the 2021 No-Build background traffic growth with the addition of the Project-generated trips. The Project will create a site driveway on Sprague Street, replacing Horne Street. Figure 2-3, presented previously, illustrates the proposed site plan for the Project.

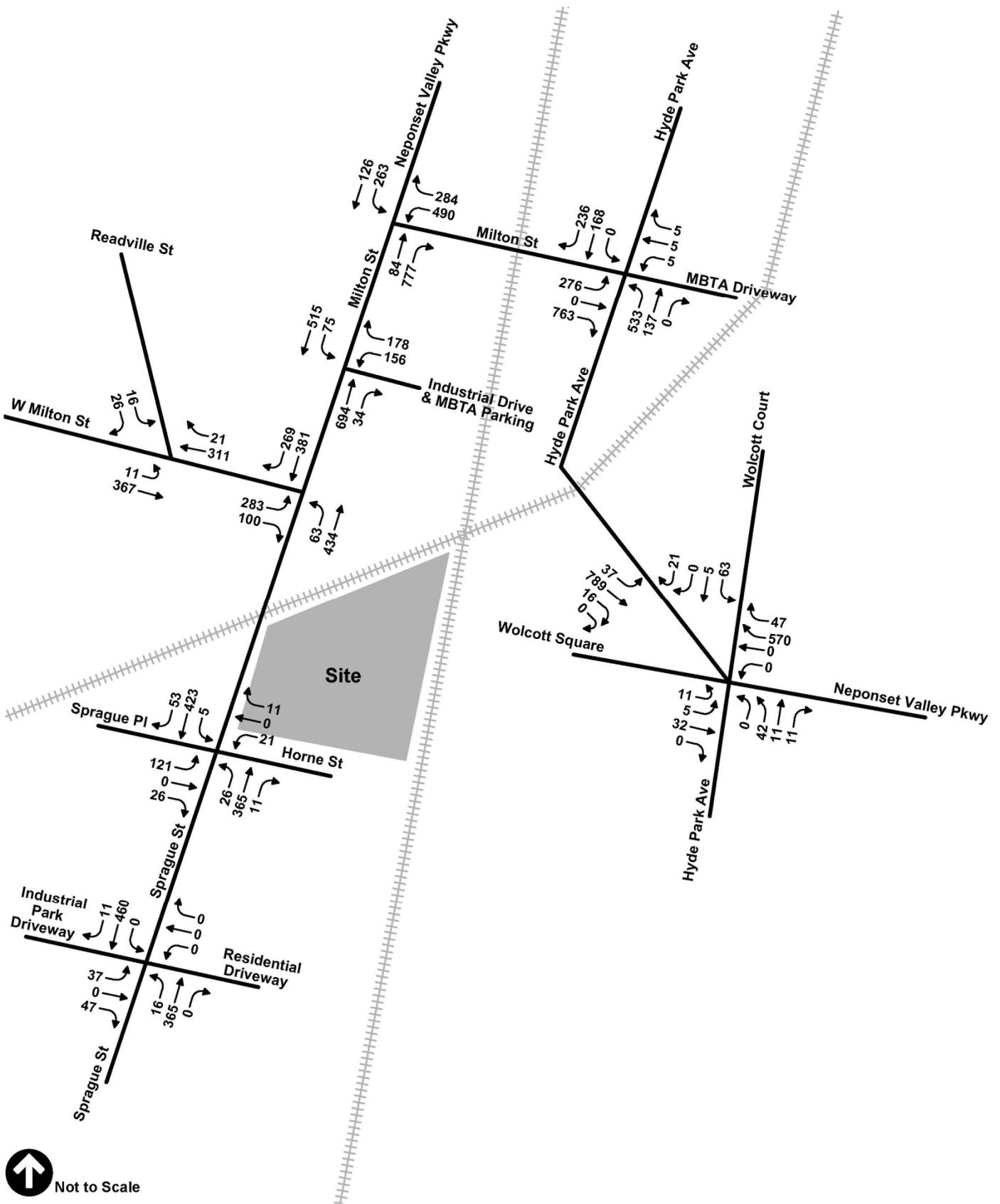
³ <http://www.bostonredevelopmentauthority.org/getattachment/d0010560-6cae-4b78-a61d-11afe13cd4ad>



36-70 Sprague Street Readville, Massachusetts



Figure 2-15
2021 No-Build Condition Vehicle Volumes
AM Peak Hour (7:15 a.m. - 8:15 a.m.)



36-70 Sprague Street Readville, Massachusetts



Figure 2-16
2021 No-Build Condition Vehicle Volumes
PM Peak Hour (4:30 p.m. - 5:30 p.m.)

Project Generated Trips

To assess the expected traffic impacts of the Project, trip estimates were based on standard rates from the ITE Trip Generation Handbook⁴. ITE is the national standard for trip generation, and the rates are based on many individual studies that have taken place for a broad range of development projects in places around the United States. Many of these studies are typically completed in either rural or suburban areas that are not public transportation accessible. The ITE rates represent highly auto dependent populations that do not necessarily match well with conditions found throughout the City of Boston. Further, the trip calculations do not consider Transit-Oriented Development (TOD) mode split characteristics. It is recognized that applying straight ITE trip rates (without further adjustment) would result in an overestimation of expected Project impacts. However, for this report, the initial ITE rates were chosen to begin with, and then were adjusted using a traditional approach typically accepted by the BTM for other projects to reflect the expected traffic generation the Project will create. A second trip generation analysis was then prepared that considers and takes into account new research that has been undertaken regarding travel patterns associated with Transit Oriented Developments (TOD) in various jurisdictions, as well as regarding recent trends in car utilization by urban and younger populations, in an effort to more accurately forecast likely vehicle usage by the population of the Project.

Trip generation for the proposed Project was based on the ITE Land Use Codes shown in Table 2-4 below.

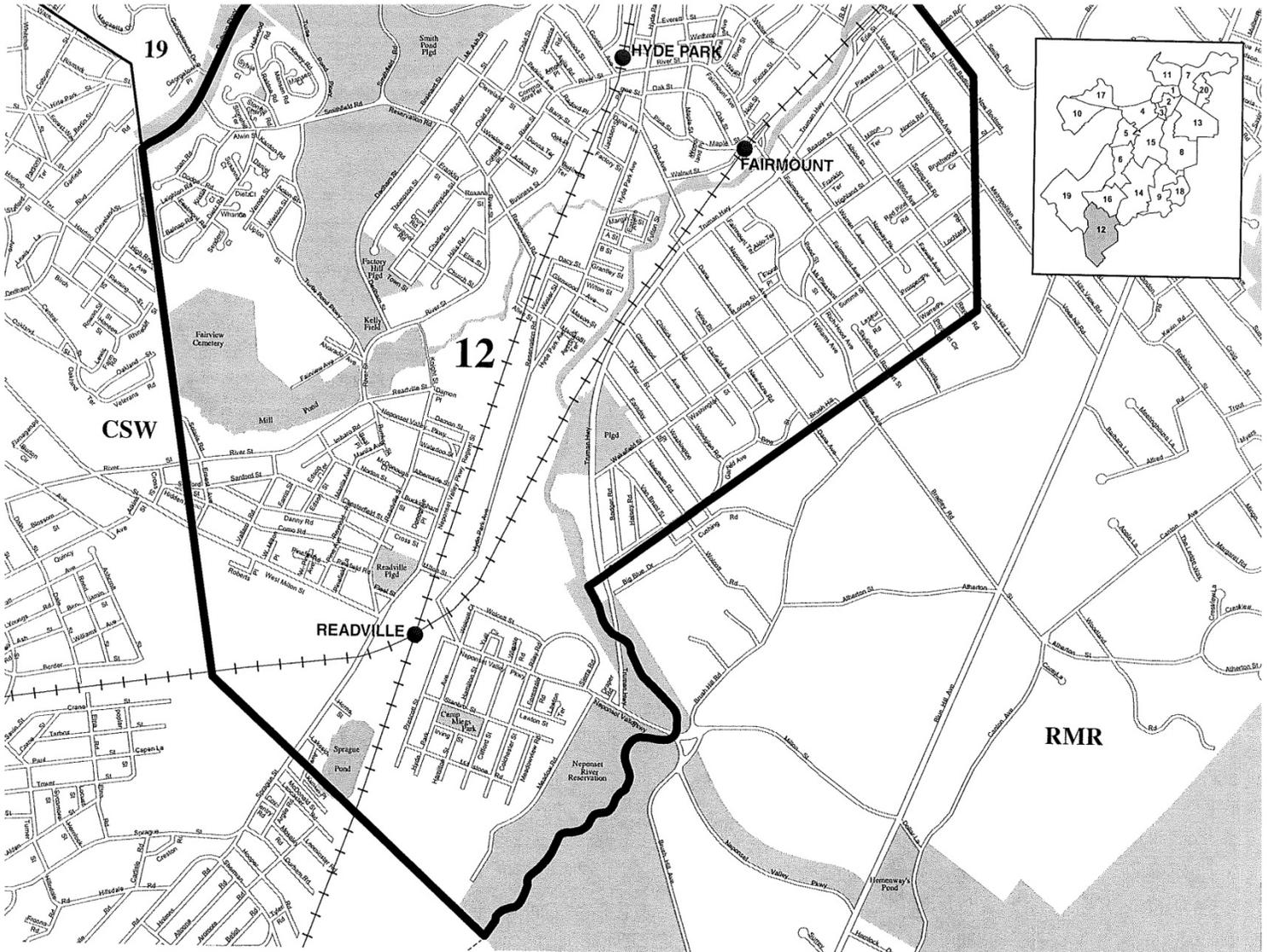
Table 2-4 Trip Generation Land Use Codes

Land Use	ITE Land Use Code (LUC)	Independent Variable
Residential	220 – Apartments	Dwelling Units
Restaurant	931 – Quality Restaurant	Square Feet

Source: ITE Trip Generation Handbook, 9th Edition

To account for alternative transportation modes, BTM guidelines were used and local area mode shares were applied to the unadjusted ITE trip results. The site location is within the boundaries of BTM Zone 12 for Hyde Park (as shown in Figure 2-17), and the mode shares associated with this zone were used for the analysis.

⁴ Trip Generation; Ninth Edition; Institute of Transportation Engineers; Washington, D.C.; 2012.



36-70 Sprague Street Readville, Massachusetts



Figure 2-17
 BTD Zone 12 – Hyde Park

As discussed above, research regarding TOD's, trip generation, parking utilization and trends in vehicle ownership and parking provided for new developments throughout greater Boston demonstrates that the application of the traditional approach toward trip generation will not accurately reflect the patterns that will be created with the development in place. The Project site is very close to an active, multi-line commuter rail service serving downtown Boston with a strong, direct and walkable connection. Many amenities being offered at the site are geared towards a Millennial and empty-nester population with flexible work arrangements. The full build Project will have a large, prominent shared workspace, on-site daycare, a large gym, and an on-site café and sports lounge to encourage and support reduced vehicle trips. Given all of these planned amenities and services and by intentional design, a larger percentage of residents is expected to rely on public transportation for their work commute (vs. the Hyde Park neighborhood as a whole). The Project is also being designed to encourage and accommodate residents who can work from home and avoid a work commute altogether.

The Go Boston 2030 report has looked carefully at future commuting patterns across the City and this Project has been developed in a way that is very consistent with stated City goals. The City has set aspirational goals for making dramatic shifts in mode shares for City residents over the next 13 years. By 2030, the City expects to see a much greater usage of public transportation, bikes and walking and a decreased reliance on private autos. By building so close to an active commuter rail station, this Project will help encourage this shift by providing a high-quality commute option for residents.

Accordingly, this analysis includes a second, TOD set of mode share projections, showing anticipated Project trip generation under a scenario of reduced residents' reliance on autos for their commuting trips.

VHB has worked on a variety of residential projects and the mode splits can indicate a much lower auto usage pattern for those that are in highly transit-accessible areas. As an example, for the 88 Ames Street residential project in Kendall Square in Cambridge, the auto mode shares are as low as 32 percent. For another TOD residential project (130 Cambridge Park Drive in Alewife), the auto mode share is approximately 52 percent. US census data was used for both projects, and the resulting mode shares reflect the commuting habits for the residents of these specific areas.

Recent national research into trip rates for TOD residential developments also indicates that vehicular trip generation is substantially lower than would be predicted using ITE rates.⁵ In

⁵ Sources: "Vehicle Trip Reduction Impacts of Transit Oriented Housing" by Robert Cervero, Professor and Chair of the Department of City and Regional Planning at the University of California Berkeley and C.B Arrington from PB Placemaking (<http://www.nctr.usf.edu/jpt/pdf/JPT11-3Cervero.pdf>) ("VTR Impacts") and "Are Suburban TOD's Overparked" by Robert Cervero, Arlie Adkins and Cathleen Sullivan, all of the University of California Berkeley (<https://www.nctr.usf.edu/jpt/pdf/JPT13-2Cervero.pdf>) ("Are TOD's Overparked").

the first of these studies, both led by the Chair of the Department of City and Regional Planning at the University of California, Berkeley, the authors surveyed various TOD developments in five U.S. metropolitan areas. In the second, the authors studied multifamily housing complexes in the San Francisco Bay Area and Portland, Oregon. Findings from these studies include, for example, that:

- ◆ In all cases studied, weekday vehicle trip rates for TOD projects were considerably below the ITE average rate for similar uses. Taking the unweighted average across the seven case-study projects, TOD housing projects generated about 47 percent less vehicle traffic than that predicted by the ITE manual.⁶
- ◆ Weighted average differentials were even larger during peak periods— 49 percent lower rates during the morning peak and 48 percent lower rates during the evening peak. “One can infer that traffic impact studies might end up overstating the potential congestion-inducing effects of TOD housing in large rail-served metropolitan areas by as much as 50 percent.”⁷
- ◆ For every 1,000 feet away from a train station, parking requirements rise by 0.7 cars per dwelling⁸.
- ◆ Four years after inauguration of a car-sharing program (such as Zipcar), 29 percent of car share members had disposed of one or more of their cars, and 63 percent lived in zero vehicle households⁹

Additionally, recent local research performed in the Greater Boston area shows that parking usage – and accordingly, vehicle ownership and usage – for multifamily buildings has declined far below what traditional transportation planning has indicated.¹⁰ In this study, the authors at the Metropolitan Area Planning Council (MAPC) conducted weekday middle-of-the-night (midnight-4:00 a.m.) surveys at 80 multifamily developments in Arlington, Chelsea, Everett, Malden and Melrose. These communities were selected as a representation of “Metropolitan Core Communities” and “Streetcar Suburbs” – community types that Readville straddles. Findings included, for example, that:

⁶ VTR Impacts, pg 5.

⁷ VTR Impacts, pg 10.

⁸ Are TOD's Overparked, pg 35.

⁹ Are TOD's Overparked, pg 45.

¹⁰ Source: “Perfect Fit Parking” by the Metropolitan Area Planning Council (MAPC) (<http://perfectfitparking.mapc.org>).

types that Readville straddles. Findings included, for example, that:

- ◆ The average parking lot in these developments is only 74 percent occupied.¹¹
- ◆ On average, each of these developments was built with 1.15 parking spaces/unit, but only 0.85 spaces/unit were occupied.¹²
- ◆ “Despite the difference in demographics, parking requirements, and rates of parking supply and demand per unit across Arlington, Chelsea, Everett, Malden, and Melrose, excess parking was found in all five communities.”¹³

When this study is read in conjunction with the national studies, two conclusions become evident, both of which are relevant to analyzing the expected levels of new traffic likely to be generated by the Project, as follows:

1. As a Boston-area multifamily development, vehicle ownership – and therefore usage – will be lower than has been previously assumed; and
2. As a TOD project, vehicular trip generation will be significantly lower than for buildings not directly adjacent to transit.

For all the reasons outlined above, Table 2-5 presents two different sets of mode split assumptions: first, the first using the typical BTD methodology that relies on ITE trip generation rates and broad neighborhood travel patterns, and the second, using assumptions based on the research cited and Project’s specific characteristics including its proximity to Readville Station and the many planned features of the Project.

¹¹ Perfect Fit Parking, pg 8.

¹² Perfect Fit Parking, pg 16.

¹³ Perfect Fit Parking, pg 19.

Table 2-5 Mode Split

Mode	Traditional Approach using BTD Zone 12 Mode Split Data		Project TOD Approach based on Research Studies	
	Residential	Restaurant	Residential	Restaurant
Daily				
Automobile	86%	85%	50%	70%*
Public Transit	8%	7%	34%	15%
Walk/Bike/Other	6%	8%	6%	15%
Workshare/Work from Home	N/A	N/A	10%	0%
a.m./p.m. Peak				
Automobile	76%	76%	50%	60%
Public Transit	18%	17%	34%	25%
Walk/Bike/Other	6%	7%	6%	15%
Workshare/Work from Home	N/A	N/A	10%	0%

¹ Source: BTD Zone 12 Mode Split – Hyde Park

*While similar studies for restaurant trip generation adjacent to transit have not been found, the mode split rates have been adjusted more modestly to reflect (1) that most employees will likely commute to and from the restaurant via transit, and (2) that many restaurant patrons are expected to walk from the Project and the immediate neighborhood. Still, the majority of restaurant traffic has been kept as automobile-based to account for patrons driving to the restaurant, particularly on evenings and weekends.

To provide additional trip rate information, VHB had traffic counts conducted at the One North of Boston apartment development in Chelsea, MA. Because of its similar size (452 units) and proximity to commuter rail but not rapid transit (e.g., Red, Orange, Blue or Green lines), One North was selected for a comparison. This development is composed of two residential buildings—One North of Boston I (230 units) and One North of Boston II (222 units). The total site has 452 residential units. This location is seen by the Proponent as a comparable development to the proposed Project due to its proximity to commuter rail but not rapid transit, its distance from Boston, and the many amenities provided on-site (fitness center, swimming pool, café, dog care facility, theater room, etc.).

Vehicle counts were completed for a 24-hour period on Wednesday, July 11, 2018, at 10 count locations including all site surface parking lots, garage entrance/exits, and drop-off/pick-up loops. Vehicles were classified as cars, medium heavy, and large heavy vehicles. Medium heavy vehicles include box trucks, while large heavy vehicles include larger delivery trucks and tractor-trailers.

Table 2-6 summarizes the data for entering and exiting vehicle rates (vehicle trips per unit) during the daily, morning peak hour, and evening peak hour periods. Additionally, the table includes the ITE Trip Generation Manual’s unadjusted vehicle trip rates, the Project trip generation rates using the traditional approach included in the DPIR, and the Project “TOD approach” trip generation rates.

Overall, the findings indicate that vehicle trip generation rates calculated from the One North of Boston data are very closely aligned with the rates proposed by the Proponent for the “TOD approach” for the Project.

Table 2-6 Trip Generation Comparison—Vehicle Trips per Apartment Unit for Daily, AM Peak Hour, and PM Peak Hour

Time Period	ITE Unadjusted Trip Generation Rates ¹ (trips per unit)	Observed One North of Boston Trip Generation Rates (trips per unit)	Project Traditional Trip Generation Rates ² (estimated trips per unit)	Project TOD Approach Trip Generation Rates ³ (estimated trips per unit)
Daily	6.65	3.34	5.72	3.32
Entering	3.325	1.66	2.86	1.66
Exiting	3.325	1.68	2.86	1.66
AM Peak Hour	0.51	0.22	0.39	0.26
Entering	0.10	0.04	0.08	0.06
Exiting	0.41	0.18	0.31	0.20
PM Peak Hour	0.62	0.30	0.47	0.31
Entering	0.40	0.18	0.31	0.20
Exiting	0.22	0.12	0.16	0.11

¹ ITE Trip Generation 9th Edition, LUC 220 Apartment (average rate).
² Using ITE Trip Generation 9th Edition, LUC 220 Apartment (average rate), Vehicle Occupancy Rates, and BTM Zone 12 auto mode shares, based on 364 proposed units.
³ Using ITE Trip Generation 9th Edition, LUC 220 Apartment (average rate), Vehicle Occupancy Rates, and Proponent’s target mode shares, based on 364 proposed units.

Applying the traditional approach to trip generation, as a next step in estimating Project trip generation, Vehicle Occupancy Rates (VOR) were applied to the ITE trip generation to convert the ITE estimated unadjusted vehicle trips to person trips. A VOR of 1.13 persons per vehicle for residential land use and 2.20 for restaurant use was used based on the 2009 National Household Travel Survey. Once the trips were converted to person trips by land use, these trips were split into the expected modes based on the data for Zone 12 shown above in Table 2-5. This process was repeated for the TOD approach. The VOR was again applied to only the vehicle trips to produce adjusted vehicle trips which represents the Project team’s forecast of the number of vehicle-trips the Project is expected to generate.

The estimated Project generated trips at full build of the site are shown in Table 2-7 for both the traditional and TOD approaches.

Table 2-7 Expected Project Generated Trips

Time Period/Direction	Public Transportation	Walk/Bike/Other	Vehicle	Workshare/Work from Home
Traditional Approach using BTD Zone 12 Mode Split Data				
a.m. Peak				
Enter	12	4	42	0
Exit	44	4	163	0
Total	56	8	205	0
p.m. Peak				
Enter	54	19	183	0
Exit	29	10	97	0
Total	83	29	280	0
Daily				
Enter	198	164	1,719	0
Exit	198	164	1,719	0
Total	396	328	3,438	0
TOD Approach based on Research Studies				
a.m. Peak				
Enter	22	5	29	6
Exit	83	5	107	6
Total	105	10	136	12
p.m. Peak				
Enter	98	24	123	24
Exit	51	13	66	13
Total	149	37	189	37
Daily				
Enter	755	206	1,054	196
Exit	755	206	1,054	196
Total	1,510	412	2,108	392

As noted previously, a new trip generation estimate was developed for the Project proposed in this DPIR, as described in Chapter 1. Tables 2-8a and 2-8b below provides a side-by-side comparison of the peak hour and daily trips of the PNF Project and the Project proposed in this DPIR.

Table 2-8a Trip Generation Comparison – TOD Approach Based on Research Studies

	Program for PNF Filing				Program for DPIR Filing				Net Change in Vehicle Trips Between Filings
	Public Transportation	Walk/Bike/Other	Vehicle	Workshare/Work from Home	Public Transportation	Walk/Bike/Other	Vehicle	Workshare/Work from Home	
Morning AM Peak Hour Trips by Mode – Project TOD Approach based on Research Studies									
Apartments – 521 Units					Apartments – 364 Units				
Enter	20	4	27	6	14	3	19	4	-8
Exit	82	4	106	6	57	10	74	17	-32
Total	102	8	133	12	71	13	93	21	-40
Condos – None					Condos – 128 Units				
Enter	-	-	-	-	4	1	5	1	5
Exit	-	-	-	-	18	3	23	5	23
Total	-	-	-	-	22	4	28	6	28
Restaurant – 5,980 sf					Restaurant – 5,980 sf				
Enter	2	1	2	0	2	1	2	0	0
Exit	1	1	1	0	1	1	1	0	0
Total	3	2	3	0	3	2	3	0	0
Total Entering	22	5	29	6	20	5	26	5	-3
Total Exiting	83	5	107	6	76	14	98	22	-9
Total AM	105	10	136	12	96	19	124	27	-12

Table 2-8a Trip Generation Comparison – TOD Approach Based on Research Studies (Continued)

	Program for PNF Filing				Program for DPIR Filing				Net Change in Vehicle Trips Between Filings
	Public Transportation	Walk/Bike/ Other	Vehicle	Workshare/ Work from Home	Public Transportation	Walk/Bike/ Other	Vehicle	Workshare/ Work from Home	
Evening (PM) Peak Hour Trips by Mode – Project TOD Approach based on Research Studies									
Apartments – 521 Units					Apartments – 364 Units				
Enter	81	14	105	24	56	10	73	17	-32
Exit	43	8	57	13	30	5	39	9	-18
Total	124	22	162	37	86	15	112	26	-50
Condos - None					Condos – 128 Units				
Enter	-	-	-	-	16	3	21	5	21
Exit	-	-	-	-	9	2	12	3	12
Total	-	-	-	-	25	5	33	8	33
Restaurant – 5,980 sf					Restaurant – 5,980 sf				
Enter	17	10	18	0	17	10	18	0	0
Exit	8	5	9	0	8	5	9	0	0
Total	25	15	27	0	25	15	27	0	0
Total Entering	98	24	123	24	89	23	112	22	-11
Total Exiting	51	13	66	13	47	12	60	12	-6
Total PM	149	37	189	37	136	35	172	34	-17

Table 2-8a Trip Generation Comparison – TOD Approach Based on Research Studies (Continued)

	Program for PNF Filing				Program for DPIR Filing				Net Change in Vehicle Trips Between Filings
	Public Transportation	Walk/Bike/ Other	Vehicle	Workshare/ Work from Home	Public Transportation	Walk/Bike/ Other	Vehicle	Workshare/ Work from Home	
Daily Trips by Mode – Project TOD Approach based on Research Studies									
	Apartments – 521 Units				Apartments – 364 Units				
Enter	666	117	866	196	465	82	605	137	-261
Exit	666	117	866	196	465	82	605	137	-261
Total	1,332	234	1,732	392	930	164	1,210	274	-522
	Condos - None				Condos – 128 Units				
Enter	-	-	-	-	143	25	186	42	186
Exit	-	-	-	-	143	25	186	42	186
Total	-	-	-	-	286	50	372	84	372
	Restaurant – 5,980 sf				Restaurant – 5,980 sf				
Enter	89	89	188	0	89	89	188	0	0
Exit	89	89	188	0	89	89	188	0	0
Total	178	178	376	0	178	178	376	0	0
Total Entering	755	206	1,054	196	697	196	979	179	-75
Total Exiting	755	206	1,054	196	697	196	979	179	-75
Total Daily	1,510	412	2,108	392	1,394	392	1,958	358	-150

Table 2-8b Trip Generation Comparison - Traditional Approach Using BTD Zone 12 Mode Split

	Program for PNF Filing			Program for DPIR Filing			Net Change in Vehicle Trips Between Filings
	Public Transportation	Walk/Bike/Other	Vehicle	Public Transportation	Walk/Bike/Other	Vehicle	
Morning (AM) Peak Hour Trips by Mode – Traditional Approach using BTD Zone 12 Mode Split							
Apartments – 521 Units				Apartments – 364 Units			
Enter	11	4	40	8	3	28	-12
Exit	43	4	162	30	3	113	-49
Total	54	8	202	38	6	141	-61
Condos – None				Condos – 128 Units			
Enter	-	-	-	2	1	7	7
Exit	-	-	-	10	3	36	36
Total	-	-	-	12	4	43	43
Restaurant – 5,980 sf				Restaurant – 5,980 sf			
Enter	1	0	2	1	0	2	0
Exit	1	0	1	1	0	1	0
Total	2	0	3	2	0	3	0
Total Entering	12	4	42	11	4	37	-5
Total Existing	44	4	163	41	6	150	-13
Total AM	56	8	205	52	10	187	-18

Table 2-8b Trip Generation Comparison - Traditional Approach Using BTB Zone 12 Mode Split (Continued)

	Program for PNF Filing			Program for DPIR Filing			Net Change in Vehicle Trips Between Filings
	Public Transportation	Walk/Bike/Other	Vehicle	Public Transportation	Walk/Bike/Other	Vehicle	
Evening (PM) Peak Hour Trips by Mode – Traditional Approach using BTB Zone 12 Mode Split							
Apartments – 521 Units				Apartments – 364 Units			
Enter	43	14	160	30	10	111	-49
Exit	23	8	86	16	5	60	-26
Total	66	22	246	46	15	171	-75
Condos – None				Condos – 128 Units			
Enter	-	-	-	9	3	32	32
Exit	-	-	-	5	2	18	18
Total	-	-	-	14	5	50	50
Restaurant – 5,980 sf				Restaurant – 5,980 sf			
Enter	11	5	23	11	5	23	0
Exit	6	2	11	6	2	11	0
Total	17	7	34	17	7	34	0
Total Entering	54	19	183	50	18	166	-17
Total Exiting	29	10	97	27	9	89	-8
Total PM	83	29	280	77	27	255	-25

Table 2-8b Trip Generation Comparison - Traditional Approach Using BTM Zone 12 Mode Split (Continued)

	Program for PNF Filing			Program for DPIR Filing			Net Change in Vehicle Trips Between Filings
	Public Transportation	Walk/Bike/Other	Vehicle	Public Transportation	Walk/Bike/Other	Vehicle	
Daily Trips by Mode – Traditional Approach using BTM Zone 12 Mode Split Data							
Apartments – 521 Units				Apartments – 364 Units			
Enter	157	117	1,490	109	82	1,041	-449
Exit	157	117	1,490	109	82	1,041	-449
Total	314	234	2,980	218	164	2,082	-898
Condos – None				Condos – 128 Units			
Enter	-	-	-	34	25	320	320
Exit	-	-	-	34	25	320	320
Total	-	-	-	68	50	640	640
Restaurant – 5,980 sf				Restaurant – 5,980 sf			
Enter	41	47	229	41	47	229	0
Exit	41	47	229	41	47	229	0
Total	82	94	458	82	94	458	0
Total Entering	198	164	1,719	184	154	1,590	-129
Total Existing	198	164	1,719	184	154	1,590	-129
Total Daily	396	328	3,438	368	308	3,180	-258

Vehicle Trip Distribution

Trip distribution was based on BTD's guidelines for Zone 12 where the Project site is located. These guidelines, based on 2000 Census data, provide information on where area residents work. Using these data, Project vehicle trips were then assigned to the study area roadway network. A summary of the trip distribution pattern is presented in Table 2-9 and shown graphically in Figure 2-18.

Table 2-9 Trip Distribution

Corridor	Entering	Exiting
Neponset Valley Parkway (To/from the north)	20%	20%
Hyde Park Avenue (To/from the north)	20%	20%
Neponset Valley Parkway (To/from the west)	20%	20%
West Milton Street (To/from the west)	15%	15%
Sprague Street (To/from the south)	25%	25%
Total	100%	100%

Source: BTD Zone 12 Trip Distribution

Again, the original set of Project-generated vehicle trips were added to the 2021 No-Build Condition traffic networks using the trip distribution patterns described above. The Project-generated trips are shown in Figure 2-19 and Figure 2-20. The resulting 2021 Build Condition networks are shown in Figure 2-21 and Figure 2-22 for the weekday morning and evening peak hours.



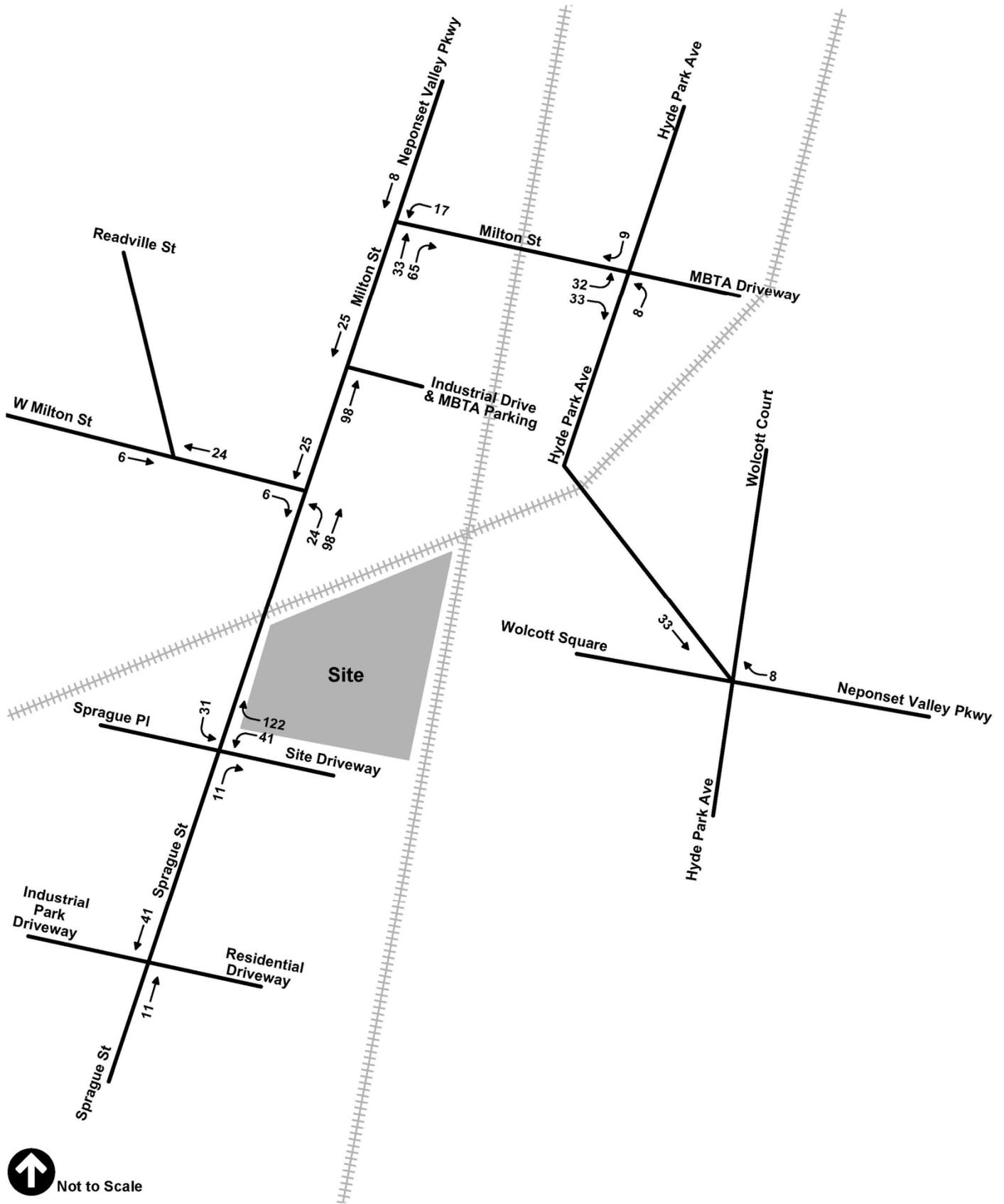
Source: ArcGIS Online Bing Aerial



36-70 Sprague Street Readville, Massachusetts



Figure 2-18
Project Trip Distribution

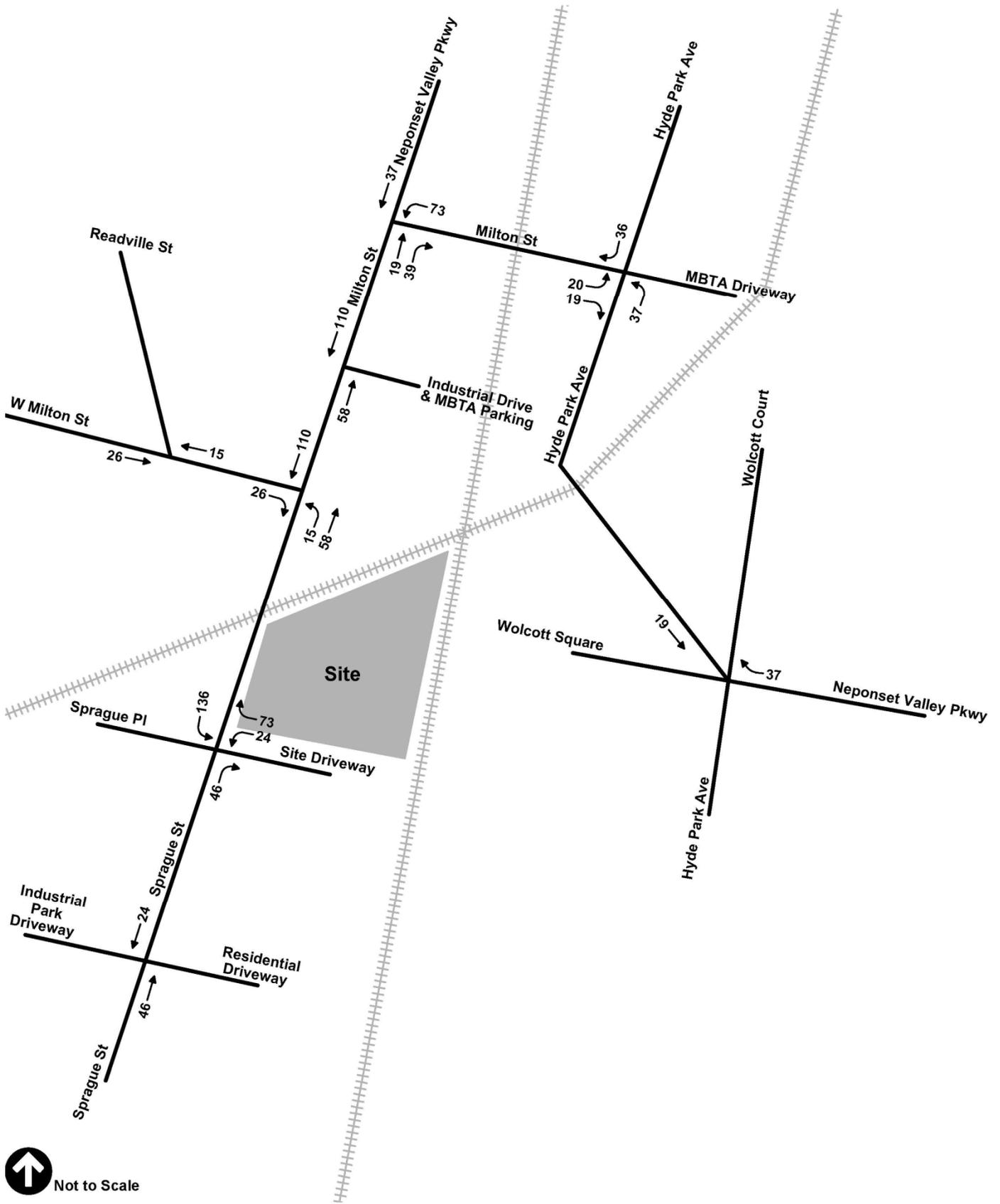


↑ Not to Scale

36-70 Sprague Street Readville, Massachusetts



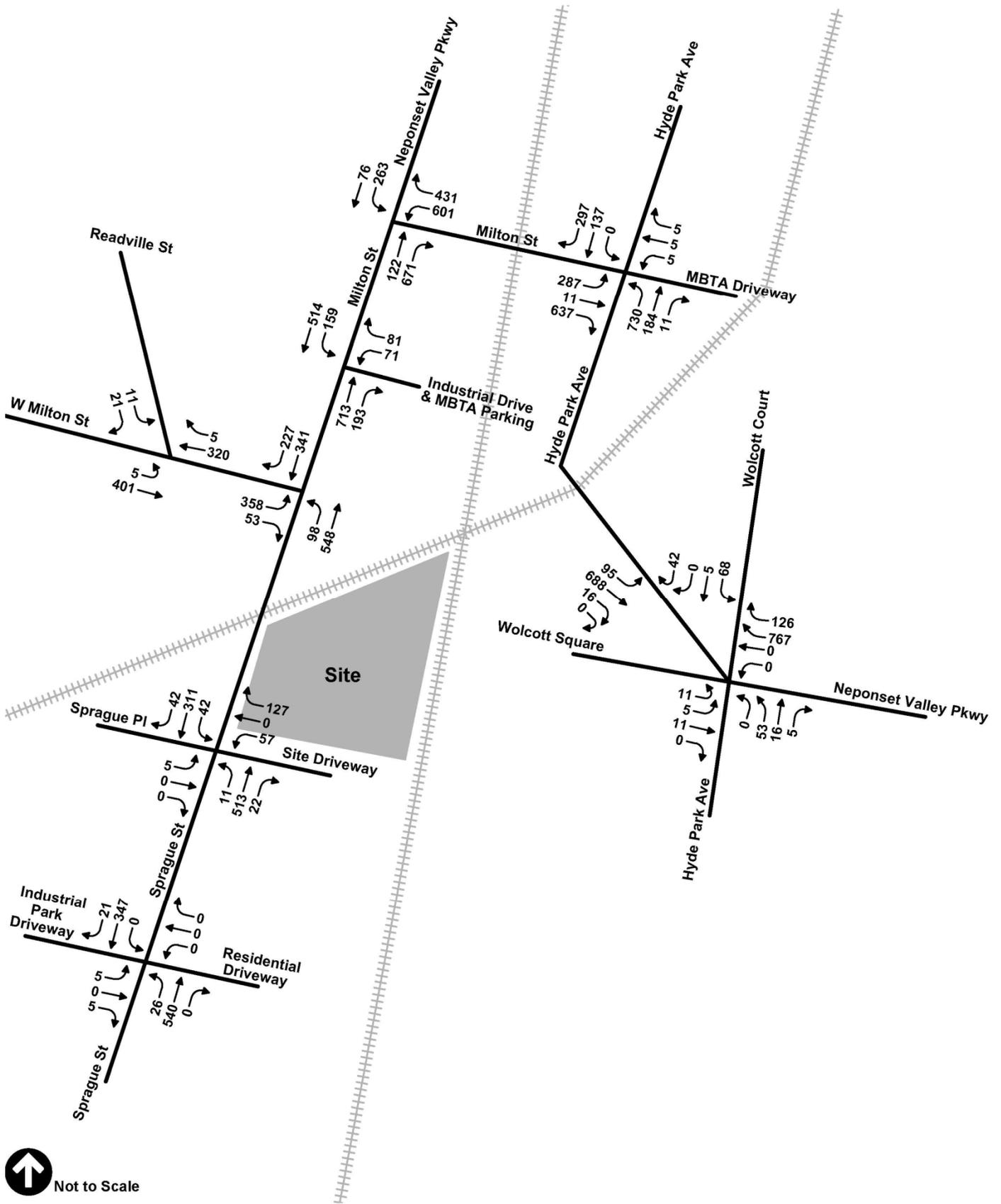
Figure 2-19
 Project Generated Vehicle Trips
 AM Peak Hour (7:15 a.m. – 8:15 a.m.)



36-70 Sprague Street Readville, Massachusetts



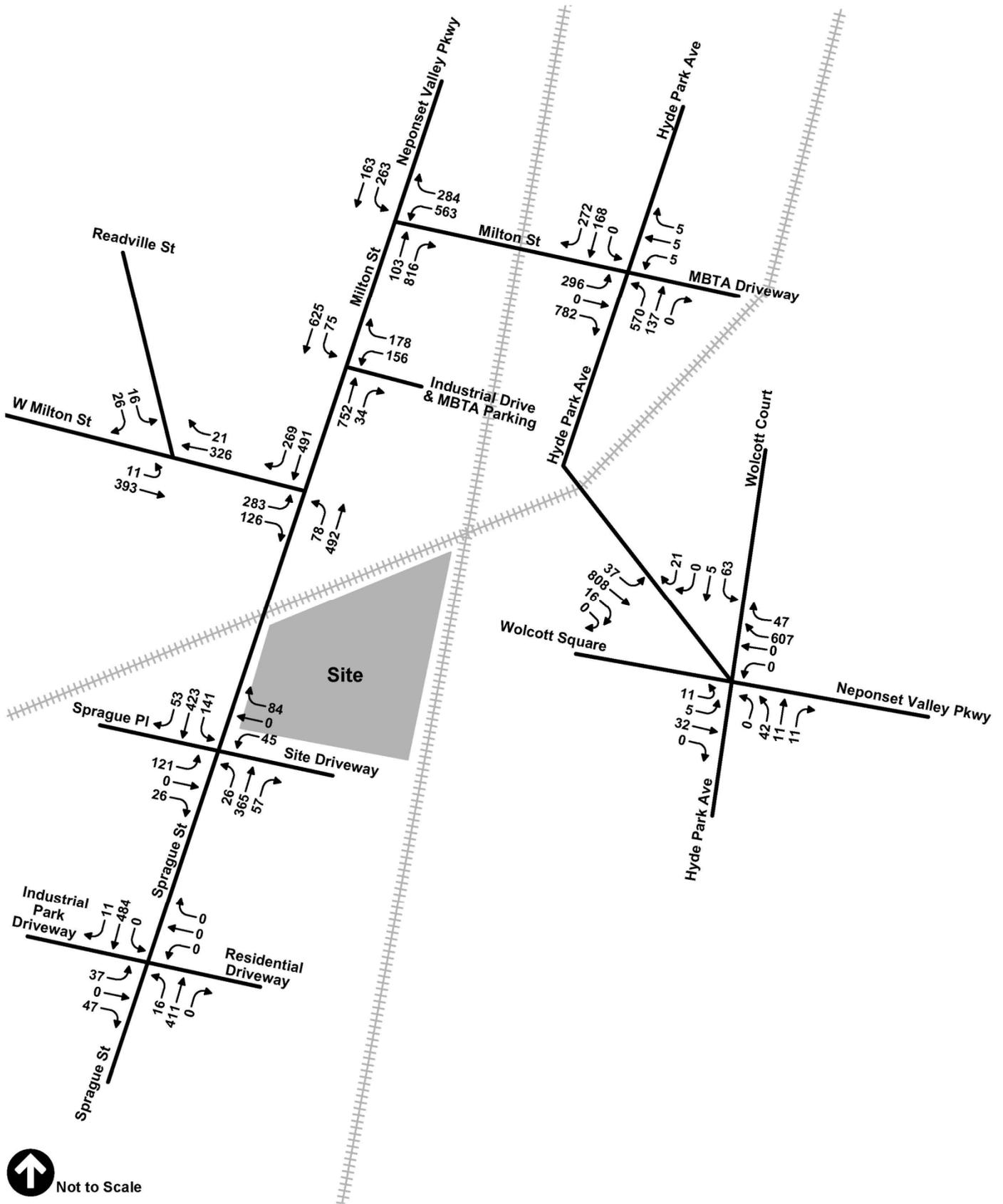
Figure 2-20
 Project Generated Vehicle Trips
 PM Peak Hour (4:30 p.m. – 5:30 p.m.)



36-70 Sprague Street Readville, Massachusetts



Figure 2-21
 2021 Build Condition Vehicle Volumes
 AM Peak Hour (7:15 a.m. – 8:15 a.m.)



 Not to Scale

36-70 Sprague Street Readville, Massachusetts



Figure 2-22
2021 Build Condition Vehicle Volumes
PM Peak Hour (4:30 p.m. – 5:30 p.m.)

The expected traffic volume increases at the study area intersections for the 2016 Existing, 2021 No-Build, and 2021 Build Conditions for the traditional approach and the TOD approach are shown in Table 2-10. The expected impacts of the Project traffic on the study area intersections decrease as the distance from the site increases for both site scenarios. In Wolcott Square, traffic from the Project will increase the entering traffic volumes by only three percent over the 2021 No-Build Condition to 2021 Build Condition under traditional trip generation approach and two percent applying the TOD approach. At the west end of the Father Hart Bridge, traffic is forecast to increase by six percent during the morning peak and eight percent during the evening peak under the traditional analysis. Using the TOD approach, however, the traffic is forecast to increase by just four percent during the morning peak and six percent during the evening peak.

At every location studied (other than at the site driveway), the impact of the Project, in terms of percent increase in entering traffic, will be less than the traffic increases due to background growth and the previously approved Readville Yard 5 development, even using the traditional traffic forecasting approach without taking TOD considerations into account. When TOD considerations are taken into effect, this impact is expected to be even less. With the even smaller size of the project, now reduced by approximately 74,700 sf, approximately 102 bedrooms and approximately 29 units, the impacts will again be smaller still.

Pedestrian Environment and Accessibility

The main residential pedestrian access serving the Project is at the site's northernmost frontage on Sprague Street, directly across the Sprague Street Bridge from Readville Station. This primary pedestrian access is deliberately separated from the Project's primary vehicular access, though full pedestrian access will also be provided at the Project's driveway. The Project is proposing public access to Sprague Pond from the site as well as a community-oriented restaurant space that has direct pedestrian access from Sprague Street, both of which will encourage local walking trips. The new main pedestrian entrance will allow pedestrian access to Sprague Street, the MBTA Station, and Wolcott Square much more easily than today's condition. This new pedestrian connection encourages walking trips to and from the Readville MBTA Station and Wolcott Square. The Project will also reconstruct the sidewalk and accessible ramps at the site driveway.

Table 2-10 Percent Increase in Traffic Volumes at Study Area Intersections

Intersection Location	Traditional Approach using BTM Zone 12 Mode Split Data			TOD Approach based on Research Studies			
	2016 Existing Condition	2021 No-Build Condition	% Increase from Existing	2021 Build Condition	% Increase from No- Build	2021 Build Condition	% Increase from No- Build
a.m. Peak Hour							
1) Sprague Street at Industrial Park Driveway	810	892	10%	944	6%	926	4%
2) Sprague Street at Sprague Place/Horne Street	840	925	10%	1,130	22%	1,060	15%
3) Sprague Street at West Milton Street/Milton Street	1,285	1,472	15%	1,625	10%	1,573	7%
4) Milton Street at Neponset Valley Parkway	1,800	2,041	13%	2,164	6%	2,123	4%
5) Hyde Park Avenue at Milton Street/MBTA Driveway	1,975	2,227	13%	2,309	4%	2,281	2%
6) Hyde Park Avenue at Neponset Valley Parkway/Wolcott Court/Wolcott Square	1,665	1,847	11%	1,893	3%	1,879	2%
7) Milton Street at Industrial Drive/MBTA Parking	1,270	1,608	27%	1,731	8%	1,689	5%
p.m. Peak Hour							
1) Sprague Street at Industrial Park Driveway	850	936	10%	1,006	8%	984	5%
2) Sprague Street at Sprague Place/Horne Street	970	1,062	10%	1,341	26%	1,251	18%
3) Sprague Street at West Milton Street/Milton Street	1,335	1,530	15%	1,739	14%	1,671	9%
4) Milton Street at Neponset Valley Parkway	1,780	2,024	14%	2,192	8%	2,137	6%
5) Hyde Park Avenue at Milton Street/MBTA Driveway	1,880	2,128	13%	2,240	5%	2,204	4%
6) Hyde Park Avenue at Neponset Valley Parkway/Wolcott Court/Wolcott Square	1,485	1,660	12%	1,716	3%	1,698	2%
7) Milton Street at Industrial Drive/MBTA Parking	1,305	1,652	27%	1,820	10%	1,766	7%

* Figures in the table indicate the total entering traffic of each intersection during the peak hour.

2.5.3 2021 Build Mitigated Condition

The 2021 Build Mitigated Condition includes the 2021 Build Condition Project-generated trips with the addition of study area intersection improvements. This scenario demonstrates how the study area intersections could function but with intersection improvements and lane configuration modifications. The intersection improvements for this scenario include the addition of two new traffic signals to the intersections of Milton Street/Neponset Valley Parkway and Hyde Park Avenue/Milton Street/MBTA Driveway, at both ends of the Father Hart Bridge. These intersection improvements have been proposed by the Readville Yard 5 Project, and their details are currently being refined by the developer with the BTDA in a Transportation Access Plan Agreement (TAPA). Additionally, in March, 2017 the City of Boston authorized the expenditure of \$75,000 to fund an independent traffic study of Wolcott Square and surrounding area traffic. Further, the City intends to expend an additional \$1.4 million to signalize both ends of the Father Hart Bridge and upgrade the existing signals in Wolcott Square to help alleviate the existing conditions. Specific signal phasing and timing plans are in development by an engineering consultant to the City. These intersections have a large number of left turns, and a signal will better accommodate these turns. A phasing plan was assumed for the signal timing, and the splits and cycle length were optimized using the Synchro software for both intersections.

The site driveway will also be designed to accommodate left turns in and out of the Project site in separate lanes. The addition of a left turn lane on Sprague Street southbound could further help alleviate potential queuing of vehicles turning into the site. Conceptually, this would be accomplished by restriping Sprague Street. Another mitigation alternative that was investigated was the feasibility of adding a traffic signal to the intersection of Sprague Street with Milton and West Milton streets. A preliminary analysis conducted by VHB indicates that a signal there is warranted under existing conditions.

VHB conducted a traffic signal warrant analysis for the Sprague Street intersection with Milton and West Milton streets. This intersection is just south of the Iacono Playground on the west side of the railroad tracks and south of the Father Hart Bridge. Below is a brief set of findings that summarizes the analysis. This effort concludes that a signal is warranted at that intersection under existing conditions.

Vehicle counts were completed for a 12-hour period at this intersection on Wednesday, January 10, 2018. Table 2-11 summarizes these data for the 7:00 a.m. – 7:00 p.m. period. Over the course of the 12-hour period indicated in Table 2-11, 9,283 vehicles were counted on Sprague Street (total volume, both directions), while a total of 3,725 vehicles were counted at the West Milton Street approach entering the intersection during the same time period.

Table 2-11 Volumes at the Sprague Street Intersection with Milton Street/West Milton Street

Time Period	Major Street		Total	Minor Street
	Sprague Street Northbound (One Lane)	Milton Street Southbound (Two Lanes)		West Milton Street Eastbound (One Lane)
7:00 AM – 8:00 AM	426	481	907	296
8:00 AM – 9:00 AM	422	529	951	347
9:00 AM – 10:00 AM	350	356	706	232
10:00 AM – 11:00 AM	271	356	627	216
11:00 AM – 12:00 PM	306	364	670	267
12:00 PM – 1:00 PM	270	397	667	320
1:00 PM – 2:00 PM	266	373	639	283
2:00 PM – 3:00 PM	306	392	698	340
3:00 PM – 4:00 PM	334	483	817	350
4:00 PM – 5:00 PM	369	530	899	405
5:00 PM – 6:00 PM	343	496	839	362
6:00 PM – 7:00 PM	356	507	863	307
Total	4,019	5,264	9,283	3,725

Vehicular Volume Signal Warrant Thresholds

The Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition provides nine warrants that consider a variety of factors that are influential in determining if installing traffic signal control is appropriate. One of these factors is vehicle volume for an average day, and this is categorized within Warrant 1 and Warrant 2.

Warrant 1 - Eight-Hour Vehicular Volume

Warrant 1 has two conditions (Condition A and Condition B) that could satisfy the warrant. As stated in the MUTCD, “The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large number of intersecting traffic is the principal reason to consider installing a traffic control signal. The Interruption of Continuous Traffic, Condition B, is intended for the application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street. It is intended that Warrant 1 be treated as a single warrant. If Condition A is satisfied, then Warrant 1 is satisfied and analysis of Condition B and the combination of Conditions A and

B are not needed. Similarly, if Condition B is satisfied, then Warrant 1 is satisfied and an analysis of the combination of Conditions A and B is not needed.”¹⁴

Traffic signal control may be considered if the location satisfies the following items for each and any eight hours of an average day:

1. The vehicles per hour given in both of the 100 percent columns of Condition A in Table 4C-1 (included here as Table 2-12 below) exist on the major-street and the higher-volume minor-street approaches, respectively to the intersection.
2. The vehicles per hour given in both of the 100 percent columns of Condition B in Table 4C-1 (included here as Table 2-12 below) exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

Table 2-12 shows the thresholds for Warrant 1, Conditions A and B. Since there are two lanes on the Milton Street southbound approach but one lane at the Sprague Street northbound approach, both lane conditions (one major street lane vs. one minor street lane and two or more major street lanes and one minor street lane) were tested for Condition A. The total vehicle volume per hour on the major street (total of both approaches) must be 600 vehicles or more, while the minor street needs to carry at least 150 vehicles for the 100 percent Condition A requirements to be satisfied. According to the collected vehicle data, all 12 hours pass this minimum vehicular volume for Condition A threshold. Since Condition A is satisfied, there is no need to test Condition B. For the roadway configuration, refer to Figure 2-23.

¹⁴ MUTCD 2009 Edition, <https://mutcd.fhwa.dot.gov/htm/2009/part4/part4c.htm>

Table 2-12 Warrant 1, Eight-Hour Vehicular Volume

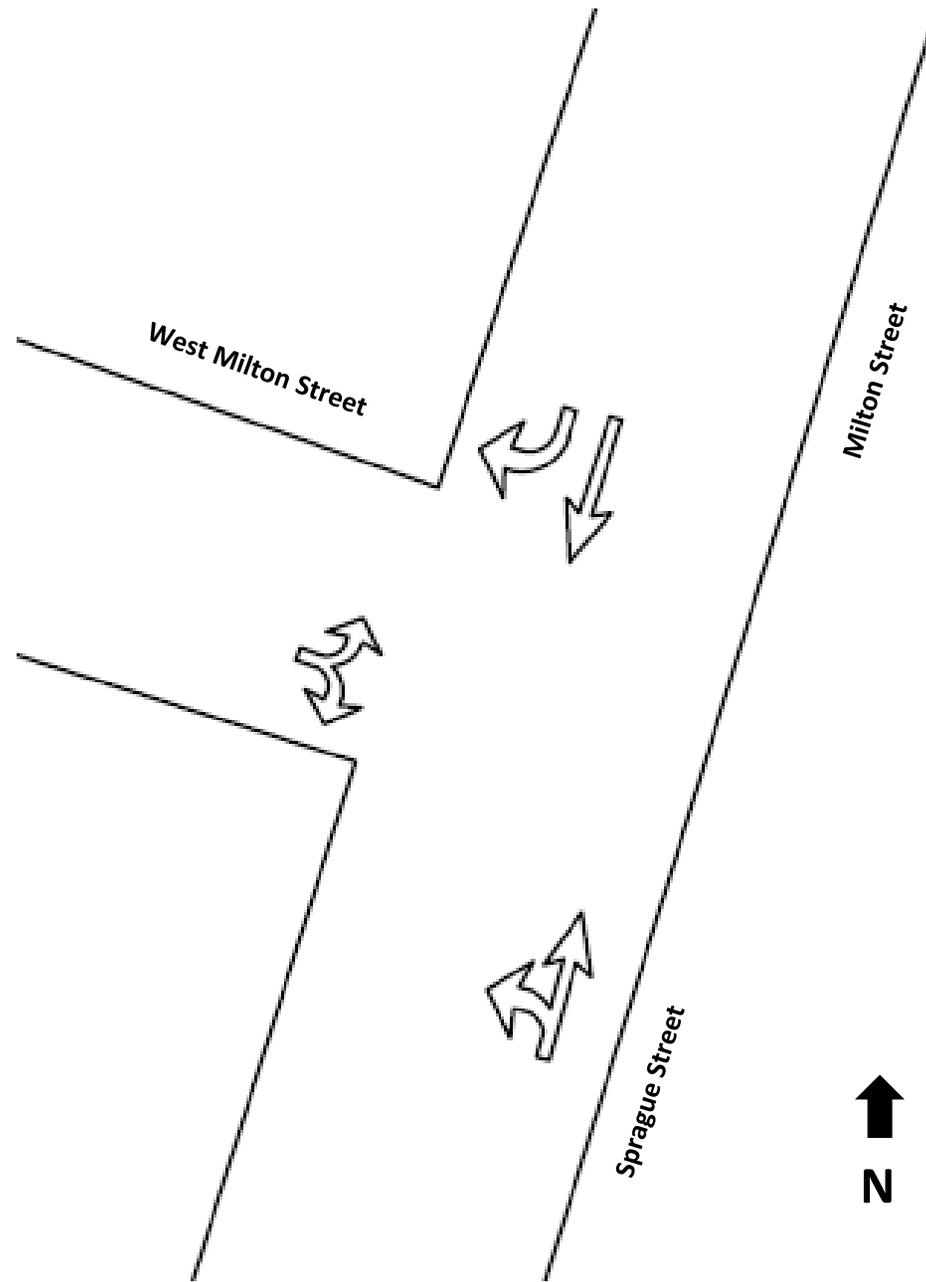
Condition A – Minimum Vehicular Volume									
Number of lanes moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112
Condition B – Interruption of Continuous Traffic									
Number of lanes moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

a – Basic minimum hourly volume

b – Used for combination of Conditions A and B after adequate trial of other remedial measures

c – May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

d – May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000



36-70 Sprague Street Readville, Massachusetts



Figure 2-23
Intersection Configuration

Warrant 2 - Four-Hour Vehicular Volume

Warrant 2 analyzes the highest four hours of traffic on an average day. As stated in the MUTCD, "The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-1 [included as Table 2-12 above] for the existing combination of approach lanes." The highest four-hour vehicle volumes are shown on Figure 2-24 as red "x" marks. The highest four hours of volumes occur starting at 7:00 a.m., 8:00 a.m., 4:00 p.m., and 6:00 p.m. As indicated by the figure, because all four plotted points are above the line, Warrant 2 is satisfied by the vehicular volumes at this intersection.

Conclusion

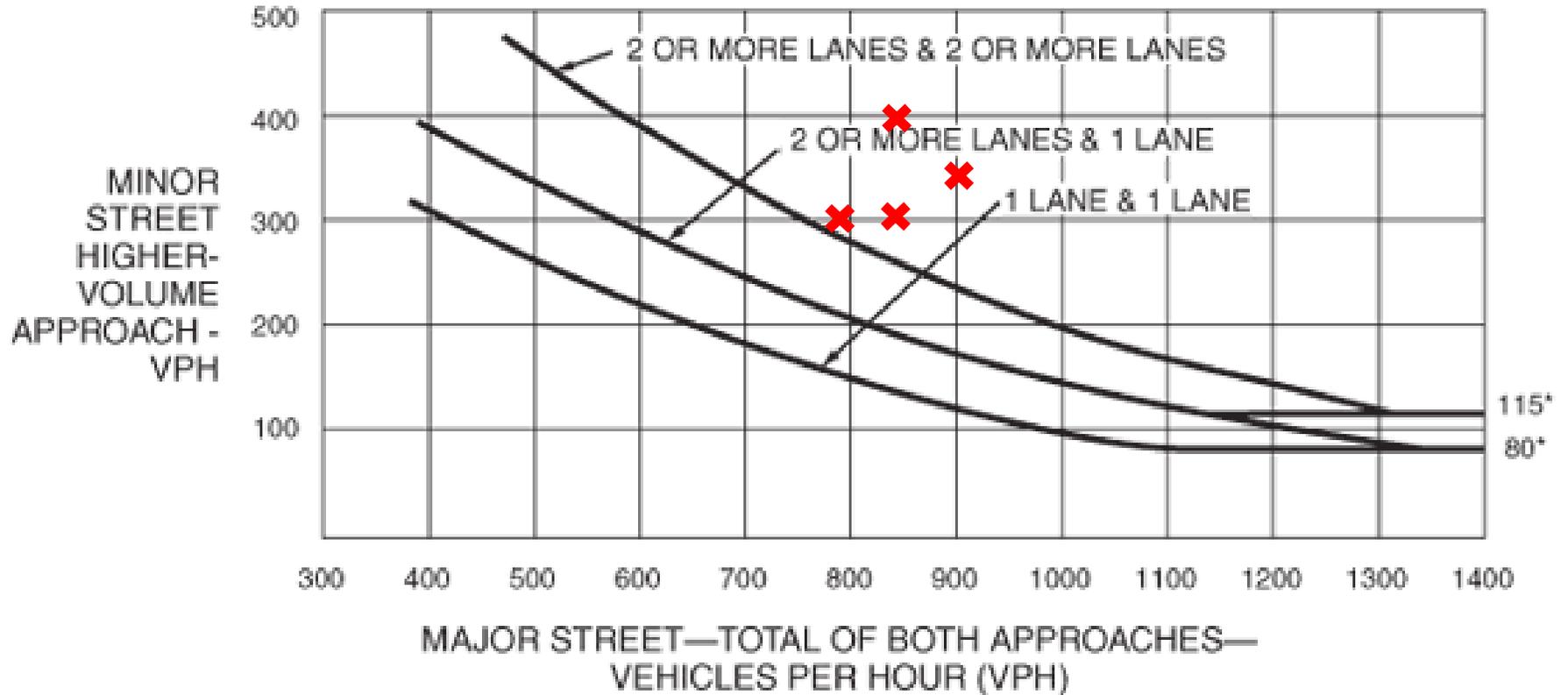
The vehicle volumes for both the eight-hour period and the four-hour period warrants are high enough under existing volumes to satisfy both Warrant 1 and 2 requirements. The implementation of a traffic signal meets the warrants for this location due to the high vehicular volumes on the major and minor approaches.

2.6 Traffic Operations Analysis

Consistent with BTD Guidelines, Synchro 8 software was used to model level of service (LOS) operations at the study area intersections. LOS is a qualitative measure of control delay at an intersection providing an index to the operational qualities of a roadway or intersection.

LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS D is normally considered acceptable in dense urban areas. LOS E indicates that vehicles experience significant delay, while LOS F suggests very long delays for the average driver. LOS thresholds differ for signalized and unsignalized intersections. Longer delays at signalized intersections than at unsignalized intersections are perceived as acceptable.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: Table 4C-1, Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition

36-70 Sprague Street Readville, Massachusetts



Table 2-13 below presents the level of service delay threshold criteria as defined in the 2000 Highway Capacity Manual (HCM).

Table 2-13 Level of Service Criteria

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

Source: 2000 Highway Capacity Manual (HCM)

Adjustments were made to the Synchro model to include characteristics of the study area such as heavy vehicles, bus operations, parking activity, and pedestrian crossings. The capacity analysis results for each condition and intersection are summarized in the following sections.

Signalized Capacity Analysis

The LOS results of the signalized capacity analyses are summarized in Table 2-14 and Table 2-15 for the 2016 Existing, 2021 No-Build, and 2021 Build Condition peak hours. As noted previously, the changes to the Project since this LOS analysis was completed will result in fewer vehicles trips, and therefore a decreased impact compared with the analysis presented here. It should also be noted that due to the minimal changes in LOS when these analyses are performed using the traditional approach, a separate analysis of LOS at these intersections using the TOD approach has not been conducted. Detailed Synchro results are presented in Appendix A.

Table 2-14 Signalized Intersection Level of Service (LOS) Summary – Morning Peak Hour (Traditional Approach)

Location	2016 Existing Condition			2021 No-Build Condition			2021 Build Condition			2021 Build Mitigated Condition		
	v/c ¹	Delay ²	LOS ³	v/c	Delay	LOS	v/c	Delay	LOS	v/c	Delay	LOS
Hyde Park Avenue at Neponset Valley Parkway/Wolcott Court/Wolcott Square	0.78	20.0	B	0.90	32.3	C	0.91	34.4	C	0.90	22.4	C
Wolcott Square EB Left/Thru/Right	0.48	32.9	C	0.53	34.3	C	0.5	34.3	C	0.59	43.3	D
Hyde Park Avenue SEB Left/Thru/Right	0.39	16.3	B	0.42	19.4	B	0.4	21.7	C	0.41	9.3	A
Neponset Valley Parkway WB Left/Thru/Right	0.84	21.9	C	1.00	45.1	D	>1.	48.0	D	0.94	31.2	C
Hyde Park Avenue NB Left/Thru/Right	0.35	24.2	C	0.37	23.9	C	0.3	24.0	C	0.50	30.7	C
Wolcott Court SB Left/Thru/Right	0.09	22.5	C	0.11	22.1	C	0.1	22.2	C	0.11	27.3	C
Milton Street at Neponset Valley Parkway⁴	-	> 80.0	F	-	> 80.0	F	-	> 80.0	F	0.76	19.5	B
Milton Street WB Right/Left	> 1.0	> 80.0	F	> 1.0	> 80.0	F	> 1.	> 80.0	F	-	-	-
Milton Street WB Right	-	-	-	-	-	-	-	-	-	0.32	10.8	B
Milton Street WB Left	-	-	-	-	-	-	-	-	-	0.93	24.7	C
Hyde Park Avenue at Milton Street/MBTA Driveway⁴	-	> 80.0	F	-	> 80.0	F	-	> 80.0	F	> 1.0	> 80.0	F
Milton Street EB Left/Thru/Right	> 1.0	> 80.0	F	> 1.0	> 80.0	F	> 1.	> 80.0	F	> 1.0	> 80.0	F
MBTA Driveway WB Left/Thru/Right	> 1.0	> 80.0	F	> 1.0	> 80.0	F	> 1.	> 80.0	F	0.03	10.9	B

- 1 volume to capacity ratio
- 2 delay in seconds
- 3 level of service
- 4 signalized under 2021 Build Mitigated Condition

Table 2-15 Signalized Intersection Level of Service (LOS) Summary – Evening Peak Hour (Traditional Approach)

Location	2016 Existing Condition			2021 No-Build Condition			2021 Build Condition			2021 Build Mitigated Condition		
	v/c ¹	Delay ²	LOS ³	v/c	Delay	LOS	v/c	Delay	LOS	v/c	Delay	LOS
Hyde Park Avenue at Neponset Valley Parkway/Wolcott Court/Wolcott Square	0.76	19.0	B	0.87	27.1	C	0.89	29.6	C	0.70	14.6	B
Wolcott Square EB Left/Thru/Right	0.58	36.7	D	0.62	40.1	D	0.63	42.2	D	0.62	42.9	D
Hyde Park Avenue SEB Left/Thru/Right	0.81	19.9	B	0.96	34.8	C	0.98	38.9	D	0.46	9.8	A
Neponset Valley Parkway WB Left/Thru/Right	0.63	14.6	B	0.70	16.6	B	0.75	18.2	B	0.67	14.4	B
Hyde Park Avenue NB Left/Thru/Right	0.37	25.1	C	0.39	24.7	C	0.39	24.7	C	0.51	30.9	C
Wolcott Court SB Left/Thru/Right	0.08	23.1	C	0.09	22.6	C	0.09	22.6	C	0.09	27.1	C
Milton Street at Neponset Valley Parkway⁴	-	>80.0	F	-	>80.0	F	-	>80.0	F	0.71	21.4	C
Milton Street WB Right/Left	>1.0	>80.0	F	>1.0	>80.0	F	>1.0	>80.0	F	-	-	-
Milton Street WB Right	-	-	-	-	-	-	-	-	-	0.17	12.9	B
Milton Street WB Left	-	-	-	-	-	-	-	-	-	0.84	26.4	C
Hyde Park Avenue at Milton Street/MBTA Driveway⁴	-	>80.0	F	-	>80.0	F	-	>80.0	F	0.87	28.7	C
Milton Street EB Left/Thru/Right	>1.0	>80.0	F	>1.0	>80.0	F	>1.0	>80.0	F	0.78	34.3	C
MBTA Driveway WB Left/Thru/Right	>1.0	>80.0	F	>1.0	>80.0	F	>1.0	>80.0	F	0.04	3.9	A

- 1 volume to capacity ratio
- 2 delay in seconds
- 3 level of service
- 4 signalized under 2021 Build Mitigated Condition

Overall, the intersection LOS for the Hyde Park Avenue/Neponset Valley Parkway/Wolcott Square/Wolcott Court intersection will be minimally affected with the proposed Project in place. Overall morning and evening peak LOS is expected to change from LOS B to LOS C in the 2021 No-Build Condition due to general background growth as well as project trips from the Readville Yard 5 development; this will not change in the 2021 Build Condition. During the evening peak hour, the overall intersection LOS will return to LOS B under the 2021 Build Mitigated Condition. The new Project trips are expected to have only a small impact on LOS and delay.

Unsignalized Capacity Analysis

The LOS results of the unsignalized capacity analyses are summarized in Table 2-16 and Table 2-17 for the 2016 Existing, 2021 No-Build, and 2021 Build Condition peak hours. Similar to the signalized capacity analysis, it should be noted that due to the minimal changes in LOS when these analyses are performed using the traditional approach, a separate analysis of LOS at these intersections using the TOD approach has not been conducted. Detailed Synchro results are presented in Appendix A.

Similar to the signalized LOS analysis, the proposed Project is expected to have only a small effect on unsignalized intersections operations in the study area, and the changes to the Project are anticipated to reduce the impacts shown in this analysis. The only intersection that experiences a material decrease in LOS due to the Project is the intersection of Horne Street (the private road that provides access to the Project site and the Brinks warehouse) and Sprague Street, as would be expected due to the concentration of vehicle trips at that driveway before dispersing in various directions. The morning peak hour decreases from LOS A to LOS E and the evening peak hour decreases from LOS D to LOS F from the No-Build to Build Condition. The addition of a right turn lane and a left/thru lane on the Horne Street approach increases the performance of the intersection in the 2021 Build Mitigated Condition, most notably during the morning peak hour. The Synchro software analyzes unsignalized intersections with a calculated conservative vehicle gap (7-8 seconds) for drivers to turn onto the main road in the stream of traffic. Given the nature of Boston area drivers, many will choose to accept a shorter gap, which would result in a higher LOS than reported in the tables above.

Other than the Horne Street/Project driveway intersection, the performance of the other study area intersections is affected primarily by the increase in background traffic during both morning and evening peak hours. This is due in part to the addition of the Readville Yard 5 project trips to the network and general background growth. Combined, the Readville Yard 5 project and the expected background growth will have a larger impact than the trips generated by the Project.

Table 2-16 Unsignalized Intersection Level of Service (LOS) Summary – Morning Peak Hour (Traditional Approach)

Location	2016 Existing Condition			2021 No-Build Condition			2021 Build Condition			2021 Build Mitigated Condition		
	v/c ¹	Delay ²	LOS ³	v/c	Delay	LOS	v/c	Delay	LOS	v/c	Delay	LOS
Sprague Street at Industrial Park Driveway	-	0.6	A	-	0.6	A	-	0.6	A	-	0.6	A
Industrial Park Driveway EB Left/Right	0.04	13.9	B	0.04	14.9	B	0.04	15.6	C	0.04	15.6	C
Sprague Street at Sprague Place/Horne Street	-	1.3	A	-	1.4	A	-	39.3	E	-	9.5	A
Sprague Place EB Left/Thru/Right	0.03	21.1	C	0.03	24.1	C	0.11	73.1	F	0.11	73.1	F
Horne Street WB Thru	0.15	26.6	D	0.19	32.0	D	> 1.0	> 80.0	F	-	-	-
Horne Street WB Left/Thru	-	-	-	-	-	-	-	-	-	0.69	> 80.0	F
Horne Street WB Right	-	-	-	-	-	-	-	-	-	0.54	26.1	D
Sprague Street at West Milton Street/Milton Street	-	28.2	D	-	55.7	F	-	> 80.0	F	-	> 80.0	F
West Milton Street EB Left/Right	-	23.1	C	-	41.8	E	-	44.6	E	-	44.6	E
Sprague Street NB Left/Thru	-	44.2	E	-	> 80.0	F	-	> 80.0	F	-	> 80.0	F
Milton Street SB Thru/Right	-	15.6	C	-	19.5	C	-	22.0	C	-	22.0	C
Milton Street at Industrial Drive/MBTA Parking	-	5.8	A	-	60.7	F	-	> 80.0	F	-	79.5	F
Industrial Drive WB Left/Right	0.68	45.3	E	> 1.0	> 80.0	F	> 1.0	> 80.0	F	> 1.0	> 80.0	F

- 1 volume to capacity ratio
- 2 delay in seconds
- 3 level of service

Table 2-17 Unsignalized Intersection Level of Service (LOS) Summary – Evening Peak Hour (Traditional Approach)

Location	2016 Existing Condition			2021 No-Build Condition			2021 Build Condition			2021 Build Mitigated Condition		
	v/c ¹	Delay ²	LOS ³	v/c	Delay	LOS	v/c	Delay	LOS	v/c	Delay	LOS
Sprague Street at Industrial Park Driveway	-	2.0	A	-	2.2	A	-	2.2	A	-	2.2	A
Industrial Park Driveway EB Left/Right	0.25	15.9	C	0.29	17.8	C	0.31	19.3	C	0.31	19.3	C
Sprague Street at Sprague Place/Horne Street	-	15.4	C	-	26.0	D	-	> 80.0	F	-	> 80.0	F
Sprague Place EB Left/Thru/Right	0.88	68.0	F	> 1.0	> 80.0	F	> 1.0	> 80.0	F	> 1.0	> 80.0	F
Horne Street WB Thru	0.17	19.9	C	0.21	22.8	C	0.95	> 80.0	F	-	-	-
Horne Street WB Left/Thru	-	-	-	-	-	-	-	-	-	0.73	> 80.0	F
Horne Street WB Right	-	-	-	-	-	-	-	-	-	0.23	12.5	B
Sprague Street at West Milton Street/Milton Street	-	38.1	E	-	54.8	F	-	> 80.0	F	-	> 80.0	F
West Milton Street EB Left/Right	-	30.7	D	-	39.5	E	-	50.3	F	-	50.3	F
Sprague Street NB Left/Thru	-	62.0	F	-	> 80.0	F	-	> 80.0	F	-	> 80.0	F
Milton Street SB Thru/Right	-	20.8	C	-	28.9	D	-	73.4	F	-	73.4	F
Milton Street at Industrial Drive/MBTA Parking	-	4.3	A	-	> 80.0	F	-	> 80.0	F	-	> 80.0	F
Industrial Drive WB Left/Right	0.59	42.9	E	> 1.0	> 80.0	F	> 1.0	> 80.0	F	> 1.0	> 80.0	F

- 1 volume to capacity ratio
- 2 delay in seconds
- 3 level of service

2.7 Transportation Mitigation

Public Transportation

As mentioned previously, the Fairmount Station is located in Commuter Rail Zone 1A, where the one-way fare is \$2.25 and a monthly commuter rail pass is \$84.50. With this significant daily and monthly fare difference between the Fairmount and Readville Stations, which are just one stop apart – there has been a disincentive for local residents to use the Readville Station and instead drive north to Fairmount Station creating additional traffic. The Project team as well as other groups and constituencies has been in discussions with the MBTA regarding how this discrepancy can be addressed so that area residents make use of the Readville Station rather than driving to Fairmount Station.

The Proponent is prepared to free transit passes for the first month of occupancy of each new tenant.

Bicycle Access

The Project will provide covered and secure bicycle spaces in Building 2. The Project will also provide outdoor, public bicycle racks on the site for visitors to the residents and the proposed community space. There are no surrounding Blue Bikes (formerly Hubway) services because the Blue Bikes network does not yet extend to Hyde Park. All Project bike parking will conform to the City of Boston's Bicycle Parking Guidelines.

Loading and Service

The proposed Project will service trash pickup on-site at the base of the entrance roadway ramp and in the garage as indicated in Figure 2-25 prepared by BH+A. The move in/move-out loading guidelines will be developed to minimize disruption and congestion. Since the individual buildings will be completed and open at different times, the effect of opening the Project will be modest and gradual.

2.7.1 *Transportation Demand Management*

The Proponent is committed to optimizing the transit-oriented opportunity afforded by the site to minimize auto travel and encourage alternative travel modes. The parking ratio of approximately 0.93 spaces per unit (as detailed in Section 2.8) is intended to help reduce auto trip-making and result in fewer traffic impacts.

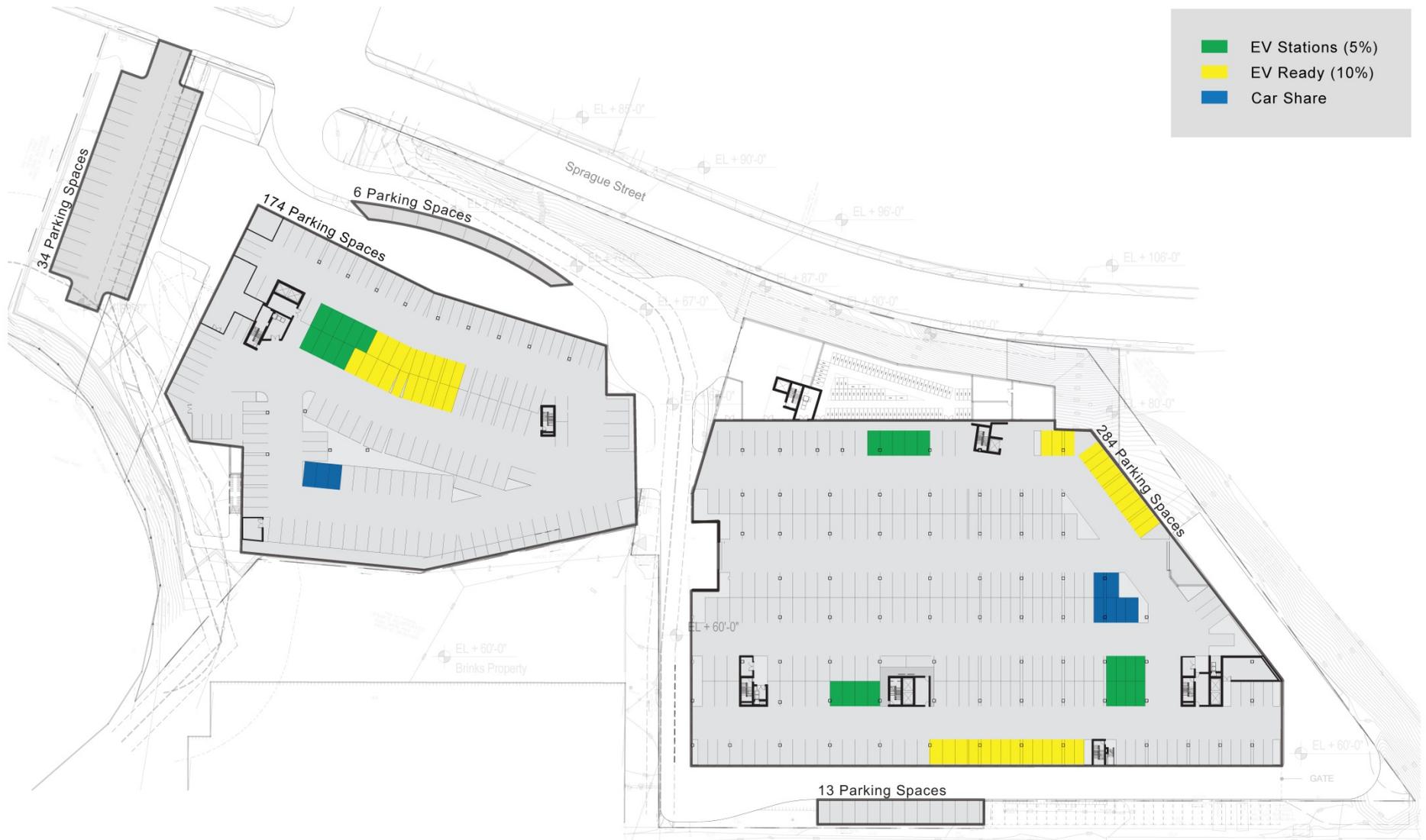
The Proponent will support a program of transportation demand management (TDM) actions to reduce single occupancy vehicle automobile trips, encourage car/van-pooling, and expand the use of transit, biking, and walking.

The following potential TDM measures are anticipated as part of the proposed Project to encourage residents to use alternatives to single occupancy vehicle travel:

- ◆ The Proponent will designate a Transportation Coordinator to oversee parking, loading, and move-in/move-out operations. This designated staff person will also be responsible for promoting the use of alternative transportation measures and carpooling.
- ◆ The Proponent will provide transit information such as maps, schedules, and other relevant information about commuting options to new residents in an orientation package and provide this information in each residential lobby.
- ◆ The on-site staff will be offered subsidized monthly MBTA passes to reduce driving to/from the site.
- ◆ The Proponent will provide a free commuter rail pass or a MBTA bus pass for the initial month to each new tenant to encourage usage of the area's MBTA services
- ◆ The Proponent will work with Zipcar (with whom it has already had discussions) and/or other carsharing companies to establish service at the site.
- ◆ The Project includes both covered/secure bicycle storage and public outdoor bicycle spaces. These bicycle spaces will be provided in accordance with the BTD guidelines. The Proponent will provide approximately 104 outdoor bicycle spaces (one per five units) and approximately 492 secure storage spaces (one per unit). Bicycle racks, signs, and parking areas will conform to BTD standards and be cited in safe, secure locations.
- ◆ The Proponent will designate preferred parking spaces in the garage for carpools and vanpools.
- ◆ The Proponent will construct a new pedestrian connection to Sprague Street, shortening the walk to the Readville MBTA Station and Wolcott Square.

2.8 Parking

The Project will now include approximately 511 parking spaces, including approximately 452 parking spaces below the residential buildings and plazas, approximately 34 surface parking spaces for the restaurant and pondside park, and approximately six spaces for drop off and short term parking. In the event that additional parking is required, the Project may include approximately 30 additional spaces on a landlocked City of Boston parcel between Buildings 3 and 4 and the railroad right-of-way, subject to BPDA and City approval. Anticipated locations for car share and electric vehicle parking are shown on Figure 2-26 prepared by BH + A.



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The supply of on-site parking proposed as part of the Project was developed to meet the following criteria:

- ◆ Minimize Project parking demands on the surrounding study area.
- ◆ Provide sufficient on-site parking to accommodate the anticipated residential demand.
- ◆ Encourage the use of available bus, commuter rail, walking, and cycling facilities.

It should be noted that based on the studies referenced in Section 2.5.2 above, the amount of parking provided is more than the Proponent believes will actually be required. It is possible that if all parking currently envisioned is not utilized once the Project leases up, certain parking areas may be re-purposed for other amenity uses.

The surrounding area mainly has on-street parking that is either unregulated residential parking or no parking zones. The on-street parking for the study area is illustrated in Figure 2-14.

2.9 Construction Management

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 (CMP) will be developed and submitted to the BTD for their approval.

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

Contractors will be encouraged to devise access plans for their personnel that de-emphasize auto use (such as providing off-site parking, providing transit subsidies, on-site lockers, etc.) Construction workers will also be encouraged to use public transportation to access the Project site because parking, if available, will be limited. Because of the construction workers' early arrival/departure (typically 7:00 a.m. – 4:00 p.m.) schedule, conflicts with evening peak traffic are not expected.

During the construction period, pedestrian activity adjacent to the site may be affected by sidewalk closures. A variety of measures will be considered and implemented to protect the safety of pedestrians. Temporary walkways, appropriate lighting, and new directional and informational signage to direct pedestrians around the construction site will be provided. After construction is complete, finished pedestrian sidewalks will be permanently reconstructed to meet ADA standards around the new facilities.

2.10 Other Transportation Improvements

The Proponent is prepared to contribute financially toward the cost of design and construction of the planned roadway and signalization improvements that are current being studied by the City.

2.11 Transportation Access Plan Agreement

A Transportation Access Plan Agreement (TAPA) will be entered into between the Proponent and BTM. The TAPA will codify the specific mitigation actions and agreements between the Proponent and the City of Boston.

Chapter 3.0

Environmental Review Component

3.0 ENVIRONMENTAL REVIEW COMPONENT

3.1 Wind

3.1.1 Introduction

Rowan Williams Davies & Irwin Inc. (RWDI) was retained to assess the potential pedestrian level wind impact of the Project. This qualitative assessment is based on the following:

- ◆ a review of the regional long-term wind data from Boston Logan International Airport;
- ◆ design drawings and documents received by RWDI on July 3, 2018;
- ◆ wind-tunnel studies undertaken by RWDI for similar projects in the Boston area;
- ◆ RWDI's engineering judgment, experience and expert knowledge of wind flows around buildings^{1,2,3}; and
- ◆ use of software developed by RWDI (Windestimator²) for estimating the potential wind conditions around generalized building forms.

This qualitative approach provides a screening-level estimation of potential wind conditions.

3.1.2 Site and Building Information

The Project site is currently occupied by several low-rise buildings and parking lots, and surrounded by low buildings and roadways/train tracks in all directions. Further terrain from the site is typical suburban, with downtown Boston, Logan Airport and the ocean to the distant northeast.

3.1.3 Local Wind Data

Wind statistics at Logan International Airport between 1990 and 2017 were analyzed and Figure 3-1 graphically depicts the distributions of wind frequency and directionality for the four seasons and for the annual period. When all winds are considered (regardless of

¹ C.J. Williams, H. Wu, W.F. Waechter and H.A. Baker (1999), "Experience with Remedial Solutions to Control Pedestrian Wind Problems", 10th International Conference on Wind Engineering, Copenhagen, Denmark.

² H. Wu, C.J. Williams, H.A. Baker and W.F. Waechter (2004), "Knowledge-based Desk-Top Analysis of Pedestrian Wind Conditions", ASCE Structure Congress 2004, Nashville, Tennessee.

³ H. Wu and F. Kriksic (2012). "Designing for Pedestrian Comfort in Response to Local Climate", Journal of Wind Engineering and Industrial Aerodynamics, vol.104-106, pp.397-407.

speed), winds from the northwest and southwest quadrants are predominant. Northeasterly winds are also relatively frequent in the spring.

Strong winds with mean speeds greater than 20 miles per hour (mph) (red bands in the wind roses) are prevalent from the west-northwest direction throughout the year, while the strong winds from the southwest and northeast are also common. These are critical wind directions focused on in the following discussions.

3.1.4 Pedestrian Wind Criteria

The BPDA has adopted two standards for assessing the relative wind comfort of pedestrians.

First, the BPDA wind design guidance criterion states that an effective gust velocity (hourly-mean wind speed + 1.5 times the root mean square wind speed) of 31 mph should not be exceeded more than one percent of the time. This criterion is hereby referred to as the gust criterion.

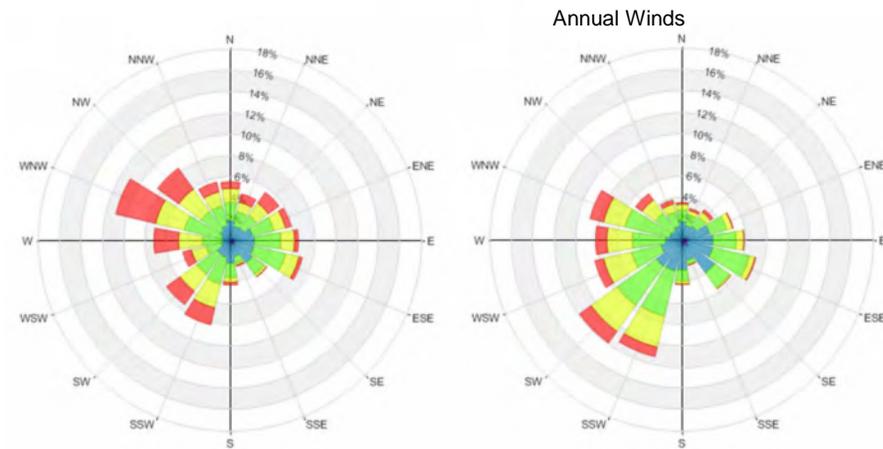
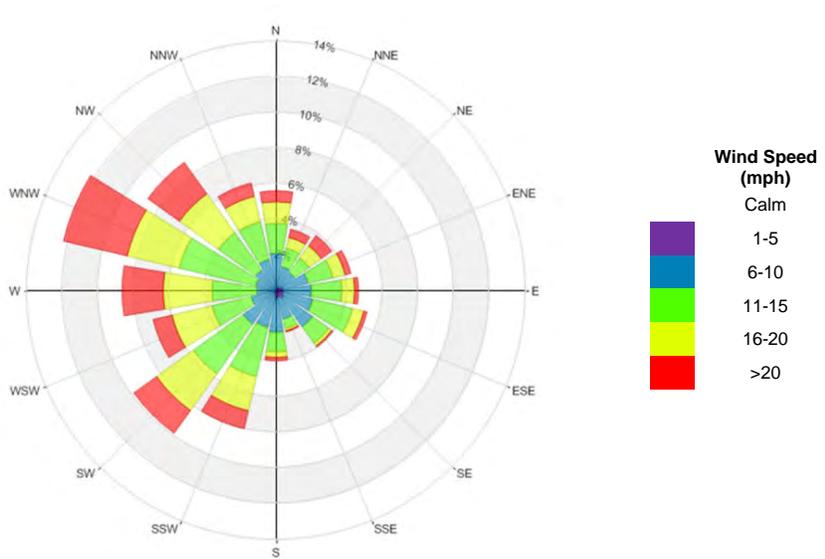
The second set of criteria used by the BPDA to determine the acceptability of specific locations is based on the work of Melbourne⁴. This set of criteria is used to determine the relative level of pedestrian wind comfort for activities such as sitting, standing and walking. The criteria, as shown in Table 3-1, are expressed in terms of benchmarks for the one-hour mean wind speed exceeded one percent of the time (i.e., the 99-percentile mean wind speed).

Table 3-1 BPDA Mean Wind Speed Criteria*

Level of Comfort	Wind Speed
Dangerous	> 27 mph
Uncomfortable for Walking	> 19 and ≤27 mph
Comfortable for Walking	> 15 and ≤19 mph
Comfortable for Standing	> 12 and ≤15 mph
Comfortable for Sitting	< 12 mph

* Applicable to the hourly mean wind speed exceeded one percent of the time.

⁴ Melbourne, W.H., 1978, "Criteria for Environmental Wind Conditions", Journal of Industrial Aerodynamics, 3 (1978) 241 - 249.



Spring (March to May)

Summer (June to August)



Fall (September to November)

Winter (December to February)

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Figure 3-1
Wind Roses

Pedestrians on walkways and parking lots will be active and wind speeds comfortable for walking are appropriate at these locations. Lower wind speeds comfortable for standing are desired for building entrances where people are apt to linger. For any outdoor seating areas, at and above ground, low wind speeds comfortable for sitting are desired in the summer months when such amenity spaces are typically in use.

The following discussion on pedestrian wind conditions is based on the annual wind climate. Typically the summer and fall winds tend to be more comfortable than the annual winds, while the winter and spring winds are less comfortable than the annual winds.

3.1.5 Pedestrian Wind Conditions

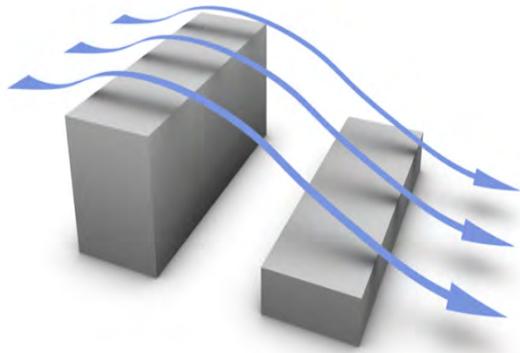
3.1.5.1 Background

Predicting wind speeds and frequencies of occurrence is complicated. It involves the assessment of building geometry, orientation, position and height of surrounding buildings, upwind terrain and the local wind climate. Over the years, RWDI has conducted thousands of wind tunnel model studies on pedestrian wind conditions around buildings, yielding a broad knowledge base. This knowledge has been incorporated into RWDI's proprietary software that allows, in many situations, for a screening-level qualitative estimation of pedestrian wind conditions without wind tunnel testing.

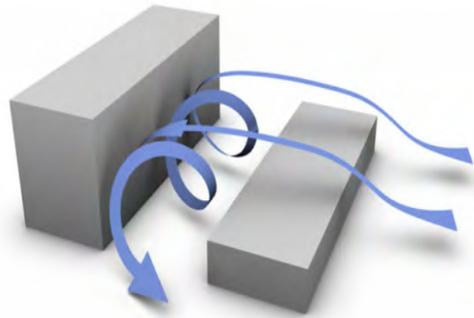
Winds generally tend to flow over arrays of buildings of similar height (Figure 3-2, Image a). Buildings taller than their surroundings tend to intercept the stronger winds at higher elevations and redirect them to the ground level (Figure 3-2, Image b). Such a downwashing flow (Figure 3-2, Image c) is the main cause for increased wind activity around buildings at the pedestrian level, especially at building corners. These downwashed winds may subsequently channel along building gaps and make those areas windy (Figure 3-2, Image d). If these building/wind combinations occur for prevailing winds, there is a greater potential for increased wind activity and uncomfortable conditions.

3.1.5.2 No-Build Conditions

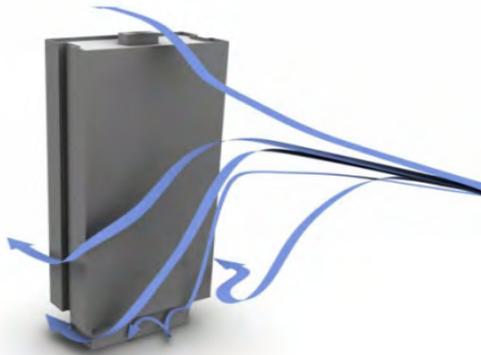
Wind conditions on the existing site (No-Build) are expected to be in compliance with the mean and effective gust criteria, given the low heights of the on-site and surrounding buildings. The raised Sprague Street to the west of the development site also provides sheltering for the prevailing winds from the west through northwest directions.



a) Wind Flow over Low-rise Buildings



b) Deflected down by a Taller Building



c) Downwashing Flow and Corner Acceleration



d) Channeling Effect between Buildings

3.1.5.3 Build Conditions

The proposed buildings are taller than their surroundings and, hence, exposed to the winds from all directions. General flow patterns for the prevailing west-northwest, southwest and northeast winds are presented in Figure 3-3. Wind flow accelerations may occur around building corners and through the gaps between buildings, resulting in uncomfortable wind conditions from time to time during the winter and spring seasons. Given the limited heights of the Project, it is unlikely they will result in extreme wind conditions that are rated as dangerous for mean wind speeds or unacceptable for effective gust speeds.

Detailed discussions on the potential wind conditions after construction are provided below – use Figure 3-4 for reference on key pedestrian areas on and around the development.

Potential Wind Effects on Surrounding Neighborhood

The Project propose to locate its lowest buildings along Sprague Street (five stories), and they will be set back from the street (especially Building 1), reducing the potential wind impact on the Sprague Street sidewalks. Sprague Pond and residential buildings to the south are separated from the proposed development by the existing dense trees along the pond and the proposed parking spaces, and therefore, no wind impact from the Project is anticipated.

To the east and north of the site are train tracks with a residential neighborhood beyond. The Project is not anticipated to impact wind conditions in the residential neighborhood due to the distance the neighborhood is from the site. In addition, a residential neighborhood is located to the west of the Project site. Similarly, the Project is not anticipated to impact wind conditions in the residential neighborhood because of the distance from the Project site.

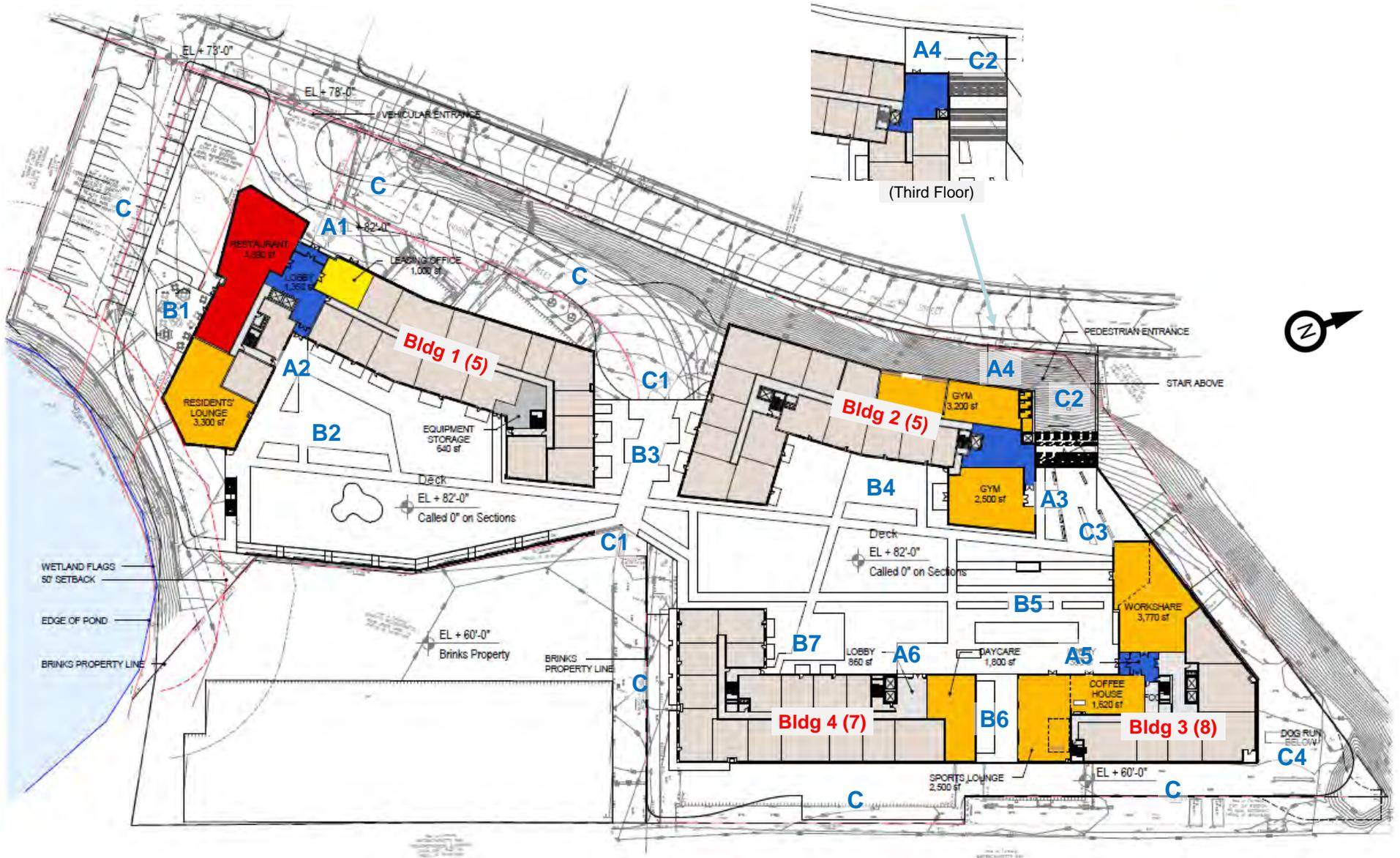
The Brinks property is located at the southeast corner of the site. The net wind impact on the Brinks property is expected to be neutral with the proposed development in place.

Overall, the Project is not anticipated to have any negative wind effect on pedestrian areas in the area surrounding the Project site.

Main Entrances

As shown in Figure 3-4, Entrances A2 and A5 are located in inner corners of proposed buildings, and Entrance A3 is open to a recessed area. Suitable wind conditions are expected at these entrances throughout the year.

Entrance A1, A4 (at the third floor) and A6 are recessed from the west building façade and sheltered from the northeast and southwest (partially) winds. Winds from the west through north directions will have an impact on these entrances. The Project team will continue to evaluate these entrances to ensure that wind conditions are suitable for their operation.



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Figure 3-4
Analysis Locations

Each of Entrances A1, A2 and A5 has a vestibule, which is a positive design feature as it provides an indoor waiting area for pedestrians on windy and cold days. Vestibules may be considered for other entrances, if feasible.

Outdoor Amenity Areas on the Deck

Outdoor amenity areas will be frequented during the summer months when winds are primarily from the southwest, south-southwest and westerly directions. Given the locations of the proposed buildings and outdoor amenity areas on the deck, the more sheltered areas (e.g., B2, B4 and B7 in Figure 3-4) are expected to have calm wind conditions that are appropriate for passive activities such as sitting or standing.

Higher than desired wind speeds may occur in the summer at Areas B1, B3, B5 and B6 due to their exposure and/or wind channeling between the proposed buildings. Wind speeds at B3, B5 and B6 may potentially become uncomfortable during the winter and spring seasons. The Project team will evaluate measures, such as landscaping, canopies, and wind screens to improve wind conditions in these areas, as necessary.

Walkways and Parking Spaces

Pedestrians on walkways and parking areas will be active and higher wind speeds comfortable for walking are acceptable. This criterion is expected to be met in most walkways and parking spaces on and around the Project site (Areas C in Figure 3-4).

The passageway between Buildings 1 and 2 under the deck (C1 in Figure 3-4) will be windy, but it is not considered to be an issue because this area will be used primarily by vehicles.

The stairs for pedestrian access to the development (Location C2 at the third floor) will be windy due to winds accelerating around the northwest corner of Building 2. Other windy areas are C3 where winds channeling between Buildings 2 and 3 and C4 (dog run) around the northeast corner of the tallest building (Building 3). Wind speeds in these areas may potentially be uncomfortable during the winter and spring seasons. The Project team will evaluate potential wind mitigation to improve conditions these areas, as necessary.

Rooftop Terrace on Building 3

The proposed terrace on the top of Building 3 will be partially sheltered by the penthouse to the north from the prevailing northwesterly winds, and by Buildings 1, 2 and 4 from the south through west winds. However, Building 3, being eight stories in height, is the tallest building on site and the wind speeds on the rooftop may not be suitable for proposed activities during portions of the year. The Project team will continue to evaluate this terrace as the design progresses to ensure appropriate wind conditions for the desired activities.

3.1.6 *Summary*

This wind assessment for the Project is based on the current design drawings, existing surroundings, local wind data, and our experience with similar projects in the Boston area.

The proposed development includes four buildings of five to eight stories. They provide sheltering for key pedestrian areas from one or more prevailing winds. Suitable wind conditions are predicted at most building entrances, amenity areas, walkways and parking areas on site. The Project will not have any negative wind effect on pedestrian areas in the area surrounding the Project site.

Higher-than-desired wind speeds may occur at several exposed areas, including the west entrances to Buildings 1, 2 and 4, gaps between buildings, exposed building corners and the roof-top terrace on Building 3. These wind conditions may become uncomfortable during the winter and spring seasons. The Project team will continue to evaluate potential mitigation measures to improve wind conditions in these areas, as necessary.

3.2 **Shadow**

The PNF included a shadow study that showed that shadow impacts would be limited to the immediately surrounding streets, sidewalks and train tracks. No new shadow would be cast onto existing open spaces or bus stops.

The changes to the Project are anticipated to result in similar shadow impacts from Buildings 1, 3 and 4 as the changes to these buildings are minimal. The changes to Building 2, including an increase in the setback from Sprague Street of approximately 20 feet and a reduction in height by 2 floors, will result in fewer new shadows being cast on Sprague Street and its sidewalks, as well as the surrounding area.

3.3 **Daylight Analysis**

3.3.1 *Introduction*

The purpose of the daylight analysis is to estimate the extent to which a proposed project will affect the amount of daylight reaching the streets and the sidewalks in the immediate vicinity of a project site. The PNF included a daylight study, which has been updated to reflect the changes to the Project, specifically changes to Building 2. The daylight analysis for the Project considers the existing and proposed conditions, as well as typical daylight obstruction values of the surrounding area.

Because the site currently consists of two-story industrial buildings that only occupy a portion of the site, the proposed Project will increase daylight obstruction. However, the daylight obstruction impacts will be minimal due to the Project site's location in a low-density area with large amounts of daylight reaching the streets and sidewalks.

3.3.2 *Methodology*

The daylight analysis was performed using the Boston Redevelopment Authority Daylight Analysis (BRADA) computer program⁵. This program measures the percentage of “sky dome” that is obstructed by a project and is a useful tool in evaluating the net change in obstruction from existing to build conditions at a specific site.

Using BRADA, a silhouette view of the building is taken at ground level from the middle of the adjacent streets or pedestrian ways centered on the proposed building. The façade of the building facing the viewpoint, including heights, setbacks, corners and other features, is plotted onto a base map using lateral and elevation angles. The two-dimensional base map generated by BRADA represents a figure of the building in the “sky dome” from the viewpoint chosen. The BRADA program calculates the percentage of daylight that will be obstructed on a scale of 0 to 100 percent based on the width of the view, the distance between the viewpoint and the building, and the massing and setbacks incorporated into the design of the building; the lower the number, the lower the percentage of obstruction of daylight from any given viewpoint.

The analysis compares three conditions: Existing Conditions; Proposed Conditions; as-of-right conditions, and the context of the area. Two viewpoints were chosen to evaluate the daylight obstruction for the Existing, Proposed and as-of-right conditions.. Two area context points were considered to provide a basis of comparison to existing conditions in the surrounding area. It should be noted that the surrounding area consists of two-story industrial buildings with surface parking and two-story residential buildings, and therefore any new building will have a higher daylight obstruction value than much of the surrounding, underdeveloped area. The viewpoint and area context viewpoints were taken in the following locations and are shown on Figure 3-5.

- ◆ **Viewpoint 1:** View from Sprague Street facing southeast toward the northern portion of the Project site.
- ◆ **Viewpoint 2:** View from Sprague Street facing southeast toward the southern portion of the Project site.
- ◆ **Area Context Viewpoint AC1:** View from Sprague Street facing southeast toward 74 Sprague Street.
- ◆ **Area Context Viewpoint AC2:** View from Sprague Street facing northwest toward 67 Sprague Street.

⁵ Method developed by Harvey Bryan and Susan Stuebing, computer program developed by Ronald Fergle, Massachusetts Institute of Technology, Cambridge, MA, September 1984.



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3.3.3 Results

The results for each viewpoint are described in Table 3-2. Figures 3-6 through 3-9 illustrate the BRADA results for each analysis.

Table 3-2 Daylight Analysis Results

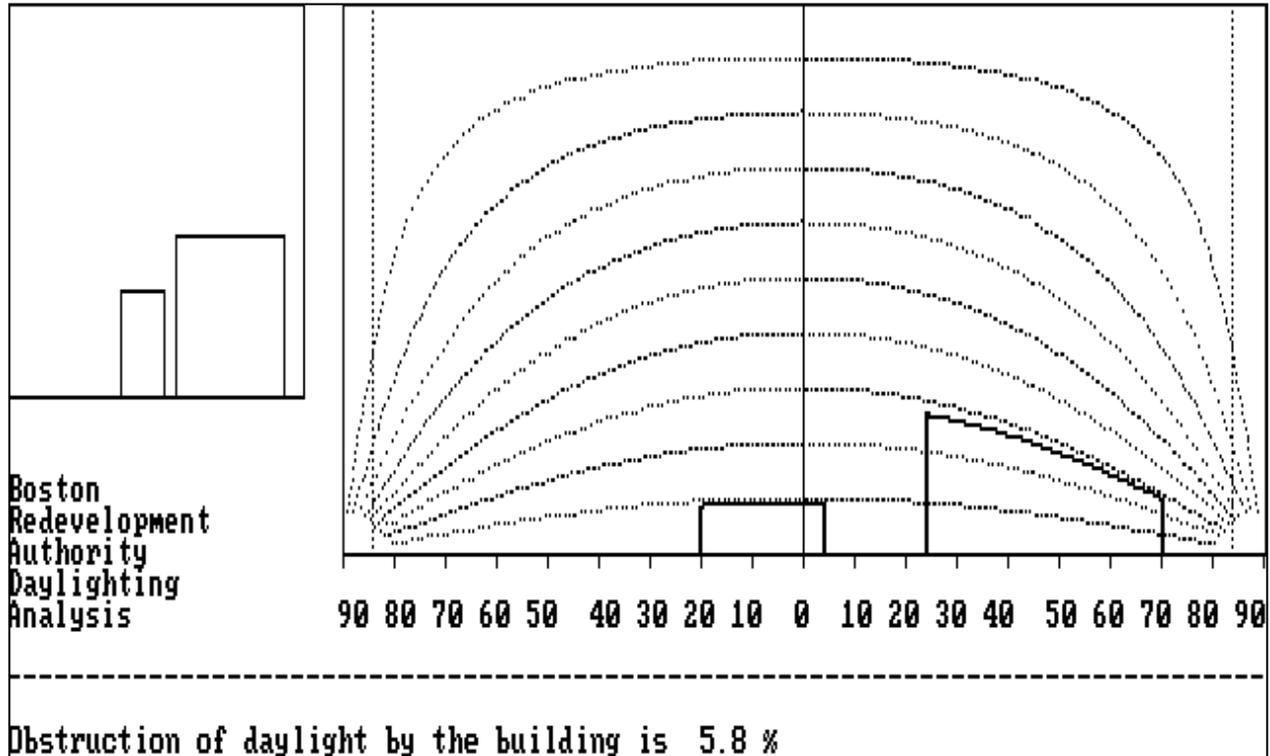
Viewpoint Locations		Existing Condition	PNF Condition	Proposed Condition	As-of-Right Condition
Viewpoint 1	View from Sprague Street facing southeast toward the northern portion of the Project site.	5.8%	67.4%	51.7%	5.4%
Viewpoint 2 ¹	View from Sprague Street facing southeast toward the southern portion of the Project site.	3.7%	21.0%	21.0%	23.2%
Area Context Viewpoint Locations					
AC1	View from Sprague Street facing southeast toward 74 Sprague Street.	17.8%			
AC2	View from Sprague Street facing northwest toward 67 Sprague Street.	43.9%			

¹ Since Building 1 includes only minor changes, the daylight analysis was not redone for this building, as the daylight obstruction impact is anticipated to be similar.

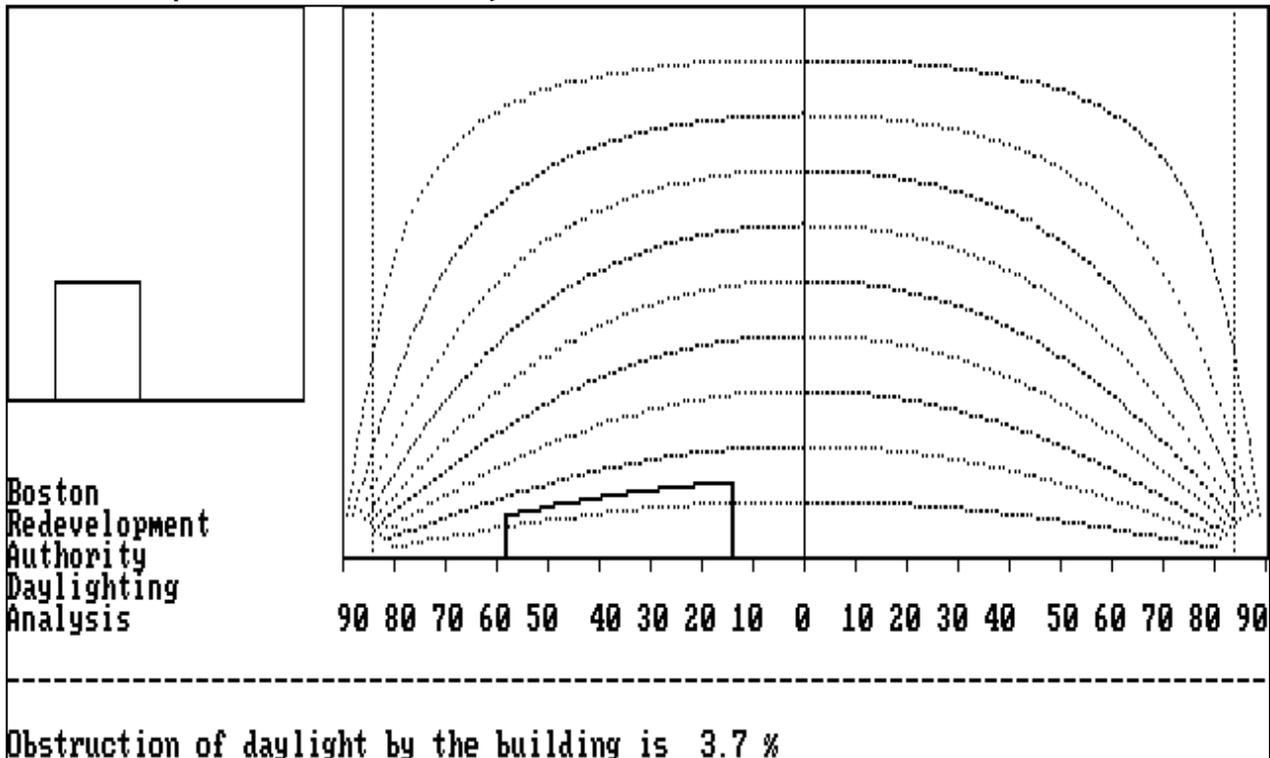
Sprague Street – Viewpoint 1

Sprague Street runs along the northwestern portion of the Project site. Viewpoint 1 was taken from the center of Sprague Street facing southeast toward the northern half of the Project site. From this viewpoint, site has an existing daylight obstruction value of 5.5% due to the low heights and large setbacks of the existing buildings. The development of the Project will increase the daylight obstruction value to 51.7%. This daylight obstruction is significantly less than the daylight obstruction for the project proposed in the PNF, which had an obstruction from this viewpoint of 67.4%. The daylight obstruction impacts will continue to be minimal due to the Project site’s location in a low-density area with a significant amount of land used for railroad tracks that allow for views of the sky from most angles. The as-of-right condition as studied for Viewpoint 1 would result in a daylight obstruction value of 5.4%, which is lower than the daylight obstruction value of the proposed Project due to the steep grade change between the Sprague Street frontage and the site interior.

Viewpoint 1: View from Sprague Street facing southeast toward the northern portion of the Project site

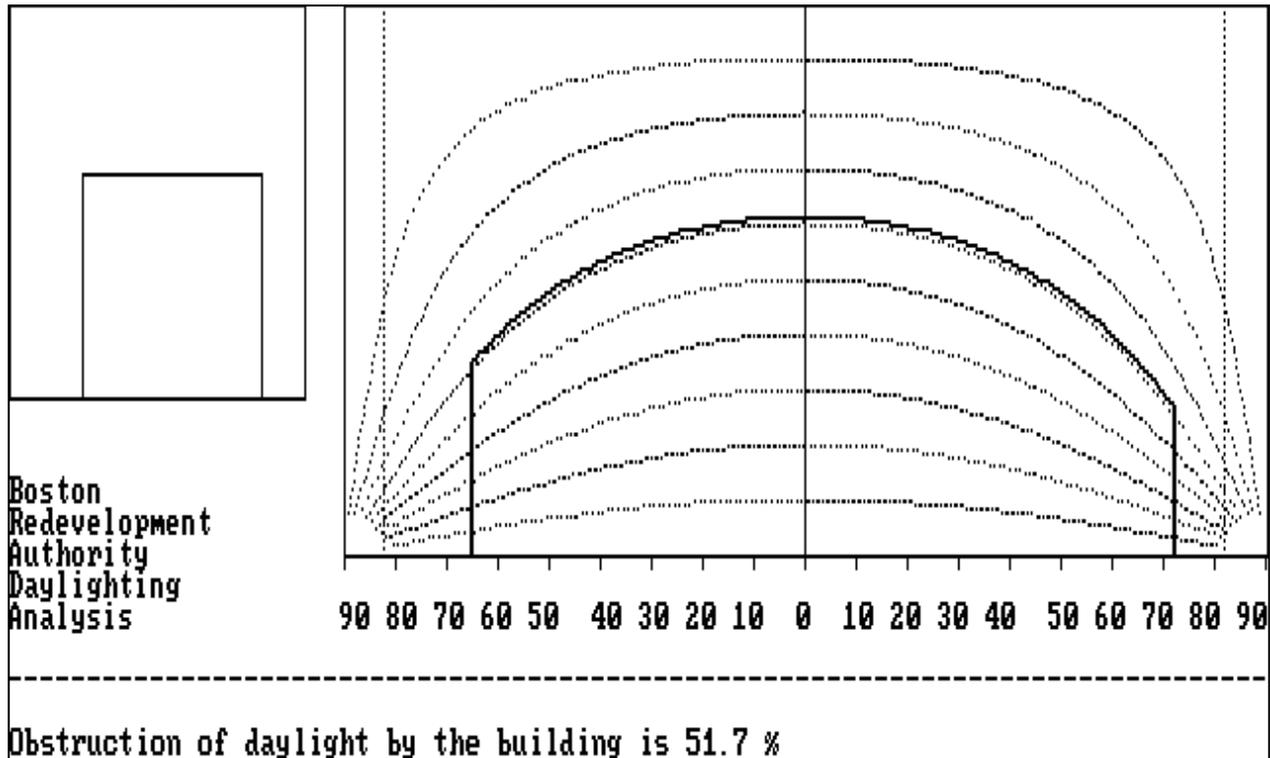


Viewpoint 2: View from Sprague Street facing southeast toward the southern portion of the Project site

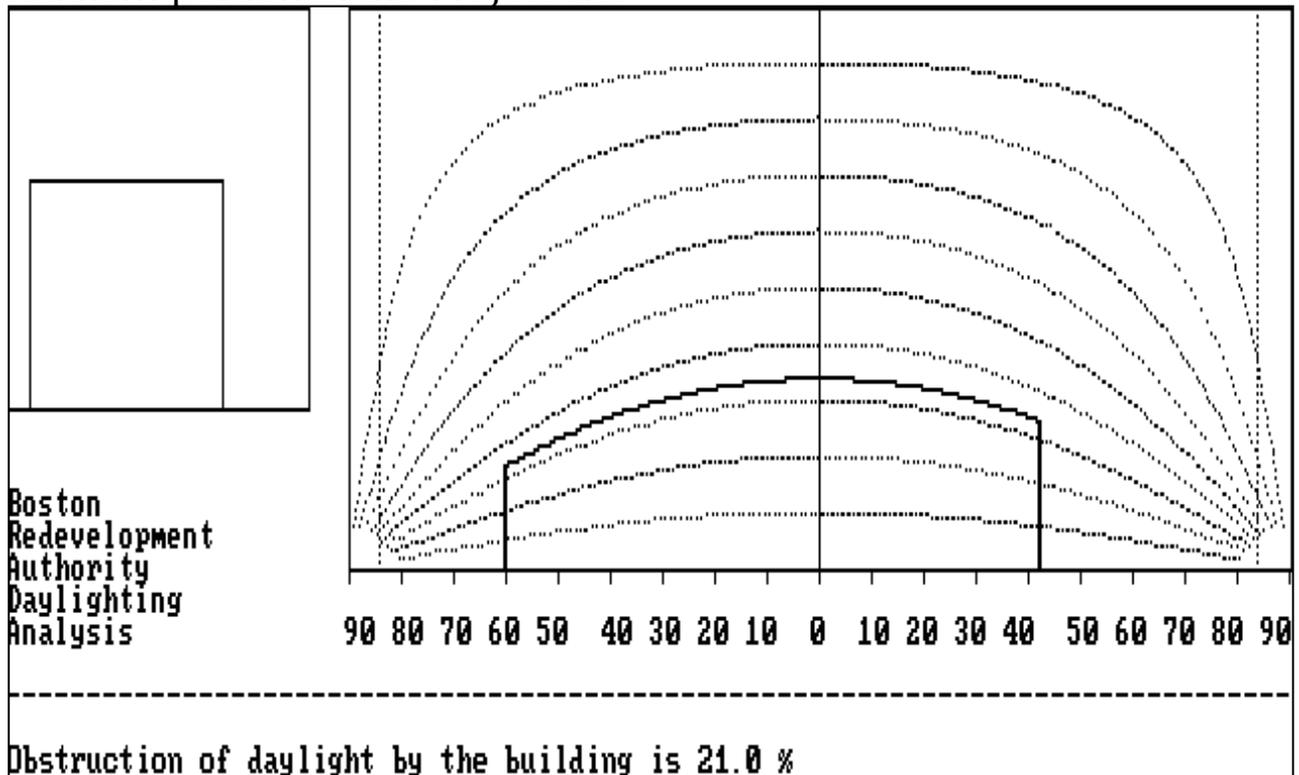


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Viewpoint 1: View from Sprague Street facing southeast toward the northern portion of the Project site

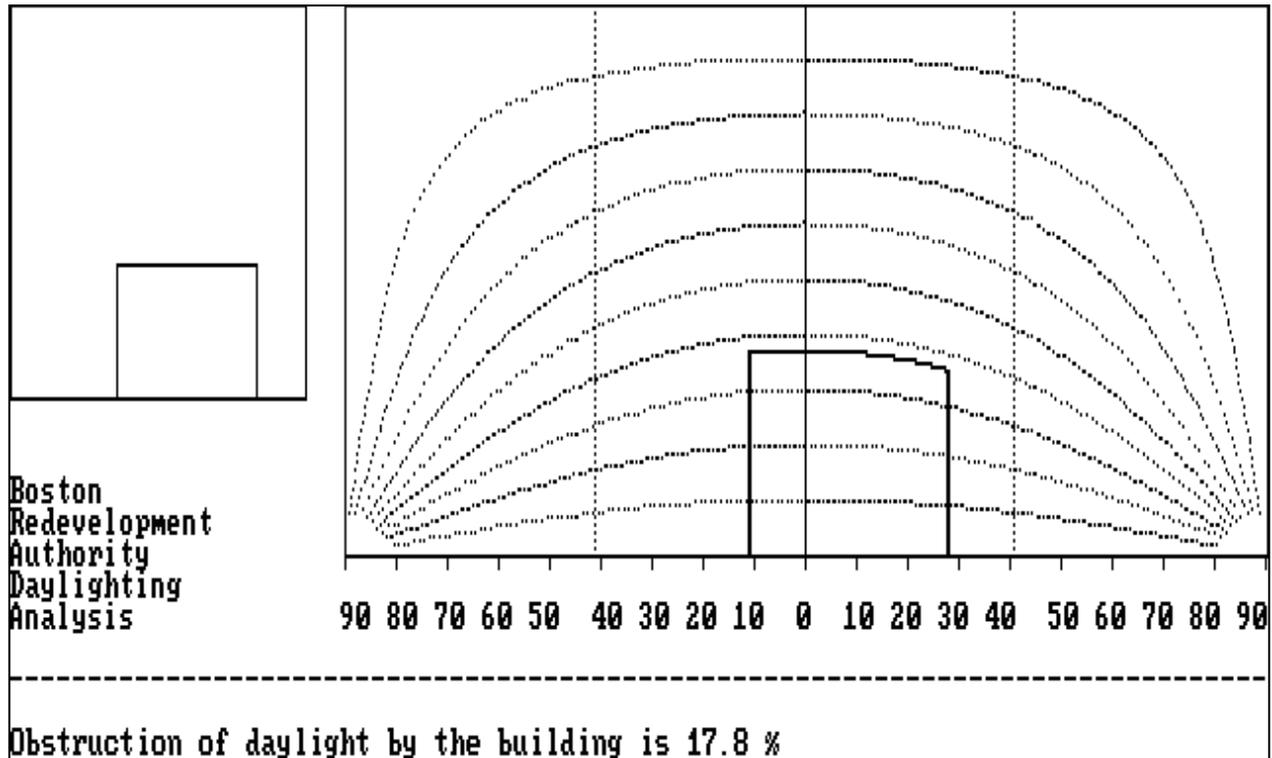


Viewpoint 2: View from Sprague Street facing southeast toward the southern portion of the Project site

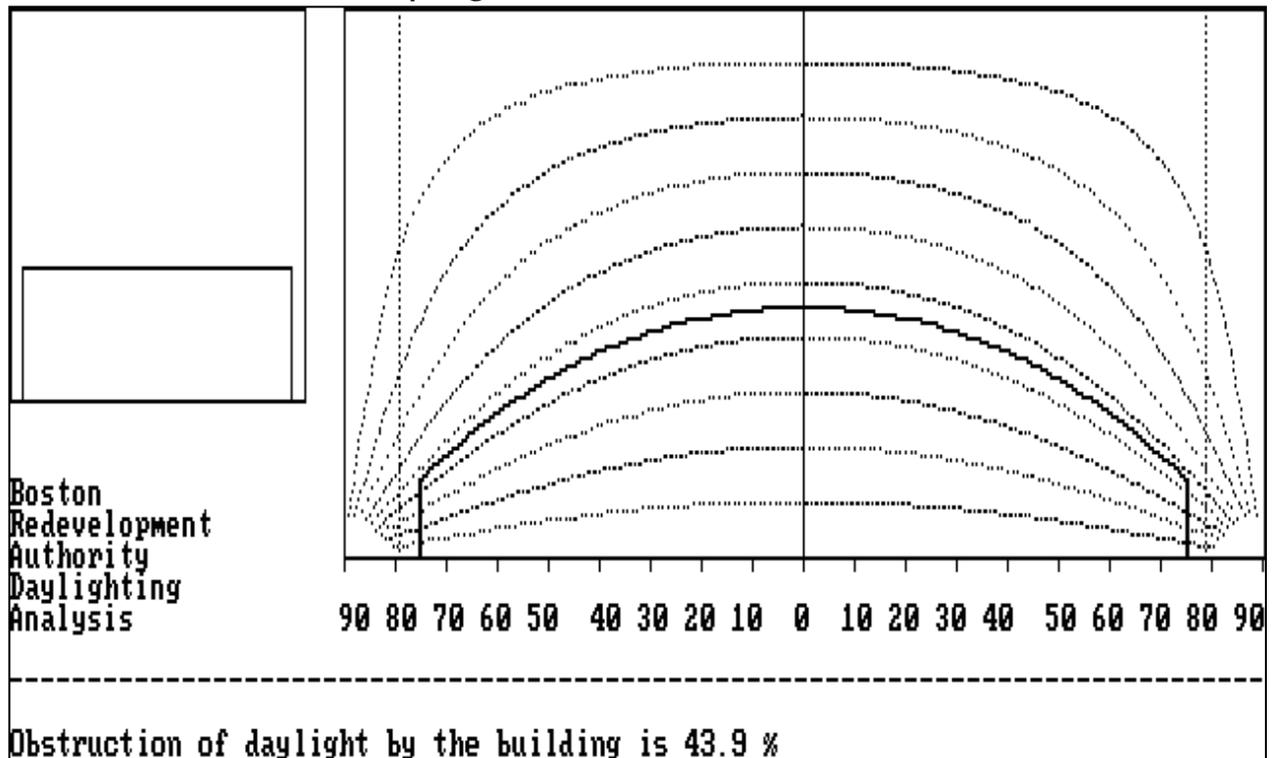


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Area Context Viewpoint AC1: View from Sprague Street facing southeast toward 74 Sprague Street

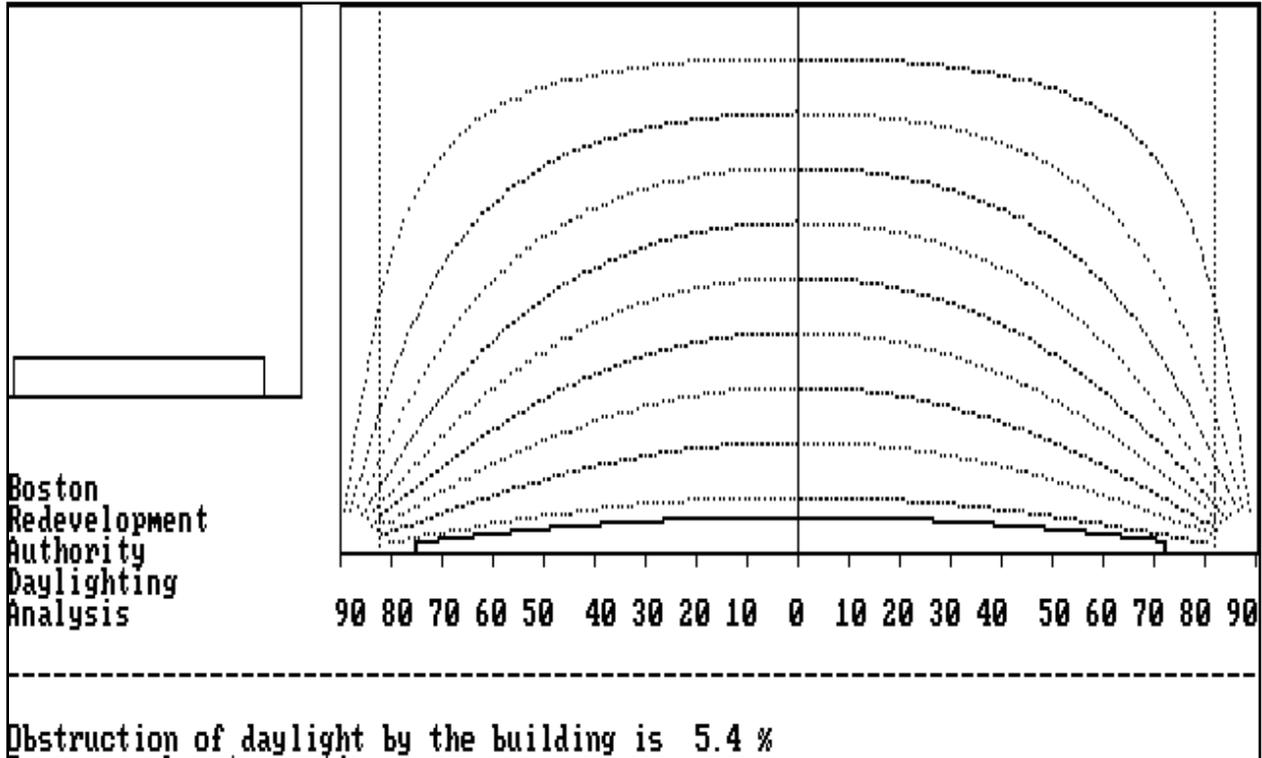


Area Context Viewpoint AC2: View from Sprague Street facing northwest toward 67 Sprague Street

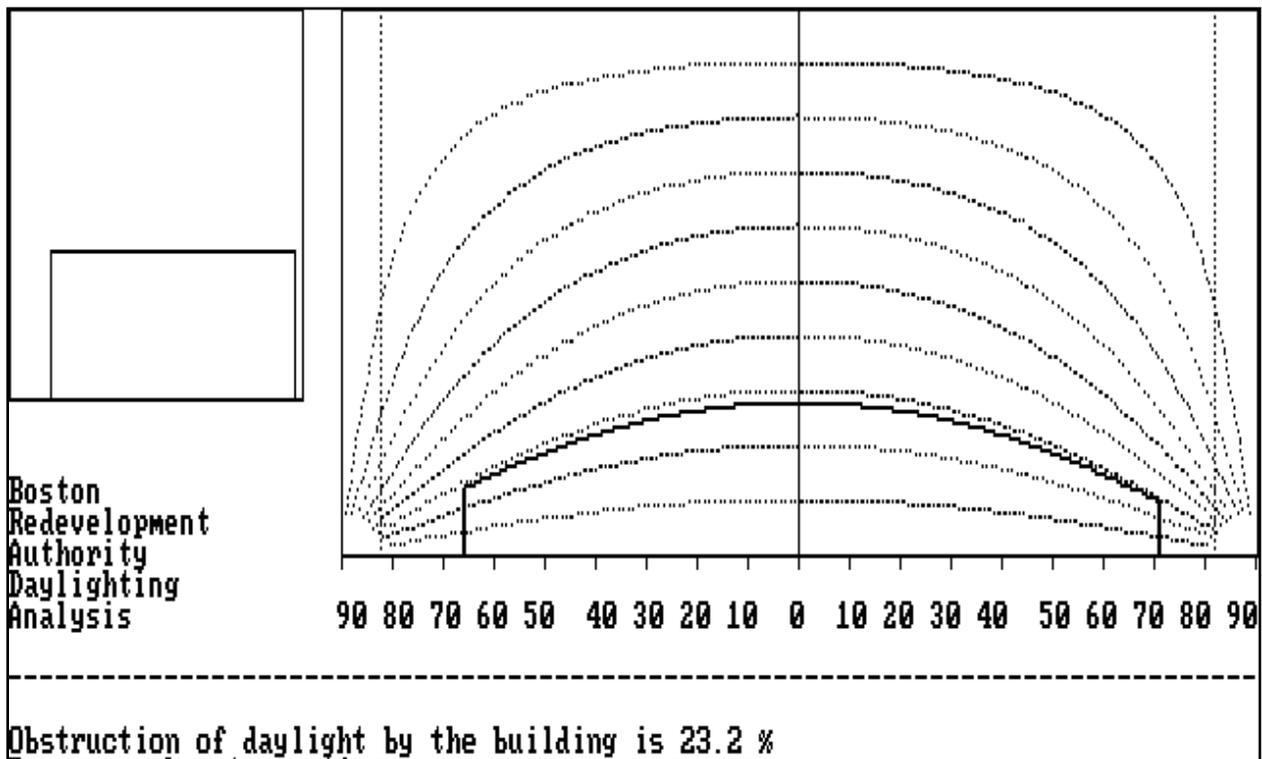


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Viewpoint 1: View from Sprague Street facing southeast toward the northern portion of the Project site



Viewpoint 2: View from Sprague Street facing southeast toward the southern portion of the Project site



36-70 Sprague Street Readville, Massachusetts

Sprague Street – Viewpoint 2

Viewpoint 2 was taken from the center of Sprague Street facing southeast toward the southern half of the Project site. From this viewpoint, the site has an existing daylight obstruction value of 3.7% because large portions of the site are undeveloped. The development of the Project will increase the daylight obstruction value to approximately 21.0%. While this is an increase over existing conditions, the daylight obstruction value is similar to the Area Context viewpoints. As mentioned above, the area around the site consists mostly of shorter buildings and railroad tracks, allowing for views of the sky from most angles. The as-of-right condition as studied for Viewpoint 2 would result in a daylight obstruction value of 23.2%, which is similar to the daylight obstruction value of the proposed Project.

Area Context Viewpoints

The Project site is located in an area with low-density industrial and residential properties, as well as significant land area used for railroad tracks. To provide a larger context for comparison of daylight conditions, obstruction values were calculated for the two Area Context Viewpoints described above and shown on Figure 3.3-1. The daylight obstruction values ranged from 17.8% to 43.9%. The Project will result in increased daylight obstruction over existing conditions; however, the daylight obstruction impacts will be minimal due to the Project site's location in a low-density area with large amounts of daylight reaching the streets and sidewalks.

3.3.4 Conclusion

Although the Project will increase the daylight obstruction values over the existing condition, the density and uses of the surrounding area will continue to allow for significant views of the sky from most angles. The changes to the Project from the PNF will result in lower daylight obstruction values. Overall, the area will continue to have large views of the sky due to the relatively low density in the area, the lower heights of the buildings, and the large spaces created by the roadways and train tracks surrounding the site.

3.4 Air Quality

The PNF included an air quality analysis that included a discussion of existing air quality and the analysis of the impact of Project-generated traffic on air quality at the worst nearby signalized intersections (as determined by the Project's transportation study). Air quality in the vicinity of the Project site is generally good, with all local background concentrations found to be well below the National Ambient Air Quality Standards (NAAQS). The analysis showed that the predicted concentration of carbon monoxide would be below one-hour and eight-hour NAAQS.

The changes to the Project will result in a decrease in the number of estimated vehicle trips, and therefore the Project's impact to air quality at nearby intersections is anticipated to be similar or less than what was shown in the PNF, and the predicted concentration of carbon monoxide would still be below the one-hour and eight hour NAAQS.

Any new stationary sources will be reviewed by the Massachusetts Department of Environmental Protection (MassDEP) during permitting under the Environmental Results Program, as required. It is expected that all stationary sources will be small, and any impacts from stationary sources would be minimal.

3.5 Geotechnical Impacts/Groundwater

3.5.1 Sub-soil Conditions

The subsurface conditions consist of an approximately two to eight-foot-thick layer of urban fill over sand with varying amounts of silt and gravel. The sand layer extends to a depth of at least 70 feet. The State Geological Map of Massachusetts indicates that bedrock in the area consists of Roxbury conglomerate, sandstone, siltstone, argillite, and/or melaphyre (Mattapan Volcanics). The depth to bedrock is unknown at this time.

Standard Penetration Tests (SPTs) in the sand layer indicate the sand is loose to medium dense. Additional subsurface explorations are planned to evaluate the lateral and vertical extent of the loose sands, and to evaluate whether the loose sands are susceptible to liquefaction.

Based on the initial borings, the proposed buildings may need to be supported on deep foundations or on improved ground. Deep foundations could consist of driven piles or pressure injected footings. Ground improvement could include controlled modulus columns, rammed aggregate piers, or vibro-stone columns. If ground improvement is selected, the buildings would be supported on spread footings that are supported on the improved ground.

The Project does not anticipate any ledge removal or significant excavation.

3.5.2 Groundwater

Groundwater depths range from approximately 4 to 13 feet below the existing site grades. Groundwater flow is generally to the east towards the Neponset River.

The site is not located within a Groundwater Conservation Overlay District as outline in Article 32 of the City of Boston Zoning Code.

The proposed development is not anticipated to have adverse short- or long-term effects on the surrounding groundwater levels. Excavation of elevator pits may go below the water table. If necessary, groundwater removed during this minor excavation work would be recharged locally. Therefore, impacts to groundwater levels, and therefore Sprague Pond, are not currently anticipated.

3.6 Solid Wastes

3.6.1 *Hazardous Waste*

Northern Portion of Property

Phase I and II Environmental Site Assessments (ESAs) were performed for the northern portion of the property. Historic uses of this portion of the property included a dyeing and coloring facility (Readville Color Works) and a distillery for alcohol (the Readville Distilleries, and later Burke Bros. Distilleries then Old Mr. Boston Distillery). Current use of the property is by a moving and storage company.

Generally, it appears the historic use of the property as a dyeing and coloring facility and as a distillery for alcohol has not significantly affected conditions at this portion of the property. However, oil contamination in soil in a limited area was identified in shallow soils. Groundwater was not affected. The soil contamination was reported to MassDEP and is being tracked under Release Tracking Number (RTN) 3- 33516. Soil across this portion of the property is likely to contain polycyclic aromatic hydrocarbons (PAHs) and metals. Many of these contaminants are consistent with urban fill but may also require reporting to MassDEP.

Historic remediation activities have included removal of a buried fuel tank and excavation of contaminated soils. These activities were tracked under RTN 3-2028. The RTN was closed out under the MassDEP regulations with a conclusion that conditions did not pose a significant risk to people or the environment.

Southern Portion of Property

A Phase I ESA was performed for the southern portion of property. Additional Phase II ESA investigations are planned for this portion of the property. Historic use of the property included a distillery for alcohol. Current use of the property includes a construction company and equipment laydown yard.

Soil across this portion of property is also likely to contain PAHs and metals. Many of these contaminants are consistent with urban fill but may also require reporting to MassDEP.

Future Soil and Groundwater Pre-characterization

Additional characterization of the soil and groundwater across the entire property will be conducted to support construction. During excavation, excess soils transported from the property will be managed for off-site disposal in accordance with MassDEP regulations and policies. If construction dewatering is necessary, effluent will be managed in accordance with MassDEP and EPA regulations and policies.

3.6.2 *Operation Solid Waste and Recycling*

The Project will generate solid waste typical of other residential projects. Solid waste generated by the Project is projected to be approximately 525 tons per year, based on the number of bedrooms proposed at a generation rate of four pounds per bedroom per day and restaurant space proposed at a generation rate of 5.5 tons per 1,000 square feet per year. Other than typical wastes generated by residential use (e.g., paint, detergents, etc.), no hazardous wastes are anticipated to be generated by the Project.

With the exception of household hazardous wastes typical of residential and restaurant uses (e.g., cleaning fluids and paint), the Project will not involve the generation, use, transportation, storage, release, or disposal of potentially hazardous materials.

Recyclable materials will be recycled through a program implemented by building management.

The building will include areas for trash collection and recycling collection on each floor, and a trash room in close proximity to the loading dock. Recycling facilities will be provided on-site for paper, glass, plastic and metal.

3.7 Construction Impacts

3.7.1 *Introduction*

A Construction Management Plan (CMP) in compliance with the City's Construction Management Program will be submitted to BTM once final plans are developed and the construction schedule is fixed. The construction contractor will be required to comply with the details and conditions of the approved CMP.

Proper pre-planning with the City and neighborhood will be essential to the successful construction of the Project. Construction methodologies, which ensure public safety and protect nearby residences and businesses, will be employed. Techniques such as barricades, walkways and signage will be used. The CMP will include routing plans for trucking and deliveries, plans for the protection of existing utilities, and control of noise and dust.

During the construction phase of the Project, the Proponent will provide the name, telephone number and address of a contact person to communicate with on issues related to the construction. The construction contact will be responsible for responding to the questions/comments/complaints of the residents of the neighborhood.

The Proponent intends to follow the guidelines of the City of Boston and the MassDEP, which direct the evaluation and mitigation of construction impacts. The Proponent will coordinate with other developments in the area, if necessary, to minimize construction-related impacts on the surrounding area.

3.7.2 Construction Methodology/Public Safety

Construction methodologies that ensure public safety and protect nearby tenants will be employed. Techniques such as barricades and signage will be used. Construction management and scheduling will minimize impacts on the surrounding environment and will include plans for construction worker commuting and parking, routing plans for trucking and deliveries, and the control of noise and dust.

It may be necessary to occupy pedestrian walkways and portions of Sprague Street at certain points during the construction process. As the design of the Project progresses, the Proponent will meet with BTM to discuss the specific location of barricades, the need for lane closures, pedestrian walkways, and truck queuing areas. Secure fencing, signage, and covered walkways may be employed to ensure the safety and efficiency of all pedestrian and vehicular traffic flows. In addition, sidewalk areas and walkways near construction activities will be well marked and lighted to protect pedestrians and ensure their safety. Public safety for pedestrians on abutting sidewalks will also include covered pedestrian walkways when appropriate. If required by BTM and the Boston Police Department, police details will be provided to facilitate traffic flow. These measures will be incorporated into the CMP which will be submitted to BTM for approval prior to the commencement of construction work.

Based on soil conditions, the Project team does not anticipate any ledge removal. It is anticipated that buildings will be founded on improved soils (Rammed Aggregate Piers or Grouted Concrete Columns). These foundation systems have a very low impact and can be installed expeditiously. Abutters are generally outside the 100-foot zone of influence for damaging vibrations; however, the site will be monitored by a third party to ensure that construction-related vibration stays below the relative standards.

With the exception of minor excavation for elevator pits, the Project is not anticipated to excavate below the groundwater table. If the minor excavation reaches the groundwater table, it is anticipated that the groundwater will be recharged locally. Overall, the Project is not anticipated to impact groundwater levels.

Demolition of the existing buildings will occur using standard practices. Demolition waste will be disposed of in accordance with all local, state and federal regulations.

3.7.3 *Construction Schedule*

Construction of the Project is expected to commence early 2019. Construction is expected to take approximately 18-24 months, provided, however, that it is likely that construction of the buildings will be staggered, so as not to have all of the residential units be presented to the leasing market all at once, and also so as to provide building completions at the appropriate times of year so as to optimize building lease-up. This timeframe is anticipated to consist of approximately 2-3 months of mobilization, utility work and demolition, followed by approximately 14-17 months per building for each of the buildings (the larger of the buildings being at the longer end of the expected timeframe). Depending on the gaps between start times of each of the buildings, the total construction duration may be longer than the 18-24 months that would be required if the buildings were constructed concurrently.

The Project work hours will be from 7:00 a.m. to 6:00 p.m. Monday through Friday, and will be strictly monitored by the Project's general contractor. Special attention will be made for the morning start time of 7:00 a.m. as the Proponent understands the sensitivity of the abutting area. If off-hour or weekend work becomes necessary, approval will be obtained from BTM, Inspection Services Department (ISD), and the Office of Neighborhood Services (ONS).

3.7.4 *Construction Staging/Access*

Access to the site and construction staging areas will be provided in the CMP.

Although specific construction and staging details have not been finalized, the Proponent and its construction manager will work to ensure that staging areas will be located to minimize impacts to pedestrian and vehicular flow. Secure fencing and barricades will be used to isolate construction areas from pedestrian traffic adjacent to the site. Construction procedures will be designed to meet all Occupational Safety and Health Administration (OSHA) safety standards for specific site construction activities.

3.7.5 *Construction Mitigation*

The Proponent will follow City and MassDEP guidelines which will direct the evaluation and mitigation of construction impacts. As part of this process, the Proponent and construction team will evaluate the Commonwealth's Clean Air Construction Initiative.

A CMP will be submitted to BTM for review and approval prior to issuance of a Building Permit.

The CMP will include detailed information on specific construction mitigation measures and construction methodologies to minimize impacts to abutters and the local community. The CMP will also define truck routes which will help in minimizing the impact of trucks on City and neighborhood streets.

“Don’t Dump - Drains to Neponset River” plaques will be installed at storm drains that are replaced or installed as part of the Project.

3.7.6 Construction Employment and Worker Transportation

The number of workers required during the construction period will vary. It is anticipated that approximately 1,900 construction jobs will be created over the length of construction. The Proponent will make reasonable good-faith efforts to have at least 51% of the total employee work hours be for Boston residents, at least 40% of total employee work hours be for minorities and at least 12% of the total employee work hours be for women. The Proponent will enter into jobs agreements with the City of Boston.

To reduce vehicle trips to and from the construction site, minimal construction worker parking will be available at the site and all workers will be strongly encouraged to use public transportation and ridesharing options. The general contractor will work aggressively to ensure that construction workers are well informed of the public transportation options serving the area. Space on-site will be made available for workers' supplies and tools so they do not have to be brought to the site each day.

3.7.7 Construction Truck Routes and Deliveries

Truck traffic will vary throughout the construction period depending on the activity. The construction team will manage deliveries to the site during morning and afternoon peak hours in a manner that minimizes disruption to traffic flow on adjacent streets and in residential neighborhoods. Construction truck routes to and from the site for contractor personnel, supplies, materials, and removal of excavations required for the development will be coordinated with the BTM. Traffic logistics and routing will be planned to minimize community impacts. Truck access during construction will be determined by the BTM as part of the CMP. These routes, which will designate specific roads where trucks are permitted and will provide access routes to and from major arteries, will be mandated as a part of all subcontractors' contracts for the development. The construction team will provide subcontractors and vendors with Construction Vehicle & Delivery Truck Route Brochures in advance of construction activity.

“No Idling” signs will be included at the loading, delivery, pick-up and drop-off areas.

3.7.8 Construction Air Quality

Plans for controlling fugitive dust during demolition, excavation and construction include mechanical street sweeping, wetting portions of the site during periods of high wind, and careful removal of debris by covered trucks. Short-term air quality impacts from fugitive dust may occur during demolition, excavation and the early phases of construction. The construction contract will provide for a number of strictly enforced measures to be used by contractors to reduce potential emissions and minimize impacts. These measures are expected to include:

- ◆ Using wetting agents on areas of exposed soil on a scheduled basis;
- ◆ Using covered trucks;
- ◆ Minimizing spoils on the construction site;
- ◆ Monitoring of actual construction practices to ensure that unnecessary transfers and mechanical disturbances of loose materials are minimized;
- ◆ Minimizing storage of debris on the site; and
- ◆ Periodic street and sidewalk cleaning with water to minimize dust accumulations.

3.7.9 Construction Noise

The Proponent is committed to mitigating noise impacts from the construction of the Project. Increased community sound levels, however, are an inherent consequence of construction activities. Every reasonable effort will be made to minimize the noise impact of construction activities.

Mitigation measures are expected to include:

- ◆ Instituting a proactive program to ensure compliance with the City of Boston noise limitation policy;
- ◆ Using appropriate mufflers on all equipment and ongoing maintenance of intake and exhaust mufflers;
- ◆ Muffling enclosures on continuously running equipment, such as air compressors and welding generators;
- ◆ Replacing specific construction operations and techniques by less noisy ones where feasible;
- ◆ Selecting the quietest of alternative items of equipment where feasible;

- ◆ Scheduling equipment operations to keep average noise levels low, to synchronize the noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels;
- ◆ Turning off idling equipment;
- ◆ Utilize saw-cutting methods in lieu of jack hammering where feasible; and
- ◆ Locating noisy equipment at locations that protect sensitive locations by shielding or distance.

3.7.10 Construction Waste

The Proponent will take an active role with regard to the reprocessing and recycling of construction waste. The disposal contract will include specific requirements that will ensure that construction procedures allow for the necessary segregation, reprocessing, reuse and recycling of materials when possible. For those materials that cannot be recycled, solid waste will be transported in covered trucks to an approved solid waste facility, per MassDEP Regulations for Solid Waste Facilities, 310 CMR 16.00. This requirement will be specified in the disposal contract.

3.7.11 Erosion and Groundwater

Erosion and sediment control measures will be implemented during construction to minimize the transport of site soils to off-site areas and Sprague Pond. The Project's civil engineer. The general contractor, in conjunction with the civil engineer and site contractor, will develop a Stormwater Pollution Prevention Plan (SWPPP) in accordance with NPDES Construction General Permit requirements. During construction, existing storm drain inlets and Sprague Pond will be protected with filter fabric, straw bales and/or crushed stone, to provide for sediment removal from runoff. These controls will be inspected and maintained throughout the construction phase until the areas of disturbance have been stabilized through the placement of pavement, structure, or vegetative cover.

The Project is expected to require only minor excavation for elevator pits. Any groundwater removal is anticipated to be recharged locally.

3.7.12 Protection of Utilities

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 MWRA, BWSC, Boston Public Works, Dig Safe, and the governing utility company requirements. All necessary permits will be obtained before the commencement of the specific utility installation. Specific methods for constructing proposed utilities where they are near to, or connect with, existing water, sewer and drain facilities will be reviewed by BWSC as part of its site plan review process.

3.8 Rodent Control

A rodent extermination certificate will be filed with the building permit application for the Project. Rodent inspection monitoring and treatment will be carried out before, during, and at the completion of all construction work for each phase of the Project, in compliance with the City's requirements.

Chapter 4.0

Sustainability Design and Climate Change Resilience

4.0 SUSTAINABLE DESIGN AND CLIMATE CHANGE RESILIENCE

4.1 Green Building

The Proponent is dedicated to constructing a sustainable Project, and has been designing the building and site with not only the environment in mind, but also occupant comfort, health, and well-being. While the primary objective of the Project is to remain in a price range that makes it affordable to the middle class, the Proponent is also committed to minimizing the environmental “footprint” of the Project. To that end, the Proponent intends, as it works through the design development process, to engage its architect, sustainability consultant, and mechanical, electrical and plumbing engineers to explore all possible systems and technologies to determine where it will be possible to employ cutting-edge, cost-effective technologies that will reduce the Project’s impact on the environment. Preliminary energy models for the four buildings have been completed, and are included in Appendix B.

As required under Article 37 of the Boston Zoning Code, projects that are subject to Article 80B, Large Project Review, shall be Leadership in Energy and Environmental Design (LEED) certifiable. The Project will use the LEED Multifamily Mid-Rise rating system to show compliance with Article 37. The Project team chose to follow the LEED Multifamily Mid-Rise because of the high ratio of residential space on the Project, as well as the additional requirements of on-site verification visits by a third-party Green Rater, ensuring a high level of quality management throughout the design and construction process.

The Project team is dedicated to a sustainable structure and the Project has been designing the building and site to focus on occupant comfort, health, and well-being, in addition to concern for the greater environment. A preliminary overview of credits under LEED v4 Multifamily Mid-Rise rating system yields a credit total of 67, which would achieve Gold. All credits will continue to be evaluated as the Project moves forward and whether or not to pursue each point will be decided through the design process. The Project team will continue to evaluate the potential to meet Gold, or even Platinum level, within the confines of the Project’s goals and economic feasibility.

The LEED for Homes program requires multiple rounds of on-site verification and testing during the construction process. Along with a project team’s own internal quality management plan, the Green Rater’s on-site presence allows for potential problems to be addressed immediately, and decreases the risk of losing credits pursued by the Project team. The on-site verification for the Project include slab inspection, predrywall inspection (for insulation, air sealing, etc.), and final inspections which include unit blower door, duct testing and ventilation air flow tests.

The following is a discussion of the Project team’s approach to each credit category.

Integrative Process (IP)

The Project has an integrated Project team is anticipated to complete Trades Training or carry out a Design Charrette to encourage more discussion on LEED and green features for the Project.

Location and Transit (LT)

The Project site is not within the FEMA 100 year floodplain, automatically meeting the Floodplain avoidance prerequisite. The Project automatically achieves a perfect eight points in site selection, by being a previously developed, infill lot with open space nearby. Also considering the adjacent suitable bicycle network, the team plans to install the required bike racks for residents and visitors. Proximity to multiple transit lines yields two points in LT and an additional point in the Regional Priority section, for enabling occupants to choose the more environmentally friendly, existing public transportation options. Including approximately 492 units on approximately 6.62 acres will exceed the highest threshold for three points in Compact Development. Within a 0.5 mile walking distance, 16 community resources with diverse uses are present.

Sustainable Sites (SS)

The City of Boston's Environment Department Guidelines for Construction cover the requirements for the erosion controls during construction prerequisite. The extensive landscaping on the garage roof is considered a vegetative podium which in combination with a high albedo TPO roof will reduce the heat island effect over 50-80% of the lot. The vegetated podium will also act as permeable landscape for the Project, contributing to the management of runoff from the Project site. Attention will be made to use non-toxic pest control measures. All of the plants installed will be selected to prevent the introduction of any invasive species into the local ecosystem.

Water Efficiency (WE)

The landscaping for the lot will be a mix of turf and plants which will be predominantly drought tolerant, native or adapted to the area. As referenced by the SS prerequisite, no invasive species will be selected or installed. Low flow fixtures are planned for lavatory faucets, showerheads, and toilets in the living spaces as well as common spaces.

Energy and Atmosphere (EA)

The prerequisite for energy performance in LEED v4 Multifamily Mid-Rise is to achieve 5% energy cost savings compared to ASHRAE 90.1-2010. This requirement will be met because the current Massachusetts Energy Code directs compliance with ASHRAE 90.1-2013, which for this type of building is an equivalent to the LEED v4 standard.

Preliminary energy models are included in Appendix B. It is the intention of the team to continue evaluating additional energy saving measures during the design phase, such as PV Solar to improve on the energy performance of the buildings.

Additionally, Multifamily Mid-Rise offers points to projects where the size of the dwellings is below the average size of dwellings in the US. Unit by unit electricity metering and an operations manual and training will be provided to the occupants and managers of the buildings, meeting those two prerequisites as well. The Project team will continue to evaluate measures related to higher than projected energy savings, domestic hot water distribution efficiency and pipe insulation, advanced utility tracking and reporting out to third parties.

Materials and Resources

The Project team will comply with the tropical wood prerequisite by avoiding the use of tropical wood altogether, and by utilizing the Energy Star Water Management Builder Checklist as part of a larger quality management program focused on durability and risk management. An on-site Green Rater is anticipated to be hired to verify the relevant items on the water management checklist.

LEED v4 Multifamily Mid-Rise has increased stringency dramatically in the areas of Environmentally Preferable products and construction waste management when compared to earlier versions of LEED. The Project plans to use local and preferable products, and will pursue a point for construction waste management.

Indoor Environmental Quality (EQ)

The Project team intends to use a central HRV to exhaust bathrooms at 20 cubic feet per minute and kitchens at five air changes per hour, both continuously. This will enable one device to meet the ventilation prerequisites for the EQ category, covering local pollution removal and outside air introduction. The method for delivering outside air directly to the unit is still being determined. Ventilating the bathrooms continuously qualifies as Enhanced Local Exhaust, minimizing the risk posed by moisture build up in those rooms. Local outdoor air quality is sufficient that the team is not required to take additional measures to clean PM2.5 and ozone from the outside air supply, but will pass the incoming air stream through a minimum MERV 6 filter prior to introduction to the space. Smoking will be prohibited inside the building, including units and common areas as well as around the building. For the small parts of the building where conditioned space is directly above the foundation, a passive radon system will be installed. An open air garage qualifies as a radon resistant construction strategy for the remainder of the building. Compartmentalization is a key feature of truly green multifamily construction and will be a particular focus for the Project team. Walk off mats at the entrances and low volatile organic compound paints, adhesives, sealants and insulation are all familiar green strategies that will be implemented by the Project.

Innovation and Regional Priority

Neither of these credit categories have prerequisites, and are special cases, considered over and above the 100 base points available in the remaining credit categories of LEED v4. Exemplary performance points are anticipated for both Compact Development and Site Selection, since the credit specific thresholds for an Exemplary Performance point are anticipated to be met. Another such point will be awarded if all the Integrative Process measures are included, two of which are currently under consideration.

Regional Priority credits are additional points awarded when any of six credits, identified by local greenbuilding stakeholders, are met at the threshold specified. For this specific location, Annual Energy use at 15 points, Access to Transit at 1 point, and Non-toxic Pest control at 2 points are all anticipated.

4.2 Renewable Energy

The Proponent intends to install a roof-mounted solar photovoltaic (PV) system, with the size of the system to be based on space available as well as the availability of grants and renewables funding. As discussed in the PNF, based on the amount of roof space presently intended to be occupied by mechanical equipment as well as the required space around and between the solar panels, it is anticipated that approximately 10,270 sf of rooftop space will be available for rooftop solar. Assuming 12 watts per square foot, this allows for a 123 kW array. Based on early energy modeling, this could offset approximately 40% of the Project's common area usage. The Proponent will continue to evaluate the incorporation of solar PV as the design progresses, and will evaluate potential incentives and installation options to determine if solar PV is feasible for the Project.

4.3 Climate Change Resilience

4.3.1 Introduction

Climate change conditions considered by the Project team include higher maximum and mean temperatures, more frequent and longer extreme heat events, more frequent and longer droughts, more severe freezing rain and heavy rainfall events, and increased wind gusts.

A copy of the completed Checklist is included in Appendix C. Given the preliminary level of design, the responses are also preliminary and may be updated as the Project design progresses.

4.3.2 Extreme Heat Events

The Intergovernmental Panel on Climate Change (IPCC) has predicted that in Massachusetts the number of days with temperatures greater than 90°F will increase from the current five-to-twenty days annually, to thirty-to-sixty days annually.¹ The Project design will incorporate a number of measures to minimize the impact of high temperature events, including:

- ◆ Installing operable windows where possible;
- ◆ Planting shade trees around the site;
- ◆ Installing a high performance building envelope; and
- ◆ Specifying high reflective paving materials, high albedo roof tops and green roofs to minimize the heat island effect.

The Proponent will strive to reduce the Project's overall energy demand and greenhouse gas emissions that contribute to global warming. The Proponent will encourage alternative modes of transportation through the Project's TDM program, as described in Section 2.7.1. The Proponent also intends to include solar photovoltaic, further reducing the Project's greenhouse gas emissions.

4.3.3 Rain Events

As a result of climate change, the Northeast is expected to experience more frequent and intense storms. To mitigate this, the Proponent will take measures to minimize stormwater runoff and protect the Project's mechanical equipment. The Project will be designed to reduce the existing peak rates and volumes of stormwater runoff from the site, and promote runoff recharge to the greatest extent practicable. The Project will significantly increase the pervious area on the site from the existing condition, from approximately 14% to approximately 20%, creating infiltration ability on the site. The Project will also include a closed drainage system, if possible, that will strive to infiltrate one-inch of stormwater runoff from the impervious areas on-site into the ground to the greatest extent practicable.

4.3.4 Drought Conditions

Although more intense rain storms are predicted, extended periods of drought are also predicted due to climate change. Under the high emissions scenario, the occurrence of droughts lasting one to three months could go up by as much as 75% over existing

¹ IPCC (Intergovernmental Panel on Climate Change), 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Avery, M. Tignor, and H. L. Miller (eds.)]. Cambridge University Press, Cambridge, UK, and New York, 996 pp.

conditions by the end of the century. To minimize the Project's susceptibility to drought conditions, the landscape design is anticipated to incorporate native and adaptive plant materials and a high efficiency irrigation system will be installed. Aeration fixtures and appliances will be chosen for water conservation qualities, conserving potable water supplies.

46 Sprague Street Scorecard

Note: The information on this tab is READ-ONLY. To edit this information, see the Credit Category tabs.



Integrative Process		Preliminary	Y	2 of 2	M	0	Verified	0
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IPc	Integrative Process			2 of 2		0		
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Location and Transportation		Preliminary	Y	15 of 15	M	0	Verified	2
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LTp	Floodplain Avoidance			Required				Not Verified
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Performance Path

LTc	LEED for Neighborhood Development			0 of 15		0		
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Prescriptive Path

LTc	Site Selection			8 of 8		0		
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LTc	Compact Development			3 of 3		0		
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LTc	Community Resources			2 of 2		0		
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LTc	Access to Transit			2 of 2		0		2
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Sustainable Sites		Preliminary	Y	3 of 7	M	3	Verified	0
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SSp	Construction Activity Pollution Prevention			Required				Not Verified
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SSp	No Invasive Plants			Required				Not Verified
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SSc	Heat Island Reduction			1 of 2		0		
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SSc	Rainwater Management			0 of 3		3		
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SSc	Nontoxic Pest Control			2 of 2		0		
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Water Efficiency		Preliminary	Y	5 of 12	M	2	Verified	0
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WEp	Water Metering			Required				Not Verified
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Performance Path

WEc	Total Water Use			5 of 12		2		
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Prescriptive Path

WEc	Indoor Water Use			2 of 6		4		
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WEc	Outdoor Water Use			0 of 4		1		
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Energy and Atmosphere		Preliminary	Y	23.5 of 37	M	8	Verified	0
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EAp	Minimum Energy Performance			Required				Not Verified
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EAp	Energy Metering			Required				Not Verified
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EAp	Education of the Homeowner, Tenant or Building Manager			Required				Not Verified
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EAc	Annual Energy Use			23.5 of 30		1		
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EAc	Efficient Hot Water Distribution System			0 of 5		5		
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EAc	Advanced Utility Tracking			0 of 2		2		
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Materials and Resources		Preliminary	Y	3.5 of 9	M	4.5	Verified	0
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MRp	Certified Tropical Wood			Required				Not Verified
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MRp	Durability Management			Required				Not Verified
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MRC	Durability Management Verification			1 of 1		0		
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MRC	Environmentally Preferable Products			1.5 of 5		3.5		
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MRC	Construction Waste Management			1 of 3		1		
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Indoor Environmental Quality		Preliminary	Y	9 of 18	M	1	Verified	0
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EQp	Ventilation			Required				Not Verified
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EQp	Combustion Venting			Required				Not Verified
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EQp	Garage Pollutant Protection	Required		Not Verified
EQp	Radon-Resistant Construction	Required		Not Verified
EQp	Air Filtering	Required		Not Verified
EQp	Environmental Tobacco Smoke	Required		Not Verified
EQp	Compartmentalization	Required		Not Verified
EQc	Enhanced Ventilation	1 of 3	0	
EQc	Contaminant Control	1 of 2	0	
EQc	Balancing of Heating and Cooling Distribution Systems	2 of 3	1	
EQc	Enhanced Compartmentalization	0 of 3	0	
EQc	Combustion Venting	2 of 2	0	
EQc	Enhanced Garage Pollutant Protection	0 of 1	0	
EQc	Low-Emitting Products	2 of 3	0	
EQc	No Environmental Tobacco Smoke	1 of 1	0	



Innovation		Preliminary	Y 3 of 6	M 2	Verified 0
INp	Preliminary Rating	Required			Not Verified
INc	Innovation		3 of 5	1	
INc	LEED Accredited Professional		0 of 1	1	



Regional Priority		Preliminary	Y 3 of 4	M 1	Verified 0
RPc	Regional Priority		3 of 4	1	

Point Floors

The project earned at least 8 points total in Location and Transportation and Energy and Atmosphere

The project earned at least 3 points in Water Efficiency

The project earned at least 3 points in Indoor Environmental Quality

Total	Preliminary	Y 67 of 110	M 21.5	Verified 2
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Certification Thresholds Certified: 40-49, Silver: 50-59, Gold: 60-79, Platinum: 80-110

Chapter 5.0

Urban Design

5.0 URBAN DESIGN

5.1 *Site Context*

The Project site is a semi-industrial site which currently consists of a mix of storage, warehouse, construction and maintenance yard related uses. The site is bounded by MBTA Commuter Rail lines to the north and east. To the west of the site is an industrial park and industrial storage park, with another rail line beyond that. To the south of the site is a Brinks storage facility and Sprague Pond. The numerous rail lines surrounding the site create a separation between the Project site and the residential neighborhoods to the north and east.

5.2 *Site Design*

The design of the Project site has been influenced by two existing conditions: 1) the need to maintain Horne Street and the access it provides to the Brinks property, and 2) the grade differential between Sprague Street and the buildable ground floor level of the site which varies from 14 feet at the entry to Horne Street to 42 feet at the northern entry to the property (adjacent to the Sprague Street Bridge).

Horne Street is necessary to provide access to the Project site as well as to the Brinks property, which is between the Project site and the train tracks to the east. However, in response to comments about better integrating the Project's restaurant into the local streetscape, Building 1 has been modified to place the restaurant closer to Horne Street and Sprague Street without impacting the width of Horne Street.

At the mid-point of the site between Buildings 1 and 2, the grade differential from Sprague Street to the existing grade of the site ranges from 28-30 feet due to the steep rise of Sprague Street. The Project design takes advantage of this grade change by including a podium across the site which absorbs approximately 18 feet of the grade differential between the northern and southern portions of the site. The significant advantages of this podium include allowing the majority of the Project's parking to be placed under cover, creation of a significant new continuous open space connecting the northern and southern portions of the site without a roadway in between, while also continuing to allow access to the Brinks property and parking on the eastern side of the Project site. In addition, the significant new landscaping on the podium will minimize the site's heat impact, while providing for stormwater collection.

The podium also allows for a campus-like layout of the Project site which is able to prioritize the pedestrian experience (see Figure 5-1). A continuous network of walkways throughout the site will be achieved through thoughtful design and building orientation.

Two primary access points will be established to connect the entirety of the site to the Sprague Street frontage. (A third access point was studied between Buildings 1 and 2, but the 12-foot grade differential at that location between Sprague Street and the courtyard level, combined with the need to cross over Horne Street, precludes an effective accessible “bridge” from Sprague Street to the courtyard at this location).

The primary pedestrian access point will be located on the northwestern edge of the site adjacent to the Sprague Street. This entryway has been designed to be the main pedestrian entrance as it will provide the closest walk for most residents to Readville Station. This pedestrian entrance will allow most individuals to access the site while minimizing pedestrian and vehicular conflicts on Horne Street.

The most notable changes in the Project design since the PNF relate to Building 2, the building at this pedestrian access point. Several changes have been made in this area. First, Building 2 has been set back an additional 20 feet from the sidewalk. The space between the building and street will include significant new landscaping and trees and wider sidewalks, creating a greener and more comfortable pedestrian experience for people walking along Sprague Street. This setback will also help ensure that the Project’s Sprague Street frontage does not create a “canyon effect” in conjunction with the solid walls of the Boston Dedham Commerce Park across the street, which are located up against Sprague Street and close in the street heavily on that side. This setback addresses two concerns raised by community members in public meetings: first, about adding more green along Sprague Street and not just in the courtyard, and second, about reducing the “canyon effect.” In addition, the height of Building 2 has been reduced by two stories, approximately 22 feet, which further minimizes the Project’s visual impacts from Sprague Street. Finally, the pedestrian walkway from Sprague Street to the site has been expanded.

The result of all of these changes is a much stronger integration of the Project and Sprague Street. As Figure 5-2 depicts, the reduced building height, greater setback and expanded entryway improves the visual connection between the street, sidewalk, and interior courtyard spaces of the Project. The Building 2 entry and lobby have been made more prominent, so as to give the building a “front door” off of Sprague Street that acts as a front door for the entire apartment portion of the Project (Buildings 2, 3 and 4). Additionally, this lobby will continue to provide ADA access to the entire plaza level of the Project. See Appendix D for the Accessibility Checklist and related graphics showing site circulation.

The vehicular access point and secondary pedestrian access point from Sprague Street is located at the southwestern edge of the site. This prominent access point will include a new sidewalk which curves along Sprague and Horne streets, creating an attractive shaded and vegetated entrance to both the Project site and the Brinks property. This entry will act as the southern gateway to the Project site from Sprague Street, highlighted by the restaurant space and the lobby to the condominium portion of the Project (Building 1), as well as views toward the pondside park. Just south of this entrance is the parking lot for the pondside park and for the restaurant (see Figure 1-5 for Vehicular and Bicycle Circulation).

The open space created by the podium will allow for internal courtyards for each building which will connect to a central green that will run the length of the site, a green that was created using as inspiration the main lawns of several iconic college campuses (see Figure 5-1). Oriented on a north-south axis, and anchored at the north by the Project's shared workspace pavilion and on the south by Sprague Pond, the main lawn will provide residents a variety of sunny, both active and passive spaces that will allow for an enhanced quality of life and feeling of community. At the main lawn's southern edge is the largest of the Project's several community lounges, this one attached to the Project's restaurant so that it can be used for both resident and greater Readville community functions with the ability to have food service provided by the restaurant. At its northern edge is the plaza, the landscaped Town Square surrounded by the Project's amenity spaces, and directly attached to the site's main pedestrian entrance and walkway to Readville Station.

This plaza size and scale has been increased since the PNF by the redesign of Building 4, which has been changed from a "U" shape to an "L" shape. Along Sprague Pond will be a new park area that will be open to the greater community, connecting new Project residents with current area residents. Everything about the site's urban design is about creation of community and bringing people together.

The site design will not only improve neighborhood aesthetics and invite pedestrian activity, but will also reduce urban heat island effect by providing extensive landscaping and green open spaces. See figures 5-3 through 5-7 for renderings of the proposed Project. The Project avoids any direct impacts to Sprague Pond and the robust, open space will improve stormwater management relative to existing conditions. Figures 5-8 through 5-10 include an axonometric and elevations of the Project.



36-70 Sprague Street Readville, Massachusetts



Figure 5-1
Site Plan



36-70 Sprague Street Readville, Massachusetts



Figure 5-2
Perspective at North Entry



36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts



Figure 5-5
Perspective of Building 1 from Sprague Pond



36-70 Sprague Street Readville, Massachusetts



Figure 5-6
Perspective from Sprague Street Facing North



36-70 Sprague Street Readville, Massachusetts



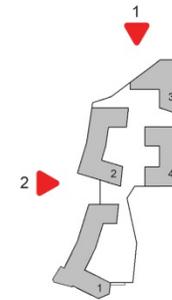
Figure 5-7
Perspective from Sprague Street Facing South



36-70 Sprague Street Readville, Massachusetts



1. North Elevation from Franklin Line



2. West Elevation from Sprague Street



36-70 Sprague Street Readville, Massachusetts

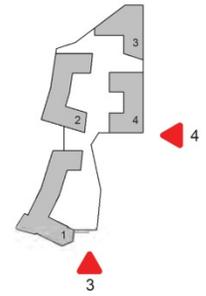


Figure 5-9

Elevations – North and West



3. South Elevation from Sprague Pond



4. East Elevation from Train Tracks



36-70 Sprague Street Readville, Massachusetts

Chapter 6.0

Infrastructure

6.0 INFRASTRUCTURE

6.1 Introduction

The Infrastructure Systems Component outlines the existing utilities surrounding the Project site, the connections required to provide service to the Project, and any impacts on the existing utility systems that may result from the construction of the Project. The following utility systems are discussed herein:

- ◆ Sewer
- ◆ Domestic water
- ◆ Fire protection
- ◆ Drainage
- ◆ Natural Gas
- ◆ Electricity
- ◆ Telecommunications

The Project includes the demolition of five existing buildings located on the site and the construction of four residential buildings. The Project site is bounded by Sprague Street to the west, the MBTA Franklin Line to the north; the MBTA Providence/ Stoughton Line to the east; and Sprague Pond, a residential property and the Brinks site to the south.

6.2 Wastewater

6.2.1 Existing Wastewater

The Boston Water and Sewer Commission (BWSC) owns and maintains the sewer system that services the City of Boston. The BWSC sewer system connects to the Massachusetts Water Resources Authority (MWRA) interceptors for conveyance, treatment, and disposal through the MWRA Deer Island Wastewater Treatment Plant.

Existing BWSC sanitary sewer mains are located in Sprague Street adjacent to the Project site and through the southern end of the Project site.

Sprague Street

There is a 10-inch BWSC sanitary sewer main which flows in a southwesterly direction in Sprague Street which combines with another 10-inch BWSC sanitary sewer main which flows in a northeasterly direction in Sprague Street. The two 10-inch BWSC sanitary sewer mains connect to a 10-inch sanitary sewer main which flows through the Project site. The BWSC sanitary sewer main ultimately discharges to the MWRA Deer Island Waste Water Treatment Plant for treatment and disposal.

On Site

There is a 10-inch BWSC sanitary sewer main flowing in a southeasterly direction through the site just north of Sprague Pond. At the southeast corner of the site, the 10-inch BWSC sanitary sewer main increases to a 15-inch BWSC sanitary sewer main. The BWSC sanitary sewer main ultimately discharges to the MWRA Deer Island Waste Water Treatment Plant for treatment and disposal. The existing sewer system is illustrated in Figure 6-1.

6.2.2 Wastewater Generation

The Project’s sewage generation rates were estimated using 310 CMR 15.00 in gallons per day (GPD) and the proposed building program. 310 CMR 15.203 lists typical sewage generation values for the proposed building use, as shown in Table 6-1. Typical generation values are conservative values for estimating the sewage flows from new construction. The Proposed site is comprised of four residential buildings. One of the buildings will house a restaurant space on the first floor. The areas between apartment buildings will be landscaped areas. The existing site is comprised of five commercial buildings and accompanying parking. The Project’s reduction of approximately 102 bedrooms will result in a decrease in the anticipated wastewater generation from approximately 93,437 gallons per day (gpd) to approximately 82,217 gpd – a reduction of approximately 11,220 gpd.

Table 6-1 Existing and Proposed Wastewater Generation

<i>Existing Conditions</i>						
Building	SF	Type	Notes	Unit	GPD	Total GPD
36 Sprague Street	14,169	Office	-	per 1000 sf	75	1,063
40 Sprague Street	13,450	Office	-	per 1000 sf	75	1,009
46 Sprague Street	20,178	Office	-	per 1000 sf	75	1,513
50 Sprague Street	14,748	Office	-	per 1000 sf	75	1,106
60 Sprague Street	5,675	Office	-	per 1000 sf	75	426
					TOTAL	5,117
<i>Proposed Conditions</i>						
Room Use	Number	Type	Notes	Unit	GPD	Total GPD
Condo/Apartment (1-bedroom/studio)	322	Unit	322 bedrooms	per bedroom	110	35,420
Condo/Apartment (2-bedroom)	153	Unit	306 bedrooms	per bedroom	110	33,660
Condo/Apartment (3-bedroom)	17	Unit	51 bedrooms	per bedroom	110	5,610
Daycare	49	Daycare	-	people	10	490
Coffeehouse	48	Fast Food Restaurant	-	seats	20	960
Workshare Office	4,730	Office	-	sf	75/1000 sf	355
Building Management Office	1,000	Office	-	sf	75/1000 sf	75

Table 6-1 Existing and Proposed Wastewater Generation (Continued)

Room Use	Number	<i>Proposed Conditions</i>		Unit	GPD	Total GPD
		Type	Notes			
Community Room	1,310	Office	-	sf	75/1000 sf	98
Retail	5,980	Retail	-	sf	50/1000 sf	299
Restaurant	150	Restaurant	-	seats	35	5,250
					TOTAL	82,217
NET INCREASE						77,100

6.2.3 Proposed Connections

The Proponent will coordinate with the BWSC on the design and capacity of the proposed connections to the sanitary sewer system. The Project is expected to generate an increase in wastewater flows of approximately 77,100 gpd for a total of 82,217 – a decrease of approximately 11,220 gpd when compared to the previous project. Approval for the increase in sanitary flow will come from BWSC. New sewer services for the Project will connect to the BWSC existing sanitary sewer main running through the site.

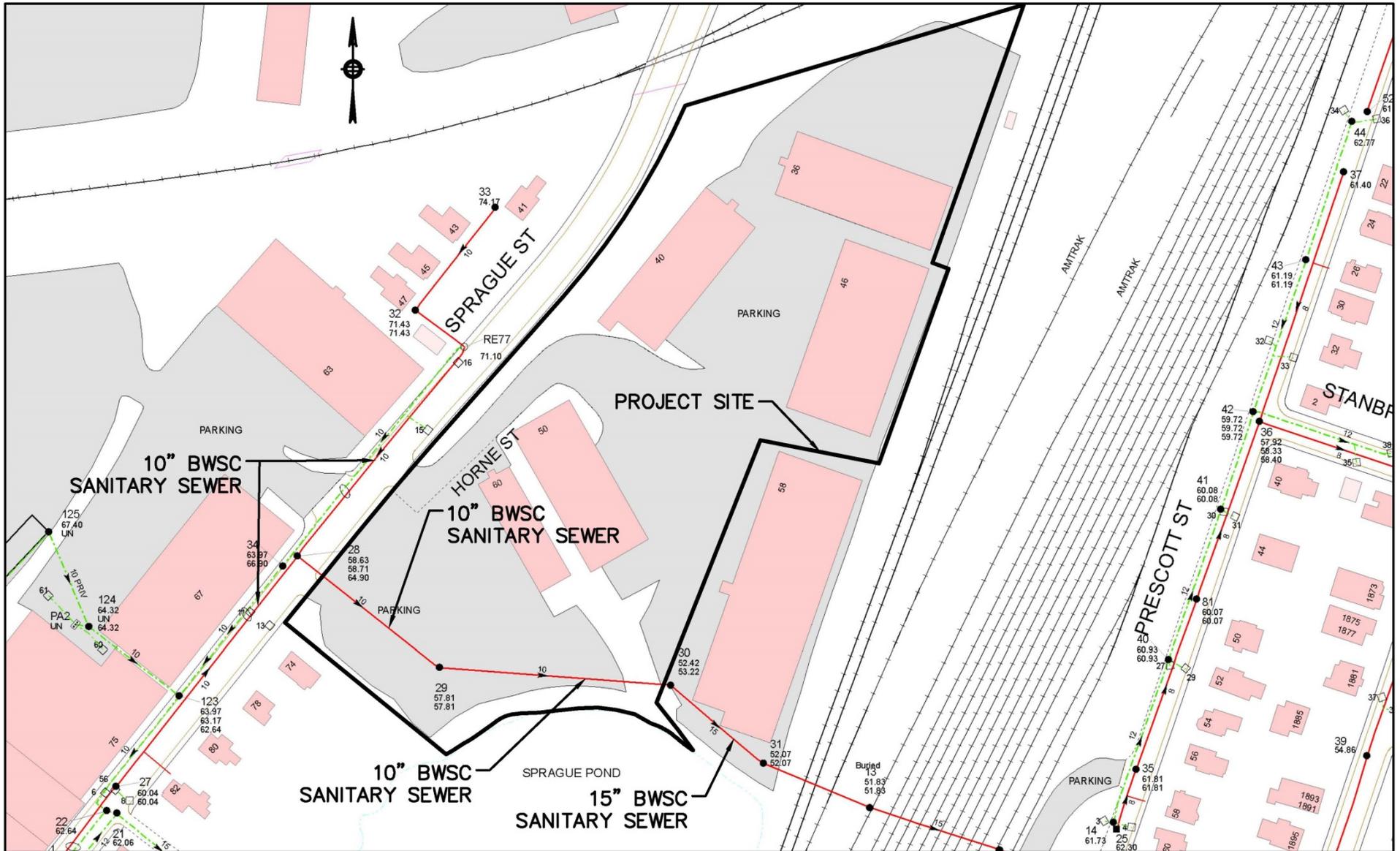
The Project will require new sanitary sewer connections to the BWSC sewer system. Improvements to and connections to BWSC infrastructure will be reviewed as part of the BWSC’s Site Plan Review process for the Project. This process will include a comprehensive design review of the proposed service connections, an assessment of Project demands and system capacity, and the establishment of service accounts. Coordination with BWSC will include review and approval of the design, capacity, connections, and flow increases resulting from the proposed discharges to the sanitary sewer system.

6.2.4 BWSC Sewage Capacity and Impacts

The BWSC sanitary sewer system that the Project will connect to on-site, and potential building service connections to the sewer system were analyzed. It is anticipated that multiple sewer services will be required for the Project with the full flow of the Project flowing in the downstream end of the 10-inch BWSC sanitary sewer main.

Table 6-2 indicates the hydraulic capacity of the existing 10-inch sewer main on-site. The minimum hydraulic capacity of this 10-inch sewer main on-site is 1.9 million gallons per day (MGD) or 2.93 cubic feet per second (CFS).

Based on an average daily flow estimate for the Project of 82,217 gpd or 0.082 MGD, an increase of 77,100 gpd or 0.077 MGD from the existing buildings, and with a factor of safety estimate of 10 (total estimate = 0.077 MGD x 10 = 0.77 MGD), sewer capacity issues are not anticipated due to the Project.



36-70 Sprague Street Readville, Massachusetts

Table 6-2 Sewer Hydraulic Capacity Analysis – On-Site

Manhole (BWSC Number)	Distance (feet)	Invert Elevation (up)	Invert Elevation (down)	Slope (%)	Diameter (inches)	Manning's Number	Flow Capacity (cfs)	Flow Capacity (MGD)
29 to 30	256	57.81	53.22	1.8%	10	0.013	2.93	1.90
30 to 31	135	52.42	52.07	0.3%	15	0.013	3.28	2.12
Minimum Flow Analyzed:							2.93	1.90

- Notes:
1. Manhole numbers taken from BWSC As-Built, Sewer System Map no. 2E
 2. Flow Calculations based on Manning Equation
 3. Invert Data from BWSC As-Built

6.3 Water Supply

6.3.1 Existing Water Infrastructure

Water for the Project site will be provided by the BWSC, which is supplied by the MWRA system. There are five water systems within the City which provide service to portions of the City based on ground surface elevation. The five systems are southern low (commonly known as low service), southern high (commonly known as high service), southern extra high, northern low, and northern high. Water mains are labeled by their system, pipe size, year installed, pipe material, and year cement lined (CL), if applicable.

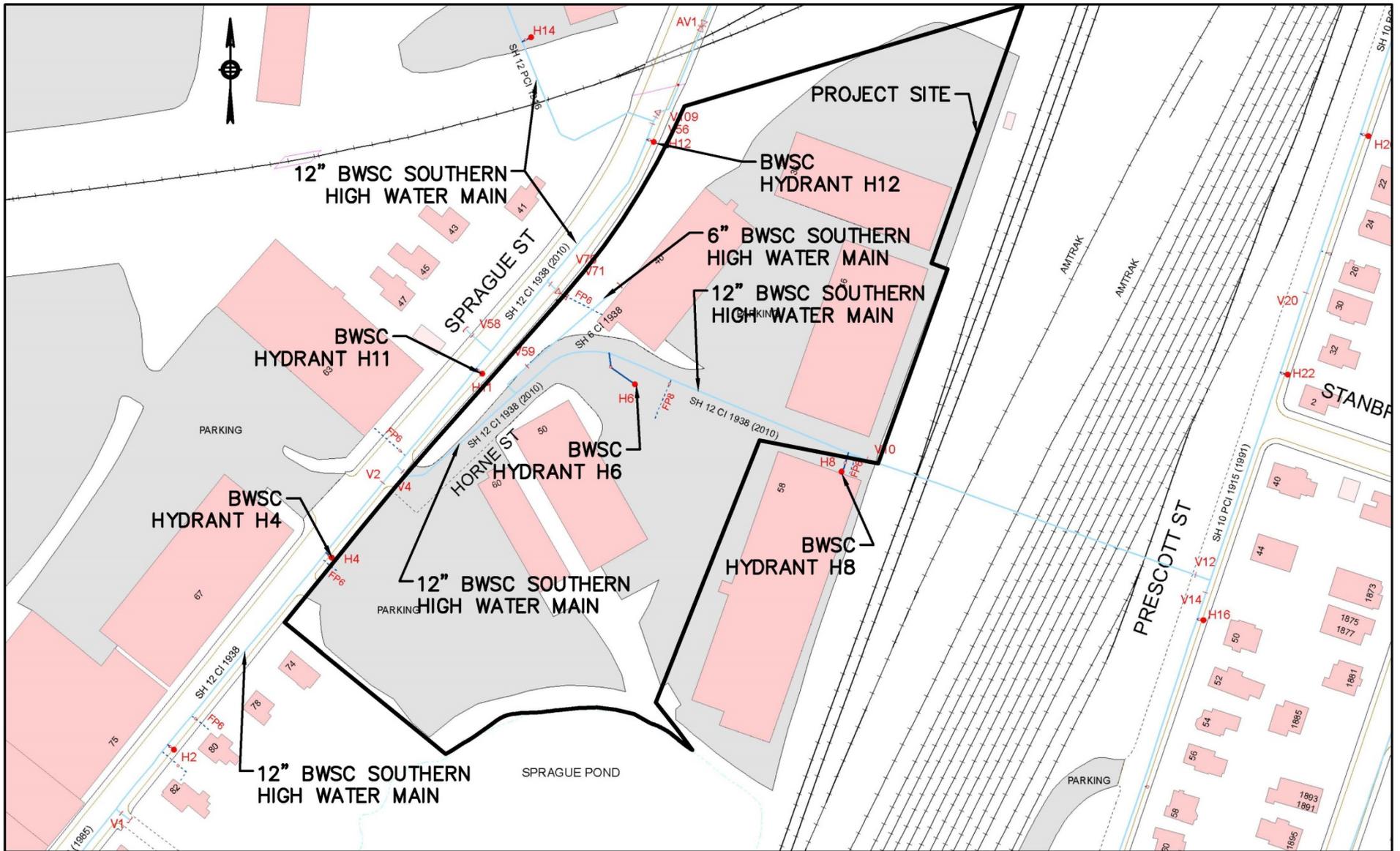
There are existing BWSC water mains located in Sprague Street and on-site.

There is a 12-inch southern high main in Sprague Street. There is a 12-inch southern high main which runs through the middle of the site and connects from the 12-inch Sprague Street main to a 10-inch southern high main on the eastern side of the train tracks in Prescott Street. There are hydrant laterals and a stubbed 6-inch southern high main connected to the 12-inch southern high main running through the site.

The existing water system is illustrated in Figure 6-2.

6.3.2 Anticipated Water Consumption

The Project's water demand estimate for domestic service is based on the Project's estimated sewage generation as described above. A conservative factor of 1.1 (10%) is applied to the estimated average daily wastewater flows calculated with 310 CMR 15.00 values to account for consumption, system losses and other usages to estimate an average daily water demand. The Project's estimated domestic water demand is 90,439 gpd, a decrease of approximately 12,386 gpd compared to the previous project. The water for the Project will be supplied by the BWSC systems in Sprague Street and/or on-site.



36-70 Sprague Street Readville, Massachusetts

6.3.3 Existing Water Capacity and Impacts

BWSC record flow test data containing actual flow and pressure for hydrants within the vicinity of the Project site was requested by the Proponent. Hydrant flow data was available for hydrants within the vicinity of the Project site. The existing hydrant flow data is shown in Table 6-3.

Table 6-3 Existing Hydrant Flow Data

Flow Hydrant Number	Date of Test	Static Pressure (psi)	Residual Pressure (psi)	Total Flow (gpm)
H4 (Sprague St)	5/18/2011	82	70	2,242
H42 (West Milton St)	6/22/2016	82	76	1736

Note: Data provided by BWSC on July 6, 2016.

6.3.4 Proposed Water Connections

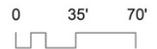
The domestic and fire protection water services for the Project will connect to the existing BWSC water mains in Sprague Street and/or on-site. The Project's impacts to the existing water system will be reviewed as part of the BWSC's Site Plan Review process.

The domestic and fire protection water service connections required for the Project will meet the applicable City and State codes and standards, including cross-connection backflow prevention. Compliance with the standards for the domestic water system service connections will be reviewed as part of BWSC's Site Plan Review process. This review will include sizing of domestic water and fire protection services, calculation of meter sizing, backflow prevention design, and location of hydrants and siamese connections that conform to BWSC and Boston Fire Department requirements.

Efforts to reduce water consumption will be made. Aeration fixtures and appliances will be chosen for water conservation qualities. In public areas, sensor-operated faucets and toilets will be installed.

New water services will be installed in accordance with the latest local, state, and federal codes and standards. Backflow preventers will be installed at both domestic and fire protection service connections. New meters will be installed with Meter Transmitter Units (MTU's) as part of the BWSC's Automatic Meter Reading (AMR) system.

Fire department connections are shown on Figure 6-3.



36-70 Sprague Street Readville, Massachusetts



Figure 6-3

Fire Department Connections and Emergency Vehicle Circulation

6.4 Stormwater Management

6.4.1 *Existing Conditions*

There is an existing 10-inch BWSC storm drain main in Sprague Street which flows in a southwesterly direction. The majority of Sprague Street abutting the Project site is at an elevation significantly higher than the Project site.

Stormwater in Sprague Street is captured by existing BWSC catch basins, which flow to the existing BWSC storm drain main in Sprague Street. The existing BWSC storm drainage system is shown in Figure 6-4.

There is an existing closed drainage system on the Project site. The northern portion of the Project site currently drains to a closed drainage system of catch basins and manholes. It is unclear where or if this closed drainage system connects to the BWSC storm drainage system. The southern portion of the Project site slopes in a southeast direction to Sprague Pond. Stormwater from the southern portion of the site likely sheet flows to Sprague Pond or is diverted to Sprague Pond through existing structures. Sprague Pond belongs to the Boston Harbor watershed. Approximately 31,000 sf of the site is located within the 100-foot buffer of Sprague Pond. Approximately 24,000 sf of existing site improvements and use are located within the 100-foot wetland buffer, including a storage area on a gravel surface and a bituminous concrete driveway.

The majority of the existing site is impervious (approximately 86%), allowing for minimal infiltration of stormwater onsite. There is no known treatment of onsite stormwater.

6.4.2 *Proposed Conditions*

The proposed site will be comprised of four buildings with landscaped areas around the buildings and between the buildings on a roof deck and a wooded area along Sprague Street. The Project will improve already disturbed areas within the site and the 100-foot wetland buffer. The Project will include a closed stormwater management system designed to meet the MassDEP Stormwater Management Policy and BWSC requirements to the greatest extent practicable. The Project will meet or reduce the existing peak rates of stormwater discharge and volumes of stormwater runoff from the site, and promote runoff recharge to the greatest extent possible. Landscaped areas above the parking complex will serve as semi-pervious areas and have been considered impervious areas to be conservative. The proposed site is approximately 80% impervious, which will reduce impervious area from the existing condition and allow for an increase in surface infiltration ability onsite.

Table 6-4 indicates the reduction in peak rates in cubic feet per second (cfs) and volumes in cubic feet (cf) of stormwater runoff from the site to Sprague Pond for the listed storm events and the proposed surface cover changes.

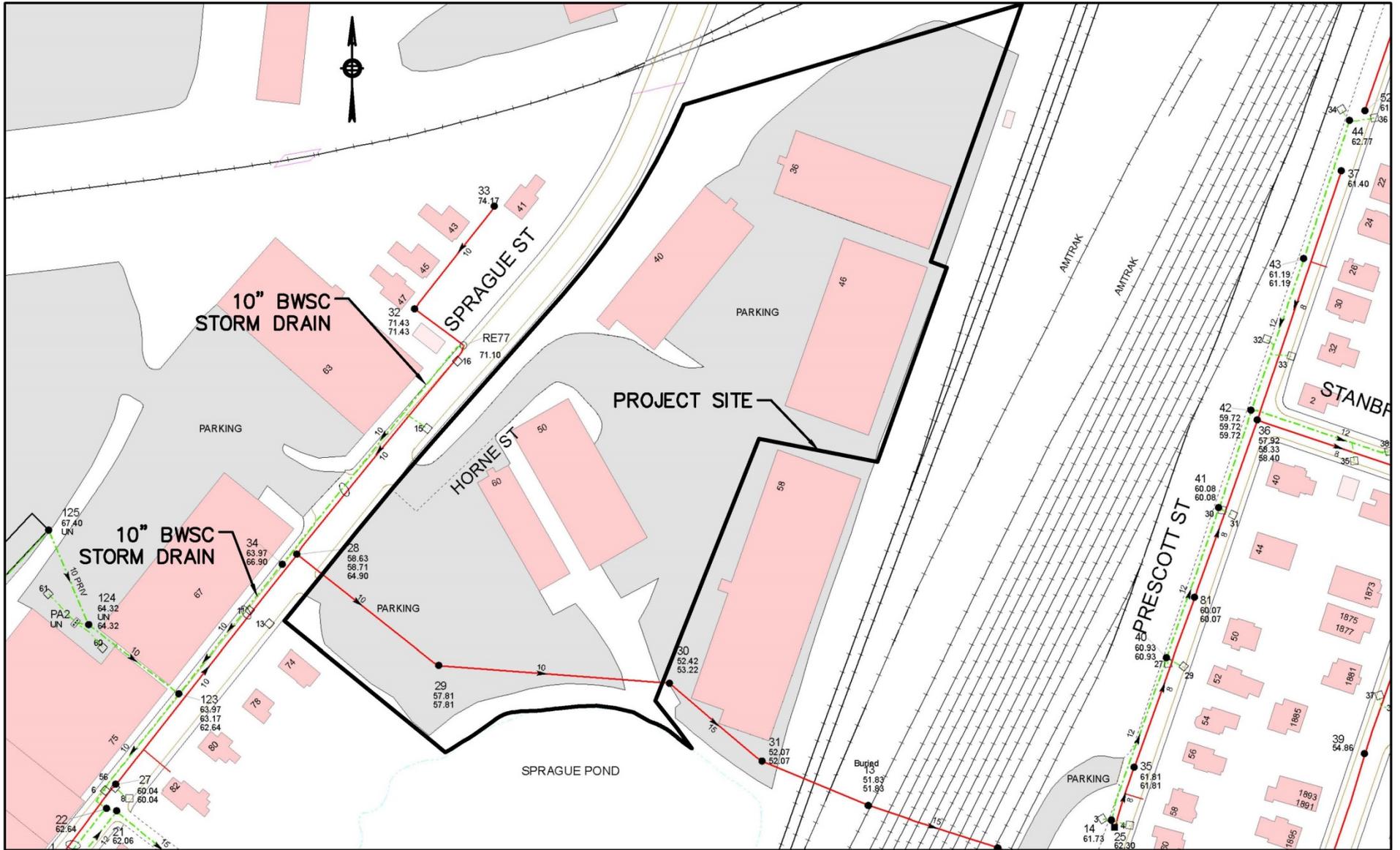


Table 6-4 Reduction in Stormwater Runoff Due to Surface Cover Changes

Storm Event	Peak Flow (cfs)		Volume (cf)	
	Existing	Proposed	Existing	Proposed
2-year	20.89	20.40	68,641	66,171
10-year	33.74	33.34	114,141	111,432
25-year	41.64	41.28	142,501	139,707
100-year	53.84	53.54	186,698	183,816

The Project will not connect to the BWSC drain main in Sprague Street due to the elevation difference and that the Project will strive to infiltrate one-inch of stormwater runoff from impervious areas into the ground to the greatest extent possible. Different approaches to stormwater recharge will be assessed. It is anticipated that the stormwater recharge systems will work to passively infiltrate runoff into the ground with a gravity recharge system. The underground recharge system, and any required site closed drainage systems, will be designed so that there will be no increase in the peak rate of stormwater discharge from the Project site in the developed condition compared to the existing condition.

Table 6-5 indicates the reduction in the peak rates and volumes of stormwater runoff from the site to Sprague Pond for the listed storm events and the proposed surface cover changes and a conceptual stormwater management system sized to collect the one-inch impervious area stormwater volume. Stormwater runoff calculations are conceptual and will be re-evaluated once the proposed site stormwater management system is further developed.

Table 6-5 Reduction in Stormwater Runoff with Conceptual Recharge System

Storm Event	Peak Flow (cfs)		Volume (cf)	
	Existing	Proposed	Existing	Proposed
2-year	20.89	17.59	68,641	40,729
10-year	33.74	30.44	114,141	84,592
25-year	41.64	38.06	142,501	112,314
100-year	53.84	49.99	186,698	155,820

Improvements to the site and stormwater discharges to Sprague Pond will be reviewed by the Boston Conservation Commission and as part of the BWSC's Site Plan Review process. The process will include a comprehensive design review of the proposed service connections and assessment of Project demands.

6.4.3 *Water Quality*

The Project will not affect the water quality of nearby water bodies. Sprague Pond is a surface water body within 50 feet of the site. The Proponent will coordinate with Boston Conservation Commission to ensure that the pond is not negatively impacted by the proposed design and construction activities.

Erosion and sediment control measures will be implemented during construction to minimize the transport of site soils to off-site areas and Sprague Pond. During construction, existing storm drain inlets and Sprague Pond will be protected with filter fabric, straw bales and/or crushed stone, to provide for sediment removal from runoff. These controls will be inspected and maintained throughout the construction phase until the areas of disturbance have been stabilized through the placement of pavement, structure, or vegetative cover.

Necessary dewatering will be conducted in accordance with applicable MWRA and BWSC discharge permits. Once construction is complete, the Project will be in compliance with local and state stormwater management policies, as described below.

6.4.4 *MassDEP Stormwater Management Policy Standards*

In March 1997, MassDEP adopted a Stormwater Management Policy to address non-point source pollution. In 1997, MassDEP published the Massachusetts Stormwater Handbook as guidance on the Stormwater Policy, which was revised in February 2008. The Policy prescribes specific stormwater management standards for development projects, including urban pollutant removal criteria for projects that may impact environmental resource areas. Compliance is achieved through the implementation of Best Management Practices (BMPs) in the stormwater management design. The Policy is administered locally pursuant to MGL Ch. 131, s. 40.

A brief explanation of each Policy Standard and the system 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 this standard. The design will incorporate the appropriate stormwater treatment, and no new untreated stormwater will be directly discharged to, nor will erosion be caused to wetlands or waters of the Commonwealth as a result of stormwater discharges related to the Project.

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

Compliance: The proposed design will comply with this standard to the maximum extent practicable. The pre-development stormwater discharge rates will be met or decreased as a result of the improvements associated with the Project.

Standard #3: For New Construction, loss of annual recharge to groundwater shall be eliminated or 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. The standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.

Compliance: The Project will comply with this standard to the maximum extent practicable.

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 comply with this standard. Within the Project's limit of work, there will be building roof, paved sidewalk, landscaped areas, and roadway areas. Runoff from paved areas that would contribute unwanted sediments or pollutants to the existing storm drain system will be collected by deep sump, hooded catch basins and conveyed through water quality units before discharging.

Standard #5: For Land Uses with Higher Potential Pollutant Loads (LUHPPL), 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 thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

Compliance: The proposed design will comply with this standard. The Project is anticipated to be a LUHPPL (per the Policy, Volume I, page 1-6) due to the average daily trips to the site.

Standard #6: Stormwater discharges within 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 significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding 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) 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 this Standard to the maximum extent practicable. The Project will not discharge untreated stormwater to a sensitive area.

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 best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent possible. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

Compliance: The Project will comply with this standard. The Project will comply with the Stormwater Management Standards as applicable to the redevelopment.

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

Compliance: The Project will comply with this standard. Sedimentation and erosion controls will be incorporated as part of the design of the Project and employed during construction.

Standard #9: A Long-Term Operation and Maintenance (O&M) Plan shall be developed and implemented to ensure that stormwater management systems function as designed.

Compliance: The Project will comply with this standard. An O&M Plan including long-term BMP operation requirements will be prepared for the Project and will assure proper maintenance and functioning of the stormwater management system.

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

Compliance: The Project will comply with this standard. No illicit connections will be proposed with the Project.

6.5 Electrical Service

Eversource Energy owns the electrical system in the vicinity of the Project site. It is expected that adequate service is available in the existing electrical systems in the surrounding streets to serve the Project. The Proponent will work with Eversource to confirm adequate system capacity as the design is finalized.

6.6 Natural Gas

National Grid has gas services in the vicinity of the Project site. The Proponent will work with National Grid to confirm adequate system capacity as the design is finalized.

6.7 Telecommunications Systems

The Proponent will select private telecommunications companies to provide telephone, cable, and data services. There are several potential candidates with substantial Boston networks capable of providing service. Upon selection of a provider or providers, the Proponent will coordinate service connection locations and obtain appropriate approvals.

6.8 Utility Protection During Construction

Existing public and private infrastructure located within any public or private rights-of-way will be protected during construction. The installation of proposed utilities within a public way will be in accordance with the BWSC, Boston Public Works Department, Dig-Safe Program, and applicable utility company requirements. Specific methods for construction of proposed utilities where they are near or within existing BWSC water, sewer, and drain facilities will be reviewed by the BWSC as part of the Site Plan Review process. The necessary permits will be obtained before the commencement of work.

Chapter 7.0

Response to Comments

7.0 RESPONSE TO COMMENTS

7.1 Introduction

This Section provides responses to comments received from the BPDA, City agencies, the Impact Advisory Group (IAG) and the public on the PNF filed with the BPDA on June 9, 2017.

Section 7.2 includes responses to the BPDA Scoping Determination, as well as city agency comment letters and responses. The letters have been reproduced and individual comments coded in the margins. Responses to the comments follow each individual letter and can be matched using the comment code numbers.

Section 7.3 includes responses to comment letters received from the IAG and public organized by the common themes expressed in each comment. Table 7-1 provides a list of these public comment letters received and the section of this chapter where responses are provided for each letter.



June 8, 2018

Jordan Warshaw
President- Development
OMB Sprague LCC
C/o The Noannet Group
40 Trinity Place
Boston, MA 02116

Re: **Scoping Determination for proposed 36-70 Sprague Street Project**

Dear Mr. Warshaw:

Please find enclosed the Scoping Determination for the proposed residential project located at 36-40 Sprague Street and 50-70 Sprague Street, in the Hyde Park neighborhood of Boston. The Scoping Determination describes information required by the Boston Redevelopment Authority d/b/a the Boston Planning & Development Agency in response to the Project Notification Form, which was submitted under Article 80B of the Boston Zoning Code on June 9, 2017. Additional information may be required during the course of the review of the proposals.

If you have any questions regarding the Scoping Determination or the review process, please contact me at (617) 918-4311.

Sincerely,

A handwritten signature in black ink that reads "Lance Campbell".

Lance Campbell
Senior Project Manager

CC: Brian Golden, BPDA
Sara Myerson, BPDA
Jonathan Greeley, BPDA
Michael Christopher, BPDA
Marie Mercurio, BPDA
Lauren Shurtleff, BPDA
Bryan Flynn, Mayor's Office of Neighborhood Services

**BOSTON REDEVELOPMENT AUTHORITY
D/B/A BOSTON PLANNING & DEVELOPMENT AGENCY**

**SCOPING DETERMINATION
36-70 SPRAGUE STREET**

**SUBMISSION REQUIREMENTS
FOR DRAFT PROJECT IMPACT REPORT (DPIR)**

PROPOSED PROJECT: 36-70 SPRAGUE STREET

PROJECT SITE: 36-70 SPRAGUE STREET, HYDE PARK, IS BORDERED BY SPRAGUE STREET TO THE WEST; THE MBTA FRANKLIN LINE TO THE NORTH, THE MBTA PROVIDENCE/ STOUGHTON LINE TO THE EAST, AND SPRAGUE POND, A RESIDENTIAL PROPERTY, AND THE BRINKS WAREHOUSE TO THE SOUTH.

PROPONENT: OMB SPRAGUE LLC

DATE: JUNE 8, 2018

The Boston Redevelopment Authority (“BRA”), d/b/a The Boston Planning & Development Agency (“BPDA”) is issuing this Scoping Determination pursuant to Section 80B-5 of the Boston Zoning Code (“Code”) in response to a Project Notification Form (“PNF”), which OMB Sprague (the “Proponent”) filed on June 9, 2017 for the proposed 36-70 Sprague Street project (the “Proposed Project”). Notice of the receipt by the BPDA of the PNF was published in the [Boston Herald](#) on June 9, 2017, which initiated a public comment period with a closing date of August 19, 2016. Pursuant to Section 80A-2 of the Code, the PNF was sent to the City’s public agencies/departments and elected officials on June 12, 2017. The initial public comment period was set for July 9, 2017 and was subsequently extended until February 2, 2018, through mutual consent between the BPDA and the Proponent.

On November 14, 2016, the Proponent filed a Letter of Intent (“LOI”) in accordance with the Executive Order Regarding Provision of Mitigation by Development

Projects in Boston for the redevelopment of 36-70 Sprague Street in the Hyde Park neighborhood of Boston.

On November 14, 2016, letters soliciting Impact Advisory Group (“IAG”) nominations for the Proposed Project were delivered to City Councilor Timothy McCarthy, State Representative Angelo Scaccia, and Senator Michael Rush. Additional letters seeking recommendations were delivered to the office of Neighborhood Services and the City Councilors At-Large. Nominations were also sought from the BPDA.

Twelve (12) individuals were appointed to the IAG and have been invited to participate in advising BPDA staff on the determination and consideration of impacts and appropriate mitigation regarding the Proposed Project. The following is a list of the IAG members:

1. David Coyne
2. Frank Garibaldi
3. Ryan Keogh
4. Steven Verity
5. Jay Rourke
6. Mary Bender
7. Scott Smith
8. Wes Dillingham
9. Rob Gallagher
10. Victor Carrara
11. Michael Goff
12. Tony Dowling

The BPDA appreciates the efforts of the IAG and the members should be applauded for their commitment to the review of the Proposed Project.

The notice of the receipt by the BPDA of the PNF along with the PNF were sent to the City’s public agencies pursuant to Section 80A-2 of the Code, as well as to the IAG members. Pursuant to Section 80B5.3 of the Code, a scoping session was held on June 19, 2017 with the City of Boston’s public agencies/departments at which time the Proposed Project was reviewed and discussed. Members of the IAG were also invited to attend the scoping session.

Publicly advertised public meetings were conducted on January 10, 2018 at the Blue Hills Collaborative in Readville. IAG working session meetings were also held on

June 27, 2017 and November 27, 2017 at the Blue Hills Collaborative. The IAG and the community will continue to have an opportunity to give input regarding the Proposed Project during the Article 80 review process.

Comments received by the BPDA during the comment period are included in **Appendices A, B and C**. The DPIR should include complete responses to all comments included in **Appendices A, B and C** within the framework of the criteria outlined in the Scoping Determination.

Written Comments received from BPDA staff, public agencies/departments, and elected officials are included in **Appendix A** and must be answered in their entirety.

Specifically, they are:

- Katie Pederson, Boston Planning & Development Agency
- John Dalzell, Boston Planning & Development Agency
- David Carlson, Boston Planning & Development Agency
- Michael Cannizzo, Boston Planning & Development Agency
- John Read, James Fitzgerald, Matt Moran and Marie Mercurio, Boston Planning & Development Agency
- Kristen McCosh, Mayor's Commission for Persons with Disabilities
- William Conroy, Boston Transportation Department
- John P. Sullivan, Boston Water and Sewer Commission

Written comments in response to the PNF received by the BPDA from the public are included in **Appendix B** and must be answered in their entirety. Written comments in response to the PNF received by the BPDA from the IAG are included in **Appendix C** and must be answered in their entirety.

The Scoping Determination requests information that the BPDA requires for its review of the Proposed Project in connection with Article 80 of the Code, Development Review and Approval, and other applicable sections of the Code.

In addition to the specific submission requirements outlined in the sections below, the following points are highlighted for additional emphasis and consideration:

- Throughout this initial phase of review, the Proponent has taken steps to meet with local residents, elected officials, abutters, and City and State agencies. These conversations must continue, ensuring that what is

presented in the DPIR is beneficial to the adjacent neighborhoods and the City of Boston as a whole.

- It is clear in reading through the comment letters that the Proposed Project has simultaneously generated excitement and concern. More particularly in the excerpts from the BCDC minutes of August 1, 2017. In no specific order BCDC commissioners expressed that the buildings architecture should try to look less industrial/factory like. That the buildings should be located closer to Sprague Street anticipating the future development that could happen opposite the proposed project. By doing so Sprague Street can become a real street in the future. There's also a notion from the commission that there is a need to invite the public into the site with permeable connections in and throughout the site including views into the site. Intergrate the courtyards and improve their relationships to Sprague Street. The BPDA encourages the Proponent to continue to work with all interested parties including BPDA Design staff, BCDC, the IAG and community, in order to address the building design concerns and open space connections.
- The Public along with the IAG has shown concerns in regard to the 521 number of rental apartment units and also the height and density of the buildings throughout the site. The BPDA encourages the Proponent to continue to work with the community to address the concerns in regards to exploring adding homeownership opportunities while taking into account the density of the overall project.
- The Proposed Project features a variety of unit types ranging from Studio units to 3-bedroom units. The Proponent intends to include all of the required affordable units on site. The BPDA encourages the Proponent to continue to work with the IAG and community on the unit mix to help meet the demands of the neighborhood.
- The Proponent has been working with the Boston Transportation Department ("BTD") to address concerns regarding site access and egress, along with the internal circulation of traffic throughout the site and potential traffic impacts along Sprague Street. The BPDA encourages the Proponent to continue to work with BTD and BPDA Planning Department on these issues.

- The Proponent will include in the DPIR the results of the signal warrant analysis that was completed by VHB for the intersection of Sprague Street with Milton Street and West Milton Street.
- The Proponent will include in the DPIR a comprehensive Transportation Mitigation Plan.
- The Proponent will initiate working with the City of Boston's Parks and Recreation Department to address site access regarding the new pondside park adjacent to the Sprague Pond. The BPDA encourages the Proponent to work with the Parks and Recreation Department, along with the IAG and community to address pedestrian access points from Sprague Street and the new pedestrian entrance directly adjacent to the Sprague Street Bridge and to the Readville Commuter Rail Station. Including pedestrian access connections to the multiple new open spaces internal to the project site and to the new pondside park area and how the greater Readville community can easily access these spaces.
- As stated in the PNF, the Proponent intends to provide approximately 532 parking spaces with the potential to adding 30 parking spaces, subject to City approval. A better understanding of how these spaces will be allocated must be provided in the DPIR. The Proponent should promote alternative modes of transit to new occupants and visitors to the site.
- All development projects have construction impacts. As with any urban development there needs to be a balance of constructions related inconveniences with the daily activities that will continue to occur adjacent to the project site. A detailed approach to the construction management must be included in the DPIR.

I. PROJECT SITE

The Project Site is composed of several parcels located at 36-40 Sprague Street and 50-70 Sprague Street adjacent to the MBTA's Readville commuter rail station on Sprague Street in Hyde Park near the Boston/Dedham line. The Project site contains approximately 6.62 acres, and is separated by Horne Street, a roadway which provides access to Sprague Street (the "Project Site"). The Project site is generally bound by Sprague Street to the west; the MBTA Franklin Line to the north, the MBTA Providence/Stoughton Line to the east; and Sprague Pond, a residential

property and the Brinks Warehouse site to the south. The site currently contains several two to three-story industrial buildings, surface parking and paved areas.

II. PROJECT DESCRIPTION

The Proponent proposes to construct four residential buildings with a total of approximately 550,645 square feet of residential space and approximately 5,980 square feet of restaurant space (approximately 150 seats) in the southwest corner of the site. The Project will provide approximately 521 units with a unit mix of (53 studio, 234 one-bedroom, 208 two-bedroom, and 26 three-bedroom units). The Project will provide approximately 532 parking spaces, of which 492 parking spaces will be located below the residential buildings and plazas, 34 surface parking spaces for the restaurant and pond side park, and 6 spaces for drop-off and short-term parking. Vehicle access to the site driveway and restaurant parking lot will be provided off of Sprague Street. In the event that additional parking is required, the Proponent has had preliminary discussions with the City of Boston regarding the purchase or utilization of a landlocked City of Boston parcel between Buildings 3 and 4 and the railroad right-of-way that would accommodate an additional 30 parking spaces, subject to BPDA and City approval. The program will be allocated to Buildings 1 through 4.

Building 1: Located on the southwest corner of the site on Sprague Street, this five-story building will include restaurant space, leasing offices, and approximately 17 units on the first floor, with an additional 106 residential units above. To the south of the building will be new landscaped open space with outdoor dining for the restaurant, as well as a surface parking lot with parking spaces dedicated to be used by visitors to the new pondside park adjacent to the Sprague Pond and patrons of the restaurant. To the east of the building will be private patios and a landscaped shared courtyard with BBQ grills and outdoor table and lounge seating for residents accessed through a common lounge amenity space. The courtyard opens to a large central courtyard green space with active and passive activities connecting all four buildings.

Building 2: Located to the north of Building 1 and separated by private patios and a shared landscaped “pocket park”, this seven-story building will include the Project’s gym and indoor basketball court and approximately 17 residential units on the first floor with an additional 140 residential units above. To the east of the building will be private patios and a landscaped shared courtyard with BBQ grills and outdoor

table and lounge seating for residents that opens to the central courtyard green space.

Building 3: Located at the northern tip of the site, northeast of Building 2 and due north of Building 4, and featuring the jewel box-like two-story pavilion housing the Project's shared workspace as well as a new coffee house and sports lounge, Building 3 will be at the fulcrum of the entire site. Wrapping around the landscaped "Town Square" with outdoor seating that anchors the north end of the central courtyard green space with views of Sprague Pond to the south, this eight-story building will also contain approximately six residential units on the first floor, with an additional 107 residential units above. A landscaped "bridge" is located to the west of the Town Square and allows access onto the site from Sprague Street directly across the Sprague Street Bridge from Readville Commuter Train Station. A rooftop amenity space including a pool, hot tub, dining/entertainment area, indoor and outdoor lounges and restrooms will be located on the roof of Building 3 offering views of the Blue Hills to the east and the Boston skyline to the north.

Building 4: Located to the east of Building 2 and separated by the central courtyard green space this seven-story building will include a daycare and approximately 18 residential units on the First Floor with an additional 110 residential units above. To the west of the building will be a landscaped shared courtyard with BBQ grills and outdoor table and lounge seating for residents that opens to the central courtyard green space.

Green Space

The site is currently primarily comprised of buildings, paved parking areas for vehicles and construction equipment, and supply staging areas. These paved areas collectively cover nearly 90% of the total site area. Presently, "green space" unpaved areas on the existing site amount to only 12.8% of the site. The vast majority of this space is on the steep slope along Sprague Street on the northwest edge of the Project site and is not usable other than for stormwater retention due to the grade of the slope. The site currently does not have a managed drainage system, and run-off from the site that is facing Sprague Pond is not contained or treated. The proposed development when fully constructed will increase the green area of the site to approximately 36% of the total site area. This represents an increase of approximately 66,890 sf (over 1.5 acres) of green space as compared with the current condition (approximately 103,820 sf of green space following completion of the Project as compared with approximately 36,930 sf of green space today). In

addition, following completion of the Project, all runoff from developed areas will be managed into a stormwater management system, and the majority of the green space on the site will be able to be enjoyed by residents and visitors. Green space for both the existing and proposed conditions is calculated to the edge of paved areas.

III. PREAMBLE

The Proposed Project is being reviewed pursuant to Article 80, Development Review and Approval, which sets forth a comprehensive procedure for project review of the following components: transportation, environmental protection, urban design, historic resources, infrastructure systems, site plan, tidelands, and Development Impact Project applicability. The Proponent is required to prepare and submit to the BPDA a Draft Project Impact Report (“DPIR”) that meets the requirements of the Scoping Determination by detailing the Proposed Project’s impacts and proposed measures to mitigate, limit or minimize such impacts. The DPIR shall contain the information necessary to meet the specifications of Section 80B-3 (Scope of Large Project Review; Content of Reports) and Section 80B-4 (Standards for Large Project Review Approval), as required by the Scoping Determination. After submitting the DPIR, the Proponent shall publish notice of such submittal as required by Section 80A-2. Pursuant to Section 80B-4(c) (i) (3), the BPDA shall issue a written Preliminary Adequacy Determination (“PAD”) within ninety (90) days. Public comments, including the comments of public agencies, shall be transmitted in writing to the BPDA no later than fifteen (15) days prior to the date by which the BPDA must issue its PAD. The PAD shall indicate the additional steps, if any, necessary for the Proponent to satisfy the requirements of the Scoping Determination. If the BPDA determines that the DPIR adequately describes the Proposed Project’s impacts and, if appropriate, propose measures to mitigate, limit or minimize such impacts, the PAD will announce such a determination and that the requirements of further review are waived pursuant to Section 80B-5.4(c) (iv). Section 80B-6 requires the Director of the BPDA to issue a Certification of Compliance indicating the successful completion of the Article 80 development review requirements before the Commissioner of Inspectional Services can issue any building permit for the Proposed Project.

IV. REVIEW/SUBMISSION REQUIREMENTS

In addition to full-size scale drawings, ten (10) copies of a bound booklet and an electronic copy (PDF format) containing all submission materials reduced to size 8-

1/2" x 11", except where otherwise specified, are required. The booklet should be printed on both sides of the page. Bound booklets should be mailed directly to all of the IAG members. A copy of this scoping determination should be included in the booklet for reference. The electronic copy should be submitted to the BRA via the following website: <https://attachments.bostonredevelopmentauthority.org/>

A. General Information

1. Applicant/Proponent Information BPDA 01
 - a. Development Team
 - (1) Names
 - (a) Proponent (including description of development entity and type of corporation, and the principals thereof)
 - (b) Attorney
 - (c) Project consultants and architect(s)
 - (2) Business address, telephone number, FAX number and e-mail, where available for each
 - (3) Designated contact person for each
 - b. Legal Information BPDA 02
 - (1) Legal judgements or actions pending concerning the Proposed Project
 - (2) History of tax arrears on property owned in Boston by Applicant
 - (3) Evidence of site control over project area, including current ownership and purchase options, if any, for all parcels in the Proposed Project, all restrictive covenants and contractual restrictions affecting the Proponent's right or ability to accomplish the Proposed Project, and the nature of the agreements for securing parcels not owned by the Applicant.

- (4) Nature and extent of any and all public easements into, though, or surrounding the site.

- 2. Project Area BPDA 03
 - a. An area map identifying the location of the Proposed Project
 - b. Description of metes and bounds of project area or certified survey of the project area.
 - c. Current zoning

- 3. Project Description and Alternatives BPDA 04
 - a. The DPIR shall contain a full description of the Proposed Project and its components, including its size, physical characteristics, development schedule, costs, and proposed uses. This section of the DPIR shall also present analysis of the development context of the Proposed Project. Appropriate site and building plans to clearly illustrate the Proposed Project shall be required.

 - b. A description of alternatives to the Proposed Project that were considered shall be presented and primary differences among the alternatives, particularly as they may affect environmental and traffic/transportation conditions, shall be discussed. BPDA 05

- 4. Public Benefits
 - a. Anticipated employment levels including the following: BPDA 06
 - (1) Estimated number of construction jobs
 - (2) Estimated number of permanent jobs

 - b. Current and/or future activities and programs which benefit the host neighborhood, adjacent neighborhoods of Boston and the city at large, such as, child care programs, scholarships, internships, elderly services, education and job training programs, public realm/infrastructure improvements, grant programs, etc. BPDA 07

c. Other public benefits, if any, to be provided.

5. Community Process

BPDA 08

a. A list of meetings held and proposed with interested parties, including public agencies, abutters, elected officials, businesses and community groups.

b. Names and addresses of project area owners, abutters, and any community or business groups which, in the opinion of the applicant, may be substantially interested in or affected by the Proposed Project.

B. REGULATORY CONTROLS AND PERMITS

An updated listing of all anticipated permits or approvals required from other municipal, state or federal agencies, including a proposed application schedule shall be included in the DPIR.

BPDA 09

A statement on the applicability of the Massachusetts Environmental Policy Act (“MEPA”) should be provided. If the Proposed Project is subject to MEPA, all required documentation should be provided to the BPDA, including, but not limited to, a copy of the Environmental Notification Form, decisions of the secretary of Environmental Affairs, and the proposed schedule for coordination with BPDA procedure.

BPDA 10

C. TRANSPORTATION COMPONENT

In addition to the information required to meet the specifications of Section 80B-3 and Section 80B-4 of the Code, the Proponent must also refer to the Boston Transportation Department (“BTD”) “Transportation Access Plan Guidelines” and BTD’s and BPDA’s combined comment letter, included in **Appendix A** in preparing its studies. Proposed transportation network and infrastructure improvements/mitigation in the impacted area should also be listed and explained in this component.

BPDA 11

Site Plan

The proponent needs to submit an engineered site plan within the context of the surrounding roadways at 1:20 scale depicting:

- Vehicular access and circulation
- Parking layout and circulation
- Pedestrian access and circulation
- Bicycle access and circulation
- Area shuttle/van pool pickup and drop-off
- Parking spaces for car sharing services
- Service and loading*
- Roadways and sidewalks
- Building layout
- Bicycle parking locations and types (covered, indoor, bike share, etc.)
- Transit stops and connections
- Electric vehicle charging stations and ev-ready spaces
- *Trash compactors/dumpsters need to be depicted as well.

Construction Management Plan

As the project in the DPIR advances, the proponents will be required to develop and submit a detailed Construction Management Plan (CMP) to BTM for review and approval. The CMP will address TDM measures for construction workers, proposed street occupancies, equipment staging, sidewalk and bike-lane relocations and hours of construction work. BTM will work with the proponents to execute the CMP. BPDA 12

The issues raised above should be addressed in the DPIR. BTM looks forward to working collaboratively with the proponents and the community in the review of these projects and to address any outstanding concerns in the permitting process.

D. ENVIRONMENTAL PROTECTION COMPONENT

The DPIR must address the comments of Katie Pedersen, Senior Land Use Planner/Sustainability Specialist, BPDA, dated May 24, 2018 included in **Appendix A**. The DPIR should also include the most up to date Article 37/Interagency Green Building Committee (“IGBC”) documentation.

Shadow

A shadow analysis shall be required for existing and build conditions for the hours 9:00 a.m., 12:00 noon, and 3:00 p.m. for the vernal equinox, summer solstice, autumnal equinox, and winter solstice and for 6:00 p.m. during the summer and autumn. It should be noted that due to time differences (daylight savings vs. standard), the autumnal equinox shadows would not be the same as the vernal BPDA 13

equinox shadows and therefore separate shadow studies are required for the vernal and autumnal equinoxes.

The shadow impact analysis must include net new shadow as well as existing shadow and must clearly show the incremental impact of the proposed new building. For purposes of clarity, new shadow should be shown in a dark, contrasting tone distinguishable from existing shadow. The shadow impact study area shall include, at a minimum, the entire area to be encompassed by the maximum shadow expected to be produced by the Proposed Project (*i.e.*, at the winter solstice). The build condition(s) shall include all buildings under construction and any proposed buildings anticipated to be completed prior to completion of the Proposed Project. Shadow from all existing buildings within the shadow impact study area shall be shown. A North arrow shall be provided on all figures and street names shall be clearly identified.

Particular attention shall be given to existing or proposed public open spaces, plazas, park areas, sidewalks, pedestrian areas and walkways, adjacent to, and in the vicinity of the Proposed Project. Design or other mitigation measures to minimize or avoid any adverse shadow impact must be identified.

The above shadow analysis shall be required for any alternative required to be studied in accordance with Scoping Determination as well as the preferred development option.

Wind

A qualitative analysis of the potential pedestrian level wind impacts shall be required for the DPIR. This analysis shall determine potential pedestrian level winds adjacent to and in the vicinity of the project site and shall identify any areas where wind velocities are expected to exceed acceptable levels, including the Authority's guideline of an effective gust velocity of 31 mph not to be exceeded more than 1% of the time.

BPDA 14

The qualitative analysis shall evaluate the effects of the major winds for the Boston area, including northwest, southwest, and easterly storm (northeast, east, southeast) winds, as well as annual winds. The evaluation shall include, in addition to the BPDA's effective gust criterion, an analysis of the Melbourne comfort criteria for the locations tested. Tables presenting the wind analysis data and maps clearly indicating analysis locations, anticipated wind flow patterns, existing and future

anticipated Melbourne comfort categories and actual wind speeds shall be included in the assessment.

For areas where wind speeds are projected to exceed acceptable levels, measures to reduce wind speeds and to mitigate potential adverse impacts shall be identified.

Daylight

A daylight analysis for both build and no-build conditions shall be conducted by measuring the percentage of sky dome that is obstructed by the Proposed Project building and evaluating the net change in obstruction. If alternative massing studies are requested as part of the Article 80 development review process, daylight analysis of such alternatives shall also be conducted for comparison. The study should treat the following elements as controls for data comparison: existing conditions, the context of the area, and the as-of-right background zoning envelope. BPDA 15

Solar Glare

An evaluation of potential solar glare impact is required, if the project incorporates the substantial use of glass-facades. BPDA 16

As applicable, this analysis must measure potential reflective glare from the building onto potentially affected streets and public open spaces in order to determine the potential for visual impairment or discomfort due to reflective spot glare. Mitigation measures to eliminate any adverse reflective glare must be identified. Technical data used for the analysis must be included.

Air Quality

Existing and projected future air quality in the project vicinity is expected to conform to the National Ambient Air Quality Standards (NAAQS) and U.S. Department of Housing and Urban Development (HUD) requirements for residential and other sensitive receptors.

However, a microscale air quality (carbon monoxide) analysis is required for any intersection (including the proposed garage entrances/exits) where level of service (LOS) is expected to deteriorate to D and the Proposed Project causes a 10 percent increase in traffic, or where the level of service is E or F and the Proposed Project contributes to a reduction of LOS. The methodology and parameters of the traffic- BPDA 17

related air quality analysis, if required, must be approved in advance by the BRA and the Massachusetts Department of Environmental Protection, and shall be consistent with U.S. EPA guidance (e.g., *Guideline For Modeling Carbon Monoxide From Roadway Intersections*, US Environmental Protection Agency, Office of Air Quality Planning and Standards, Technical Support Division; Research Triangle Park, NC; EPA-454/R-92-005; November 1992). The results of the air quality analysis shall be compared to the Massachusetts State Implementation Plan to determine project compliance with the Plan. Mitigation measures to eliminate or avoid any violation of air quality standards must be described.

An indirect source air quality analysis of the operation of the proposed modular system parking garage should be prepared to determine potential air quality impacts on nearby sensitive receptors and compliance with air quality standards, as applicable. Emissions should be estimated using appropriate U.S. EPA guidance. The EPA SCREEN3 model should be used to calculate maximum CO impacts from the garage at the various sensitive receptors. CO monitors shall be required for any enclosed parking garage. A description of the monitors and operation of the monitors is required.

A description of the project's heating and mechanical systems and of the parking garage ventilation system, including location of intake and exhaust vents and specifications, and an analysis of the impact on pedestrian level air quality and on any sensitive receptors from operation of the heating, mechanical, and exhaust systems, including the building's emergency generator, shall be required. Measures to avoid any violation of air quality standards shall be described, and sidewalk vents for the garages are prohibited.

Solid and Hazardous Wastes

The presence of any contaminated soil or groundwater and any underground storage tanks at the project site shall be evaluated and remediation measures to ensure their safe removal and disposal shall be described.

BPDA 18

If asbestos, asbestos-containing materials, lead paint or other hazardous compounds (e.g., PCBs) are identified during the demolition, renovation or removal activities, the handling and disposal must be in compliance with Massachusetts Department of Environmental Protection, the Boston Public Health Commission and the Inspectional Services Department guidelines and requirements.

In addition, the DPIR shall quantify and describe the generation, storage, and disposal of all solid wastes from the construction and operation of the Proposed Project. In addition, measures to promote the reduction of waste generation and encourage recycling, particularly for paper, plastics, glass, metals, and other recyclable products, and compliance with the City's recycling program, shall be described.

BPDA 19

Noise

The DPIR shall establish the existing noise levels at the project site and vicinity based upon a noise-monitoring program. Calculations of future noise levels after project completion (based on appropriate modeling), and demonstrated compliance with the Design Noise Levels established by the U.S. Department of Housing and Urban Development for residential and other sensitive receptors, and with all other applicable Federal, State, and City of Boston noise criteria and regulations shall be required.

BPDA 20

An analysis of the potential noise impacts from project-generated traffic, from the project's mechanical and exhaust systems, as well as the effects of aircraft flyover noise (from Logan Airport), and compliance with applicable regulations of the City of Boston and Commonwealth of Massachusetts shall be required. A description of the project's mechanical and exhaust systems and their proposed location shall be included. Measures to minimize and eliminate adverse noise impacts on nearby sensitive receptors, including the project itself, from traffic noise and mechanical systems shall be described.

Storm Water Management

The DPIR shall contain an evaluation of the Project Site's existing and future storm water drainage and storm water management practices. The DPIR shall illustrate existing and future drainage patterns from the project site and shall describe and quantify existing and future storm water runoff from the site and the Proposed Project's impacts on site drainage. The analysis should be performed based on 2-, 10-, 25- and 100- year rainfall events based on a 24-hour duration. The Proposed Project's storm water management system, including best management practices to be implemented, measures proposed to control and treat storm water runoff and to maximize on-site retention of storm water, measures to prevent groundwater contamination, measures to prevent harbor pollution, and compliance with the Commonwealth's Storm Water Management Policies, also shall

BPDA 21

BPDA 22

be described. The DPIR shall describe the project area's storm water drainage, to which the project will connect, including the location of storm water drainage facilities and ultimate points of discharge.

If the project involves the disturbance of one acre or more of land, a National Pollution Discharge Elimination System (NPDES) General Permit for Construction consistent with the requirements of U.S. Environmental Protection Agency, the Massachusetts Department of Environmental Protection and the Boston Water and Sewer Commission will be required. If such permit is required, a storm water pollution prevention plan must be prepared and submitted prior to commencing construction. A copy of the plan should be provided to the BPDA.

Geotechnical Impact/Groundwater

To the extent not provided in the PNF, an analysis of existing sub-soil conditions at the project site, groundwater levels, potential for ground movement and settlement during excavation and foundation construction, and potential impact on adjacent buildings, utility lines, and the roadways shall be required. This analysis shall also include a description of the foundation construction methodology (e.g., underground garage if applicable, pier pilings), the amount and method of excavation, and measures to prevent any adverse effects on adjacent buildings, utility lines, roadways and the harbor. BPDA 23

Maintaining groundwater levels in the City of Boston is required. Consultation with the Boston Groundwater Trust regarding potential groundwater impacts in areas influenced by tidal fluctuations is recommended. Measures to ensure that groundwater levels will be maintained and will not be lowered during or after construction shall be described. If on-going pumping is required, the metering of discharge must be conducted with oversight by the Boston Water and Sewer Commission. Levels reported shall be based on Boston City Base (BCB). BPDA 24

Construction Impacts

As applicable, construction impact analysis shall include a description and evaluation of the following: BPDA 25

- (a) Potential dust and pollutant emissions and mitigation measures to control these emissions, including participation in the Commonwealth's Clean Construction Initiative.

- (b) Potential noise generation and mitigation measures to minimize increase in noise levels.
- (c) Location of construction staging areas and construction worker parking; measures to encourage carpooling and/or public transportation use by construction workers.
- (d) Construction schedule, including hours of construction activity.
- (e) Access routes for construction trucks and anticipated volume of construction truck traffic.
- (f) Construction methodology (including foundation and piling construction), amount and method of excavation required, disposal of the excavated material, description of foundation support, maintenance of groundwater levels, and measures to prevent any adverse effects or damage to adjacent structures and infrastructure.
- (g) Method of demolition of existing buildings on the site and disposal of the demolition waste, as applicable.
- (h) Potential for the recycling of construction and demolition debris, including asphalt from existing parking lots.
- (i) Identification of best management practices to control erosion and to prevent the discharge of sediments and contaminated groundwater or storm water runoff into the City's drainage system during the construction period.
- (j) Coordination of project construction activities with other major construction projects being undertaken in the project vicinity at the same time, including scheduling and phasing of individual construction activities.
- (k) Impact of project construction on rodent populations and description of the proposed rodent control program, including frequency of application and compliance with applicable City and State regulatory requirements.
- (l) Measures to protect the public safety.

Rodent Control

Compliance with city and state rodent control program requirements must be ensured. Rodent inspection monitoring and treatment, if necessary, should be carried out before, during and at the completion of the construction period. Extermination for rodents shall be required for issuance of permits for demolition, excavation, foundation and basement rehabilitation. Licensed exterminators shall indicate before and during construction activity whether or not rodent activity is identified. Compliance with this policy will be monitored by the Rodent Control Unit of the Inspectional Services Department.

Sustainable Design

The Proponent must analyze project impacts on the surrounding environment that are attributable to forecasted climate conditions over the full duration of the expected life of the project. Utilizing the best available science, identify changes in the climate and environment and how such changes will affect the project's environmental impacts including the survivability, integrity and safety of the project and its inhabitants. Climate change conditions may include, but not be limited to, sea-level rise, higher maximum and mean temperatures, more frequent and longer extreme heat events, more frequent and longer droughts, more severe freezing rain and heavy rainfall events, and increased wind gusts. Include analysis of secondary and cascading impacts including more frequent and longer interruptions of utility services including electrical, gas, and telecommunication systems, and disruptions of transportation systems and networks. BPDA 26

The Proponent must incorporate Climate Change Preparedness and Resiliency strategies into all relevant components of the project such as Transportation, Infrastructure Systems, Environmental Protection, Urban Design, Landscape, Sustainable Development, Historic Resources, and Tidelands.

The Proponent must submit an updated and final Climate Change Preparedness and Resiliency Checklist along with a written response to the IGBC. The Final Climate Change Preparedness and Resiliency Checklist and Response must be submitted in conjunction with the submittal of the Final Design and Approval package for review by the IGBC. No Final Design Approval/Article 80 documents shall be authorized by the BRA until the final Climate Change Preparedness and Resiliency Checklist and Response have been reviewed by the IGBC.

E. URBAN DESIGN COMPONENT

In addition to the information required to meet the specifications of Section 80B-3 BPDA 27 and Section 80B-4 of the Code, the Proponent must address the comments outlined by the BPDA's Urban Design Planning Departments (BCDC excerpts dated August 1, 2017), included in **Appendix A**.

F. INFRASTRUCTURE SYSTEMS COMPONENT

An infrastructure impact analysis must be performed. Please continue to work with BPDA 28 the Boston Water and Sewer Commission ("BWSC") and the Boston Groundwater Trust on Infrastructure impacts. The DPIR must address comments of the Boston Water and Sewer Commission, dated July 16, 2017, included in **Appendix A**.

G. PUBLIC NOTICE

The Proponent will be responsible for preparing and publishing in one or more newspapers of general circulation in the City of Boston a public notice of the submission of the DPIR to the BPDA as required by Section 80A-2. This notice shall be published within five (5) days after the receipt of the DPIR by the BPDA. Therefore, public comments shall be transmitted to the BPDA within Seventy Five (75) days of the publication of the notice. A draft of the public notice must be submitted to the BPDA for review prior to publication. A sample of the public notice is attached as **Appendix D**.

Following publication of the public notice, the Proponent shall submit to the BPDA a copy of the published notice together with the date of publication.

H. INCLUSIONARY DEVELOPMENT POLICY/ AFFORDABLE HOUSING COMPONENT

As indicated in the PNF, the Proposed Project will comply with the Executive Order regarding the Inclusionary Development Policy executed on December 10, 2015 ("IDP") and the affordable housing requirements that will be required for a Planned Development Areas that governs this development site. The Proponent intends to meet its affordable housing obligation on-site. The DPIR should include the number BPDA 29 of units to be created, the incomes of the households, the sizes and locations of the units, and the anticipated unit mix.

I. ACCESSIBILITY CHECKLIST

As part of the DPIR, the Proponent must include an up to date and completed Article 80 Accessibility Checklist for the Proposed Project. An Accessibility Checklist is attached as **Appendix E**. BPDA 30

Excerpted from the BCDC Minutes of August 1, 2017:

The next item was a presentation of the **36-70 Sprague Street Project**. Jordan Warshaw (JW) of the Noannet Group introduced Joel Bargmann (JB) of Bargmann Hendries + Archetype. JB showed the site locus and context photos. JW: Our company has done luxury downtown buildings. Here, this is a 'discovered' site - large, next to transportation. My daughter goes to the gym across the street. JW noted Sprague Pond, the tiered levels of their Project, with a level area adjacent to Sprague, and area apartment complex comparisons. JB then showed the site plan, a diagram showing stories, how the parking is accessed, the grading against Sprague Street, the access to the adjacent Brinks site under their deck. JB: The deck is higher than the Brinks building, so it looks over it. JW: Everything on the site - it has more amenities than usual - is here to make the site's existence known. LE: This is a real candidate for a model.

JW: Kyle Zick was able to design a park by the pond, prompted by a neighborhood comment. JB: The idea is a courtyard as a town square with the amenity spaces enlivening it. The site is a bit of an island. (Shows site connections for cars, and for people. Shows a series of views from the interior, up to upper Sprague, then amenity spaces.) We are shifting the industrial expression we felt appropriate to the site. (Shows a view into the site, then an elevation.) Using the same industrial grid window system, but evolving the design into something that breaks that up. (Shows sections. Shows a plan, then a birds-eye view, notes the development of the park, and then shows a vignette of the park. Shows a series of before-and-after views using context photos.) Both JW and JB described the viewpoints in the latter, including historic Miegs Field.

DC: So as far as true public spaces, it's the park and the restaurant. JW: Yes. DC: So, from the parking, and the park, you see the edge of the garage structure. Do whatever you can do to invite people to that space. Also, Sprague could become a real street...make more connections. Development could occur across the street. DH: An interesting site. This is a good attempt to add residential into an area that's at a remove. The discussion should be about connections. As much as the views were discussed as proving it was NOT visible, I would actually like it to be visible, and more attractive - that's how it sets up a future for Sprague Street. MD: Agreed. What is your location vis-a-vis IB2030? JW: Readville is mentioned there. MD: This is a kind of development corridor. It's an important site, and important to understand what potential there might be. Also, the architecture of the higher buildings is good enough to ask why the lower building is so impoverished. It's a question of level of investment; it doesn't have to look *exactly* like a factory building.

JW: I did not want this to look like many of the 4-5 story buildings you see. I wanted something more industrial...that was not designed as the weak sibling. We can discuss that in Committee. DH: I appreciate that, and like the instinct. But you could be taking advantage of the subtle shifts and breaks in the building, for example. MD: I wouldn't want this to be a lesser impression from this direction. DC: You can bring your earlier studies. LE: Option studies...it would help Sprague to have the building closer, especially if the other side of Sprague is done in the future. For me, the interior courtyard, with its green and 'Spanish steps,' is a good idea, but I am concerned about the relationship to Sprague. And the parking connection - visual cues to the restaurant, etc. It seems like a trail head now. Then, show us the experience of walking through the site, how pedestrian flows work, uninterrupted. Semis are going into the Brinks site. JW: The advice from the BPDA was to bring more green to Sprague. It helps Sprague to have that as well as the building. LE: And, how you're handling the entry sequence off of Sprague. DH: Maybe the restaurant could migrate closer.... With that, and hearing no public comment, the 36-70 Sprague Street Project was sent to Design Committee.

7.2 Responses to BPDA Scoping Determination and City Comments

BPDA SCOPING DETERMINATION

- BPDA 01** **Proponent and development team.**
- Section 1.9 includes the Proponent information and development team information.
- BPDA 02** **Legal information.**
- Section 1.4 includes the requested legal information.
- BPDA 03** **Project area.**
- Section 1.2.2 includes a description of the Project area.
- BPDA 04** **Project Description.**
- Section 1.2.3 includes a Project Description.
- BPDA 05** **Design alternatives.**
- Section 1.2.5 includes design alternatives studied.
- BPDA 06** **Anticipated employment levels.**
- Section 1.3 includes the anticipated construction and permanent employment.
- BPDA 07** **Current and future activities and programs.**
- Section 1.3 includes a description of current and future activities and programs.
- BPDA 08** **Community process.**
- Section 1.7 includes a description of the meetings held regarding the Project, as well as the community process completed to date.
- BPDA 09** **Anticipated permits and approvals.**
- Section 1.6 includes a list of anticipated permits and approvals.
- BPDA 10** **Applicability of the Massachusetts Environmental Policy Act (MEPA).**
- Section 1.6 includes information about MEPA review.

BPDA 11 **BTD “Transportation Access Plan Guidelines” and BTD’s and BPDA’s combined comment letter.**

The Proponent understands that a Transportation Access Plan Agreement (TAPA) will be required as the Project advances. The contents of this DPIR have been developed to follow current BTD guidelines and procedures; the actual TAPA document will follow.

BPDA 12 **Construction Management Plan (CMP).**

Section 3.8 includes information related to construction impacts. A CMP will be completed prior to the Building Permit application.

BPDA 13 **Shadow analysis.**

A shadow analysis was included in the PNF. An updated discussion of shadow impacts is included in Section 3.2.

BPDA 14 **Qualitative wind analysis.**

Section 3.1 includes a qualitative wind analysis.

BPDA 15 **Daylight analysis.**

A daylight analysis was included in the PNF. An updated discussion of daylight impacts is included in Section 3.3.

BPDA 16 **Solar Glare.**

If the Project design includes the substantial use of glass, a solar glare analysis will be prepared.

BPDA 17 **Air Quality.**

An air quality analysis was included in the PNF. An updated discussion of air quality impacts is included in Section 3.4.

BPDA 18 **Contaminated soil and groundwater conditions.**

Section 3.6 includes information about soil conditions and groundwater.

BPDA 19 **Generation, storage and disposal of all solid waste.**

Sections 3.7 and 3.9.10 include information about solid waste generation and disposal.

- BPDA 20** **Noise.**
- Once the mechanical equipment is determined for the Project, the Proponent will provide a noise analysis to the BPDA that shows how the Project will comply with the City of Boston noise regulations.
- BPDA 21** **Stormwater drainage and storm water management practices.**
- Section 6.4 includes information on stormwater drainage and stormwater management practices.
- BPDA 22** **Stormwater management.**
- Section 6.4 includes information on stormwater management.
- BPDA 23** **Sub-soil conditions and groundwater.**
- Section 3.5 includes information on geotechnical conditions and impacts.
- BPDA 24** **Consult the Boston Groundwater Trust.**
- The Project team will consult with the Boston Groundwater Trust as required, as the design progresses.
- BPDA 25** **Construction impacts.**
- Section 3.9 includes information on construction impacts.
- BPDA 26** **Climate change impacts.**
- Chapter 4 provides a discussion of climate change impacts and resilience measures.
- BPDA 27** **Urban design comments.**
- Chapter 5 includes information on Urban Design.
- BPDA 28** **Provide an infrastructure impact analysis.**
- Chapter 6 includes an infrastructure impact analysis.
- BPDA 29** **Affordable housing.**
- It is anticipated that the Project will include approximately 17 affordable condominium units and 47 affordable apartment units. The income levels for these units will be consistent with the City's Inclusionary Development Policy (IDP).

The units will be similar in size to the market rate units, and as required by the IDP, the unit mix will be similar to the unit mix of the full Project, and the units will be spread throughout the Project buildings.

BPDA 30 Accessibility Checklist.

See Appendix D for the Accessibility Checklist.

Boston Planning and Development Agency Memorandum

TO: Lance Campbell

FROM: Katie Pedersen

DATE: May 11, 2018

RE: 36-70 Sprague Street
Readville, Massachusetts
Project Notification Form

I have reviewed the Project Notification Form (the “PNF”) dated June 9, 2017 and submit the following comments for the Environmental Protection component. OMB Sprague LLC (the “Proponent”) proposes to redevelop an approximately 6.62 acre site comprised of several parcels located at 36-40 Sprague Street and 50-70 Sprague Street in the Readville neighborhood of Boston, into a residential/mixed-use transit-oriented development (the “Proposed Project”).

Wind

The Proponent has stated that none of the Proposed Project buildings will exceed 108 feet KP 01 in height, thus the Proponent shall not be required to conduct a (wind tunnel) analysis but, shall be required to conduct a qualitative analysis of the pedestrian level winds (PLW) for both existing (no-build) as well as the build conditions. The analysis shall include public and other areas of pedestrian use, including sidewalks, and pedestrian walkways adjacent to and in the vicinity of the Proposed Project site and existing and proposed open spaces in the vicinity of the Proposed Project. The analysis shall determine the suitability of particular locations for various activities (i.e., walking, sitting, eating, etc.) as appropriate.

Shadow

The PNF includes the results of a shadow analysis for the months of March, June, September and December and the hours of 9:00 a.m., 12:00 p.m. and 3:00 p.m. for the vernal equinox, summer solstice, autumnal equinox, and winter solstice and for 6:00 p.m. in the summer and fall.

The shadow impact analysis examined the existing shadows and the incremental effects of the Proposed Project on existing and proposed public open spaces, sidewalks and pedestrian walkways adjacent to and in the vicinity of the Proposed Project site.

The results of the shadow analysis results indicate that the Proposed Project is not anticipated to create any adverse net new shadows and thus no further study shall be required.

Solar Glare

The Proponent shall not be required to conduct a solar glare analysis as the Proposed Project design does not include the incorporation of reflective materials. However, should the Proposed Project design change and include the use of reflective glare, a solar glare analysis shall be required and mitigation measures deemed necessary to eliminate any adverse reflective glare shall be identified. KP 02

Daylight

(Please refer to Urban Design's comments)

Air Quality

The Proponent conducted a microscale analysis, as the Proposed Project exceeds the trip threshold for the creation of new trips through local intersections operating at LOS D or worse.

The Results of the microscale analysis demonstrate that the predicted CO concentrations are well below one-hour and eight-hour The U.S. National Ambient Air Quality Standards (NAAQS). Thus the results further illustrate that no adverse air quality impacts are anticipated to result from the Proposed Project created traffic and no further study shall be required.

Noise

The Proponent stated that both the mechanical equipment and noise controls are conceptual in nature but, it is known that operational noise from stationary sources will primarily involve heating, cooling, and ventilation equipment for the residential and restaurant spaces and will not exceed applicable City of Boston MassDEP noise limits. Additionally, the Proponent stated that the mechanical equipment will be selected during final design phase, at which time the Proponent will ensure that compliance with all applicable City of Boston and MassDEP noise limits is demonstrated. Accordingly, the Proponent shall be required to provide an updated demonstration of compliance. KP 03

Sustainable Design/Green Buildings

(Please see the Interagency Green Building Committee's comment letter)

KP 01 Qualitative wind analysis.

A qualitative wind analysis is included in Section 3.1.

KP 02 Solar glare analysis.

If the use of substantial reflective materials are used, a solar glare analysis will be completed.

KP 03 Noise study.

Once the mechanical equipment is determined for the Project, the Proponent will provide a noise analysis to the BPDA that shows how the Project will comply with the City of Boston noise regulations.



Mayor's Commission for Persons with Disabilities

Martin J. Walsh, Mayor

May 24, 2018

**RE: 36-70 Sprague Street, Readville MA 02136
Project Notification Form
Boston Planning and Development Agency**

The Disability Commission has reviewed Expanded Project Notification Form that was submitted for 36-70 Sprague Street, in Readville. Since the proposed project is planned to be a vibrant destination area for housing, dining and co-working office space, I would like to encourage a scheme that allows full and equal participation of persons with disabilities through *ideal design which meets as well as exceeds compliance* with accessibility building code requirements. It is crucial that the site layout, buildings, open spaces, parking, and circulation routes be developed with access in mind.

Therefore, in order for my Commission to give its full support to this project, I would like to ask that the following accessibility issues be considered and/or explained:

- **Accessible Residential Units:**
 - We would like to request more details on the floor plans for the accessible Group 2 unitsMCPD 01 within the Project.

- **Accessible Building Amenities:**
 - Per 521 CMR Section 35: Tables and Seating, we would support the inclusion of wheelchair accessible furniture in common spaces such as the proposed Restaurant, Resident's Lounge, WorkShare and outdoor spaces. MCPD 02

- **Accessible Route and Sidewalks:**
 - We would support the accessible pedestrian route through Building 2 to the inner courtyard to provide 24-hour access to the public. Given the size of the development, we would also support alternate accessible routes from Sprague Street to ensure unimpeded and integrated access to the inner courtyard as well as to Buildings 3 & 4. MCPD 03
 - We would support a design that better promotes a direct relationship between the Sprague Street sidewalk and Building 1. By providing direct access from Sprague Street, prioritizes the pedestrian experience over vehicular modes of transportation. MCPD 04
 - We would support the installation of sidewalks that meet the design standards put forth by Boston Complete Streets Design Guidelines, so the site is accessible and functional for residents as well as visitors. MCPD 05

- The creation of a directly accessible connection from the Readville MBTA Commuter Rail Station would be a benefit to residents who use the Commuter Rail service, as well as to users of the proposed WorkShare space. MCPD 06
- Please provide detail on all walkways and plazas within the Site, including unit paving and decking materials, dimensions and slopes. We support the use of cast-in-place concrete to ensure that the surface texture is smooth and continuous (minimize joints) and for the ease of maintenance. MCPD 07
- **Community Benefits:**
 - Accessibility extends past compliance through building code requirements. For example, by providing employment and other opportunities for persons with disabilities, the development becomes an asset to the surrounding community. What opportunities (ex. employment, community support, social) will the development provide for persons with disabilities? MCPD 08
 - Are any restrooms planned in common public spaces? If yes, the Commission would support the inclusion of single-stall, ADA compliant and designated as “Family”/“Companion” restrooms, as they are beneficial to those with small children and/or personal care assistants. MCPD 09
- **Wayfinding:**
 - We would support a robust wayfinding plan that will intuitively direct users to and from the accessible route located in Building 2. MCPD 10
 - Do you have a Wayfinding Package to better understand wayfinding strategies within the scope of the proposed project? MCPD 11
- **Variances:**
 - Do you anticipate filing for any variances with the Massachusetts Architectural Access Board? If so, please identify and explain. MCPD 12

Commission’s General Statement on Access:

The Mayor’s Commission for Persons with Disabilities supports barrier-free design and construction in all buildings throughout Boston, including renovation projects as well as new structures. We work with City departments and developers to ensure compliance with local, state, and federal building codes including Boston Complete Streets, Massachusetts Architectural Access Board (MGL, 521 CMR) and the Americans with Disabilities Act (ADAAG, 28 CFR). Designing or constructing structures that are non-compliant with these requirements is a violation of the law unless it can be demonstrated that it would be structurally infeasible to do so.

Priorities for accessibility other than building design and construction include: ensuring maintenance and upkeep of accessibility features; posting signage for way-finding; utilizing compliant barricades throughout construction; designating appropriate location and amount of accessible parking spaces; and removing barriers in existing buildings wherever “readily achievable” (*“easily accomplishable and able to be carried out without much difficulty or expense”*).

The Commission is available for technical assistance and design review to help achieve accessibility compliance and to ensure that all buildings, sidewalks, parks, and open spaces are usable and welcoming to all of Boston's diverse residents, including those with physical, sensory, intellectual, and communication disabilities.

Thank You.



Kristen McCosh, Commissioner
Mayor's Commission for Persons with Disabilities
kristen.mccosh@boston.gov

Reviewed by:

Patricia Mendez AIA, Architectural Access Specialist
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MCPD 01 Proposed floor plans and accessible Group 2 units.

A chart showing the breakdown of accessible Group 2 units by apartment type is provided in Appendix E. The accessible units are evenly distributed among the unit types in the Project and will be evenly distributed throughout Buildings 2, 3 and 4.

MCPD 02 Wheelchair accessible furniture in common places.

Wheelchair accessible furniture will be included in the common amenity spaces and lobbies, as well as in the outdoor spaces where furnished.

MCPD 03 Courtyard access.

24-hour access can be provided via the expanded Building 2 Sprague Street entrance shown in Figure 5-2, which provides an accessible route to the main plaza and courtyard areas, which then accesses Building 2, 3 and 4.

MCPD 04 Relationship between the Sprague Street sidewalk and Building 1.

A sidewalk following the access driveway connects Building 1 to Sprague Street. The public end of Building 1 has been extended towards the street to improve connectivity with the street. Horne Street is required to remain in order to service the Brinks property and for Fire Department access to the site, and this requirement keeps the building set back from the street. Finally, public comment requested additional green space along Sprague Street and the revised plans accommodate this request.

MCPD 05 Boston Complete Streets Design Guidelines.

Building 2 has been set back from the street at the request of public comment. This will enable a more generous sidewalk to be installed along Sprague Street. The sidewalk designs meet the Complete Street Design Guidelines as much as practical given the topography and property lines.

MCPD 06 Accessible connection from the Readville MBTA Commuter Rail Station.

The Project will include accessible connections to Sprague Street from the Project site on the two ends of the Project site, as well as in the middle of the Project site on the south side of Building 2. It is anticipated that individuals would then follow the existing sidewalks and crosswalks to Readville Station.

MCPD 07 Walkways and plazas within the site.

The majority of walkways and plazas will be cast in place concrete pavement with sawcut joints. Pavers will be used outside of accessible routes to accent features.

MCPD 08 Opportunities for persons with disabilities.

The Project's proposed jobs will be open to all qualified individuals. The Project will provide access for all residents and visitors throughout the Project site without barriers that would impact persons with disabilities.

MCPD 09 Common space restrooms.

There are restroom facilities planned for the amenity spaces in the Project. There are no public restrooms planned for the Project.

MCPD 10 Wayfinding plan.

A wayfinding system will be provided to intuitively direct users to and from the accessible route located in Building 2.

MCPD 11 Wayfinding package.

A wayfinding system will be provided to intuitively direct users to and from the accessible route located in Building 2.

MCPD 12 Variances with the Massachusetts Architectural Access Board.

No variances are currently anticipated.

Transportation Mitigation

The BPDA encourages the Proponent to continue to work with BTM and BPDA Planning to address the concerns in regards to traffic and circulation problems in the neighborhood.

The Proponent shall contribute resources for traffic and circulation improvements, including: a new traffic signal at the intersection of Milton Street and Sprague Street; T 01

- the signalization of the intersections on the Father Hart Bridge; T 02
- circulation improvements, including bus circulation improvements, to and at Wolcott Square.

The Proponent shall contribute a **Transit Incentive Subsidy**: Contribute resources toward a transit subsidy to project residents to establish a pattern of using mass transit. The Proponent shall offer an MBTA Charlie Card valued at the cost of a Zone 2 commuter rail pass which is (Currently set at \$217.75, subject to fare increases) but sold at the cost of a monthly bus/subway pass which is (currently set at \$84.50, subject to fare increases) for a reasonable determined number of months to each adult member of each household up to two members per household. The Proponent shall be required to advertise this program to building residents at least for a minimum of once every three months to ensure that residents are aware of this program. ¹ T 03

Other Measures for this project (likely for the TAPA) should include:

The Proponent shall be required to implement the following Transportation Demand Management (TDM) measures to encourage residents to choose more sustainable modes of transportation including transit, bicycling and walking over single occupancy vehicles. Compliance with these requirements shall be certified by the City TDM Coordinator prior to issuance of any Certificate of Occupancy for residential uses authorized by this Special Permit. T 04

The Proponent should be required to institute a **Separate Rental Fee for Parking**: For example charge parking fees separately from the residential rent, in order to remind tenants how much they pay for parking. The Proponent shall provide a summary of on-site parking fees to the City TDM Coordinator. The Proponent shall provide a written update to the City TDM Coordinator whenever the fees are changed.

The Proponent shall designate a **transportation coordinator (TC)** for the site to manage the TDM program. For example the TC could be on-site during a scheduled minimum of 2 hours per week and will be available during off-hours to residents via email and telephone. The TC

¹ Notes: The cost of one month of this transit subsidy program would be $(\$217.75 - 84.50 = \$133.25) \times 500 = \$66,625$ (assumes two adults per household, with an average of one adult per household participating).

should also oversee the marketing and promotion of the transportation options to all residents at the site in a variety of ways:

- Organizing informational sessions on all transportation options to all new residents as part of their New Resident Packet.
- Posting information in a prominent location in the building and on the Project's website, social media and property newsletters.
- Responding to individual requests for information in person and via phone and email.
- Performing annual transportation surveys.

Monitoring: The Proponent shall include survey information for residents in a form approved by the City. The transit use information will provide monitoring of residents mode share, auto and bicycle ownership usage, vehicular and bicycle parking space usage, use of MBTA Charlie Card incentive program, and other multi-modal factors. All surveys and counts shall be designed and conducted in a manner approved by the BTD-TDM Coordinator. Monitoring shall commence when occupancy has reached 90% and any and all other transportation related measures that deems appropriate and necessary in connection with the Proposed Project.

T 05

T 01 Contribute resources for traffic and circulation improvements.

The Proponent has been working with BTM to address issues related to site access and egress, neighborhood traffic congestion and potential traffic impacts of the Project along Sprague Street and other nearby neighborhood streets. Separately, the BTM has retained the services of an engineering consultant for the on-going transportation improvements now being planned/designed for the area near the Project site. These improvements include roadway widening and circulation modifications on Hyde Park Avenue, Neponset Valley Parkway, on the Father Hart Bridge and along Sprague Street. Also planned is installation of new, modern traffic signal equipment, and improvements to bus circulation and operations at Wolcott Square.

The Proponent appreciates that the city has retained the necessary engineering design resources and has allocated construction funding for these improvements. Additionally, the developers of Readville Yard 5 are also making a financial contribution as well. The Proponent is prepared to also participate in these area-wide transportation improvements by making a contribution, in an amount to be negotiated, with the BTM. The Proponent expects that its contribution may be allocated to the installation of a traffic signal and associated geometric and pedestrian improvements at the intersection of Sprague Street with West Milton and Milton streets, effectively extending the roadway improvements further to the south on Sprague Street.

T 02 Include bus circulation improvements to and at Wolcott Square.

As noted in response T 01, the Proponent is prepared to provide a financial contribution to the on-going transportation improvements now being planned/designed for the area near the Project site by the BTM and its consultant.

T 03 Contribute a Transit Incentive Subsidy.

The Proponent is prepared to offer a free commuter rail pass for new tenants during their first month of residency. The intention is to help encourage new residents to become familiar with the transit options available to them in the neighborhood and to help them establish a usage pattern that relies on transit as much as possible, instead of driving. The details of the specific commitment will be established as part of the finalization of the Transportation Access Plan Agreement (TAPA).

T 04 Transportation Demand Management.

The Proponent is committed to developing and implementing a robust and state-of-the-art TDM program for residents of the development. The specific commitments are outlined in Chapter 2.0. This plan is being designed to help people who live at and visit the site to find and use alternatives to driving, instead promoting the use of other modes including commuter rail, bus, walking, bicycling. The commitments in this document will be included in the Project's TAPA which will be established with the BTM.

T 05 Include survey information for residents in a form approved by the City.

The Proponent will comply with this requirement.



Martin J. Walsh
Mayor

Article 37 Interagency Green Building Committee

June 8, 2018

Mr. Jordan Warshaw and Mr. Sujit Sitole
OMB Sprague LLC
c/o The Noannet Group
40 Trinity Place
Boston, MA 02116

Re: 36-70 Sprague Street - PNF Filing – IGBC Comments

Dear Mr. Warshaw and Mr. Sitole,

The Boston Interagency Green Building Committee (IGBC) has reviewed 36-70 Sprague Street Project Notification Form (PNF) for compliance with Boston Zoning Article 37, Green Buildings.

Please amend Table 2-2 Anticipated Project Permits and Approvals to include Boston Interagency Green Building Committee, Zoning Article 37 Compliance.

The PNF indicates that the proposed project will use the LEED v4 Multifamily Mid-Rise rating system and would achieve a minimum of LEED Silver and is targeting LEED Gold for all buildings. The IGBC accepts the rating system selection. The project proposes buildings and impacts significantly beyond what is allowed by code and must include additional impact reduction measures.

The IGBC requests the project team commit to at least LEED Platinum for one building and LEED Gold for the remaining buildings. Following are credit specific comments that should be considered by the project team:

- Heat Island Reduction – pursue both non-roof and roof solutions. IGBC 01
- Indoor Water Use – include additional water reduction strategies. IGBC 02
- Annual Energy Use – the project should plan for performance at least 30% below the ASHRAE 90.1–2010 baseline model. The project should identify additional carbon reduction strategies to significantly improve performance beyond the proposed design – see below. IGBC 03
- Efficient Hot Water Distribution System – include efficient systems. IGBC 04
- Advanced Utility Tracking – include occupant energy monitoring systems. IGBC 05
- IGBC 06

In support of the City of Boston's Resiliency and GHG emissions reduction goals including Carbon Neutral 2050 the IGBC requests that the project:

- Please provide the preliminary energy modeling conditions used in the Energy / GHG summaries including both baseline and proposed building conditions and summaries. Please include proposed envelope performance conditions (see the current Climate Resiliency Checklist section A.3 Building Envelope) typical for all building or for each unique building. IGBC 07
- Maximize building envelope performance strategies including right-sizing building window to wall ratios, increasing opaque curtain wall insulation, improving glazing Solar Heat Gain Coefficient, and increasing framed wall, roof, and exposed floor insulation levels. IGBC 08
- Access all available utility and state DOE and CEC representatives to maximize utility and state-funding for energy efficiency and clean/renewable energy support. Please provide specific information on any assistance including energy modeling that will be afforded to the project. IGBC 09
- Include installed solar photovoltaic (PV). At a minimum, the system should be sized to meet common area and load requirements. Please including system(s) location, size, and output information. IGBC 10
- Assess demand reduction and clean energy systems including building electric battery and CHP systems. IGBC 11

Climate Resiliency Report

Subsequent to your initial filing, the BPDA Climate Resiliency checklist was updated to include additional data points and an online form; please provide an updated Climate Resiliency Report by completing the online form. Building specific conditions should be either typical for all buildings or specific the first building expected to be completed. IGBC 12

Please follow up on the IGBC comments and requests for additional information including an updated Climate Resiliency Report prior to submission of the Draft Project Impact Report. The IGBC would be happy to meet with your project team to discuss comments and your potential responses. Please contact your BPDA Project Manager if you would like to schedule a meeting.

Please let me know if you have any questions or if I or the IGBC can be of any assistance.

Sincerely,



John Dalzell
On behalf of the Interagency Green Building Committee

Cc: Lance Campbell, BPDA
IGBC

ARTICLE 37 INTERAGENCY GREEN BUILDING COMMITTEE

IGBC 01 LEED certifiability level of buildings.

As discussed in Chapter 4, the Project team has continued to evaluate the Project design and potentially measures to make the buildings more sustainable. Currently, the Project team anticipates that LEED Gold may be possible for all of the buildings. The Project team will be evaluating potential measures that could achieve LEED Platinum, as well as evaluate the costs associated with these measures. If feasible, the Project team will strive to achieve LEED Platinum for one or more buildings.

IGBC 02 Heat Island Reduction.

Roof strategies currently include a green roof on the garage and white roof on the buildings. More specifically, the entire design concept of the Project mitigates the heat island effect typically associated with parking, since the vast majority of the Project's parking is under the Project's courtyards, plazas and buildings. A large percentage of the deck over the garage is green, and where there is hardscape rather than landscape, there will be many canopy trees further shading those areas.

IGBC 03 Indoor Water Use.

Preliminary analysis indicates that by smart selection of all water consuming devices in the units and common areas, the total potable water consumption will be reduced by 30% or more. Additionally, outdoor strategies will also be utilized as the design is developed further, including regionally appropriate, drought tolerant grass and planting species as well as efficient, controlled irrigation if analysis by the landscape's designers indicates that irrigation will be required.

IGBC 04 Annual Energy Use.

As the back and forth between energy modeling and design progresses, the Project team commits to modeling the impacts of a high efficiency, neighborhood VRF system and pricing this option to evaluate the costs and benefits of this higher efficiency option.

IGBC 05 Efficient Hot Water Distribution System.

Locations of each water consuming device will be considered with respect to the location of the DHW recirculation loop. Careful attention to the controls design and intended sequence of operations will ensure that the purchased and installed high efficiency water heating equipment delivers hot water with minimal water waste and less abandoned DHW energy following DHW draws.]

IGBC 06 Advanced Utility Tracking.

Smart thermostats will be considered to provide a “nudge” toward more efficient set points and a drop back to unoccupied conditions automatically when occupancy is not detected.

IGBC 07 Preliminary energy model.

Preliminary energy models are attached.

IGBC 08 Building envelope.

In multi-family housing, the floor, ceiling plus three walls of most apartments abut conditioned space and thus have no heat gain or loss. The perimeter wall is the only area of heat gain and loss at the Project other than the top floor units which have an extensively insulated roof. Adding additional insulation to the perimeter wall from the proposed base case will have little impact on the reduction of energy consumption. The approach taken on the Project has been to provide more significant glass areas for living rooms and bedrooms across all buildings so that the apartments will be illuminated with natural light during the day. The large windows will provide significant area for natural ventilation as well as natural cooling during the swing seasons. Reducing energy consumption on lighting and ventilation is projected to have an impact in reducing energy consumption. Additionally, with the anticipated use of “learning thermostats” and the provision of direct tenant metering for all utility consumption, the Project will drive energy consumption down through behavioral patterns, since tenants are generally more conservative of energy use when they pay directly for utilities than when there is a central system.

IGBC 09 Utility and state incentives.

It is the full intention of the Project team to take full advantage of all federal, state, and local resources at the appropriate point in the design/construction process to optimize the Project’s green footprint. As an example, the Project is already registered with the MASS Save Residential Mid-rise Program.

IGBC 10 Solar photovoltaic (PV).

Solar photovoltaics are proposed on Buildings 1, 2 and 4. There is no room on Building 3 given the pool and central mechanical system that is on this roof.

IGBC 11 Demand reduction and clean energy systems.

The Project team will be taking full advantage of MASS Save’s Whole Building Solutions – Large Building Program. Through the program, the team will engage National Grid and Eversource Technical Assistance groups during detailed design to

evaluate and select cost effective solutions to reduce and manage the energy profile of the Project. As an example, the team will commit to exploring the opportunity to including, up front, remote control disconnect switches on each condenser to allow participation in the utilities' demand response programs available now and in the future. The team will also consider including certain other non-critical common area systems on this demand control system, enabling the utility to remote disconnect power to certain circuits during a peak event.

IGBC 12 Climate Resiliency Report.

See Appendix C for the Climate Resiliency Report.

**Boston Water and
Sewer Commission**



980 Harrison Avenue
Boston, MA 02119-2540
617-989-7000

July 6, 2017

Mr. Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Re: 36-70 Sprague Street, Readville
Project Notification Form

Dear Mr. Campbell:

The Boston Water and Sewer Commission (Commission) has reviewed the Project Notification Form (PNF) for the proposed 36-70 Sprague Street project located 36-40 and 50-70 Sprague Street in the Readville neighborhood of Boston.

The proposed project is located on an approximately 6.62 acre site. The site currently contains several industrial and commercial buildings and surface parking lots. The proponent, OMB Sprague LLC, proposes to construct approximately 556,625 square feet (sf) within four buildings. The project includes approximately 5,980 sf of restaurant space, approximately 521 residential units (approximately 550,645 sf) and approximately 532 parking spaces, including 492 spaces below the buildings and 40 surface spaces.

According to the PNF, the proposed water demand is approximately 102,825 gallons per day (gpd). The Commission owns and maintains a 12-inch Southern High water main in Sprague Street and Horne Street.

According to the PNF, the proposed sewage generation is 93,437 gpd, an increase of 88,320 gpd. For sewage and storm drainage service, the site is served by a 10-inch sanitary sewer and a 10-inch storm drain in Sprague Street and a 10-inch sanitary sewer on-site.

The Commission has the following comments regarding the PNF:

General

1. Prior to demolition of any buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The proponent must then complete a Termination

BWSC 01



Verification Approval Form for a Demolition Permit, available from the Commission and submit the completed form to the City of Boston's Inspectional Services Department before a demolition permit will be issued.

2. All new or relocated water mains, sewers and storm drains must be designed and constructed at OMB Sprague LLC's expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans. To assure compliance with the Commission's requirements, the proponent must submit a site plan and a General Service Application to the Commission's Engineering Customer Service Department for review and approval when the design of the new water and wastewater systems and the proposed service connections to those systems are 50 percent complete. The site plan should include the locations of new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections as well as water meter locations.

BWSC 02
3. The Department of Environmental Protection (DEP), in cooperation with the Massachusetts Water Resources Authority and its member communities, is implementing a coordinated approach to flow control in the MWRA regional wastewater system, particularly the removal of extraneous clean water (e.g., infiltration/inflow (I/I)) in the system. In April of 2014, the Massachusetts DEP promulgated new regulations regarding wastewater. The Commission has a National Pollutant Discharge Elimination System (NPDES) Permit for its combined sewer overflows and is subject to these new regulations [314 CMR 12.00, section 12.04(2)(d)]. This section requires all new sewer connections with design flows exceeding 15,000 gpd to mitigate the impacts of the development by removing four gallons of infiltration and inflow (I/I) for each new gallon of wastewater flow. In this regard, any new connection or expansion of an existing connection that exceeds 15,000 gallons per day of wastewater shall assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I. Currently, a minimum ratio of 4:1 for I/I removal to new wastewater flow added is used. The Commission supports the policy, and will require proponent to develop a consistent inflow reduction plan. The 4:1 requirement should be addressed at least 90 days prior to activation of water service and will be based on the estimated sewage generation provided on the project site plan.

BWSC 03
4. The design of the project should comply with the City of Boston's Complete Streets Initiative, which requires incorporation of "green infrastructure" into street designs. Green infrastructure includes greenscapes, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The proponent must develop a

BWSC 04



maintenance plan for the proposed green infrastructure. For more information on the Complete Streets Initiative see the City's website at <http://bostoncompletestreets.org/>

5. OMB Sprague LLC should be aware that the US Environmental Protection Agency issued the Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If groundwater contaminated with petroleum products, for example, is encountered, OMB Sprague LLC will be required to apply for a RGP to cover these discharges. BWSC 05
6. OMB Sprague LLC is advised that the Commission will not allow buildings to be constructed over any of its water lines. Also, any plans to build over Commission sewer facilities are subject to review and approval by the Commission. The project must be designed so that access, including vehicular access, to the Commission's water and sewer lines for the purpose of operation and maintenance is not inhibited. BWSC 06
7. The Commission will require OMB Sprague LLC to undertake all necessary precautions to prevent damage or disruption of the existing active water and sewer lines on, or adjacent to, the project site during construction. BWSC 07
8. It is OMB Sprague LLC's responsibility to evaluate the capacity of the water, sewer and storm drain systems serving the project site to determine if the systems are adequate to meet future project demands. With the site plan, OMB Sprague LLC must include a detailed capacity analysis for the water, sewer and storm drain systems serving the project site, as well as an analysis of the impacts the proposed project will have on the Commission's water, sewer and storm drainage systems. BWSC 08

Water

1. OMB Sprague LLC must provide separate estimates of peak and continuous maximum water demand for residential, commercial, industrial, irrigation of landscaped areas, and air-conditioning make-up water for the project with the site plan. Estimates should be based on full-site build-out of the proposed project. OMB Sprague LLC should also provide the methodology used to estimate water demand for the proposed project. BWSC 09
2. OMB Sprague LLC should explore opportunities for implementing water conservation measures in addition to those required by the State Plumbing Code. In particular, OMB Sprague LLC should consider outdoor landscaping which requires minimal use of water to maintain. If OMB Sprague LLC plans to install in-ground sprinkler systems, the Commission recommends that timers, soil moisture indicators BWSC 10



and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should be considered.

3. OMB Sprague LLC is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. OMB Sprague LLC should contact the Commission's Meter Department for information on and to obtain a Hydrant Permit. BWSC 11
4. The Commission is utilizing a Fixed Radio Meter Reading System to obtain water meter readings. For new water meters, the Commission will provide a Meter Transmitter Unit (MTU) and connect the device to the meter. For information regarding the installation of MTUs, OMB Sprague LLC should contact the Commission's Meter Department. BWSC 12

Sewage / Drainage

1. In conjunction with the Site Plan and the General Service Application OMB Sprague LLC will be required to submit a Stormwater Pollution Prevention Plan. The plan must:
 - Identify specific best management measures for controlling erosion and preventing the discharge of sediment, contaminated stormwater or construction debris to the Commission's drainage system when construction is underway.
 - Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control structures or treatment structures to be utilized during the construction.
 - Specifically identify how the project will comply with the Department of Environmental Protection's Performance Standards for Stormwater Management both during construction and after construction is complete.BWSC 13
2. Developers of projects involving disturbances of land of one acre or more will be required to obtain an NPDES General Permit for Construction from the Environmental Protection Agency and the Massachusetts Department of Environmental Protection. OMB Sprague LLC is responsible for determining if such a permit is required and for obtaining the permit. If such a permit is required, it is required that a copy of the permit and any pollution prevention plan prepared pursuant to the permit be provided to the Commission's Engineering Services Department, prior to the commencement of construction. The pollution prevention BWSC 14



plan submitted pursuant to a NPDES Permit may be submitted in place of the pollution prevention plan required by the Commission provided the Plan addresses the same components identified in item 1 above.

3. The Commission encourages OMB Sprague LLC to explore additional opportunities for protecting stormwater quality on site by minimizing sanding and the use of deicing chemicals, pesticides, and fertilizers. BWSC 15
4. The discharge of dewatering drainage to a sanitary sewer is prohibited by the Commission. OMB Sprague LLC is advised that the discharge of any dewatering drainage to the storm drainage system requires a Drainage Discharge Permit from the Commission. If the dewatering drainage is contaminated with petroleum products, OMB Sprague LLC will be required to obtain a Remediation General Permit from the Environmental Protection Agency (EPA) for the discharge. BWSC 16
5. OMB Sprague LLC must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer. BWSC 17
6. The Massachusetts Department of Environmental Protection (MassDEP) established Stormwater Management Standards. The standards address water quality, water quantity and recharge. In addition to Commission standards, OMB Sprague LLC will be required to meet MassDEP Stormwater Management Standards. BWSC 18
7. Sanitary sewage must be kept separate from stormwater and separate sanitary sewer and storm drain service connections must be provided. The Commission requires that existing stormwater and sanitary sewer service connections, which are to be re-used by the proposed project, be dye tested to confirm they are connected to the appropriate system. BWSC 19
8. The Commission requests that OMB Sprague LLC install a permanent casting stating "Don't Dump: Drains to Boston Harbor" next to any catch basin created or modified as part of this project. OMB Sprague LLC should contact the Commission's Operations Division for information regarding the purchase of the castings. BWSC 20
9. If a cafeteria or food service facility is built as part of this project, grease traps will be required in accordance with the Commission's Sewer Use Regulations. OMB Sprague LLC is advised to consult with the Commission's Operations Department with regards to grease traps. BWSC 21



10. The enclosed floors of a parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations. The Commission's Requirements for Site Plans, available by contacting the Engineering Services Department, include requirements for separators. BWSC 22
11. The Commission requires installation of particle separators on all new parking lots greater than 7,500 square feet in size. If it is determined that it is not possible to infiltrate all of the runoff from the new parking lot, the Commission will require the installation of a particle separator or a standard Type 5 catch basin with an outlet tee for the parking lot. Specifications for particle separators are provided in the Commission's requirements for Site Plans. BWSC 23

Thank you for the opportunity to comment on this project.

Yours truly,

John P. Sullivan, P.E.
Chief Engineer

JPS/afh

cc: Jordan Warshaw, OMB Sprague LLC
M. Connolly, MWRA via e-mail
M. Zlody, BED via e-mail
P. Larocque, BWSC via e-mail

BOSTON WATER AND SEWER COMMISSION

BWSC 01 **Cut and cap all water, sewer and storm drain connections.**

The Project will meet this requirement.

BWSC 02 **New or relocated water mains, sewers and storm drains.**

The Project will meet this requirement.

BWSC 03 **Inflow reduction plan.**

The Project will meet this requirement.

BWSC 04 **City of Boston's Complete Streets Initiative.**

Building 2 has been set back from the street at the request of public comment. This will enable a more generous sidewalk to be installed along Sprague Street. The sidewalk designs meet the Complete Street Design Guidelines as much as practical given the topography and property lines.

BWSC 05 **US Environmental Protection Agency Remediation General Permit.**

The Project will meet this requirement.

BWSC 06 **Construction over BWSC water lines.**

The Project team will coordinate with BWSC regarding the proposed water main relocation.

BWSC 07 **Prevent damage or disruption of existing active water and sewer lines.**

The Project will meet this requirement.

BWSC 08 **Evaluate the capacity of the water, sewer and storm drain systems.**

The Project will coordinate with BWSC to understand the bounds of this requirement and meet it to the greatest extent practicable.

BWSC 09 **Peak and continuous maximum water demand.**

The Project will meet this requirement.

BWSC 10 **Water conservation measures.**

The Project will explore these opportunities.

- BWSC 11 Hydrant permit.**
The Project will obtain this permit as required.
- BWSC 12 Installation of MTUs.**
The Project will request information as needed.
- BWSC 13 Stormwater Pollution Prevention Plan.**
The Project will meet this requirement.
- BWSC 14 NPDES General Permit for Construction.**
The Project will meet this requirement.
- BWSC 15 Opportunities for protecting stormwater quality.**
The Project will explore this requirement and will endeavor to utilize environmentally friendly products wherever possible.
- BWSC 16 Contaminated dewatering drainage.**
The Project will meet this requirement, as applicable.
- BWSC 17 Storm drainage from roof drains.**
The Project will meet this requirement.
- BWSC 18 MassDEP Stormwater Management Standards.**
The Project will meet this requirement to the greatest extent practicable, as a redevelopment site.
- BWSC 19 Separation of sanitary sewage and stormwater.**
The Project will meet this requirement.
- BWSC 20 “Don’t Dump: Drains to Boston Harbor” castings.**
The Project will meet this requirement.
- BWSC 21 Grease traps.**
The Project will consult with the Commission.

BWSC 22 Oil separators in garage.

The Project will meet this requirement.

BWSC 23 Particle separator or a standard Type 5 catch basin with an outlet tee for the parking lot.

The Project will meet this requirement.

7.3 Responses to the Main Concerns Raised in the Public's Comment Letters

The majority of the public's letters focused on several main themes, including transportation impacts, affordable housing, construction impacts, site uses, height and density, public services and notices of meetings. Therefore, in the interest of conciseness, the Proponent has prepared summary responses addressing these seven topics, which it believes will address the great majority of issues and concerns raised in the public comment letters. The letters are reproduced at the end of this chapter and Table 7-1 provides a list of these letters received and for each one, the section(s) of this chapter where responses are provided.

7.3.1 *Transportation*

The Proponent is well aware of the transportation issues in the Project area. While first contemplating the Project, the Proponent worked to understand the transportation patterns in the area, including the conditions on both area roadways and public transportation. The area experiences considerable traffic, especially during peak commuting periods when there is an increase in the amount of cut-through/regional traffic as drivers seek to avoid using I-95 and I-93. Based on recent studies, the Proponent's team has found that the immediate area of the Project sees a significantly higher percentage of truck traffic than most areas of the city – over 30% of traffic on Sprague Street is trucks, as compared with 1-5% over the rest of the city on average. This is due to the high concentration of warehouse and distribution facilities in the immediate area, as well as a school bus depot and other light industrial uses that generate significant amounts of truck traffic. The impacts of all of this truck traffic on the local community are material.

The combination of this truck and cut-through traffic has strained the local roadways. Further, the local roadway infrastructure has seen little investment over the years, and the area needs signalization installations and modernization, new pavement markings and improved pedestrian connectivity. In addition, the daily and monthly commuter rail fare differential between Readville Station and Fairmount Station (which are one stop apart), can create additional traffic as the current fare pricing creates a disincentive to area residents to use Readville Station – instead encouraging them to drive on local roads to Fairmount Station.

With these constraints in mind, the Proponent sought to understand the market conditions for the area, and evaluated what type of project would be feasible. Considering the significant need for housing in the City, the Proponent further evaluated the type of development that could provide a significant number of residential units, with the least impact on the surrounding infrastructure. Market studies were used to help determine the makeup of the development, including both the types of units and the types of amenities that would attract tenants that would tend to favor public transportation over driving, reducing impacts on the local area.

For example, the Project has been designed to be pedestrian friendly and to promote the available transit options in the area, most significantly the use of the Franklin and Fairmount Commuter Rail Lines and adjacent Readville Station, as well as buses, cycling and walking. The Project has been located on Sprague Street to take advantage of the site's existing access point and grades, creating a podium with significant open and amenity space encouraging walking through and around the site, while screening the majority of parking spaces beneath. The design also strikes an intentional balance on the amount of parking to be provided, as there is no desire on the Proponent's part to overbuild the parking provided based on the anticipated tenants and continuing decreasing rates of motor vehicle ownership, particularly with respect to the demographic the apartment portion of the Project is expected to attract.

As planning for the Project has advanced, it has also been reduced in size – by approximately 74,700 sf. There are approximately 102 fewer bedrooms proposed (due to the replacement of many two and three-bedroom units with one-bedroom and studio units) and approximately 29 fewer units. This reduction (along with a reduction in the number of parking spaces), as well as a switch of one building from an apartment use to condominiums will result in a commensurate reduction in the Project's traffic impacts from those studied in the PNF. A 7.1 percent decrease in daily traffic is forecast from making the Project smaller, ultimately reducing the impacts on the community.

In addition to working to limit Project impacts, the Proponent is working to assist in efforts to improve the transportation in the surrounding area. For example, the Project team, as well as other groups and constituencies including members of the Boston City Council, has been in discussions with the MBTA regarding the fare discrepancy between the Fairmount and Readville stations. This hopeful change, along with the recent decreased parking fee at Readville Station, would be anticipated to encourage more use of Readville Station.

The Proponent has also evaluated opportunities to help improve the roadway infrastructure in the area. The Proponent conducted a traffic signal warrant evaluation for the intersection of Sprague Street with Milton and West Milton streets. The analysis showed that installation of a signal at the intersection can be justified based on the existing traffic volumes in the area. If the BTM determines an additional signal is appropriate, the Proponent is committed to funding the signal design and construction at the Sprague Street intersection with West Milton and Milton streets as traffic mitigation for the Project. The work would be completed in concert with the ongoing improvements at the Father Hart Bridge intersections and at Wolcott Square, the design of which is currently underway.

Community members have suggested that another improvement to the local roadways would be installation of "Please Show Courtesy to Side Street Traffic" signage in the vicinity of the Project site to assist with the flow of traffic, including ingress and egress from private and commercial driveways. There are numerous places where signage of this type is used, including nearby in Norwood on Neponset Street near I-95. The Proponent plans to engage in dialogue with both the BTM and the DCR to explore the possibility of installing this type

of signage along Neponset Valley Parkway, Hyde Park Avenue and Sprague Street. Should one or both agencies agree to this idea, the Proponent is committed to assisting in its implementation.

The Proponent intends to continue to work closely with the BTD to define the Project elements that will be included in the Project's Transportation Access Plan Agreement (TAPA). The TAPA will be a legal agreement that codifies the Proponent's commitments to transportation matters.

Traffic Impacts of Industrial Uses

The retention of industrial uses on the site has been mentioned by some community members, several of whom have asked whether retaining the site's current light industrial utilization would minimize traffic impacts. Presently, the site's three largest buildings are underutilized, with one building completely empty and the yard unleased. As described in Section 1.2.5, three light industrial options have been studied for the underutilized and unleased portions of the property. The industrial users interested in leasing space in Readville are predominantly distribution facilities who see Readville as an ideal location close to both downtown Boston and I-95, and truck yards which are being pushed out from their existing locations in South Boston, Dorchester and elsewhere due to redevelopment. Recent businesses that have moved to the Readville area include the Amazon distribution facility (just over the Dedham line), multiple users at the Stop & Shop warehouse site, and National Grid, which has recently signed a lease for a significant portion of the Readville Yard 5 site.

The total vehicle volumes that would be generated by a use of this type will vary depending on what specific uses lease the available spaces on the site, whether tenants' businesses rely on larger or smaller truck sizes, how many trips to/from the site on a daily basis are made by each truck, number of shifts, number of drivers coming and going to and from the site in their own vehicles prior to and after shifts as delivery drivers, etc. Whatever the specific uses are that would be found for the site, it is important to recognize that truck traffic has a very disproportionate impact on the community as compared with automobile traffic, as described below and shown on Figure 7-1.

- ◆ From a traffic perspective, truck footprints are two to five times the size of standard cars. They create much longer queues when stopped, accelerate slower and require significantly more space to turn, sometimes blocking opposing traffic and adjacent lanes when turning (in the case of larger trucks). All of these factors increases delays for drivers of other vehicles.

- ◆ Trucks emit much more pollution into the air than do cars. Trucks generate eight times the amount of volatile organic compounds (VOCs) into the air as compared with cars. Trucks also generate 27 times more oxides of nitrogen (NOx) and 65 times more particulate matter (PM2.5) than cars do. Trucks also generate significantly more carbon monoxide (CO) than cars.¹
- ◆ Trucks cause dramatically more damage to roadways than passenger cars. One large truck (three or more axle trucks) causes as much wear and tear on roadways as over 163 passenger cars.²

As mentioned earlier, trucks on Sprague Street at Horne Street account for well over 30 percent of the daily traffic on this street — a figure that is dramatically higher than is the case on most other Boston streets (see Figure 7-1).

Finally, and perhaps most importantly, there is little to no benefit to locating truck yards and distribution facilities immediately adjacent to a commuter rail station, since they are inherently vehicle-focused uses. Locating residential uses adjacent to transit stops is both smart planning and the policy direction of the City. The result is that commuters – those traveling during the busiest travel periods of the day – will have access to commuting options (i.e., the train) other than automobiles for their daily commute.

Emergency Vehicles

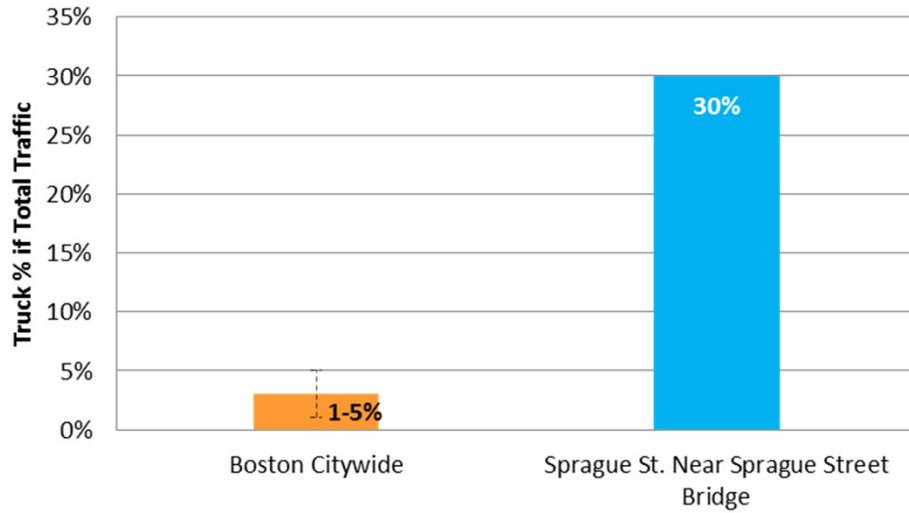
Because the development is a relatively low traffic generating residential use, impacts on emergency vehicle response time is not anticipated.

During the commuter travel periods, there are areas near the Project site that experience roadway congestion and delay, as described in Chapter 2. Given the relatively small number of new vehicles that will be added to the roadways per minute in any given direction during even the busiest times of day, the impact on emergency response times is expected to be negligible. More significantly, the set of roadway improvements that will help to better manage the Father Hart Bridge intersections and the Wolcott Square intersection that are currently under design, together with the expected improvements by the Proponent to the Sprague Street intersection with West Milton and Milton streets will add order to what can be a challenging driving situation during peak period conditions and improve priority on the roadways for emergency vehicles.

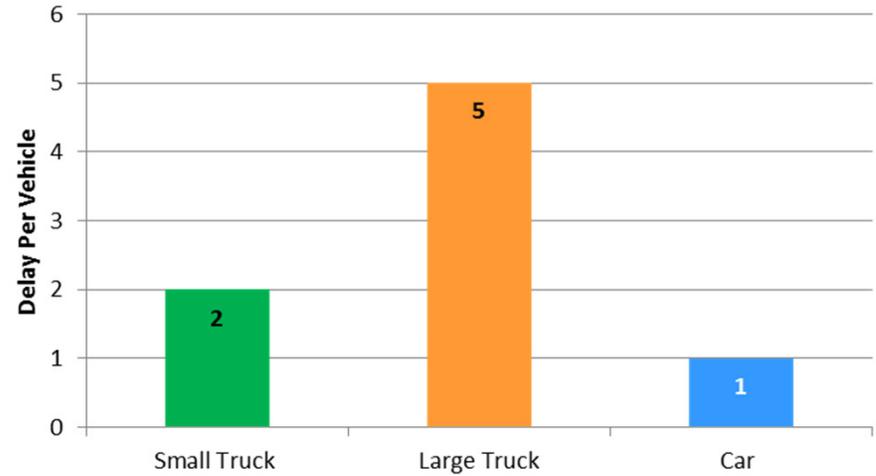
¹ “Transportation Air Quality, selected Facts and Figures,” U.S. Department of Transportation, Federal Highway Administration, February 2016.

² “Assessing the Effects of Heavy Vehicles on Local Roadways,” W. James Wilde, Center for Transportation Research and Implementation, Minnesota State University, August 2014.

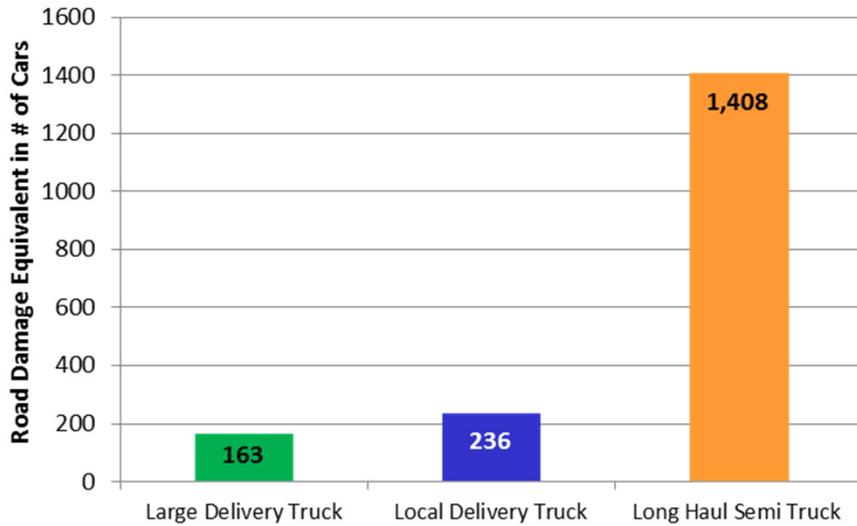
1. Sprague St. Truck/Car Ratio vs. City of Boston Truck/Car Ratio Citywide



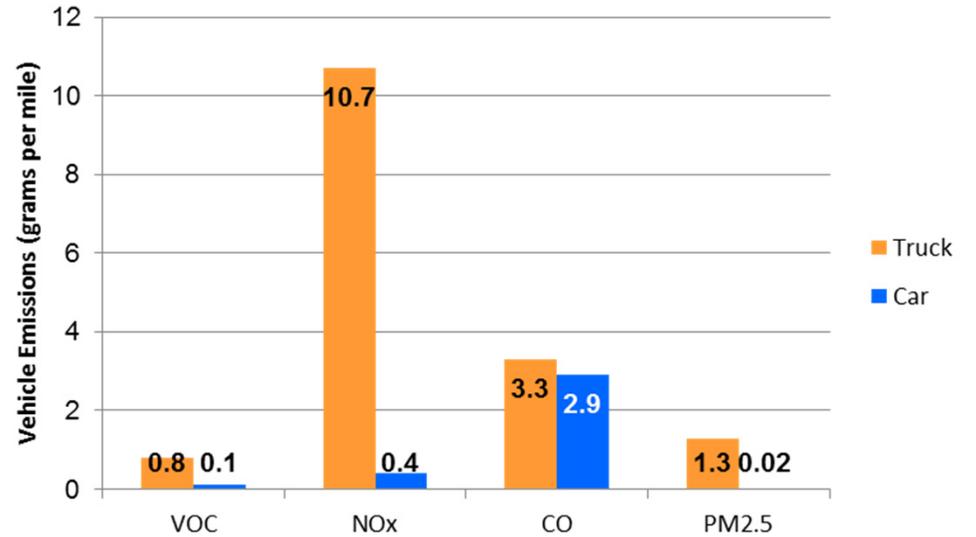
2. Traffic Delay Caused by Trucks vs. Passenger Cars



3. Road Damage Caused by Trucks vs. Passenger Cars



4. Motor Vehicle Emissions of Trucks vs. Passenger Cars



36-70 Sprague Street Readville, Massachusetts

Transit Oriented Development Analysis

The question has been asked as to whether analyzing sites close to transit stops as “transit-oriented” is valid. In Section 2.5.2, several national studies have been referenced showing the material difference in vehicular traffic generation by residential projects adjacent to transit compared to those even a short distance further from transit stops. As discussed in more detail in that section, these studies have shown that for developments like the Project that are immediately adjacent to transit, peak period vehicle trips are nearly 50% less than those not adjacent to transit, and that an added distance of only an additional 1,000 feet from a transit stop can materially add to vehicle utilization per household.

Additionally, since the issuance of the PNF, a study was done of another recently completed apartment development just outside the inner core of Boston. This project, One North of Boston, was chosen due to its size and amenity package – 452 units over two buildings, with fitness center, pool, café, etc., and proximity to a Commuter Rail station. The latter point was considered important to obtain an “apples to apples” comparison, as opposed to choosing a development adjacent to a subway rapid transit (Blue, Red, Orange or Green Line) station. Vehicle counts were conducted on a Wednesday at 10 count locations including all site surface parking lots, garage entrance/exits, and drop-off/pick-up loops. The results of this study, which are summarized on Table 2-6, show that actual peak period and daily volumes from a development of this type are very close on a per-unit basis to what the TOD trip generation analysis contained in the transportation impact assessment for the Project predicts (see Chapter 2).

7.3.2 *Affordable Housing*

The Project will include 13% of its units as “affordable housing” at 70% of area median income (AMI) with rents consistent with the City’s IDP. The “affordable” units will include both condominium and rental units (approximately 17 and 47, respectively), and will be spread throughout all four buildings of the Project. Per the City’s “2018 Income & Price Limits” chart, these units will be available to single person households earning up to \$52,850 up through six-person households earning up to \$87,550.

Additionally, the balance of the Project’s residential units will be marketed at rents that are significantly less than rents for new apartments closer to Downtown Boston. While priced higher than the 70% of AMI “affordable” units, the majority of the units in the Project will help fill a large gap in the City’s housing stock, with rents accessible to those who earn too much to be eligible for affordable housing lotteries, but not enough to afford the rents in new apartments closer to downtown.

The Project will help the City of Boston get closer to its goal of 53,000 new housing units by 2030, and more importantly, closer to its goal of 20,000 middle income housing units by 2030.

7.3.3 Construction Impacts

Section 3.7 includes information about construction impacts and measures anticipated to be used to minimize impacts during construction. Specific concerns from commenters included truck routing and impacts, impacts to nearby properties, and groundwater impacts.

Truck Routes and Impacts

The construction team will manage deliveries to the site during morning and afternoon peak hours in a manner that minimizes disruption to traffic flow on adjacent streets and keeps construction trucks off of non-arterial streets. Construction truck routes to and from the site for contractor personnel, supplies, materials, and removal of excavations required for the development will be coordinated with the BTD. Traffic logistics and routing will be planned to minimize community impacts. Trucks will not be permitted to utilize the “cut-through” routes on small neighborhood streets that are frequented by private drivers using electronic “wayfinding apps”. Truck access during construction will be determined by the BTD as part of the Construction Management Plan (CMP) process. These routes, which will designate specific roads where trucks are permitted and will provide access routes to and from major arteries, will be mandated as a part of all subcontractors’ contracts for the development.

Impacts to Nearby Properties

A CMP in compliance with the City’s Construction Management Program will be submitted to BTD once final plans are developed and the construction schedule is fixed. The construction contractor will be required to comply with the details and conditions of the approved CMP. The CMP will include information on truck routes, work schedules, staging, and methods to minimize air quality and noise impacts.

The Project team does not anticipate impacts to nearby properties for a number of reasons. First, based on soil conditions, the Project team does not anticipate any ledge removal. Second, it is anticipated that buildings will be founded on improved soils (Rammed Aggregate Piers or Grouted Concrete Columns). These foundation systems are very low impact to install, do not cause significant ground vibrations, and can be installed expeditiously. Third, the zone of influence even for damaging vibrations is typically 100 feet, and no building foundations for the Project are within 100 feet of any abutting structure. Finally, the site will be monitored by a third party during excavation and foundation work to ensure that construction-related vibration stays below the relevant standards.

Groundwater

Groundwater depths range from approximately 4 to 13 feet below the existing site grades. The Project is expected to require only minor excavation for elevator pits. Any

groundwater removal is anticipated to be recharged locally, and decreases to the water table due to the Project are not anticipated. In addition, the Project will meet or reduce the existing peak rates of stormwater discharge and volumes of stormwater runoff from the site, and promote runoff recharge to the greatest extent possible. The Project will strive to infiltrate one-inch of stormwater runoff from impervious areas into the ground to the greatest extent possible.

7.3.4 Site Uses

The Project program has been developed based on the desperate need of the City of Boston for more housing for the middle class, and a lack of any significant new construction in the immediate area for many decades.

Requests were made for the Proponent to study (a) the continued use of the site as light industrial rather than residential, and (b) keeping the Project residential, but converting some or all of the units to for-sale condominiums rather than rental apartments.

With respect to continued industrial uses, a study of the market confirmed that distribution warehouses and truck yards are the most likely industrial uses for this site, similar to those currently and formerly on the site, the new Amazon distribution facility just over the Dedham line, and many of the uses at the former Stop & Shop warehouse nearby. Accordingly, plans were created for three different configurations of industrial use. This analysis is described in greater detail in Section 1.2.5. Additionally, Section 7.3.1 provides a discussion of impacts to roadways from trucks related to industrial uses. Based on these studies and analysis, and in particular the significant benefits to the community of locating residential uses adjacent to transit as opposed to the negligible or nonexistent benefits of locating warehouse and distribution uses adjacent to transit, the Proponent continues to believe strongly that residential is the most appropriate use for this site.

With respect to the request to examine the feasibility of for-sale condominiums, however, additional market studies, together with discussions with members of the local residential real estate brokerage community, led to the conclusion that converting one of the Project's buildings from apartments to for-sale condominiums would, in fact, be feasible. The building that was chosen to be condominiums is Building 1, given this building's slight separation from the other three buildings, its larger unit count, and the presence of the restaurant in this building.

This is now part of the Project program.

7.3.5 Height and Density

The Project has been adjusted in a number of ways in response to public comments. Building 2, which fronts onto Sprague Street, has been reduced in height by approximately 22 feet (two stories), and has been set back from the sidewalk. These changes result in a reduction in the density of the Project along Sprague Street. Both buildings along Sprague

Street (Buildings 1 and 2) are now five stories. Only the two buildings abutting the train tracks and not abutting and public streets (Buildings 3 and 4) are now eight and seven stories, respectively. Additionally, Building 4 has also been revised to eliminate one leg of the original “U” shape, which results in reduced density within the courtyard.

The total reduction in density resulting from these changes is approximately 74,700 sf, which represents approximately 13% of the total Project square footage.

In addition, the program has been modified to include a greater number of smaller (studio and one-bedroom) units, and a smaller number of larger (two and three-bedroom) units. Previously, approximately 55% of the total residences in the Project were smaller (studio and one-bedroom) units; now approximately 65% of them are. As a result, while the total number of units has been reduced by approximately 29, the total number of bedrooms has been reduced by approximately 102, an approximately 13% reduction in total bedrooms.

Further, as discussed in Section 7.3.4 above, the total number of apartments on site has been reduced by approximately 157, resulting both from the massing changes to Buildings 2 and 4 and from the making the units in Building 1 for-sale condominiums rather than apartments.

Finally, it is very important to note that while the total number of units may appear large in the context of what has been built in Hyde Park in recent years, the density of the Project is actually quite low as compared with projects recently approved and built in nearby communities - because the Project’s units are spread out over 6.62 acres and interspersed with extensive green space, plazas and the new pondside park.

There are three projects recently built or under construction in nearby communities (Jamaica Plain and Dorchester) of more than 200 units each, and those three projects (Metro Mark, The Residences at Forest Hills, and Hub 25), have densities of 101, 120 and 118 units per acre, respectively. By comparison, the Project’s density is only approximately 74 units per acre. As such, the Project is only about 65% as dense as the average of those projects.

7.3.6 Public Services

Emergency Access

The Project team met with the City’s Inspectional Services Department (ISD) liaison between ISD and the Boston Fire Department (BFD) in mid-2016 to discuss the Project site and emergency access. Primary emergency access to the site will be from Sprague Street, using the three connections on the north, south and middle of the site. The primary BFD connections for Buildings 2, 3 and 4 will be along Sprague Street at the entry to Building 2. The BFD connection to Building 1 will be next to the building entry on Horne Street. The main fire command center for Project will be in either Building 3 or 4, while Buildings 2, 3

and 4 will each have their own fire command center. If access deeper into the site is required, emergency vehicles will use Horne Street which has a wide connection to Sprague Street and a wide-radius turn-around to safely accommodate emergency vehicles including large fire apparatus trucks, which will be able to drive through the site through the parking garage (which has a raised ceiling to accommodate such trucks) to the northeast side. Secondary BFD connections for Buildings 3 and 4 will be provided along the east side of the site. Space is also provided at the north end of the site around Building 3 for a fire truck three-point turn around. Alternately, fire trucks can use a service entrance through the garage back onto Horne Street to exit the site. Two hydrants will be located along the east side of the Project site as well.

Schools

The demographics that the Project is expected to attract, based on the occupants of similar buildings, are not those typically of families with school-age children. In general, it is expected that the large majority of renters and buyers will be either younger individuals and couples who do not yet have children or who have pre-school age children, or “empty nesters” who are moving to buildings like those at the Project to escape the burdens of single family home ownership. While it is not possible to say that there will be absolutely no school-age families attracted to live in the Project or that people who move in without children but then have children will not stay through school-age years, experience at other similar developments shows that it is highly uncommon for them to do so – particularly when the majority of units are studios and one-bedrooms.

7.3.7 Notices of Meetings

Several commenters were concerned about the notification of public meetings. The Proponent has committed to working with the BPDA to ensure that notifications of future meetings are provided to interested parties with plenty of advance notice. The Proponent will continue to work with the IAG designated by the BPDA.

7.3.8 Architectural Design

When the design process for the proposed Project commenced, two primary objectives were set forth by the Project team. First, the team wanted to avoid the “cookie-cutter” architecture that is so prevalent in 21st century mid-rise apartment buildings and complexes. Second, the team wanted to design the buildings in a manner that would respect the history of the site’s and area’s past, creating buildings that would be contextual and relate to the location, as opposed to buildings that could be “dropped in” from anywhere.

The buildings along Sprague Street are primarily comprised of brick and glass. Building 1 uses a traditional “mill” type of industrial “paneled” window in an even pattern. Generally, there is a distinction in the width of windows between living rooms (three panel window)

and bedrooms (two panel window), but in all cases the window height remains the same. The brick is in two subtly different colors to create a quiet hierarchy within the façade and to visually connect Building 1 to Building 2 that also has a two story “order” to its façade. The main corner of Building 1 as one approaches the Project site driving north on Sprague Street is a single color. This is intended to 1) provide a calmer backdrop for the highly articulated restaurant façade, 2) articulate or “break up” the massing, and 3) highlight the entry point to Building 1. The parking level becomes exposed as Horne Street traverses the site to access the garage level and the Brinks property. The grade drops from the level of Sprague Street (elevation 75) to the elevation of the site (elevation 62). As this drop exposes the garage façade, a green wall is used to cover this façade. The green wall is contained within a screen system specifically designed for this application. The plants of the green wall will be irrigated to maintain them over time. The articulated panels of the restaurant façade will be light weight metal panels built into the glass system.

Building 2 also is brick and glass. It has a two story structure to its facades which allows the building to have a different reading from a distance than up close. The two story registration is created by a lighter color of brick, similar in material treatment to the more regular brick articulation of Building 1. In this sense, Buildings 1 and 2 have a relationship of scale, while the façade patterns are “evolutionary”. The windows in Building 2 are staggered to differentiate the building from Building 1. The garage level of Building 2 is below grade as Sprague Street rises in elevation as one travels north. Thus, no façade treatment is required on the garage level. Building 2 has an articulated corner at the northern most end of the building marking the entry to this building as the “front door” of the apartment portion of the Project when approaching from the Sprague Street Bridge. The material treatment is similar to the articulated corner of Building 1. Both Buildings 1 and 2 have simple stepped cornices. One significant change from the original PNF design is that Building 2 now has a major recessed entry off of Sprague Street. This leads not only to the Building 2 lobby but also to a separate elevator lobby that provides accessible access to the courtyard level, 36 feet below the level of Sprague Street at this point.

Building 3 is comprised of metal or cementitious panels of similar coloration to the brick used on Buildings 1 and 2. The material change was made to further articulate this pivotal building in the development. To create a distinction between the buildings and highlight this cornerstone element, the façade pattern is slightly more articulated and staggered than Building 2. In keeping with its more modern treatment, the top cornice of Building 3 is simplified and does not have the same cornice as Buildings 1 and 2.

The base of Building 3 includes a highly articulated co-working space with façade treatment similar to the restaurant at the southern end of the site. The rest of the base of Building 3 is mostly glass in keeping with the concentration of amenity spaces in the ground floor of this building. It has public spaces inside which front on the main outdoor public space.

Building 4, which is opposite Building 2, is treated similarly to Building 2 in its façade treatment. The previous “U” shaped building has been modified to create a stronger, larger

and more unified outdoor space for the Project. Building 4 has a cornice similar to Building 2, which again is designed to focus attention on the pinnacle of the development, Building 3 and its amenity spaces.

In all cases above, the choice of materials follows the nature of the building element. For the building elements that one might expect to see in a historical “industrial landscape”, the materials include brick and industrialized cementitious panels set in a pattern representative of a repetitive structural frame; for those that are more modern, including the restaurant and shared workspace pavilions, as well as all of Building 3, the materials include a combination of glass, metal and cementitious panels. The windows represent a common denominator in all buildings. The design uses large panelized windows, ranging from a more regular pattern of Building 1 to the highly randomized pattern of Building 3, all of similar size and with industrial sash to break up the glass scale.

7.3.9 Comments Received

The table below includes the public comments received by the BPDA on the Project, as well as the concerns/questions expressed and the section of this DPIR that responds to the concern/question. Rows that are shaded identify Impact Advisory Group members. The letters are included after the table.

Table 7-1 Public Comment Letters

Name(s)	Date(s)	Address	Concerns/Questions	Response to Concerns/Questions
Victor Carrara	2/1/18	41 Clifford Street, Hyde Park	No concern referenced, general support	n/a
Patricia Tierney	7/14/17, 11/2/18	38 Milton Avenue, Hyde Park	General support, traffic	See Section 7.3.1
Tom Papadopoulos	-	1 Westinghouse Plaza, #308	No concern referenced; general support	n/a
John Taylor	-	Not provided	No concern referenced; general support	n/a
Logan Square Barber Shop	-	Not provided	No concern referenced; general support	n/a
Daniel Schwartz	-	31 Greenbrook Road, Hyde Park	No concern referenced; general support	n/a
Lawrence E. Johnson	-	31 Greenbrook Road, Hyde Park	No concern referenced; general support	n/a
Scott Batey	-	Not provided	No concern referenced; general support	n/a
George Salimbas	-	Not provided	No concern referenced; general support	n/a
Edraf Marshall	-	93 Como Road, Hyde Park	No concern referenced; general support	n/a
Joseph J. Garlifi	-	Not provided	No concern referenced; general support	n/a
Greg Lowell	-	210 Fairmount Avenue, Hyde Park	No concern referenced; general support	n/a

Table 7-1 Public Comment Letters (Continued)

Name(s)	Date(s)	Address	Concerns/Questions	Response to Concerns/Questions
David Goldberg	-	1 Westinghouse Plaza, #C331	No concern referenced; general support	n/a
Elizabeth Greene	-	1 Westinghouse Plaza, #C331	No concern referenced; general support	n/a
Deborah Leuth	-	9 Neponset Avenue, Hyde Park	No concern referenced; general support	n/a
R.M. Leuth	-	9 Neponset Avenue, Hyde Park	No concern referenced; general support	n/a
Chris Leuth	-	9 Neponset Avenue, Hyde Park	No concern referenced; general support	n/a
Kara Lennon	-	Not provided	No concern referenced; general support	n/a
Thaddeus Constantine	1/12/18, 1/30/18	1 Westinghouse Plaza, #C207, Hyde Park	No concern referenced; general support	n/a
Lisa Goren	1/12/18, 1/24/18	29 Gordon Avenue, Hyde Park	No concern referenced; general support	n/a
Jayne Washington	1/20/18	3 Allied Drive, Dedham	No concern referenced; general support	n/a
Kerry Klaas	1/11/18, 1/25/18	Not provided	No concern referenced; general support	n/a
Brian W. Allieri	2/5/18	999 Metropolitan Avenue, Hyde Park	No concern referenced;	n/a
Karen Kirchoff	1/31/18, 2/5/18	16 Cohasset Street, Roslindale	Affordable Housing	See Section 7.3.2
Jill Cowie	1/31/18	43 Bradwood Street, Roslindale	Affordable Housing	See Section 7.3.2
Dana Rousmaniere	1/15/18	303 Fairmount Avenue, Hyde Park	Traffic, parking, density, public open space	See Sections 7.3.1, 7.3.5, 7.3.4
Melissa Luna	1/11/18	Hyde Park	Notice of meetings	7.3.7
Jackie Lyons	1/11/18	Readville	Community participation	See Section 7.3.7
Ivette Timberlake	1/11/18	Readville	Traffic, density, height, amenities	See Sections 7.3.1, 7.3.5, 7.3.4

Table 7-1 Public Comment Letters (Continued)

Name(s)	Date(s)	Address	Concerns/Questions	Response to Concerns/Questions
Citizens for the Preservation of Readville	8/29/17, 10/26/17, 10/31/17	Readville	Composition of IAG members, site uses, traffic	See Sections 7.3.7, 7.3.4, 7.3.1
Kelly McAuley	1/26/18	Dedham	Traffic	See Section 7.3.1
Antoinette	1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Dauphin Jean	1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Lina Ramirez	1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Jaime Pullen	1/31/18	Roslindale	Affordable Housing	See Section 7.3.2
Quiana & Uka Agbai	1/25/18	Hyde Park	Affordable Housing	See Section 7.3.2
Mula Chery	1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Sheila Burke	1/10/18, 1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Gabriel Spivey	1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Arielle Sping	1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Claire H. Gosselin	1/31/18	25 Cotton Street, Roslindale	Affordable Housing	See Section 7.3.2
Alexander Nadel	1/31/18	Roslindale	Affordable Housing	See Section 7.3.2
Gladys Alexander	1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Chantal Firmin	1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Nicole Wiggins	1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Sonie Johnson	1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Segun Idouri	1/22/18	Hyde Park	Affordable Housing	See Section 7.3.2
Harry Gardner	-	16 Stanbro Street, Readville	Traffic, density, notice of meetings	See Sections 7.3.1, 7.3.5, 7.3.7
Craig Martin	1/30/18, 1/30/18	8 Colchester Road, Readville	Public services, affordable housing, site uses	See Sections 7.3.6, 7.3.2, 7.3.4
Roy & Catherine Prout	1/23/18	17 Colchester Street, Readville	Density, traffic	See Sections 7.3.5, 7.3.1
Josephine Pero		47 ½ W. Milton Street, Hyde Park	Density	See Section 7.3.5
Ann Erickson	1/28/18	151 Bonham Road, Readville	Traffic	See Section 7.3.1

Table 7-1 Public Comment Letters (Continued)

Name(s)	Date(s)	Address	Concerns/Questions	Response to Concerns/Questions
Roberta Johnnene	2/1/18	100 West Milton Street, Readville	Density, height, transportation, affordable housing	See Sections 7.3.5, 7.3.1, 7.3.2
Michael G. King	1/11/18	44 School Street, apt C24, Weston	Traffic	See Section 7.3.1
Rachel MacDonnell	2/2/18	16 Norton Street, Readville	Traffic, density	See Sections 7.3.1, 7.3.5
Christopher MacDonnell	2/2/18	16 Norton Street, Readville	Traffic	See Section 7.3.1
Jeanine McCartan	1/26/18	84 Lancaster Road, Dedham	Traffic, density, public services	See Sections 7.3.1, 7.3.5, 7.3.6
Mimi Turchinetz	2/2/18	32 Dell Avenue, Hyde Park	Density, design	See Sections 7.3.5, 7.3.8
Marcia Cibotti	2/2/18	Not provided	Traffic, public services	See Section 7.3.1, 7.3.6
Barbara Domingos	2/2/18	1854 River Street, Readville	Density, traffic	See Sections 7.3.5, 7.3.1
Martha McDonough	2/2/18	Readville	Construction impacts, ACEC area	See Sections 7.3.3
Susan Sarkis	7/10/17, 1/27/18, 2/2/18, 2/2/18	Hyde Park	Notice of meetings, density	See Sections 7.3.7, 7.3.5
Bryan Esposito	2/1/18	Roslindale	Traffic, notices of meetings	See Section 7.3.2
Laura Sims	2/1/18	Not provided	Traffic, construction impacts	See Sections 7.3.1, 7.3.3
Stefan & Jaqueline Crosby	2/1/18	Not provided	Traffic	See Section 7.3.1
Diane Cannata	2/1/18	1825 River Street	Traffic, parking	See Section 7.3.1
Eileen McKee	2/1/18	No provided	Traffic	See Section 7.3.1
David J. Mello	2/1/18	46 West Milton Street, Hyde Park	Traffic, parking, density	See Sections 7.3.1, 7.3.5
Michael & Annmarie Welch	2/1/18	Not provided	Density	See Section 7.3.5
Bonnie T.	2/1/18	Not provided	Traffic, parking, public services density, affordable housing	See Sections 7.3.1, 7.3.6, 7.3.5, 7.3.2
Joan Tanos	1/31/18	6 Imbaro Road, Readville	Density	See Section 7.3.5
Mark Carr	1/31/18	Not provided	Traffic	See Section 7.3.1

Table 7-1 Public Comment Letters (Continued)

Name(s)	Date(s)	Address	Concerns/Questions	Response to Concerns/Questions
Christine Sims	1/31/18	75 Readville Street, Readville	Traffic, construction impacts	See Sections 7.3.1, 7.3.3
Conor Boyle	1/31/18	Como Road, Readville	Density, traffic	See Sections 7.3.5, 7.3.1
Barbara Baxter	1/31/18	Not provided	Traffic, public services	See Sections 7.3.1, 7.3.6
John Kenney	1/31/18	Not provided	Traffic	See Section 7.3.1
E. Goldrick	1/29/18	Not provided	Traffic, density, public services	See Sections 7.3.1, 7.3.5, 7.3.6
Erin Judge	1/31/18	Not provided	Traffic, affordable housing	See Sections 7.3.1, 7.3.2
6172305953@tmomail.net	1/29/18	Not provided	Traffic	See Section 7.3.1
Theresa & Carmen Filleti	1/29/18	Not provided	Traffic, public services	See Sections 7.3.1, 7.3.6
Cheryl Hamm	1/29/18	110 Chesterfield Street, Readville	Opposed	n/a
Nancy Kelley	1/29/18, 1/29/18	45 Sprague Place	Density, construction impacts	See Sections 7.3.5, 7.3.3
John Hamm	1/29/18	110 Chesterfield Street, Readville	Density	See Section 7.3.5
Erin Tretheway	1/26/18	Not provided	Traffic	See Section 7.3.1
Richard & Mary Kanaskie	1/27/18	19 Pinefield Road, Readville	Traffic, public services	See Sections 7.3.1, 7.3.6
Rachel & Jared Wacht	1/28/18	Not provided	Construction impacts, traffic	See Sections 7.3.3, 7.3.1
William A. Stec	1/26/18	45 Gerard Street, Boston	Opposed	n/a
Anne Francis	1/26/18	86 Durham Road, Dedham	Traffic	See Section 7.3.1
Elizabeth Messina	1/26/18	Not provided	Traffic	See Section 7.3.1
Lyn Goode	1/26/18	Not provided	Traffic	See Section 7.3.1
Karen Palumbo	7/8/17, 1/24/18	Not provided	Traffic	See Section 7.3.1
Michelle Hache	1/26/18	130 Gainsville Road	Traffic	See Section 7.3.1
Lynda Costello	1/25/18	107 Hooper Road, Dedham	Traffic	See Section 7.3.1
Marine Zakuta	1/24/18	103 Durham Road, Dedham	Traffic	See Section 7.3.1

Table 7-1 Public Comment Letters (Continued)

Name(s)	Date(s)	Address	Concerns/Questions	Response to Concerns/Questions
Tom Sullivan	1/24/18	Not provided	Construction impacts, water-table in Prescott Street and Wolcott Street	See Sections 7.3.3
Denise O’Connell	1/24/18	25 Hamilton Street, Readville	Traffic	See Section 7.3.1
D. Sarge	1/17/18	Not provided	Traffic, parking	See Section 7.3.1
Dolores Porziella	6/22/17, 12/1/17, 1/11/18	Not provided	Traffic, density	See Sections 7.3.1, 7.3.5
Maria Petruzzello	11/22/17	Not provided	Density	See Section 7.3.5
Angela Finn	10/19/17	Not provided	Traffic	See Section 7.3.1
Charles Dow	6/23/17	Not provided	No concern referenced; general support	n/a
Dianne Qualter	6/26/17, 1/29/18	Not provided	Traffic, site uses	See Sections 7.3.1, 7.3.4
Costa Tsolirides	6/26/17	23 Leominster Road, Dedham	General support, design	See Section 7.3.8
Richard McKenna	6/26/17	Not provided	Site uses	See Section 7.3.4
Erin Reed	6/26/17	Not provided	Affordable housing, traffic, site uses	See Sections 7.3.2, 7.3.1, 7.3.4
Vicki Cibotti	6/28/17	Not provided	Public services, traffic, construction impacts	See Sections 7.3.6, 7.3.1, 7.3.3
Miriam Carr	7/7/17	Readville	Traffic	See Section 7.3.1
Roy Crossley	7/7/17	Not provided	Traffic	See Section 7.3.1
Jim LaFond-Lewis	7/7/17	Not provided	Traffic	See Section 7.3.1
Jessica Sevino	7/7/17	Not provided	No concern referenced; general support	n/a
Carol Hayes	7/7/17	Not provided	Height, density, traffic	See Sections 7.3.5, 7.3.1
Alyson Gualley	7/7/17	Not provided	Traffic, density	See Sections 7.3.1, 7.3.5
Kathleen Regan	7/7/17	Not provided	Traffic	See Section 7.3.1
Michael Farren	7/7/17	Not provided	Traffic	See Section 7.3.1

Table 7-1 Public Comment Letters (Continued)

Name(s)	Date(s)	Address	Concerns/Questions	Response to Concerns/Questions
Jarrod LeBlanc	7/7/17	Not provided	Density	See Section 7.3.5
Gale Berger	7/7/17	Not provided	Traffic	See Section 7.3.1
Charles Knecht	7/7/17	Not provided	Traffic, density	See Sections 7.3.1, 7.3.5
Ashley R.	7/7/17	Not provided	Traffic	See Section 7.3.1
Michael Healey	7/8/17	Not provided	Traffic	See Section 7.3.1
Marianne Martin	7/8/17	Dedham	Traffic, density	See Sections 7.3.1, 7.3.5
Mary Bender	7/8/17	Not provided	General support, height, density, traffic	See Sections 7.3.5, 7.3.1
Pamela Aist	7/8/17	Not provided	Height, density	See Section 7.3.5
Eugene Favret	7/8/17	Not provided	Traffic	See Section 7.3.1
Rose Favret	7/9/17	Not provided	Traffic, density	See Sections 7.3.1, 7.3.5
George Wons	7/9/17	Not provided	Public services	See Section 7.3.6
Jim Maher	7/9/17	Not provided	Traffic	See Section 7.3.1
Carla Healey	7/10/17	Not provided	Traffic, density	See Sections 7.3.1, 7.3.5
Sean Kelley	7/10/17	Not provided	Traffic	See Section 7.3.1
Roma McKenzie-Campbell	7/10/17	Not provided	Traffic	See Section 7.3.1
Anthony Ruscito	7/11/17	Not provided	Density, traffic	See Sections 7.3.5, 7.3.1
Francesca Piccirilli	7/11/18	Not provided	Density, traffic	See Sections 7.3.5, 7.3.1
Aldo Porziella	1/11/8	Not provided	Height, density	See Section 7.3.5
Danielle Jurdan	1/11/18	Not provided	Traffic	See Section 7.3.1
Brandon Gifford	1/11/18	Not provided	General support, traffic	See Section 7.3.1
Larry Rich	1/11/18	Not provided	Traffic, density	See Sections 7.3.1, 7.3.5
Tara O'Brien	1/11/18	Not provided	Traffic, density	See Sections 7.3.1, 7.3.5
Ann Gentile	1/11/18	Not provided	Traffic	See Section 7.3.1
Dave Vittorini	1/12/18	Not provided	No concern referenced; general support	n/a
Sean Sullivan	1/12/18	Not provided	Traffic	See Section 7.3.1

Table 7-1 Public Comment Letters (Continued)

Name(s)	Date(s)	Address	Concerns/Questions	Response to Concerns/Questions
Sean Hurley	1/12/18	Not provided	General Support, Traffic	See Section 7.3.1
Jay Paget	1/12/18	Hyde Park	No concern referenced; general support	n/a
Maryanne Dineene-Norton	1/12/18	Not provided	Traffic, density, design	See Sections 7.3.1, 7.3.5, 7.3.8
Cyrus Tehrani	1/12/18	Boston	No concern referenced; general support	n/a
Matthew Conley	1/12/18	Not provided	Traffic	See Section 7.3.1
Patty Hickey	1/12/18	Readville	Traffic	See Section 7.3.1
MaryAnne MacPhail	1/12/18	Not provided	General support, traffic	See Section 7.3.1
Stephanie Golas	1/13/18	Not provided	No concern referenced; general support	n/a
Kristene Boucher	1/13/18	Not provided	General support, transportation	See Section 7.3.1
Kathy Riley	1/13/18	Readville	Height, density, traffic	See Sections 7.3.5, 7.3.1
Nancy Landry	1/13/18	Not provided	Traffic	See Section 7.3.1
Daniel Farnkoff	1/13/18	Not provided	General support, traffic, affordable housing	See Section 7.3.1, 7.3.2
Mike Carr	1/16/18	Not provided	Traffic	See Section 7.3.1
Susan Carr	1/16/18	Not provided	Traffic	See Section 7.3.1
Kelsey Barber	1/16/18	Not provided	General support, density, affordable housing	See Sections 7.3.5, 7.3.2
Richard McMurtry	1/16/18	Readville	Density, traffic	See Sections 7.3.5, 7.3.1
Danielle McMurtry	1/16/18	Not provided	Density, traffic	See Sections 7.3.5, 7.3.1
Kelley Coyne	1/17/18	Not provided	General support, height, density, traffic	See Sections 7.3.5, 7.3.1
Rachel Roberts	1/17/18	Hyde Park	No concern referenced; general support	n/a
Thomas Taylor	1/18/18	Not provided	No concern referenced; general support	n/a

Table 7-1 Public Comment Letters (Continued)

Name(s)	Date(s)	Address	Concerns/Questions	Response to Concerns/Questions
Kadineyse Paz	1/19/18	Not provided	General support, affordable housing	See Section 7.3.2
Erica Schwartz	1/23/18	Not provided	Affordable housing	See Section 7.3.2
Heidi Eagles	1/24/18	Not provided	Traffic	See Section 7.3.1
Albert Micozzi	1/27/18	Not provided	Traffic, public services	See Sections 7.3.1, 7.3.6
Ray Foley	1/27/18	Not provided	Traffic	See Section 7.3.1
Claretta Tonetti	1/27/18	Not provided	Traffic	See Section 7.3.1
Russell Roberts	1/27/18	Not provided	Traffic	See Section 7.3.1
Stacey Roberts	1/27/18	Not provided	Traffic	See Section 7.3.1
Ean White	1/27/18	Not provided	General support, density, traffic, design	See Sections 7.3.5, 7.3.1, 7.3.8
Lucille Barney	1/28/18	Readville	Traffic	See Section 7.3.1
Jennifer Moses	1/29/18	Dedham	General support, traffic	See Section 7.3.1
Diane McDonnell	1/29/18	Not provided	Affordable housing	See Section 7.3.2
Steven Verity	1/29/18	Not provided	General support, traffic	See Section 7.3.1
David Powell	1/29/18	Not provided	Traffic	See Section 7.3.1
Gerry Roth	1/29/18	Not provided	Traffic	See Section 7.3.1
Roberta Babiaza	1/29/18	Not provided	Density, traffic	See Section 7.3.5, 7.3.1
Leon Martin	1/29/18	Not provided	General support, density, traffic	See Section 7.3.5, 7.3.1
Joanne Connerty	1/29/18	Not provided	General support, traffic	See Section 7.3.1
Harriet DiMarzio	1/29/18	Not provided	Traffic	See Section 7.3.1
Anita Constantino	1/30/18	Readville	Traffic	See Section 7.3.1
Allan McNab	1/31/18	Not provided	No concern referenced; general support	n/a
Ariel Laitao	1/31/18	Not provided	Traffic	See Section 7.3.1
John Malinski	1/31/18	Not provided	Density, traffic	See Sections 7.3.5, 7.3.1
Joyce Barnes	1/31/18	Not provided	Traffic	See Section 7.3.1
Jay Baskowski	1/31/18	Not provided	Traffic	See Section 7.3.1

Table 7-1 Public Comment Letters (Continued)

Name(s)	Date(s)	Address	Concerns/Questions	Response to Concerns/Questions
Michael Nestrud	1/31/18	Not provided	General support, traffic	See Section 7.3.1
Philip Cabral	2/1/18	Not provided	Density	See Section 7.3.5
Jarred Jones	2/1/18	Not provided	Parking, transportation	See Section 7.3.1
Jo-Ann Duke	2/1/18	4 Albemarie Court, Readville	Traffic	See Section 7.3.1
John Bunker	2/1/18	Not provided	Traffic	See Section 7.3.1
Anthony Dowling	2/1/18	36 Clifford Street, Readville	General support, density, height, site uses, design	See Sections 7.3.5, 7.3.4, 7.3.8
Catherine Dunphy	2/1/18	Not provided	Traffic	See Section 7.3.1
Teresa Neff	2/1/18	Not provided	General support, traffic	See Section 7.3.1
Tom Brennan	2/1/18	Not provided	Density	See Section 7.3.5
Peter Aldins	2/1/18	Not provided	General support, traffic	See Section 7.3.1
Anna Aldins	2/1/18	Not provided	General support, transportation	See Section 7.3.1
Robert Gallagher	2/2/18	Not provided	General support, density, design	See Sections 7.3.5, 7.3.8
Michael Goff	2/2/18	Not provided	Height, density	See Section 7.3.5
Doreen Hayes	2/2/18	Not provided	Traffic	See Section 7.3.1
Rauny Baez	2/2/18	Hyde Park	No concern referenced; general support	n/a

Note: Shaded rows identify the Project's IAG members.

July 14, 2017

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

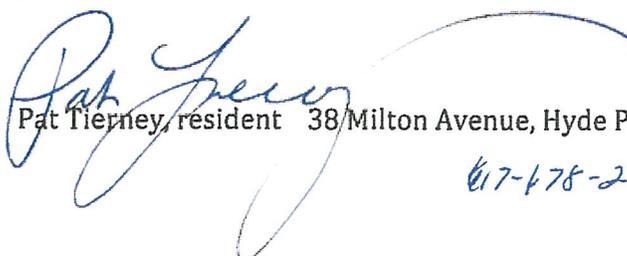
Dear Mr. Campbell:

I am a Homeowner, Commercial Property Owner and Business Owner with strong ties and Affection for Hyde Park. I have read all the details about the proposed development at 36-40 Sprague Street, Readville and I Strongly support the proposal!

It is the very FIRST unique, well planned housing development proposal we have seen in Hyde Park in many years. Its Proximity to the commuter rail, the Classic Campus Style design of the project, the amenities available to the community, the *price point* and the demographic it will attract are among the reasons this project must move forward. Many young people want to live in the city, want to have access to transportation, want to enjoy the benefits of on-site swimming pool, work out facility, we/work space but they have been priced out of the city market. This is a chance for Hyde Park/Readville to attract residents between the ages of 25-35, professionals that will bring their energy and their financial support to the local business community. They will shop in the district and eat in the restaurants and potentially create a demand for more! Another candidate for this type of residence is the, "ready for the downsize generation" of which Hyde Park has many. Many are moving to enjoy rental experiences like this in suburbia. Why will they come? Because this unique downtown type of housing, *with all its perks*, will be available for half of what one would pay in the city core or in the suburbs. Everything you want just a few minutes to downtown.

The beautification of Sprague Pond and the creation of a small sitting park/space is a community benefit as well as a residential amenity. An area long home to heavy equipment, cars, trucks, busses will be transformed into a vital, beautiful residential complex that will bring revenue to the tax base for the city and quality housing. It is a project that has it all. Appeal to young and old, proximity to restaurants, shopping, transportation as well as open space, greenery, hiking and biking...something for everyone.

We too often forget that housing takes the biggest portion of our earnings. This project offers quality housing with significant benefits and at the same time promotes positive growth within the Readville and Greater Hyde Park communities.


Pat Tierney, resident 38 Milton Avenue, Hyde Park
617-678-2710

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I am writing to express my support of the re-development on 36-40 and 50-70 Sprague Street in Readville. I live in Hyde Park and I love the idea of replacing the concrete maintenance yards and the warehouses with new housing. Housing, which I believe will attract young professionals that will bring new life and provide economic support to the Hyde Park business community.

The proposed landscaping, attractive buildings and the creation of a new public park alongside Sprague Pond will surely beautify the area. Sprague Pond will now have picnic tables, seating and walking paths making it accessible to all of the residents of Hyde Park.

As a resident and business owner in Hyde Park, I look forward to seeing the positive progress of this development.

Sincerely,


Tom Papadopoulos
1 Westinghouse Plaza #308

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I am writing to enthusiastically support the proposed development of 36-40 and 50 - 70 Sprague Street, in Readville, MA.

I believe it will bring an influx of young professionals who will stimulate economic growth and development in our community. Transforming the concrete maintenance yards into attractive housing with additional commercial and retail space will beautify the area while adding to the neighborhood's tax base.

Hyde Park possesses a surplus of underdeveloped, industrial areas, which do little more consume its space. This development is an opportunity to utilize this resource in Hyde Park. Thank you for your attention to this matter.

Sincerely,

John Taylor
78 Business St.

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I am writing to officially my support for the proposed development at 36-40 and 50 - 70 Sprague Street, in Readville, MA.

I believe that this development is a unique opportunity to contribute to the economic, social, cultural, and recreational development of Hyde Park. As such, failure to move forward with the proposed development would create a significant risk of financial and cultural loss for Hyde Park.

Thank you for your time and consideration. Feel free to contact me if you have any questions or need additional information.

Sincerely,

LOGAN SQUARE
BARBER SHOP
AJ Farin

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I am writing to express my support for the redevelopment on 36-40 and 50-70 Sprague Street in Readville. I believe it will create significant benefits for the overall Hyde Park Community.

The developer's plan to replace the old warehouses and maintenance yards with attractive landscaped buildings will beautify the neighborhood. It will also provide construction jobs, permanent jobs as well as hundreds of new residents to support our local retailers and businesses.

This development is essential for the future of Hyde Park. Feel free to contact me with any questions you may have or support you may need.

Sincerely,

Daniel Schwartz
31 Greenbrook Rd
Hyde Park

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I would like to support the new development on 36-40 and 50-70 Sprague Street in Readville. This type of housing will improve the value of the neighborhood and stimulate positive growth throughout our entire community.

Currently, there are old warehouses and truck yards on the property. The developer is proposing a beautifully landscaped property with attractive buildings offering an array of amenities including a pool, restaurant and proximity to the Readville Station. This housing will attract young professionals will support local businesses and help attract new retailers to Hyde Park.

Thank you for your time and consideration. Please do not hesitate to contact me if you need additional information.

Sincerely,



Lawrence E. Johnson
31 Greenbrook Rd
Hyde Park MA 02136

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

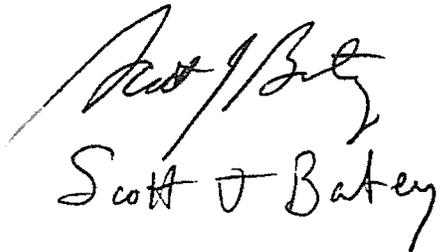
Dear Mr. Campbell:

I am a resident and business owner in Hyde Park and I am writing to support the proposed development on 36-40 and 50-70 Sprague Street. I believe it will promote positive growth within the Readville and greater Hyde Park Communities.

This development will replace the truck yards and warehouses on Sprague Street with a beautifully landscaped housing while providing construction jobs and permanent jobs for our community.

I look forward to continued revitalization of Hyde Park! Thank you for your time and consideration.

Sincerely,



Scott J Batley

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I enthusiastically support the re-development on 36-40 and 50-70 Sprague Street in Readville. As a resident and realtor in Hyde Park, I believe this type of housing will improve the value of our community.

This development is a unique opportunity to contribute to the economic, social, cultural, and recreational spheres of Hyde Park. An investment in the area will result in the influx of young professionals into our community, a growing subset of the Greater Boston population that has otherwise eluded Hyde Park. It will provide additional commercial and retail space which will increase our neighborhood's tax base, and provide social and recreational opportunities for all of Hyde Park's residents.

Failure to move forward with the proposed development at 36-40 and 50 - 70 Sprague Street would create a significant risk of economic and cultural loss for Hyde Park.

Feel free to contact me if you have any questions or need additional support. Thank you.

Sincerely,



George Salimbas

Kennedy Cleaners

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I am writing to officially my support for the proposed development at 36-40 and 50 – 70 Sprague Street, in Readville, MA.

I believe that this development is a unique opportunity to contribute to the economic, social, cultural, and recreational development of Hyde Park. As such, failure to move forward with the proposed development would create a significant risk of financial and cultural loss for Hyde Park.

Thank you for your time and consideration. Feel free to contact me if you have any questions or need additional information.

Sincerely,

Edward Marshall
93 Cong Rd
Hyde Park, MA

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

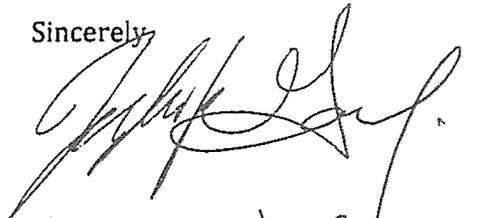
I enthusiastically support the re-development on 36-40 and 50-70 Sprague Street in Readville. As a resident and realtor in Hyde Park, I believe this type of housing will improve the value of our community.

This development is a unique opportunity to contribute to the economic, social, cultural, and recreational spheres of Hyde Park. An investment in the area will result in the influx of young professionals into our community, a growing subset of the Greater Boston population that has otherwise eluded Hyde Park. It will provide additional commercial and retail space which will increase our neighborhood's tax base, and provide social and recreational opportunities for all of Hyde Park's residents.

Failure to move forward with the proposed development at 36-40 and 50 – 70 Sprague Street would create a significant risk of economic and cultural loss for Hyde Park.

Feel free to contact me if you have any questions or need additional support. Thank you.

Sincerely,



JOSEPH J. CARUFFI
OWNER
ANTONIO'S BACARO

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I am writing to express my support of the proposed development on 36-40 and 50-70 Sprague Street. There is a lack of development in Hyde Park. This housing will infuse new life into Readville and the greater Hyde Park community.

I believe it will beautify the neighborhood, and bring in hundreds of new residents to support the local community while creating new jobs.

I look forward to seeing the positive progress of this development. Thank you.

Sincerely,

Drew Lovell
210 Fairmount Ave,
Hyde Park.

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I am writing to support the redevelopment of 36-40 and 50-70 Sprague Street, Readville, Massachusetts. I believe this is a unique opportunity that will contribute to the economic, social and recreational development of Hyde Park.

An investment in this area will beautify the neighborhood, create new jobs and attract young professionals who will support our community and local businesses. The developer has also promised to create a park along Sprague Pond with picnic areas, and walking paths making it accessible to the entire Community.

I look forward to the success of this development!

Sincerely,

David Goldberg
Westinghouse Plz. #C331
Boston, Ma. 02130

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I am writing in support of the redevelopment of 36-40 and 50-70 Sprague Street. I think the location is perfect. It will replace the existing industrial areas with modern, attractive housing just minutes from the Readville Station.

In addition to the impressive design and location, the plans also call for the creation of a new public park along Sprague Pond with benches, picnic tables and walking paths. This will open up the pond and give access to all local residents of Readville and Hyde Park.

Thank you for your time and consideration.

Sincerely,

Elizabeth L. Greenup


1 Westinghouse Plaza
C331
Boston MA 02136

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I strongly support the new development on 36-40 and 50-70 Sprague Street in Readville. I believe it will foster positive economic growth within the Community.

Replacing the existing warehouses and maintenance yards with this attractive, modern housing will beautify the neighborhood while attracting young professionals who will support the local businesses in the Hyde Park.

Thank you for your time and consideration. Feel free to contact me with any questions you may have or if I can be of further assistance. Thank you.

Sincerely,



Deborah Leuth

9 Neponset Avenue Hyde Park MA 02136
857-205-1604

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I support the development of on 36-40 and 50-70 Sprague Street in Readville.

I am impressed with the scope and design of the property with its modern buildings and amenities including a pool, restaurant and a pond side lounge. Hyde Park is in desperate need of this type of housing. I believe it will promote positive growth within the community.

Thank you.

A handwritten signature in black ink, appearing to read "R M Keatts". The signature is fluid and cursive, with a horizontal line extending from the end of the name.

9 Neponset Ave.
Hyde Park, MA

617-360-1020

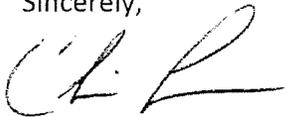
Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Campbell:

I am writing to express my support the re-development of on 36-40 and 50-70 Sprague Street. Readville and Hyde Park are in need of positive and considerate development. This proposed housing will attract young professionals that will be invested in the community and help support the local businesses.

I look forward the continued revitalization of Hyde Park. Thank you again for your time and attention to this matter. If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

 Chris Leuth

9 Neponset Ave

Hyde Park, MA 02136

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

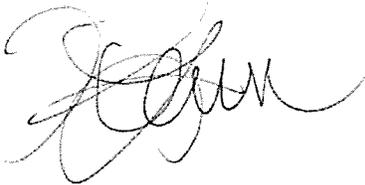
Dear Mr. Campbell:

I would like to support the new development on 36-40 and 50-70 Sprague Street in Readville. This type of housing will improve the value of the neighborhood and stimulate positive growth throughout our entire community.

Currently, there are old warehouses and truck yards on the property. The developer is proposing a beautifully landscaped property with attractive buildings offering an array of amenities including a pool, restaurant and proximity to the Readville Station. This housing will attract young professionals will support local businesses and help attract new retailers to Hyde Park.

Thank you for your time and consideration. Please do not hesitate to contact me if you need additional information.

Sincerely,

 Kara Lennon



Lance Campbell <lance.campbell@boston.gov>

Sprague Street Development

Thad Constantine <thadconstantine@hotmail.com>
To: "Lance.Campbell@boston.gov" <Lance.Campbell@boston.gov>

Tue, Jan 30, 2018 at 4:13 PM

Dear Mr. Campbell,

I am writing in support of the new development on Sprague Street, just south of the Readville Commuter Rail Station. I think that Readville will benefit from having more residents that will help make it a more vibrant community. Added restaurants and stores will help keep people in Readville as well. Hopefully having more residents will also encourage the MBTA to expand service to Readville. The added younger residents should help revitalize Wolcott Square as well. Better that we have new residents who are likely to use the commuter rail into the city than more warehouses and distribution centers which just further clog up our roads. I hope that the developer will continue to work with the city and state to mitigate the current traffic issues on the Milton Street Bridge and into Wolcott Square.

Thanks,

Thaddeus Constantine

[1 Westinghouse Plaza, Unit C207](#)

Hyde Park, MA [02136](#)

[617-947-3806](#)



Lance Campbell <lance.campbell@boston.gov>

Sprague Street Development

Lisa Goren <lisagoren59@gmail.com>
To: lance.campbell@boston.gov
Cc: Timothy McCarthy <timothy.mccarthy@boston.gov>

Wed, Jan 24, 2018 at 2:19 PM

Hi Mr. Campbell,

I was unable to attend the large meeting which discussed the Sprague Street Development.

As a longtime resident of Hyde Park (20+ years), I want to say that I 100% support this development. We need new businesses and new people in this area. I apologize for not being there and hope you will take this as a vote FOR the development.

Thanks!

Lisa

[Lisagoren59@gmail.com](mailto:lisagoren59@gmail.com)

www.lisagorenpaintings.com

www.lisagorenpaintings.wordpress.com

29 Gordon Avenue

Hyde Park, MA 02136

617-361-0716



Lance Campbell <lance.campbell@boston.gov>

Supporting 36-70 Sprague Street Project

Jayne Washington <jayne@washtone.com>
To: lance.campbell@boston.gov

Sat, Jan 20, 2018 at 1:51 AM

Dear Mr. Campbell,

I hope this email finds you well and in good health. I am a homeowner in Readville very close to Sprague Street. My neighbor, Mrs. Kerry Klaas, contacted me in regards to the proposed development and wanted to know if I was aware of it.

I am so glad she did. My husband and I fully support this project and would also like to be notified when meetings with the development team will occur so we can show our support.

I look forward to hearing back from you soon.

Kindly,

Jayne Washington
President of WashTone Media

WashTone Media
3 Allied Drive
Suite 303A
Dedham, MA 02026
1-781-489-3015

We are Certified Partners with:





Lance Campbell <lance.campbell@boston.gov>

Sprague Street Project

Kerry Klaas <kerryaustin@yahoo.com>
To: lance.campbell@boston.gov

Thu, Jan 11, 2018 at 10:24 AM

Hi Lance,

My name is Kerry Klaas and I'm a 10 year resident of Readville. I attended the meeting last night and based on how it went, I'm obviously in the minority of residents who support the project. The longer term (older) residents are holding a strong stance against it, but more than anything I was appalled by the way they represented the neighborhood. They were rude to the developer and his team and I heard some negative chatter about you as well. I hardly said whether I supported the project or not, but nevertheless was bullied by the woman next to me. I left the meeting feeling dejected and annoyed.

There are a good number of younger families who have moved to Readville. Personally my husband and I bought a new construction single family on Waterloo Street 10 years ago (which I'm sure the older residents weren't happy with as well). We're raising our three young children here. I care about the neighborhood. I singled handily got one-sided parking passed on our street and in addition had a heroin dealer arrested and evicted from the apartment building next door. So unless the older residents have some secret potion and are going to live forever, then us younger residents should have a say in the future of our neighborhood. The older residents are obviously against any kind of change (I'm sure they're the types who also balk at modern conveniences such as online banking, Uber and iPhones).

Given all that, is there a group you can put me in touch with who actually supports the project?

Best regards,
Kerry Klaas
617-331-8759

Lance Campbell
Senior Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

February 5, 2018

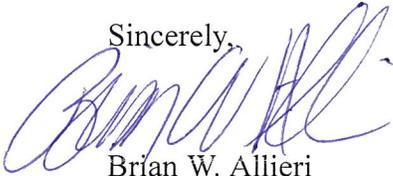
Dear Mr. Campbell,

I am writing to express my support for the redevelopment on the 36-40 and 50-70 Sprague Street in Readville. I believe it will create significant benefits for the overall Hyde Park Community.

The developer's plan to replace the old warehouses and maintenance yards with attractive landscaped buildings will beautify the neighborhood. It will also provide construction jobs permanent jobs as well as hundreds of new residents to support our local retailers and businesses.

I believe that this development is exactly the boost Hyde Park needs and is essential for the future of Hyde Park. Feel free to contact me with any questions you may have or support you may need.

Sincerely,



Brian W. Allieri
999 Metropolitan Ave.
Hyde Park, MA 02136
617-823-0227

January 31, 2018

BRA

'18 FEB 5 PM 2:36:00

Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Karen Kirchoff. I am a long-time independent business owner (more than 20 years), over ten years now based in Roslindale. As a resident I advocate, with my community, for affordable, accessible housing here in our neighborhoods. My business practice sees a diverse demographic of clients and I am concerned about these neighbors and clients being displaced by proposals like that for **36-70 Sprague Street in Hyde Park**.

This housing development proposal must provide **no less than 35% affordability, at a cost of no more than 50% AMI**. This housing development must reflect **real unit set asides**. I oppose allowing the developer to just pay into the City's affordable housing linkage pool. The affordable units must be here in this development.

I join my neighbors in requesting that BPDA slow down this review process to allow the people who will be affected by this development to offer feedback. I also join with others to request that BPDA: hold more meetings; allow adequate advance- and well-publicized- notice of these meetings; and make an effort to inform and include the large immigrant population in these public meetings.

Real investment in our communities requires **real** affordability, in housing that is right here in our neighborhoods.

Thank you for your time and responsiveness to these concerns.



Karen Kirchoff
Acupuncture & Herbs
16 Cohasset St.
Roslindale, MA 02131

January 31, 2018

Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Karen Kirchoff. I am a long-time independent business owner (more than 20 years), over ten years now based in Roslindale. As a resident I advocate, with my community, for affordable, accessible housing here in our neighborhoods. My business practice sees a diverse demographic of clients and I am concerned about these neighbors and clients being displaced by proposals like that for **36-70 Sprague Street in Hyde Park.**

This housing development proposal must provide **no less than 35% affordability, at a cost of no more than 50% AMI.** This housing development must reflect **real unit set asides.** I oppose allowing the developer to just pay into the City's affordable housing linkage pool. The affordable units must be here in this development.

I join my neighbors in requesting that BPDA slow down this review process to allow the people who will be affected by this development to offer feedback. I also join with others to request that BPDA: hold more meetings; allow adequate advance- and well-publicized- notice of these meetings; and make an effort to inform and include the large immigrant population in these public meetings.

Real investment in our communities requires **real** affordability, in housing that is right here in our neighborhoods.

Thank you for your time and responsiveness to these concerns.

Karen Kirchoff
Acupuncture & Herbs
16 Cohasset St.
Roslindale, MA 02131

January 31, 2018

Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Jill Cowie. I am a Unitarian Universalist minister living in Roslindale and a long-term advocate of affordable housing especially in underserved communities. Over the last several years I have witnessed time and time again the displacement of residents as affordable housing is replaced with luxury condos especially around public transportation hubs such as Forest Hills. I am concerned about the impact of displacement on the individuals and families as well as the community I have come to love.

For these reasons, the housing development proposal for **36-70 Sprague Street in Hyde Park** must provide **no less than 35% affordability, at a cost of no more than 50% AMI**. This housing development must reflect **real unit set asides**. I join my neighbors in requesting that BPDA slow down this review process to allow the people who will be affected by this development to offer feedback. I also join with others to request that BPDA: hold more meetings; allow adequate advance- and well-publicized- notice of these meetings; and make an effort to inform and include the large immigrant population in these public meetings.

Real investment in our communities requires **real** affordability, in housing that is right here in our neighborhoods. This is the mayor's vision, lets starts substantiating that vision with real action.

Thank you for your time,

Jill Cowie

43 Bradwood Street
Roslindale, Ma 02131



Sprague Street Redevelopment

Dana Rousmaniere <drousman@hotmail.com>
To: "lance.campbell@boston.gov" <lance.campbell@boston.gov>
Cc: "timothy.mccarthy@boston.gov" <timothy.mccarthy@boston.gov>

Mon, Jan 15, 2018 at 9:03 PM

Mr. Campbell,

I attended the first part of the meeting last Tuesday regarding the Sprague Street Development. I unfortunately had to leave early to pick up my kids but wanted to reach out to you as you suggested and add my two cents to the discussion.

There is clearly a real traffic problem in Hyde Park in general and in the area of Wolcott Square and the Father Hart Bridge in particular, there is no secret about that. Also, the proposed development is very large and has the potential to increase the congestion, possibly significantly. From what little we have heard about the proposed changes to the Fr. Hart bridge I personally very much doubt that the changes in store will have the impact needed to offset the potential impact of the development.

From that I'm sure you are expecting that this is one, of what I am sure is many emails opposed to the development. However, I believe that Hyde Park's number one asset is our space. Both open public space such as Stony Brook Reservation, the Neponset River and Meig's field as well as space available for development. I also very much believe that as residents of the City of Boston, a city that has a real housing shortage, we have a responsibility to look for ways to help address that shortage in a reasonable way. In that light I would like to say that a simple yes or no on this project would be shortsighted.

This project should be looked at in conjunction with the city's plans for the Fr. Hart bridge, the negotiations with the MBTA about the fare zones as well as, I believe, with the MBTA about their local property which could be part of the solution as the potential impact of ~500 units next to a station would warrant potentially incorporating some of the MBTA land in the vicinity for roadway improvements, as well as State Legislature and DOT for what funding or other assistance could be provided to help manage the traffic issues.

In short, while at the end of the day this project may or may not be the right project for Hyde Park I think we owe it to the neighborhood and the city to have a full evaluation of the broader issues with all of the significant stakeholders, including neighborhood residents, at the table to fully discuss and negotiate a solution to all the issues rather than simply rehashing the potential problems.

Dana Rousmaniere
303 Fairmount Avenue
Hyde Park, MA
617-519-1130



Lance Campbell <lance.campbell@boston.gov>

Sprague Street project

Melissa Luna <melissayluna@gmail.com>
To: lance.campbell@boston.gov

Thu, Jan 11, 2018 at 12:45 PM

Dear Mr. Campbell,

I was disheartened to receive same-day notice about the community meeting last night. I was unable to make the arrangements necessary to attend. As a new resident to the neighborhood, I am just learning about the project and would like to educate members of my household about the development.

Could you please send over any materials distributed at last night's meeting? I understand you are taking public comments through February 2nd and I would like to review any plans prior to submitting my comments.

Sincerely,
Melissa Luna
Hyde Park resident



Lance Campbell <lance.campbell@boston.gov>

36-70 Sprague Street, Readville - 1/10/17 Public Meeting

Jacke Willis <jackewillis@comcast.net>
To: lance.campbell@boston.gov, jackewillis@comcast.net

Thu, Jan 11, 2018 at 9:04 AM

Good Morning Lance,

For the people who are actually from and live in Readville, and will be affected by and are actually interested in learning about this project, I want to say Thank You to you, Jordan, Michael and Dave for your time and effort –and- all the information that was presented in a respectful manner. For me, the meeting and information was extremely helpful. I took lots of notes so as to inform other family members and neighbors who could not attend. I will present it as you guys did and encourage these Readville neighbors to attend the next meeting.

My only comment about the project itself is this:

It is people who live in and/or own a business in Readville who will primarily be affected by this new development. Therefore, it should be those people who should voice an opinion and vote on this project. I realize that Hyde Park and Dedham will also be somewhat affected but not in the same way as Readville neighborhoods will be. I also realize that, in this age of inclusion, my comment is an impossibility - but with all these other neighborhoods involved, unfortunately, a true representation and reflection of Readville will never, ever be realized. And the results will be as negative as the people who spoke.

A side note:

I was born, raised and live in Readville (Wolcott Side). My grandparent bought here almost 100 years ago, my mother and siblings grew up and bought here when they got married. They raised their children in Readville – and – most of those kids (me included) bought and raised our kids in Readville. So, I am third generation Readville. I love this town and its history, ambiance and unique character. In fact, there is a T-Shirt logo that those from Readville will recognize - 'Readville Pride'. However, after last night, I am actually embarrassed of are the rude, crude, inarticulate and ignorant supposedly 'neighborhood' people who spoke at the meeting. I don't know who those people are – never heard any of those names – and- I question where they actually live. There were comments made that told me that they know nothing about Readville, its history, neighborhoods or people. In fact, some were totally untrue and contradictory. But I won't get into that. Most said they live in 'Hyde Park' – which, although technically Readville is a part of, it is **NOT** Readville nor are those people representative of Readville.

Again, Thank You for your time and effort – it is appreciated.

Jackie Lyons

PS – if you want to get a true representation of the opinions of some of the people from Readville, I suggest a trip to Cappy's neighborhood sports bar in Wolcott Sq. Identify and talk with the people there who live in Readville. I think you will find the opinions intelligent, logical, level-headed, pleasant and civilized.



36-70 Sprague St

Ivette Timberlake <itimberlake@mhp.net>

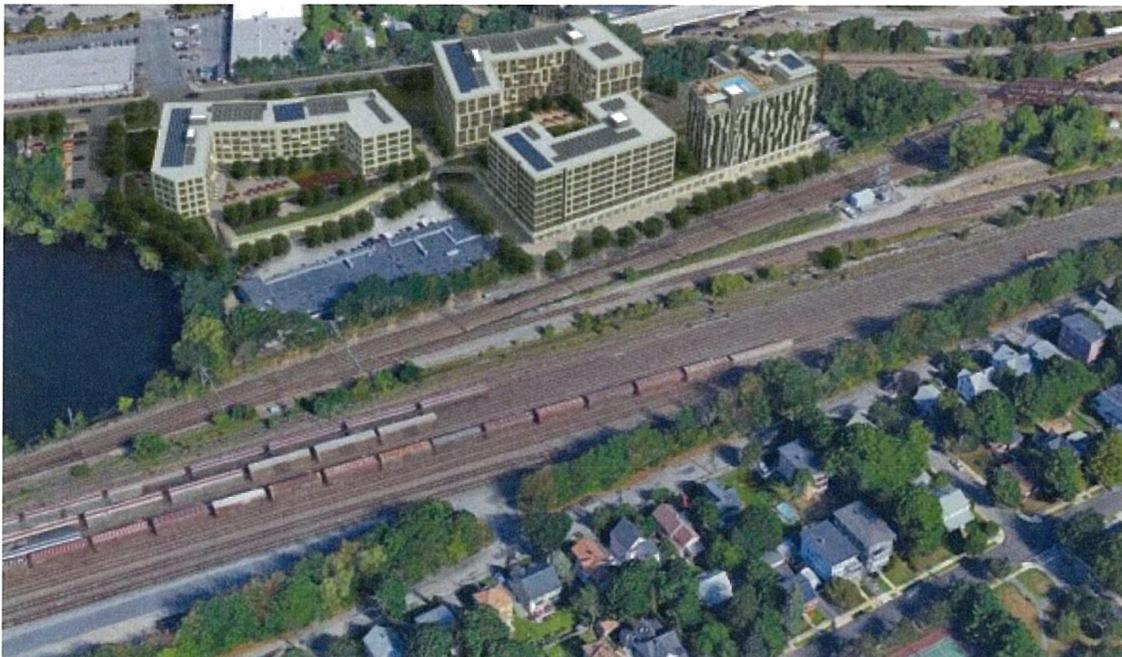
Thu, Jan 11, 2018 at 10:27 AM

To: "Lance.Campbell@Boston.gov" <Lance.Campbell@boston.gov>

Hi Lance – thanks so much for giving the Hyde Park community the ability to express themselves yesterday.

I've purchased my home in Readville a year ago, so I'm fairly new to the community. If this project goes through I will be looking directly at it, since I live in Prescott St. I'm neutral, but there are some changes that needs to happen before the community can accept this drastic change.

- #1 as you already know, TRAFFIC. We need to get this fix as soon as possible, that way the community can get a real feel for what traffic might look like if this development goes through.
- The development is too large! PLEASE scale down, 8 stories high? Look at this bird eye's view! Then look at all these tiny houses. (I live where the arrow is pointing).



- MBTA need to drastically reduce the t-pass to increase ridership. My job pays \$217.50 for my t-pass, if it wasn't for that, I too would be driving. People will use Readville/Franklin line if the cost was more affordable.
- A question that I have is, besides the restaurant can the community use the gym, day care, sports bar or are these amenities for the tenants only?

Thanks so much, looking forward to the next public meeting.

Ivette



Ivette Timberlake, Finance and Administration Supervisor

Massachusetts Housing Partnership

160 Federal Street, Boston, MA. 02110

Work: 857-317-8511 Main: 617-330-9955

Email: itimberlake@mhp.net Web: <http://www.mhp.net>





Lance Campbell <lance.campbell@boston.gov>

36-70 Sprague Street Impact Advisory Group Meeting Nov 27 ~

Patricia Tierney <culbs@verizon.net>

Tue, Nov 28, 2017 at 4:28 PM

To: Lance.Campbell@boston.gov

Lance good afternoon,

I hope this note find you well and rested ~

Thank you for taking the time to arrange for the IAG Meeting last nite (Nov 27) there are the benefits with a small group ~

With any course, the pace is important, as you did indicate 'this is just the starting line'. In my haste speaking, I do hope I did not offend you or others. If so, I do apologize.

Readville, MA is a portal of history, perhaps in some manner we may pause to notice. The future is our realization.

With regard to traffic control, the studies include clauses perhaps you are able to provide clarification. It would stand to reason if/when, either project moves forward; Sprague Street or Yard Five, the traffic recommendations would be considered as it is currently of significant concern.

Please, when time allows review the attached and further advise implementation.

Regards,
Patricia Tierney
Tel: 1(617) 364 0274

 2017 BPDA 36 70 Sprague St Project Notification Sec 3-28.pdf
381K

Citizens for the Preservation of Readville (CPR)
P.O. Box 316
Readville, Ma 02137

August 29, 2017

Mr. Lance Campbell
BRA dba BPDA
One City Hall Square

RE: 36-70 Sprague St.

Dear Mr. Campbell,

Our neighborhood group, Citizens for the Preservation of Readville (CPR), has become concerned with the fading depth of citizen participation in the impact advisory group (IAG) for the 36-70 Sprague Street proposal. To begin with: we were informed by the original BPDA project manager that it is routine that 15 members are selected to sit in the IAG, yet in this case, only 12 were selected. One of those 12 had been identified by BPDA as pending and as he has not appeared at either the formal or informal gathering of the IAG, it is presumed that the number in the group is 11. It was reported to us that at this informal gathering of the IAG, a few other nominees decided not to participate. Also, one member had attended and informed all that he had just moved out of Hyde Park and thus was withdrawing from the IAG. It appears that the number is now at 7 and one of them has just reported to the neighborhood that his house is up for sale and he will be leaving the city.

First and foremost, it comes across as improper that this group has assembled themselves privately to discuss the proposal. The public should be informed of all assemblies and have the opportunity to attend such. The point of this letter is that perhaps it is time to start all over again. The timing of the first meeting, close to the July 4th holiday, has been criticized by all, including some elected officials. At that meeting, the makeup of the IAG was questioned as not one of the abutters to this proposal was invited to participate on the IAG. It was also observed by us in attendance, that only one woman and not one member of the minority population was sitting at the table of the IAG. The total population of the IAG seems to be less than half the preferred number of 15, so BPDA should consider a fresh start to avoid consistent skepticism of the process.

With all due respect,

CPR - Rosalie Carlson
David Rea
Craig Martin
Dianne Knecht
Angela Finn
Martha McDonough



Lance Campbell <lance.campbell@boston.gov>

Readville Campus project

Kelly McAuley <kellyemcauley@gmail.com>
To: lance.campbell@boston.gov

Fri, Jan 26, 2018 at 12:03 PM

Hello Mr. Campbell,

I am writing you after hearing about the proposed building project in Sprague Street as detailed here: <http://www.bldup.com/projects/readville-campus>

As a nearby resident in Dedham, I am very concerned about the impact this development would have on local traffic. The congestion on Sprague Street in the Readville station area is already at capacity with the Milton Street Bridge always being at a full stop during many hours of the day. The heavy traffic that roars through residential Dedham down Sprague Street on its way to 128 is already at high capacity (not to mention high speeds!) The backups it causes on East Street and at the East Street rotary will become unbearable.

While I am in favor of creating more affordable housing for all, I believe that the impact the traffic would have on current and new residents would not be desirable. Urban sprawl is unavoidable, but we should always be mindful that an area's roads and bridges can handle the anticipated increased traffic.

Thank you for your attention to this matter. I do hope that you and your colleagues will make the best decision for all current and future residents.

Best,
Kelly McAuley

January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Antonette. I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

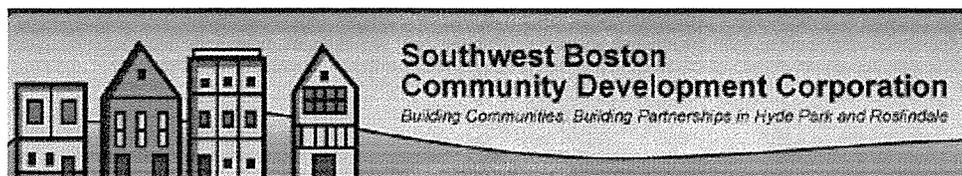
In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking my concerns into consideration.

Sincerely,



Signature



January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is DAUPHIN JEAN I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking my concerns into consideration.

Sincerely,

Signature 



January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Lina Ramirez. I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

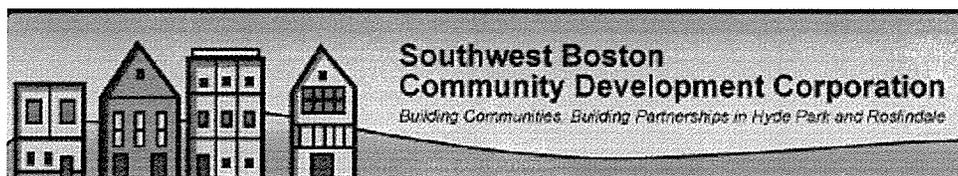
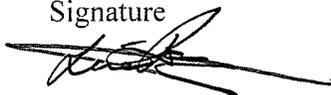
I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking my concerns into consideration.

Sincerely,

Signature



January 31, 2018

Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

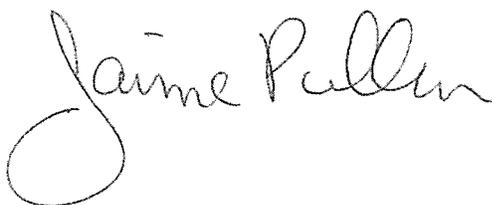
Hello, my name is Jaime Pullen. I live in Roslindale and work with my neighbors in Roslindale and Hyde Park to create and advocate for adequate affordable housing in our neighborhoods.

I am aware of the project proposed at 36-70 Sprague St. in Hyde Park. I hope the BPDA and Mayor Walsh see this as an opportunity to truly increase the number of affordable newly constructed units in our part of the City. To ensure that the current residents who live in Hyde Park and Roslindale will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide **at least 35% affordable housing**, at a cost of no more than 50% AMI. We want these to be **real units set aside** in this development; I oppose letting the developer merely pay into the City's affordable housing linkage pool instead of producing the affordable units we need in *this development*. In general, I support the Mayor's vision for 2030 of developing many more units to meet housing demand. However, we need a real commitment on the part of the City to ensure our neighborhoods are ethnically and economically integrated, block by block... development by development. Integration is a cornerstone of the vision which will continue to make Boston a great place to live.

I also hope that BPDA hold more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park and Roslindale; a population that is more than 30% not native English speakers. Let's get more creative with finding solutions to meeting Boston's housing demand.

Thank you for considering my perspective and I trust you to act in the public interest.

Sincerely,

A handwritten signature in black ink that reads "Jaime Pullen". The signature is written in a cursive style with a large, looping initial "J".

Jaime Pullen

31 Cotton St. Boston, MA 02131 617-323-5495 jaimepullen@gmail.com

January 25, 2018

Dear BPDA,

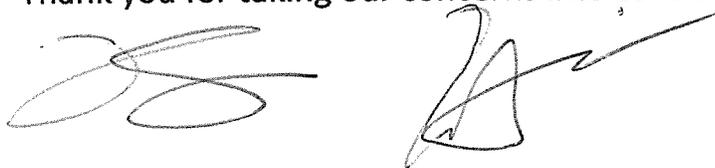
Our names are Quiana and Uka Agbai. We are a residents of Hyde Park and are very concerned about the project proposed at 36-70 Sprague St.. While we are not opposed to new investment in our neighborhood, we are against this project as it is currently proposed.

Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents as well as likely increase the speed of displacement happening across the city.

We support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with a concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking our concerns into consideration.

Two handwritten signatures in black ink. The signature on the left is a stylized, cursive 'Q' followed by a horizontal line. The signature on the right is a more complex, cursive signature with a long, sweeping tail.

Quiana & Uka Agbai

January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Mula Chery. I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

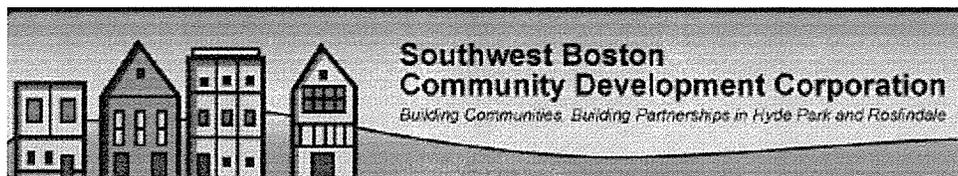
I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking my concerns into consideration.

Sincerely,

Signature



January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Shelita Burke. I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

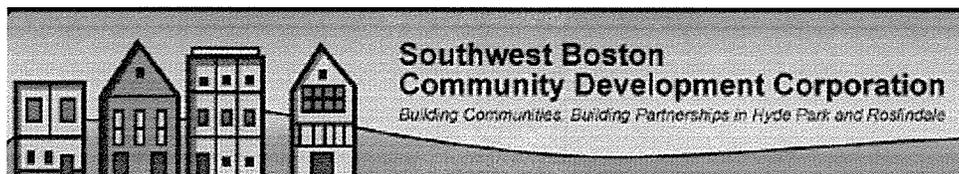
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Thank you for taking my concerns into consideration.

Sincerely,



Signature



January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Gabriel Spivey. I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

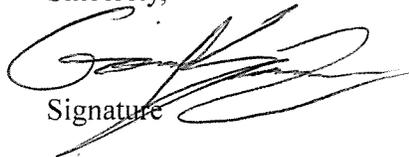
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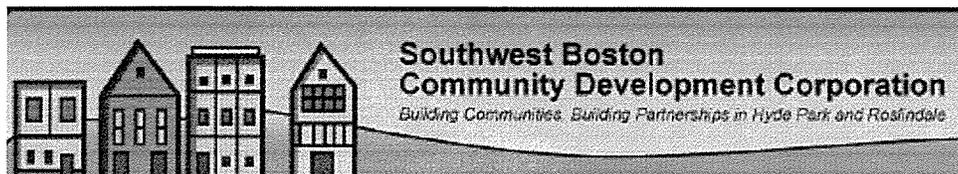
I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking my concerns into consideration.

Sincerely,


Signature



January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Anille Spivey. I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

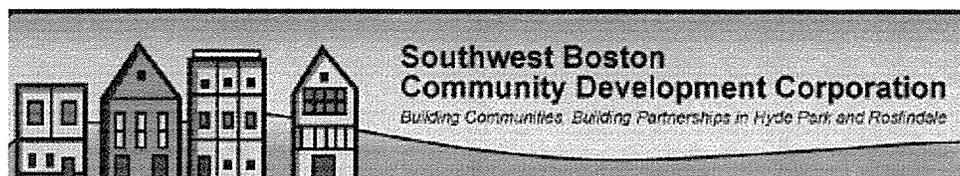
In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking my concerns into consideration.

Sincerely,



Signature



January 31, 2018

Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

I live in SouthWest Boston and have concerns about lack of affordability in new developments like the one proposed for Hyde Park at 36-70 Sprague St. It is another example of development that drives displacement, rather than enhancing the neighborhood for average working families who have been living here. This proposal as currently conceived will drive rents up overall and people out --a pattern spreading across the city.

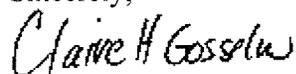
Like many people, I welcome neighborhood improvements, like good access to transit and other amenities. The problem is that more and more housing is geared towards higher income, with very low percentage set asides for what is considered affordable according to an AMI that does not represent the reality of the neighborhood people's income. To ensure that the current residents who live in Hyde Park will be able to afford living here with improvements, projects like this should provide at least 35% affordable housing, at a cost of of no more than 50% AMI.

My husband and I are fortunate to own our home in Roslindale, which we purchased in 1991. However, I am familiar with some of the difficulties experienced by hard-working low income immigrants and citizens. When my father died young, my mother was left to raise 5 children. Fortunately, we had a small house that was paid off upon my father's death thanks to an insurance policy that included the provision. While we had none of the extras -- summer camp, sports activities or other enrichments, *we had a home*, unlike most moderate to low income families facing the same situation today. Single parent households, usually headed by women, continue to be displaced at a higher rate nationally -- and I doubt Boston is an exception to this. There are major health and other consequences for the whole family and the community when this occurs. We want our neighborhoods to include a diversity of incomes, ethnicities and people of different hues that constitute the human race *and our city*, and make life better for ALL of us.

I join in asking that the review process be slowed down, that there are more, broadly composed and well- publicized meetings, with a concerted effort made to inform and include the large immigrant population that lives in Hyde Park.

Thank you for considering my concerns.

Sincerely,



Claire H. Gosselin
25 Cotton Street
Roslindale, MA 02131-1609
617-512-5136 -- claireg53@gmail.com

January 31, 2018

Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

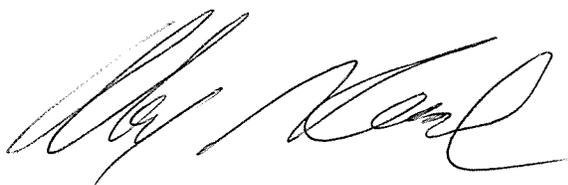
Hello, my name is Alexander Nadel, a resident of Roslindale, I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed. Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of of no more than 50% AMI.

In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking my concerns into consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Alexander Nadel', written in a cursive style.

Alexander Nadel
31 Conway St. Apt 3
Roslindale, MA 02131

January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Claudia Alexander I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

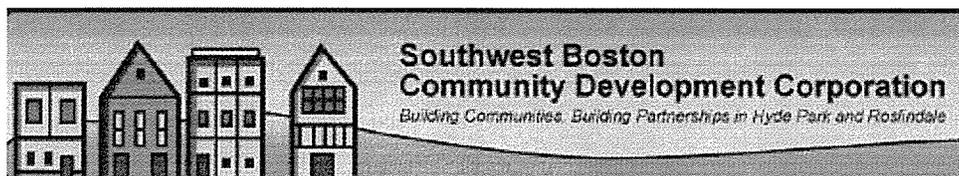
I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking my concerns into consideration.

Sincerely,


Signature



January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Chantal Firmini I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

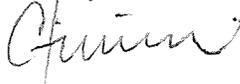
Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

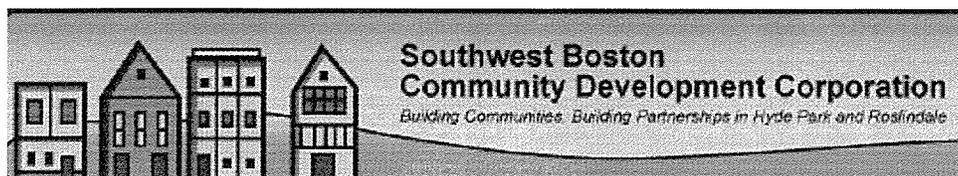
In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking my concerns into consideration.

Sincerely,



Signature



January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Nicole Wiggins I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

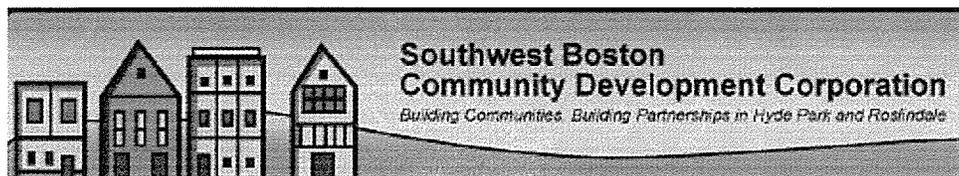
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Thank you for taking my concerns into consideration.

Sincerely,



Signature



January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Sonie Johnson. I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking my concerns into consideration.

Sincerely,

Sonie Johnson

Signature



January 22, 2018
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Hello, my name is Segun Idowu. I am a resident of Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St.. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed.

Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city.

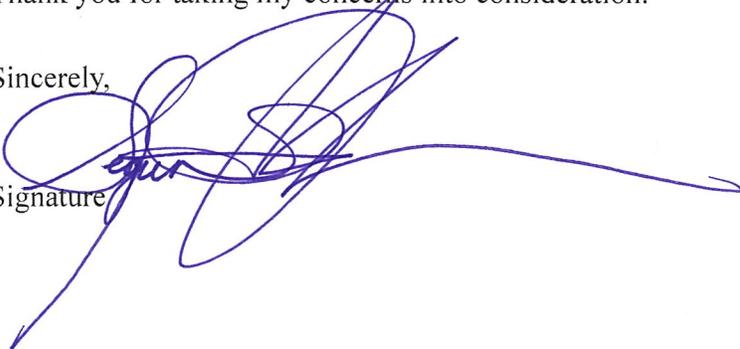
I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of no more than 50% AMI.

In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers.

Thank you for taking my concerns into consideration.

Sincerely,

Signature



LANCE CAMPBELL

BOSTON PLANNING & DEVELOPMENT AGENCY

ONE CITY HALL PLAZA

BOSTON, MA 02201

RE: 36-70 SPRAGUE ST, READVILLE

I HAVE LIVED IN READVILLE FOR 44 YEARS, I HAVE A FEW POINTS TO BRING UP.

1. THE PEOPLE
2. THE PROJECT
3. TRAFFIC
4. REPRESENTATION

1. A DOOR TO DOOR NEIGHBORHOOD SURVEY WAS TAKEN, RESULTS WERE 87% AGAINST THIS PROJECT, 11% UNDECIDED, & 2% IN FAVOR. IN WHAT SOCIETY DOES 13% DEFEAT 87%. A HAND VOTE AT THE JAN 10TH MEETING WAS UNANIMOUSLY AGAINST THIS PROJECT.

YET WE THE PEOPLE ARE STILL NOT BEING HEARD, WHAT DOES IT TAKE?

2. A PROJECT OF 521 UNITS WITH AN ESTIMATED POPULATION BETWEEN 521 TO 1000 RESIDENTS SHOULD NOT BE LEGAL WITH ONLY ONE ENTRANCE

EXIT, IF THIS IS INDEED THE PLAN, IN CASE OF A MAJOR EMERGENCY THIS IS A POTENTIAL DISASTROUS SITUATION, IF THIS IS THE CASE IT SHOULD BE ILLEGAL, THIS SHOULD NOT BE OVERLOOKED.

3. TRAFFIC HAS BEEN AN INCREASING PROBLEM IN THIS NEIGHBORHOOD FOR YEARS. NOW ALL OF A SUDDEN WE GET SOME ACTION, ITS BEEN NEEDED FOR YEARS BUT IGNORED, IS IT BECAUSE OF THIS PROJECT THAT THE TRAFFIC ISSUE IS FINALLY GETTING ADDRESSED? LOOKS LIKE THE NEIGHBORHOOD IS BEING THROWN A BONE OF SORTS & IS SUPPOSED TO BE HAPPY, PAINTING LINES & ARROWS ON THE ROADS & A FEW TRAFFIC LIGHTS REGULATED BY CITY HALL IS A START BUT I'M NOT SURE ITS A FIX GOING FORWARD, BUT IT MIGHT HELP. IF THIS PROPOSED PROJECT IS KILLED DO WE STILL GET THE PROPOSED TRAFFIC IMPROVEMENTS?

4. SEEMS TO ME THIS PROJECT IS STRONGLY OPPOSED BY THE LOCAL RESIDENTS, WE ARE TOLD WE HAVE A VOICE, WHY IS IT IGNORED OVER & OVER? MORE MEETINGS ARE NOT GOING TO CHANGE THE SITUATION FOR US RESIDENTS. GOING FORWARD FUTURE MEETINGS SHOULD

BE STRICTLY LIMITED TO RESIDENTS OF
READVILLE, HYDE PARK & DEDHAM. AT THE JAN 10TH
MEETING WE HEARD AN OBVIOUS "PLANT" SPEAK
TO US, HE IS FROM NORWOOD. I DON'T GO TO
MEETINGS IN NORWOOD TO TELL THEM THEIR
BUSINESS, I SINCERELY THINK THEY SHOULD RESPECT
OUR THOUGHTS ABOUT OUR NEIGHBORHOOD ISSUES &
STAY AWAY. SHAME ON THE CONTRACTORS TEAM
FOR THIS LOW LEVEL PLAY. TO ME IT SHOWS
WEAKNESS, HE IS THEIR PLUMBER.

IT IS OBVIOUS CITY HALL REALLY WANTS THIS
PROJECT IN SPITE OF THE RESIDENTS OPPOSITION
& POSSIBLE SAFETY ISSUES. RESIDENTS DON'T
SEEM TO MATTER TO THIS ADMINISTRATION. WE
HAVE BEEN TOLD "IF YOU DON'T LIKE THIS
PROJECT, THEN WHAT?, SOMETHING WILL GO HERE!"
MY ANSWER IS THIS PROJECT IS TOO
OVERWHELMING FOR THIS AREA FOR OBVIOUS
REASONS. LIGHT COMMERCIAL INDUSTRY HAS BEEN
A GOOD NEIGHBOR FOR OVER 100 YEARS, WHY IS
IT WRONG NOW & WHO SAYS SO. BRINGING MORE
BUSINESS INTO BOSTON I THOUGHT WAS A GOOD IDEA.
GOVERNMENT IS SUPPOSED TO BE "OF THE
PEOPLE, BY THE PEOPLE, FOR THE PEOPLE."
THIS IS NOT HAPPENING IN THIS NEIGHBORHOOD,
UNFORTUNATELY!

LANCE, SORRY TO RUN ON BUT I GET A LITTLE WORKED UP ON THIS SUBJECT, IT DOESN'T SEEM FAIR THAT WE FEEL THAT NO ONE INVOLVED REALLY SEEMS TO CARE ABOUT US. THIS WHOLE THING MAKES NO SENSE TO ME & ONLY ONE GOVERNMENT OFFICIAL SPOKE ON OUR BEHALF, & HE WAS FROM STATE GOVERNMENT.

IS EVERYONE IN CITY GOVERNMENT SO COLD & CALLOUS. ONE MAN'S AGENDA MIGHT NOT BE FIGHT EVERYWHERE JUST BECAUSE WE CAN SQUEEZE IT IN.

THANKS FOR YOUR PATIENCE.

SINCERELY

Harry Gardner

HARRY GARDNER

16 STAMBO ST.

Craig Martin
8 Colchester St.
Readville, Ma. 02136

October 30, 2017

Mr. Lance Campbell,
BRA/BPDA
Boston City Hall

RE: 36-70 Sprague St.

Dear Mr. Campbell,

This letter is sent to you under distress. Hyde Park went through a zoning process under the direction of BRA from which Article 69 was drafted and subsequently certified by the city in 2012. This procedure took a period of two years and BRA had hired several consultants in traffic, landscaping, and urban development to guide us along. In combination with the BRA staff members I presume this cost us taxpayers many tens of thousands of dollars. BRA repeatedly told us during the process that we should not consider changes to Article 69 for at least 20 years as we must give Article 69 time to benefit Hyde Park. All of the Hyde Park organizations and neighborhood associations had accepted this and now we plainly see that we were duped by BRA as BRA/BPRA never intended to honor this zoning article.

In his "Mondays with the Mayor" session with Hyde Park this Mayor, when questioned, told us that he would respect Article 69 and thus would not be condoning changes to such. He said he would only be seeking changes to the Forest Hills area of Jamaica Plain. He thanked the Hyde Park residents at this meeting for all the time we spent in drafting this zoning article. But yet, the actions of BRA/BPDA and the mayor display that we've all been duped. The recent larger proposals have been applauded by the city despite requirements for a "change in use" of Article 69. A large apartment building is going up on Nott St. which had been designated for "mixed use". A nine unit building is going up on Hyde Park Ave. in an area zoned to accomodate two-family structures. Vehement neighborhood opposition did not influence City Hall.

Some time ago, BRA changed the zoning on a couple of parcels associated with the Finegan Properties on River St. The local neighborhood association probably would have encouraged this change as they've been very supportive of this developer. But they certainly weren't pleased when I informed them of this "backdoor" deal at their monthly meeting.

This month BTM held a meeting in Readville regarding upcoming changes around Wolcott Square. Having read the traffic report by Howard Stein & Hudson, I asked the engineers where they obtained the information that the "Estimated Completion Date" of the construction of this Sprague St. proposal was the year of 2027. The engineer told us that BPDA was the source.

All along we've been presented by BPDA the illusion that this is not a "done deal" yet we have in ink that indeed it is.

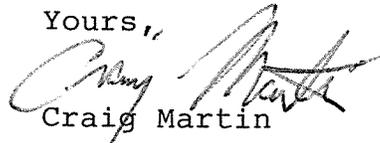
As presented in the Boston newspapers, this administration was making every effort to transform BRA into BPDA so as to erase the stigma associated with the former. I recognize that the state legislature has not formally accepted this change and perhaps for good reason. It is BPDA that is making a mockery of Article 69. The public was assured that BPDA would ensure better communication with involved communities and hence listen more intently to communities surrounding development proposals. We have seen no evidence of this in regards to the proposal for 36-70 Sprague St.

At public meetings hosted by the proposed developer we have heard testimony from direct abutters on Sprague St. that they were attending said meetings only because they heard about it on the streets and not because they were properly informed of such. BPDA held the first Impact Advisory Group (IAG) meeting on the week surrounding the July 4th holiday celebration and with only a very short notice, within days of the meeting. I, myself, was actually inadvertently responsible for informing one of the members.

As if this weren't offensive enough. BPDA had a flyer distributed at the meeting that indicated unreasonably that community input would not be accepted after the middle of July and in fact, we discovered that the website address given to provide such comment was not even functioning properly.

One would hope that BPDA pays attention to the petition papers presented to your office by our neighborhood group, Citizens for the Preservation of Readville (CPR). Months ago the Boston Globe newspaper did inform our group that they are much interested in this proposal and would like us to keep them informed. We do intend on sending them copies of the cover letter enclosed with the petition as well as earlier letters we sent to you and I'll be sending a copy of this as well.

Yours,

A handwritten signature in black ink, appearing to read "Craig Martin". The signature is written in a cursive style with a large initial "C".

Craig Martin

Lance Campbell, Senior Project Manager

January 23, 2018

Boston Planning and Development Agency

One City Hall Plaza

Boston, MA 02201

RE: Proposed Development @ 36 - 70 Sprague Street, Readville

We have been residents of Readville for 33 years. We are opposed to this development for the following reasons:

- The proposed buildings and property do not fit with the existing surrounding neighborhood. The density and scale would totally change the integrity of our residential community. Our neighborhood is mostly 1 and 2 family homes and some small apartment buildings. This project is just way too big for our tiny Readville.
- Traffic congestion in our area is already at a peak. A project of this size would only add to further clog our already maxed intersections and roadways. Further traffic could become a safety hazard for both current and new residents. Readville already bears the burden of garaging many of the city's school buses as well as numerous trucks from local small businesses. We should not be expected to endure even more.

Again, we are against this proposed development. Please feel free to forward this letter to any other city or state officials involved in this project. Thank you for your attention to this important matter.

Roy & Catherine Prout

17 Colchester Street

Readville, MA

Readville37@gmail.com



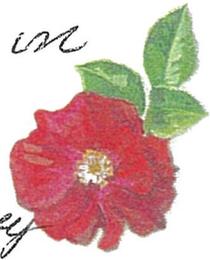
Dear Love Combined,

I am writing to
comment on why I do
not want the unit

housing proposal. I
am eighty seven 87
years old in good
shape so far. I do not

want my trip to any
more as I live on
West Milton St.

If I need emergency



services which I do
at times I want them
not impeded in their
response to help me.

Thank you

Josephine Pero



Ms. Josephine Pero
47 1/2 W Milton St.
Hyde Park, MA 02136-1927

January 28, 2018

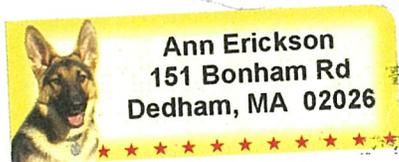
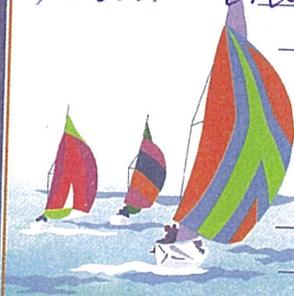
Dear Mr. Campbell,

Please reconsider
putting 521 apartment
at 36-70 Sprague St
It would be a complete
nightmare.

The traffic day and night
would be horrible and
ruin the Community.

Sincerely,

Ann Erickson
151 Bonham Rd
Dedham 02026



Craig Martin
8 Colchester St.
Readville, Ma. 02136

January 30, 2018

Lance Campbell
BRA dba BPDA
One City Hall Square

RE: 36-70 Sprague St.

Dear Mr. Campbell,

First and foremost, please record this correspondence as opposition to the proposal on 36-70 Sprague St.

For some time I've been urging you to bring particular specialists along to an IAG meeting so as to address questions that have been brought forth at earlier meetings but never answered. This letter serves as a more formal attempt to obtain these answers and therefore I anticipate said answers to be mailed to me at the address noted above.

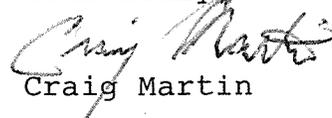
Residents had asked how this apartment complex will affect their childrens' likelihood of admittance to the local Roosevelt school. This school tends to K-8 students. What is the maximum number of students in this age group that the complex could house? What is the number of students that the developers anticipate living here? If 10 or 20 children move in and wish to enroll in the kindergaten classes, how does that impact the likelihood of 3 families currently living here who also wish to enroll?

I am concerned about their source of Boston water. Will there be a new water main installed specifically for this address or will they be utilizing mains that are currently servicing other streets? What is the impact on water pressure in our homes if this large complex shares the use of these water sources?

There is still plenty of time to bring personnel from the school dept. and Boston Water and Sewer to the neighborhood but in the meantime please mail me the sought after answers

Also, it is expected that some folks from one or two special interest groups will continue to lobby you to urge a greater concentration of "affordable" units be placed in this proposed complex. These people are not residents of this neighborhood and a great percentage of one of the louder groups do not even reside in Hyde Park. The arguement from Readville has never been the type of potential residents but rather the incredible number of such.

Your Truly,


Craig Martin

(617) 364-1445

February 1, 2018

Via Certified Mail # 70162710000070618079

Mr. Lance Campbell
Boston Planning & Development Agency
One City Hall Square, 9th Floor
Boston, MA 02201

Re: Sprague Street Development

Dear Mr. Campbell:

Please accept this letter in objection to the proposal by OMB Sprague LLC to build a 4 buildings (some 7 & 8 stories high), 521 unit apartment complex at this local industrial site that is landlocked by 3 railroad tracks (Providence Line, Franklin Line & Fairmount Line), 2 bridges (Father Hart & Sprague) and a pond.

I am a Readville resident within 500 or so feet of the proposed site (just over the Sprague Bridge). My reasons for objection to this project are:

A: Project is not a fit for the neighborhood / location

1. Readville is a community of mostly single home (with some multi-family, owner occupied properties). It has a high concentration of elderly. An apartment / rental development that is 20% or more of the total homes in Readville will irreparably destroy the nature and identity of the neighborhood;
2. Safety is a major problem. The geographical limitations at the proposed site restrict egress to the proposed 521 apartments to one small driveway at the base of the Sprague Bridge. A single entry and exit point does not support a residential apartment complex of this or any size and if allowed would prove disastrous for residents and first responders in an emergency;
3. The entire Hyde Park community worked for a long time with the city during the recent zoning reviews in 2014 to identify, maintain and tighten the local industrial zoning (LI-1) within the HP area and want to keep it;
4. The IF-6000 residential sub district near the Dedham line of the Boston development will be negatively impacted by the project;
5. The proposed height of the project, at 7 & 8 stories, even given the grading of the site, will significantly and / or totally block the view that the Readville neighborhood has of Blue Hills. Those heights will also add significant shadowing to the residential single family homes off of Sprague, West Milton and Readville streets and block the morning sun that will rise in back of the buildings.

B. Too Many Variances for one project

6. The project use is not "as of right" and the community, particularly abutters and close proximity neighbors, do not support a use variance for the project;
7. The scope of the apartment project is too large and dense for the footprint the developer has under agreement and out of proportion to other approved projects in the city.
8. The Floor Area ratio (FAR) of 1.9 for the project is not within zoning requirements of either the LI-1 (1.0) or the IF-6000 (0.3) zoning rules and the doubling and tripling of the ratio should not be approved;

9. The proposed heights of the project is outside the allowable zoning restrictions and will negatively impact the neighborhood's quality of life.

C. Negative Impacts to Quality of Life and Neighborhood:

10. The congestion, noise, fumes and traffic in the area is already past solvable and this project will further aggravate the congestion issues and deteriorate the quality of life in the area;
11. Proposed "lights" at the Farther Hart Bridge will not solve (or need time to demonstrate their effectiveness before any new projects get greenlighted) the volume or traffic flow issues already in existence in the area;
12. The intersections at Sprague, West Milton, Milton, & Readville Streets, as well as Fleet & Milton, Neponset and Hyde Park Ave are too tight, restricted and cannot, particularly on the bridges, handle the volume of traffic currently in the area nor an increase a project this size would generate;

D. Other reasons to deny:

13. The Readville Yard 5 project which has been recently modified and is being built, will add more truck (including large truck traffic, equipment, vans and car traffic, from businesses and their employees to this same area and that impact has yet to be felt or truly addressed;
14. Readville Yard 1& 2 are still being contemplated for additional projects as part of the MBTA layover, facilities and use projects and as they are, as of right projects, will need little oversight and therefore their impact is not being considered;
15. The maximum 68 "affordable" units out of the total 521 units the developer is touting at 70% of median income will not in any way offset the damage to Readville by transforming it from a "high owner occupied single family neighborhood to a "transit", transient rental community;
16. Nor will the rentals units in any way support or assist the high concentration of senior citizens in the Readville / Hyde Park neighborhood who linger on decade long waiting list for neighborhood housing that is suitable, safe, income restricted places to live;
17. The staggered construction schedule proposed to "maximize lease buildup" will itself result in years of construction that itself will harm the single family residential Readville neighborhood; and finally
18. Due to the significant and unmovable railway track boundaries, and inability to move the pond or build new infrastructure like new bridges to traverse the tracks, there is absolutely no room or options for any significant roadway and/or access, diversion, flow reconfiguration or expansion of traffic in the area of the proposal that will alleviate any of the above problems with site location, access, safety, congestion or pollution that 521 rental housing units would bring.

Respectfully,



Roberta Johnene
100 West Milton Street
Readville, MA 02136

MICHAEL G. KING
PRESIDENT
HYDE PARK HISTORICAL SOCIETY
44 SCHOOL ST.
APT. C24
WESTON, MA
02493-2517

January 11th, 2018

Dear Mr. Campbell.

Am writing to express my extreme opposition to Mr. Jordan Warshaw's proposed project at 36-40 Sprague Street in Readville. Its architectural style is industrial, Stalinist-era ugliness, that can abundantly still be seen in the former Soviet Union from the Baltic States to the Czech border.

Mr. Warshaw's paid "traffic expert's" massive mendacity in his highly incorrect assertion that this preposterous project of 300 automobiles will not, repeat, not adversely impact an already-impossible traffic jam existing in Readville, and more locally at the traffic-jam at the triangle of the 6.63 acre site containing more than 200 cars.

As noted in last night's public meeting, nearly 100% of Readville's residents oppose this money-grubbing by Mr. Warshaw's associate. I hope that the City of Boston hears their protests.

Very sincerely yours,
M.G. King



Lance Campbell <lance.campbell@boston.gov>

36-72 Sprague St

Christopher MacDonnell <cwmacdonnell@icloud.com>
To: Lance.Campbell@boston.gov, Amicozz12@rcn.com

Fri, Feb 2, 2018 at 7:11 PM

Lance Campbell. I am a resident of Reedville and I am against this project. The traffic along Sprague Street in the afternoon is already horrible; we do not need 521 more apartments. Every apartment now needs at least two cars per apartment.

We want he like industrial business not apartments.

I vote NO. Thank You.

By The way where is our second or third meeting that you were supposed to set up for this project at St Anne's School?

Rachel MacDonnell.
16 Norton St.
Readville MA 02137



Lance Campbell <lance.campbell@boston.gov>

36-72 Sprague St apts

Christopher MacDonnell <cwmacdonnell@icloud.com>

Fri, Feb 2, 2018 at 7:00 PM

To: Lance.Campbell@boston.gov

Lance, I am emailing you to show my displeasure with the Sprague St apts project.

I am AGAINST it; I do not feel it is good for the hide Park community. It will make all kinds of traffic nightmares which spray street already has; never mind all the extra traffic with the yard five project which is literally next door to them. The project will also take away the scenic view of blue hills as well.

Also there is NO WAY that

there are enough parking spaces, every unit will be needing two parking spaces at least.

This whole project is nothing more than a high and apartment complex. What we would like to see go in is a light industrial business where we can put people to work.

I vote NO for this project. Thank you.

Christopher MacDonnell
16 Norton St.
Readville Ma 02137



Lance Campbell <lance.campbell@boston.gov>

Home Street, Hyde Park proposed apartment complex

Jeanine Mc <mcc.inquiries@gmail.com>

Fri, Jan 26, 2018 at 7:24 AM

To: lance.campbell@boston.gov

I am a Dedham resident and live within a half-mile of the proposed apartment building construction for Home Street in Hyde Park. I see this proposal as truly dangerous in all respects. First: traffic in this area will become immediately out-of-control and will certainly lead to many accidents. Not just in Hyde Park, but on the streets in Readville and Dedham just above the proposed project -- along the train bridges, the street leading to the parkways and the street to the 4-way stop at West Milton. These streets are ALREADY heavily trafficed; rarely are police monitoring or helping with traffic flow there. Between 5 and 6pm, there is often a 20-minute delay for a driver coming down W.Milton toward the train bridge and needing to turn right on Sprague Street. Really incredible traffic here.

Second: the proposed building would be 7 stories high with 521 units. Certainly, this means at least 1000 people living in the building--most likely, more than 1000. Incredible! Right on the cusp of the train station! I don't think Dedham fire has trucks that can service a building this high. Not sure about Boston fire. In any case, a fire in the proposed building would be disastrous...really disastrous. And think of trying to clear traffic for a fire during rush hour and getting emergency equipment in and out...Remember, the plan also calls for a parking lot adjoining the apartment structure!

Overplanning: a childcare facility onsite, a cafe onsite...This only adds to the madness of a mammoth structure squeezed into a miniature area. An apt literary comparison: Alice in Wonderland trying to shrink herself down to get out of the rabbit's little house.

I beg the board that is overseeing this proposal to see its danger and folly. Yes, our neighborhoods desperately need low and middle class housing -- absolutely. But this proposed building is NOT the answer. It's a disaster waiting to happen.

Sincerely,

Jeanine McCartan

[84 Lancaster Rd, Dedham](#)



Sprague Street

Mimi Turchinetz <mimi.turchinetz@boston.gov>
To: Lance Campbell <lance.campbell@boston.gov>

Fri, Feb 2, 2018 at 6:15 PM

Attention Mr Campbell:

Please be advised that I am submitting my comments on the [36-70 Sprague Street](#) proposed residential project. I am concerned about the scope, size and unit mix as well as the affordability of this project, and as it currently is proposed, I can not support it.

At the community meeting that took place in Readville several weeks ago, it was evident that the contiguously abutting neighbors were quite concerned about the project. Although Readville is a neighborhood that includes quiet, single family homes, much commercially zones properties, as well as much green space, there is one unifying factor: community residents feel that this project is just too big for the neighborhood. It does not fit into the residential streetscape, nor is it in keeping with the current Readville neighborhood feel.

Additionally, although it fulfills the BPDA required affordability mix, it does not meet the need in the neighborhood.

As I stated in my comments at the Article 80 meeting- I do not live in Readville, instead a few miles out, off of Hyde Park Ave in Hyde Park, on Dell Ave- and I will defer to the Readville community. I did not see much support for this project. It is too big, there is not enough affordability, and the rents are too high for the current residents who desperately need housing they can afford in Hyde Park and Boston. Maybe a smaller version of the project could be acceptable, with more affordability. Maybe the developer needs to provide a significant redesign and go back to the drawing board. I look forward to continuing to engage with the community on this important question of the future of Hyde Park and Readville.

Thank you.

Mimi Turchinetz
[32 Dell Ave](#)
[Hyde Park, MA 02136](#)

--



Lance Campbell <lance.campbell@boston.gov>

sprague street

MARCIA CIBOTTI <marciacibotti18@comcast.net>
Reply-To: MARCIA CIBOTTI <marciacibotti18@comcast.net>
To: lance.campbell@boston.gov

Fri, Feb 2, 2018 at 3:23 PM

We are submitting comments opposing the building of the 521 units on Sprague street. The addition of these units will increase the already bogged down traffic we suffer through daily. Not to mention in winter people going to work must walk in the road as the sidewalks from the bridge to the entrance to the site of 30- Sprague street is not shoveled creating a danger. Now for the police and fire department the police very seldom patrol the area over Sprague street bridge to the Dedham line. the fire department in peak hours could take up to one and a half hour to get through school bus traffic to answer emergencies.

the problem of rats once the construction begins is another problem.

the idea of a recreation park by Sprague pond could be very dangerous to people who have no experience with water.

A restaurant would be very nice again creating more problems parking , noise till it closes at 1am right next to houses while they are trying to sleep, dumpsters being empty



Lance Campbell <lance.campbell@boston.gov>

Comment re: 521 Unit housing in Readville

Barbara Domingos <bdomingos@me.com>
To: lance.campbell@boston.gov

Fri, Feb 2, 2018 at 7:16 AM

Dear Mr. Campbell,

I am writing to request that the new 521 unit housing proposal be denied. That is just too large of a development. We often travel on Sprague St. and other Readville roads and there is often heavy traffic already, especially at rush hours. It takes a very long time to cross the bridge to get over to Wolcott Square or to travel into Hyde Park and I cannot imagine what it would be like with that many more people moving into one housing development increasing the density by so much. I live on River St. and am surrounded by elderly people on both sides of me and across the street. There have been many ambulances over the years called for emergencies and I am concerned about emergency services being able to respond in a timely manner with the proposed increase in traffic, especially at certain times of day. My neighbors all feel the same way but they are elderly (in their 70s and late 80s) and do not have email so they couldn't respond before the deadline for comments but they wanted me to pass along their concerns. We will be watching closely to see what comes of this. You are welcome to give me a call if you would like to speak to me for any reason at 617-364-7209.

Thank you for hearing my comments,

Barbara Domingos
1854 River St.
Readville, MA 02136



Lance Campbell <lance.campbell@boston.gov>

521 unit Sprague Street Development proposal

Martha McDonough <baku2@rcn.com>
To: Lance Campbell <Lance.Campbell@boston.gov>

Fri, Feb 2, 2018 at 10:38 AM

I am opposed to the 521 unit development proposal off of Sprague Street in my neighborhood of Readville, Ma.

Traffic problems must be resolved and a time period of many months to prove it has been adequately resolved allowed before considering any development at this location.

All environmental concerns must be addressed for this space located within an ACEC area. Recently, it has come to my attention that the former owner of the Brinks' site says the water table is only 18 inches below the surface. Foundations for such a big project would go substantially lower than 18 inches. I want all buildings that are proposed so close to this Brink's Site to have ground water levels checked before any ok is given to dig deep or even blast. Sprague Pond is a kettle pond and fed by underground streams. It has no natural above ground inlets or outlets, same as for Walden Pond. DCR is concerned with Walden Pond's shore line vastly expanding. This is not due to droughts. Walden has experienced many droughts without such an expanding shoreline. However, so very close to Walden, there have been a lot of new developments and the entire massive route 2 redesign. It's the blasting for these projects that impacts the geology below, including the underground streams that feed a kettle pond. Sprague Pond is part of our Civil War Campground and protected by ACEC environmental regulations. I am requesting archaeological digs on the entire proposed development to rule out any remnants from the Civil War Training Camp at that location, plus any remnants of our earlier history that would be destroyed once a massive project gets underway. **Furthermore, are there any other kettle ponds in all of Boston?**

I look forward to receiving your comments regarding each of the issues above.

Sincerely,

Martha McDonough

Camp Meigs Neighborhood Watch

Citizens for the Preservation of Readville

Neponset River Watershed Board Member

Annual Hyde Park Neponset River Clean-up



Lance Campbell <lance.campbell@boston.gov>

Re: 36-70 Sprague Street Proposed Development

S S <smcars@msn.com>

Sat, Jan 27, 2018 at 3:36 PM

To: Lance Campbell <lance.campbell@boston.gov>

Hello,

I was unable to attend the last meeting on the Sprague St. project. I and others believe Hyde Park needs more ownership options. Other projects throughout the city offer mixed use units, rental and homeowners. If these units are being marketed to empty nesters, what about senior housing.

Please take these suggestions into the variance considerations.

Sincerely,

Susan Sarkis

From: Lance Campbell <lance.campbell@boston.gov>

Sent: Monday, July 10, 2017 4:22:17 PM

To: smcars@msn.com

Subject: 36-70 Sprague Street Proposed Development

Susan: I will share your comments with the BPDA Board members, the Director and the developer.

Thank you

Lance

--

BPDA_Identity_RGB_Hor_Pri_DB.png

Lance Campbell

Senior Project Manager

Boston Planning & Development Agency

One City Hall Square

Boston, MA. 02201

T: [617.918.4311](tel:617.918.4311)



Re: 36-70 Sprague Street Proposed Development

S S <smcars@msn.com>

Fri, Feb 2, 2018 at 8:24 AM

To: Lance Campbell <lance.campbell@boston.gov>

Hello,

In my previous email I forgot an issue of concern regarding the Sprague St Development.

To summarize,
I and many others are opposed to:

1. the size of the project
2. the fact there is not homeownership possibilities. If the project is being represented for empty nesters consider senior housing. Young professionals are NOT coming to Hyde Park to live, when other areas closer to the city are being developed. In rental complexes, people come and go, they don't have pride in the area. They move on while the tax payers are left to pay taxes in areas where tenant leave properties in disarray. We are a neighborhood of homeownership and pride . This will bring our property values down.
3. Boston does not have fire ladder trucks to serve this project. How can the city approve such a complex that doesn't protect it's residents?

Again, would the people on the BDPA Board, the Director and the Developer REALLY want this project as presented in their backyard?

So, smaller, mixed use (homeowners and rental units), safety for the occupants and neighbors.

Thanks so much for your consideration.

Susan Sarkis.

From: Lance Campbell <lance.campbell@boston.gov>

Sent: Monday, January 29, 2018 10:12:11 AM

To: S S

Subject: Re: [36-70 Sprague Street](#) Proposed Development

[Quoted text hidden]



36-70 Sprague Street Project, Readville, MA

besposito73@gmail.com <besposito73@gmail.com>
To: lance.campbell@boston.gov
Cc: amicozzi2@rcn.com

Thu, Feb 1, 2018 at 9:39 PM

February 1, 2018

Lance Campbell
Boston Planning & Development Board
One [City Hall Square](#), 9th Floor
Boston, MA 02201

RE: 36-70 Sprague Street Project, Readville, MA

Dear Mr. Campbell,

I am writing to you today, in regards to the above mention proposed apartment project. I am a long-term Boston resident, growing up and living in Roslindale most of my life. I have spent the last 13 years living in Readville. I love the community and people in the neighborhood. More importantly, I like that it does not feel industrialized, like downtown Boston. The community is made up of homes, town houses and condos. It is great to be a part of the city, without it feeling like a city.

Over the last several years, the traffic on my street (W. Milton St.) has increased. Monday thru Friday, I sit in traffic to get down my street, just to go to the gym in the morning. Then I sit in it again, to go to work. And again, coming home from work. It never use to be like this. The population size has increased in Hyde Park and surrounding cities/towns. And thanks to the app Waze, everyone is taking a short cut though our neighborhood to get to and from downtown and the highway. The traffic has become unmanageable. And not much can be done about it right now.

In addition to the traffic nightmare, our infrastructure is deteriorating. While the Sprague St. bridge is relatively new, the bridge over the train tracks in Readville is falling apart. It is constantly being patched. Rebar is constantly becoming exposed out of the ground. The bridge can't handle the traffic going over it now, never mind adding more traffic/congestion onto it. The bridge will need to be replaced at some point, which will be a logistical nightmare. There are no lights to control the flow of traffic over the bridge. It is a nightmare to drive over it and make a turn in the opposite flow of traffic. Ongoing traffic does not give you a break. Everyone is in a rush to be somewhere. Increased traffic during busy times will increase safety issues for present residents and slow response time for emergency personnel.

I am also not happy with the way this project has been presented to the community. Only recently have I received ample notice to actually attend a meeting or write a letter into the group. In the beginning of this project, I would get a 1-2-day

notice in my mailbox that there would be a community meeting about the project. I am sorry, but that is a complete joke for someone who works full time and has obligations/commitments. The notices were purposely sent out last minute so not many people would attend the meetings.

I am completely against the project. I don't want it in my neighborhood. If you were to propose a housing development with actual houses, town homes or condos, I would be interested in hearing that proposal. It would not be as big as 521 unit apartment building, that can't even accommodate the number of cars that may be tied to each unit and stress our neighborhood and infrastructure.

Thank you,

Bryan Esposito



36-70 Sprague Street, Hyde Park

Laura Sims <lasims5@verizon.net>
To: lance.campbell@boston.gov

Thu, Feb 1, 2018 at 8:16 PM

In regards to the proposed development for the land located at 36-70 Sprague Street, Hyde Park, I am writing this letter in opposition to the development.

The reasons I am opposed to this development are as follows:

*The development does not belong in this area. This area has been single family or two family homes for many years. This development would be the first step to "Manhattanizing" the area which would force many families to move.

*The building of four floors below the street level because of the grade of the land does not change the effect of the building on the area. In the Orient, when a developer builds a structure that blocks the "Feng Shui" of the surrounding buildings, the developer has to pay those people an amount of money to compensate for the change in their luck. With this development, people will lose their view of the Blue Hills. I believe people would rather see the Blue Hills than a brick building.

*The area cannot handle any more traffic than what the area roads handle at the moment. With the 532 parking spaces for the residents and restaurant planned, the traffic headache will be tremendous. The traffic congestion for both the Fr. Hart Bridge heading towards Hyde Park and Sprague Street heading towards the East Street Rotary in Dedham will increase to an intolerable level. Also, the air quality would be affected by the addition of the 532 cars.

*Fire Department availability was not taken into consideration.

*There are already enough developments in the area for housing. The area can not tolerate anymore of this type of building.

*There are plans for development across the street in the Area 5 Yard for National Grid to construct a reclamation/sifting center. This will further increase the traffic as well as the noise level in the area.

*The noise of the commuter rails would be a deterrent for not living there. Also, the trains are unreliable.

*For families with children and the property located in the confines of the city limits of Boston, how are the taxes going to be divided up for the public schools? The development sits between the City of Boston and The Town of Dedham. Parents would have a choice of schools to send their children. Can the school systems handle the extra children without putting a burden on the school system?

*Development would change the availability access to Sprague Pond for the area residents. Sprague Pond is a glacial pond and can be affected by construction.

*The land has been used for commercial use for many years by many different commercial businesses. Who knows what chemicals or toxins have been used in the area that have leaked into the ground over the years. Many chemicals used years ago are now banned for health concerns. The public safety concern has not been taken into concern for the ground.

There are many more reasons that should be taken into consideration for not allowing this development but too many to list.

This development should not be built in Hyde Park.

Respectfully,
Laura A. Sims
Lasims5@verizon.net



Lance Campbell <lance.campbell@boston.gov>

New construccion on 36-70 Sprague St

scrosby710@aol.com <scrosby710@aol.com>

Thu, Feb 1, 2018 at 7:53 PM

To: lance.campbell@boston.gov

Cc: amicozz12@rcn.com

Please dont' build this monstrosity, the infrastucture doesn't support it. Sprague street is already overburdened, as it is a major thoroughfare for the school buses and garbage trucks. Rush hour , when the traffic converges with Milton street, is already a nightmare, and very unregulated, as is the traffic going from Milton st to Hyde Park ave. It is basically a free for all, already chaotic. Mayor Menino let this slide for years, and he lived in the neighborhood ! In the end, this complex and attendant traffic/congestion is extremely ill advised.

Stefan Crosby

Jaqueline Crosby Bernal



READVILLE Sprague Street Project TOO BIG!

Diane Cannata <dianesty17@gmail.com>
To: lance.campbell@boston.gov

Thu, Feb 1, 2018 at 6:38 PM

Hello,

Having been a resident of Readville for the last six years, as well as a resident of West Roxbury almost my entire life, I feel I am competent to express my concerns regarding the scope of the intended housing development. This idea has been **POORLY CONCEIVED** and not in the best interests for anyone at this time!

* Although Readville is situated alongside railroad tracks, there are **NO MBTA SUBWAY TRAINS** which typically head into town on a regular basis in other congested neighborhoods. Commuter rail is not used by most people and often begins too late for the average blue-collar worker that make up a big part of the Readville area.. (For example: construction workers, facilities and maintenance workers who often begin work at 6:00 AM) To get to Forest Hills, most people would opt to drive, rather than take an overcrowded, slow bus. Most bus routes anywhere in the city don't start until 5:00 AM at the earliest anyhow. Depending on the hour, some buses could take about 45 minutes to get to Forest Hills. **ADDING CONSTRUCTION VEHICLES TO THIS MIX IS NOT BENEFICIAL This include the workers' personal vehicles, as well as commercial.**

* **TRAFFIC CONGESTION ON SPRAGUE STREET IS ALREADY BACKED UP DURING COMMUTING HOURS** Heading towards the Neponset Valley Parkway bridge over the railroad tracks would be the most commonly used route to get to either Truman Parkway or Canton Ave. (Route 138) which leads to 95N & 95S. In the other direction towards Dedham, you can find a similar situation heading towards the East Street rotary in order to get to 95N and 95S or even to Route 1. Try heading towards River Street to get to Turtle Pond Parkway or Cleary Square and you will see the same thing. Trying to get over the railroad bridge at Cleary Square can be very frustrating.

***RECKLESS AND HAPHAZARD DEVELOPMENT** Builders around here have been gradually putting up more and more large houses and condominiums in what used to be backyards around here. Sometimes they build houses 3 feet away from the existing house and knock down beautiful trees! The recent building has already added significantly to **TRAFFIC CONGESTION AND NOISE**

* Drivers more frequently disobey the "DO NOT BLOCK INTERSECTION" rule, which further clogs traffic and aggravates the situation. **MANY RESIDENTS' VEHICLES** will be coming and going around the clock! Add **UBERS** and **DELIVERY TRUCKS** to that as well.

* I am concerned there are **NOT ENOUGH PARKING SPACES** into their plan to cover **MULTIPLE CARS PER UNIT or VISITORS (including health aids, babysitters, etc.)**

I sincerely hope the city does not allow this project to move forward.

Diane Cannata
1825 River Street
Readville, MA 02137



36-70 Sprague Street

McKee, Eileen M <Eileen.McKee@gd-ms.com>

Thu, Feb 1, 2018 at 11:22 AM

To: "Lance.Campbell@Boston.gov" <Lance.Campbell@boston.gov>

To Whom It May Concern,

We have resided at 76 Como Road in Readville for 58 years. Our home was built by my Father, Uncles and other relatives. Our peaceful neighborhood has seen many changes over these years. All the older folks that lived here had gardens in their yards, which have been replaced by more and more houses as time has passed. Every inch of open space is a builder's dream – to squeeze in yet another house for a handsome profit. In addition to the new houses, many cars line the street on Como Road because there are more residents living in those homes than parking spaces available. It is a nightmare getting out of our driveway without almost hitting another car because some neighbors choose to park on the street along our fence versus using their driveways. Como Road has become as busy as West Milton Street!

I attended the January 10 meeting held at the Blue Hills Collaborative. The room was packed. The majority of residents polled raised their hands in opposition – we **DO NOT WANT** this project to move forward! The builder lives in Westwood, so he doesn't fully understand the impact this project will have on our community. He assumed that everyone living in the new project will take the commuter rail; that isn't true. Some may; however, not everyone will be working in Boston. I live in Readville, but I work in Taunton. I commute daily because there is no public transportation from Readville to the Myles Standish Industrial Park in Taunton. I leave my house at 6:30 a.m. daily and drive over the Sprague Street bridge on my way to Rt. 95. Even at that early hour, there are lots of buses, cars and trucks in addition to pedestrians crossing to walk over the Sprague Street bridge. Additionally, the Father Hart bridge, Hyde Park Avenue and Wolcott Square traffic are also busy at this time.

One night three years ago, I drove home from Taunton via East Street to the Sprague Street bridge, and what a mistake that was! It was 4:30 p.m., and I was stuck in traffic for the same 45 minutes it took me to drive from Taunton to Dedham. The traffic came to a standstill, and it crawled from the Dedham Manor over the bridge. It was a complete nightmare, and it NEVER happened again. I truly believe that the additional traffic this complex will bring will make it even more unmanageable. It will also increase safety issues for current residents and pedestrians alike.

I noticed that there was only one way in and out of the projected complex at 521 unit housing development on 36-70 Sprague Street. How do you expect emergency services for the Fire and Police Departments to have adequate access to these buildings when safety is compromised? This project does not make sense for our community.

Respectfully,
Eileen McKee



36-70 Sprague St

David Mello <djmello@verizon.net>
To: "lance.campbell@boston.gov" <lance.campbell@boston.gov>
Cc: "amicozzi2@rcn.com" <amicozzi2@rcn.com>

Thu, Feb 1, 2018 at 9:57 AM

Mr. Lance Campbell,

As an abutter to the proposed development I would like to offer my disapproval for the project pending BPDA review along with maybe an alternative approach to the development.

Reasons surfacing are that compactness/density of project exceed the access and location. I am a frequent walker of the area and continually note that when crossing the Sprague street bridge, with multiple cars/trucks crossing there is a noticeable vibration felt on sidewalk, although bridge was replaced several years ago, what was the design limit based on for vehicular traffic. Along with Sprague street being two lanes and already heavy commuter travel between Dedham, Neponset Valley Parkway and West Milton St. as these streets are heavily used for routes 95/138 access, the addition of project would not only add traffic but also the safety of residents as these commuters have no regards of speed limits ,stop signs etc.

It seems to appear that with 521 residences (#of bedrooms?) and only an additional 12 parking spots available there is insufficient capacity to appease. Yes, knowing there are studies that report projects developed need less than a vehicle per resident is sufficient, there are other studies of total being beyond that, along visually confirming homes/apartments with number of vehicles in driveways and streets.

I am not an opponent to future development but am opponent to excessive development that infringes on a rural feel of the area imposed by developers whos only goal is to profit financially.

What I would like to recommend, instead of magnitude of this project, is to consider subdividing the project to accomplish single family homes which is more suitable to geography and resources available to sustain. Yes this may not be as profitable to developers but it could, in my opinion, be a win for developer and a win for residents present and future.

Thank you and regards,

David J Mello

[46 West Milton St](#)

[Hyde park Ma. 02136](#)



Lance Campbell <lance.campbell@boston.gov>

Housing proposal

xrogue478 <xrogue478@gmail.com>
To: lance.campbell@boston.gov

Thu, Feb 1, 2018 at 7:53 AM

Dear Mr. Campbell

I live at 74 sprague street and am fully against having a 521 unit housing project next door.

Thank you

Michael and annmarie welch

Dorothy taylor

Sent from my Sprint Samsung Galaxy S7 edge.



Sprague St, Readville development - neighbor's comments

Design <design.bt@gmail.com>
To: lance.campbell@boston.gov
Cc: amicozz12@rcn.com

Thu, Feb 1, 2018 at 2:09 AM

To whom it may concern,

I have not attended to any of the past neighborhood meetings due to conflicting schedules. After reviewing the online documents the developer submitted, below are my concern and thought about this project.

I am a property owner on one of the properties on Chesterfield Street. I have been living in Readville for 10 years. I have witnessed how traffic and population grow in this area. Readville is a suburb of Boston. Unlike downtown Boston, everything in Readville is not closed by. The reason that my family chose to live in Readville is to stay away from the traffic, noise, and crowd that you could only see in central Boston area.

According to the developer's submission, this development contains 521 residential units (includes 53 studio, 234 one-bedroom units, 208 two-bedroom units, and 26 three-bedroom units) plus a 6,000 s.f. of restaurant with 532 parking spaces. The development is within walking distance to the commuter rail and buses, but these transportation only takes you into Boston. What about those residents that work in the S. Shore or elsewhere? They will drive to work, which means families that reside in two or three bedroom units would own more than one car and that one parking space will not be enough for them. These new residents will end up parking on the street. There is no guarantee that these people cannot and would not own more than one vehicle. If 521 parking spaces are reserved for residents, which that only leaving 9 parking spaces for restaurant guests and workers. This is definitely not enough for a 6,000 s.f. dine-in restaurant. Guests that visit the restaurant are not by bus, not by commuter rail, but are by car. Where will these guests park?

What happen when there's snow emergency? Where will the residents that parked on street be parking? The development has no control of where the residents park their vehicles or how many vehicles they own, but these people will affect the neighbors somehow by parking in front of their house. Where will our vehicles be moving to when we have to shovel our driveway?

Traffic is a major issue to and from both I-93 and I-95 highway exits. The entire route between I-95 exit 14 to Readville and to I-93 exit 2 is a single-lane traffic. Every day we have to face traffic backup from either exits of the expressway all the way to Father Hart Bridge. Developer is offering to add traffic signal on both side of the bridge and upgrading the traffic signal on Wolcott Square. Is there a study to prove that this will help if adding another 1,000 more or less cars into this traffic route? Does the engineer or the Developer realize that the entire route between expressway exits and local routes are all single-lane traffic? The traffic around here is not just happened during rush hours. It happens every day including weekends too. Vehicles that stuck in traffic are not just because of the bridge. It's because the entire route to the expressway. Traffic on route 139 is never smooth and so does East Street in Dedham. Is it ok if traffic is smooth near the development but not the entire route?

I hope these are not low income or affordable housing units. The Readville neighborhood is a nice and quiet neighborhood which a typical single family home worth in the \$500,000 range. If this development is a medium to low income housing, it will affect the value of our homes in the area.

The development is on a 6.6 acre of lot which is about 551 s.f. of lot area per unit ratio. It has proven that the project is too dense on this lot. If this development gets approved, what about the industrial lot across the street? Can they put up another 500 units? Will the city consider widening the streets to and from the expressway to allow two-lane traffic? or rebuild the Father Hart Bridge to allow extra lanes of traffic?

In addition to the concerns, does the development allow any dog walking area/facility within the development? If not, I believe the future residents of this development will be walking their dogs in the Readville Playground. This playground is build for kids in the neighborhood and not dogs. I tend to find more dogs there than kids now.

Developer has to understand that Readville is a suburb of Boston. This kind of large development doesn't fit well in a suburb. I don't support this size of development at all. I hope the developer is rethinking of providing at lease 2-parking spaces per unit, additional parking spaces for the restaurant, and reducing the number of units by at least 50%. The city has to understand that whatever this development is approved for along with any traffic signal improvement, it will not show any improvement on future traffic.

Sincerely,

Bonnie



Lance Campbell <lance.campbell@boston.gov>

521 Unit Housing Proposal

Joan Tanos <jtanos@verizon.net>
To: lance.campbell@boston.gov

Wed, Jan 31, 2018 at 9:15 PM

I cannot agree with the 521 Unit Housing proposal for 36-70 Sprague Street in Readville. I am an 84 year old life-long resident of Readville. I was an employee of Westinghouse in Readville for 40 years and am life-long active member of Hope Baptist Church in Readville.

Joan Tanos
6 Imbaro Road
Readville, MA 02137

Sent from my iPad



Lance Campbell <lance.campbell@boston.gov>

opposition to 36-70 Sprague Street Development

Mark Carr <marrcarr6@gmail.com>

Wed, Jan 31, 2018 at 5:22 PM

To: lance.campbel@boston.gov, lance.campbell@boston.gov

This message is sent in order to create an email record of my opposition to the projected development of [36-70 Sprague St. Hyde Park MA](#). I do not believe that the present infrastructure can support the additional vehicular traffic volume this project will create.



Lance Campbell <lance.campbell@boston.gov>

Re: 36-70 Sprague Street

Christine Sims <christinesims22@yahoo.com>
To: lance.campbell@boston.gov

Wed, Jan 31, 2018 at 3:36 PM

Dear Mr. Campbell,

I write to you to register my strong opposition to the proposed development at 36-70 Sprague Street.

This project is too aggressive... the impact on our neighborhood would be detrimental, not only in added traffic congestion and noise pollution but also, as a general safety dilemma when/if fire vehicles would need to enter the narrow access/egress passageway.

Just because this project is supposed to be partially hidden because of the slope of the land does not make this project acceptable.

Also, with the aggressive land usage proposed by National Grid across the street at Yard 5, who knows what future contamination might be dumped nearby... .. would the potential residents of this development even want to live so close to 24-hr dumping noise and pollution?

Please stop any project of this magnitude from destroying our residential neighborhood.

The line of propaganda that this type of massive development is beneficial to Readville is only generated to make money for the developer, not to enhance our property values and quality of life here in Readville. Enough !

Cordially,

Christine M. Sims
75 Readville Street
Readville, Ma 02136

Sent from my iPhone



Opposition to proposed construction at 36 – 70 Sprague Street

Conor Boyle <conorcboyle@hotmail.com>

Wed, Jan 31, 2018 at 3:05 PM

To: "Lance.Campbell@Boston.gov" <Lance.Campbell@boston.gov>

Cc: "amicozzi2@rcn.com" <amicozzi2@rcn.com>

Dear Mr. Campbell,

The addition of 500+ units of housing is going to have a detrimental effect on the Readville community for the following reasons.

At present the traffic on Sprague Street close to the proposed location is highly congestive with large volumes of cars, trucks, vans, School transportation and Sanitation vehicles all travelling in and around the proposed location at 36 – 70 Sprague Street.

Trucks which are located at Industrial drive are continuously driving to and from the location. Amazon vans are likewise continually travelling to and from the Amazon Warehouse all day. Sunrise Scavenger is headquartered in the same location and has sanitation vehicles on the move constantly around the area and likewise there is a constant parade each morning and evening of school buses leaving and returning to their depot at Sprague Street Bridge.

Adding another 500 + vehicles from the proposed development at [36- 70 Sprague Street](#) to this already overburdened road infrastructure is going to have a highly detrimental impact on the residents of Readville. It will make travel to and from any of the residencies in Readville a miserable experience with increased gridlock, noise and pollution accompanying the new development.

This development will have an adverse affect on the neighbourhood of Readville, reduce the quality of life and the desire to live here.

Yours sincerely,

Conor Boyle

Como Road, Readville



Fwd: SPRAGUE STREET DEVELOPMENT

Barbara Baxtrer <barbarajjmom2@verizon.net>
To: lance.campbell@boston.gov

Wed, Jan 31, 2018 at 1:42 PM

Barbara Baxter
barbarajjmom2@verizon.net

-----Original Message-----

From: Barbara Baxtrer <barbarajjmom2@verizon.net>
To: lance.campbell <lance.campbell@boston.com>
Cc: bryan.flynn <bryan.flynn@boston.gov>
Sent: Wed, Jan 31, 2018 01:23 PM
Subject: SPRAGUE STREET DEVELOPMENT

I would like to express my concerns about the Sprague Street Development. I feel that the traffic problem is a big problem for Hyde Park and Readville.

I am also concerned about the problem with education for the families who would live there, right now a child living there would go into a lottery for attending K-8th grade as that is the way students are chosen. The other alternative is Charter Schools which is also by lottery. I feel this issue has not been addressed..

The traffic in Cleary Square is still a problem at HydePark Ave and River Street and Gordon and Business Street is always backed up. The city of Boston supposedly solved the traffic problem and it is still a problem. As President of The HydeParkNeighborhoodAssociation I constantly hear complaining about that traffic problem at our monthly meetings. Obviously the traffic lights have not solved the problem.. That is why I am concerned about traffic. On Sprague Street the will run into the same problem.. For those reasons I am not supporting this Sprague Street Development at this time.

THANK YOU.

Barbara Baxter
barbarajjmom2@verizon.net
617-361-2521



Lance Campbell <lance.campbell@boston.gov>

Sprague Street Proposed Development

JOHN KENNEY <john.kenney111@comcast.net>
Reply-To: JOHN KENNEY <john.kenney111@comcast.net>
To: Lance Campbell <lance.campbell@boston.gov>

Wed, Jan 31, 2018 at 11:49 AM

Thank you Lance,

I am also an employee of the City of Boston, BPL, Hyde Park Branch. Of course I am speaking only in a personal capacity. I have lived in Hyde Park since 2005 and really love and respect the historic community we have there. I am also active on the Wakefield Washington forum on NextDoor.com. I understand a lot of Readville residents are concerned about this project. I share their concerns and don't want to anger any of my great neighbors. If the developers can really assist in the traffic and life improvements that will be needed around this project, more minds might be swayed to support it. I recall the recent improvements to the Forest Hills station area and the new rotary that replaced the old overhead. I have not been up there since the project started but remember my first trip to Boston back in 1995, right before I started Library School at Simmons College. I drove over that bridge twice then and a few more times since settling in Boston. That was a nightmare and a real infrastructure problem. I see similar things happening on the bridges around Readville station. The traffic is really intense, with a lot of heavy trucks servicing the industrial businesses in the area. It has always been a rail hub as well. If careful thought and enough resources are put into upgrading and improving the living and traffic situation around this project, it could really be a success. The old, long term residents and new future residents really deserve it. Thanks again for your time.

John.

[Quoted text hidden]



(no subject)

egoldrick@aol.com <egoldrick@aol.com>
To: lance.campbell@boston.gov
Cc: AMICOZZ12@rcn.com

Mon, Jan 29, 2018 at 1:56 PM

I received a flyer about about comments on the proposed development on Sprague Street and requesting feedback on Sprague Street proposed development. I am opposed to this development and I just can't imagine anyone with any knowledge and common sense would be for this proposal.

To begin with my car was totaled on the bridge over 10 years ago when the traffic there was heavy and no where near what it is now. It was a City of Boston Trash truck that backed into me on the bridge at evening rush hour. The traffic there is much heavier now and scarier! Traffic begins to back up in Wolcott Square around 4pm making it an arduous and scary ride to just get onto and off the bridge. Add to the mix school children from the Pacific Rim Charter School are also using the bridge on foot to get to MBTA buses at around the same time as the workforce traffic is beginning. I hold my breath as I try to navigate that stretch. It is very dangerous!

There is no strong reason to build this type of massive housing complex in that area. The streets in Readville can't accommodate this type of population growth in that type of dense setting. Transportation needs will increase because there will no parking for cars and the MBTA ?commuter rail will be expected to provide the service and that will mean major funding. Policing and fire staffing will need to expand and that costs money. Since I have heard about this proposal I have tried to figure out how I will navigate this area when I visit family and friends outside of Boston. Most of my travel within Boston is around the SE Boston area but the majority of my travel is on the South Shore where family and friends have relocated and this new construction will force me to go miles out of my way to pick up Rte128/95 on the Dedham Westwood border. (near East Street) If I am forced into that type of situation.. why continue to live here?

On many levels this is a disaster waiting to happen and if I can figure that out why can't elected officials and city/traffic planners? And of course, everything boils down to money (for police, firefighters, more public transportation, road improvements, schools?) and who will pay for it all?.. in the end it may be easier to leave and live where there is more common sense in planing growth and more attention given to legitimate resident concerns



Development Projects - 36-70 Sprague Street

Erin Judge <erin_judge@hotmail.com>

Tue, Jan 30, 2018 at 9:13 AM

To: "Lance.Campbell@boston.gov" <Lance.Campbell@boston.gov>

Good Morning,

My email is in response to the Housing proposal - [36-70 Sprague Street](#) in Readville. This is my second response **OPPOSING** this project. I am a long time resident of Readville and I can tell you that this project will be a detriment to our area. The current traffic, congestion in our area is brutal to say the least. I take the commuter rail and when I drive out of the parking lot to drive home it takes forever to get out of that lot with all the traffic on Sprague street and through the square. And coming over the Readville bridge is an absolute nightmare!! It takes anywhere from 20-30 minutes during the week. It is ridiculous. With this new development it will only increase traffic making it more unmanageable and hazardous. We also have school children that cross at the bridge and at the train station and this will cause more safety concerns for them. This will also cause issues for present residents (like myself) with more traffic/more pollution/more noise and congestion.

There was just an accident last week over on Sprague Street due to all the traffic one night during the week. It took police and fire a bit just to get over the bridge to the scene.

We have another development housing project going up at Fairmount Station down the street. I think having another in Readville is just ridiculous! We don't need more affordable housing in our area. We need a way to figure out the traffic issues, etc. that we have going on now....NEVERMIND a new development that will only make it worse!

Please take in consideration what the residents or Readville/Dedham are dealing with now before adding more congestion and chaos with this new development.

Thank you for your time.

Erin H.



Lance Campbell <lance.campbell@boston.gov>

(no subject)

+16172305953@tmomail.net <+16172305953@tmomail.net>
To: lance.campbell@boston.gov, amicozzi2@rcn.com

Mon, Jan 29, 2018 at 7:32 PM

I have replied to the Boston Plans website. I am opposed to the 521 unit housing proposal planned for the Sprague Street area. I have stated that a unit of that size with the parking and traffic problems that would come with it is not conducive to the Readville area. Our roads are already a pass through for people coming off of 95 in Dedham and Canton heading into Boston. Our roads and bridge (very concerned with the age and upkeep of the bridge in general) will not be able to handle the extra column Please refer to my entire list of comments on the Boston Plans website.



This message was sent to you by a T-Mobile wireless phone.

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Lance Campbell <lance.campbell@boston.gov>

DEVELOPMENT PROJECTS/36-70-SPRAGUE STREET

Theresa Filleti <tfilleti@hotmail.com>

Mon, Jan 29, 2018 at 12:58 PM

To: "lance.campbell@boston.gov" <lance.campbell@boston.gov>

My husband & I would like to comment on the Sprague Street Project and let you know our feelings are that the traffic will be unmanageable, infrastructure. Parks & Services will be burdened and increased traffic during busy times will increase safety issues for present residents. There would be a slow response for fire, police, and emergency services.

We vote no for the project.

Thank you,

Theresa & Carmen Filleti



Lance Campbell <lance.campbell@boston.gov>

521 Housing Proposal in Readville

Cheryl Hamm <chhmmy@aol.com>
To: lance.campbell@boston.gov

Mon, Jan 29, 2018 at 1:02 PM

Dear Mr. Campbell ,

Last month there was a meeting at Saint Anne' s in Readville concerning the development of 521 housing units to be built off of Sprague Street.

The majority of the people at the meeting are against this project.
I include myself in this majority, I am against this project going forward.

Thank You

Cheryl Hamm

110 Chesterfield Street
Readville, Ma 02136

Sent from my iPad



Comments on Sprague Street Project

Kelley, Nancy <kelley.nancy@jimmy.harvard.edu>
To: Lance.campbell@boston.gov
Cc: lkell627 <lkell627@gmail.com>

Mon, Jan 29, 2018 at 11:24 AM

To Lance Campbell

I am very much opposed to the Sprague Street Project. I live right across the street at [45 Sprague Place](#).

We bought the house in 1982, because we like the privacy. This changes our quality of life BIG TIME!

I can't imagine to having 1000- 1500 new neighbors in such a small amount of space. I can't pull in and out

of my street now. I do take the train into work. I drive to the Readville Station. when I come home I also drive to do errands

meet with friends ect. Point being, taking the train to work does not curb on my need to be driving my vehicle .

Also ,when a truck even a small box truck drives by on Sprague street my whole house goes dark blocking the sun. I don't want my light being taking away.

Digging down to make room for parking will flood the basement on the existing houses on Sprague Street when it rains.

also the mice and rats where are they going to go...my yard? I don't think this place will last as" luxury Apartments".

Is there only going to be one way in and out .. years ago before I lived there they took some of my and my neighbors land by eminent domain

To widen Sprague street which left a pretty steep hillwill the be coming back for more? This project affect our four forgotten homes more

than anybody else and no one cares.. our properties will decrease in value.

Thank you for your time

Sincerely,

Nancy Kelley

--
Nancy Kelley
ECOG-ACRIN Cancer Research Group
Operations Office Boston
28 State Street Suite 1100
Boston Ma. 02109-5717

Main Number [857-504-2900](tel:857-504-2900)
Phone Number [857-504-2856](tel:857-504-2856)
Fax Number [617-589-0914](tel:617-589-0914)



Lance Campbell <lance.campbell@boston.gov>

Comments on Sprague Street Project

Kelley, Nancy <kelley.nancy@jimmy.harvard.edu>
To: Lance.campbell@boston.gov
Cc: lkell627 <lkell627@gmail.com>

Mon, Jan 29, 2018 at 11:59 AM

Hi Lance,

I forgot to add this in my previous email which is one of my biggest concerns.

I don't think our 100 + year old homes can withstand such a large construction project without structural damage. Who would be responsible for this? I appreciate your time.

Thanks Again

Nancy Kelley
[Quoted text hidden]



Lance Campbell <lance.campbell@boston.gov>

521 Housing Proposal in Readville

jackal812@aol.com <jackal812@aol.com>
To: lance.campbell@boston.gov

Mon, Jan 29, 2018 at 12:44 PM

Sir,

Last month I was present at the meeting held at Saint Anne's in Readville, about the 521 housing units that may be built off of Sprague Street.

I was the individual who asked the citizens of Readville who were present if they were against this project. As you know the vast majority voted against this project.

For the record I am against this project going forward.

Thank You,

John Hamm

110 Chesterfield Street,

Readville Mass, 02137



Lance Campbell <lance.campbell@boston.gov>

Housing Project

Erin Trethewey <erin.trethewey@gmail.com>
To: lance.campbell@boston.gov

Fri, Jan 26, 2018 at 3:44 PM

Good afternoon,

I am emailing in regards to the new housing project that is proposed for [40-70 Sprague Street, Readville](#).

I grew up in Dedham and recently just moved to the manor (Hooper Road) - I strongly believe that the new housing project will negatively impact the neighborhood. I drive from Dedham through Hyde Park every morning to get to work in the city and every night to get home. The traffic already is practically unbearable and the streets are over packed. The additional hundreds of residents will make the whole area crazy!

I frequently take walks around the town and crossing Sprague Street is required to leave my neighborhood but it is very dangerous to begin with how many cars fly up and down the streets at any given time.

Please consider the existing residents and their needs - I do understand the want/need to develop the area but I think that the location and area for the proposed building is not realistic. The neighborhood and streets will just not be able to handle the influx of people and cars, along with everything else that comes with them.

Thank you,

--
Erin Trethewey



Lance Campbell <lance.campbell@boston.gov>

521 Unit Housing Proposal at 36-70 Sprague Street, Readville, MA

RICHARD KANASKIE <rkan32@msn.com>

Sat, Jan 27, 2018 at 10:08 PM

To: "lance.campbell@boston.gov" <lance.campbell@boston.gov>

DT: 01-27-18

Dear Mr. Campbell:

Please be advised that we are writing the following comments to ensure you that we are totally dissatisfied with the subject 521 Unit Housing Proposal .

This Proposal will only add to the current intolerable traffic bottle necks during the daily hours of 6:00AM to 9:00AM and 3:00PM to 6:00PM. Traffic will be unmanageable should this Proposal be enacted and Infrastructure and Safety Services will be burdened. Also, there is currently no Ladder Fire Equipment available from the Readville Fire Station to respond to structures reaching eight floors in height. And, certainly traffic volumes during referenced busy times will increase safety issues for present local residents and slow response time for fire, police and emergency services. In addition, higher Transit Rates at the Readville Station versus Hyde Park Station will only prompt increased driving to Hyde Park.

Please record us as a No to this Proposal for 521 New Housing Units.

Thank you for this opportunity to express our commentary.

Sincerely,

Richard & Mary Kanaskie

19 Pinefield Road

Readville, MA 02136

Sent from [Mail](#) for Windows 10



36-70 Sprague Street

Rachel Gatie <rlgatie@gmail.com>

Sun, Jan 28, 2018 at 5:56 PM

To: Lance.Campbell@boston.gov

Dear Mr. Campbell,

We are writing to you to express our opposition to the 521-unit complex proposed for [36-70 Sprague Street](#) in Hyde Park. We were recently married and moved from a townhouse in Brighton to a single-family home on Neponset Valley Parkway in Hyde Park this past fall. We loved Brighton, but two of the reasons we decided to leave were the 132-unit apartment complex under construction on the corner of our block and another one planned for the opposite end of the street we lived on. We wanted to remain in the city, but get away from the multiple apartment complexes popping up around us in what was a quiet and somewhat residential area of Brighton. We found our lovely home in Hyde Park and have enjoyed getting to know our new neighborhood, the people who live here, and the things that make this Boston neighborhood unique, but were so upset to find out that an even larger complex than the ones we were facing in Brighton is planned for down the street.

We understand people want to live in Boston, but Readville is not the hip Boston that everyone thinks about when they think of the city. We're concerned that should this 521-unit complex go up there would not be a demand for all the units and it would end up a rundown, half-vacant eye sore. We're also concerned with the added congestion the complex will bring to an already congested area. We both catch the commuter rail at the Readville T station into our jobs and by the time we get on the train at 7:25 a.m. the train is full. It'll be even worse if this complex goes up. There just aren't the public transportation options here that are available in other areas of Boston. We have the Readville commuter rail stop and the 32 bus. Furthermore, the traffic on Neponset Valley Parkway trying to get to Sprague Street is AWFUL during rush hour. By 7:00 a.m. traffic gets backed up all the way past our house trying to get through the light in Wolcott Square and onto Sprague Street. The same happens by 5:00 p.m. If we want to do anything after work we have to rush home and hop in the car to avoid sitting in traffic. This would only get worse with a 521-unit complex added to the mix.

There may be demand for this kind of complex in Allston-Brighton or Seaport, but this area of Hyde Park does not offer the "city lifestyle" that these developers want everyone to think it does and at the end of all of this, we'll be stuck with a half-vacant monstrosity that becomes a run down mess.

We implore you to listen to the concerns of the individuals and families living here today and who will have to live with the decisions that are made for a long time. The developers who are pushing this do not have to stick around to face the consequences of their grand ideas, but the people who've invested in Hyde Park and chose it for their home for the qualities that set it apart from the more urban neighborhoods in the city will. Thank you for the opportunity to voice our thoughts on this issue.

Rachel and Jared Wacht



Virus-free. www.avg.com



Lance Campbell <lance.campbell@boston.gov>

Apartments off of Sprague Street

William Stec <wstec21@icloud.com>

Fri, Jan 26, 2018 at 10:41 AM

To: lance.campbell@boston.gov

Hi. I'm writing you today to say I'm against the construction of the 500 plus apartments for Sprague Street this is not the area for this.

William A. Stec

National Sales Manager – National Accounts

Herc Rentals Inc. | [45 Gerard Street](#) | Boston, MA 02119, USA

Phone: [617-442-9587](tel:617-442-9587) | Mobile: [781-801-9013](tel:781-801-9013)

william.stec@hercrentals.com | www.hercrentals.com



Lance Campbell <lance.campbell@boston.gov>

Opposition to the 527 unit apts off Sprague Street

Anne Francis <avbf7465@gmail.com>
To: lance.campbell@boston.gov

Fri, Jan 26, 2018 at 10:48 AM

DO NOT BUILD ANY MORE STUFF ON SPRAGUE STREET.

Traffic is a huge problem already.

Anne Francis
86 Durham Road
Dedham, MA 02026



Lance Campbell <lance.campbell@boston.gov>

Opposed to apartments on Sprague St

elizabeth messina <betsymessina@gmail.com>

Fri, Jan 26, 2018 at 10:51 AM

To: lance.campbell@boston.gov

To whom it may concern,
I'm opposed to the proposed apartment complex on Sprague St.
The traffic currently to get over the Sprague Street bridge is dangerous and there are too many cars.
The bridges and streets in the neighborhood are not equipped to handle more people and more cars.
The plans should not be approved.
From a concerned neighbor,
Elizabeth Messina

Sent from my iPhone



Lance Campbell <lance.campbell@boston.gov>

Readville Housing Project

Lyn Goode <marilyn.goode@bc.edu>
Reply-To: marilyn.goode@bc.edu
To: lance.campbell@boston.gov

Fri, Jan 26, 2018 at 10:57 AM

Lance

I am writing to strongly oppose the apartment complex proposed on Sprague St in Readville./Dedham lines. I live in the area

Traffic in that area is ALREADY AWFUL, I can't see how more can be handled from either direction, Sprague St or River St. Both streets are already like a parking lot between 3:30 - 6:30 Monday - Friday

I would also like to know when the next public meeting will be held and where?

Thanks

--

Lyn Goode
Manager of Business and Administrative Services
O'Neill Library
goodem@bc.edu



Lance Campbell <lance.campbell@boston.gov>

Sprague St Proposed apt units

K P <livin77@hotmail.com>

Wed, Jan 24, 2018 at 5:32 PM

To: "lance.campbell@boston.gov" <lance.campbell@boston.gov>

Hi there,

I'm a resident on Sprague St and am opposed to this current proposal of apt to Readville. Our roads and neighborhoods CAN NOT handle anymore traffic. As a resident on Sprague St, I bless myself every time I back out of my driveway because the continuous speedway that Sprague St has become is dangerous. It's takes 10 minutes to get out of my driveway. By allowing this large apt complex to be built is trying to squeeze a round peg into a square hole. It doesn't fit! The existing neighborhoods and roads can't take anymore. The burden is real, I live it everyday and can't take much more of it.

Sincerely a concerned citizen,

Karen Palumbo



apartments off Sprague Street

MICHELLE HACHE <hachefm@comcast.net>
Reply-To: MICHELLE HACHE <hachefm@comcast.net>
To: lance.campbell@boston.gov

Fri, Jan 26, 2018 at 9:07 AM

Hello Mr. Campbell,

Wanted to let you know that I am opposed to the 527 unit apartments that are being proposed to be built off of Sprague Street. As it is now, traffic is backed up from the highway to Dedham's Endicott rotary on a daily basis. Getting off Exit [14 \(95 South\)](#) can take up to 20 minutes or more. Dedham cannot handle (nor can Hyde Park) the increased traffic congestion. We are even seeing major backups through Dedham's Greenlodge neighborhood when people try to avoid East Street. I urge you to reconsider. Please do not let this happen.

Michelle Hache

[130 Gainsville Road](#)

[Dedham, MA 02026](#)



Lance Campbell <lance.campbell@boston.gov>

Readville Housing Units

Lynda Costello <lyndac519@gmail.com>
To: lance.campbell@boston.gov

Thu, Jan 25, 2018 at 9:42 AM

Has anyone involved in this project been in the Sprague Street-Milton Street area at rush hour?
Morning and evening traffic is backed up in all directions. Adding 600 units that will exit onto Sprague Street will be an absolute nightmare!
Lynda M. Costello
107 Hooper Rd., Dedham



Lance Campbell <lance.campbell@boston.gov>

Readville Housing Project

Marina <mzakuta@gmail.com>
To: lance.campbell@boston.gov

Wed, Jan 24, 2018 at 2:27 PM

Hello:

Regarding this project: I am very much concerned about the traffic on Sprague street - this is a rather narrow one-lane road with already existing bottleneck where it intersects with W. Milton Street.

Unless the road and bridge is widened, I don't see how a major building project can be implemented.

thank you

Marina Zakuta

103 Durham Rd

Dedham, MA



Sprague St.

Tom Sullivan <tomsullivan9@gmail.com>
To: lance.campbell@boston.gov

Wed, Jan 24, 2018 at 1:46 PM

Hello Lance,

Please make sure that I am on the email list for notices about the proposal at Sprague Street.

I am very much opposed to any changes of the zoning in Readville.

Any construction in the area around Sprague Pond could have a negative effect on the water-table in the Prescott St. and Wolcott Square area. Early maps of Camp Meigs, which are held by the Hyde Park Historical Society, show the outline of a part of Sprague Pond that was on the East side of the railroad tracks. Obviously, the railroad right of way was run through by filling part of the pond.

As I mentioned at the recent meeting, during my brief two minute opportunity to question the development team, I believe the buildings would reflect noise from the passing trains throughout the neighborhood.

A project such as the proposed construction at Sprague Street would take away from the historic nature of industrial Readville. The zoning that has been in place should not be changed.

Tom

--

Tom Sullivan
617-416-4762
tomsullivan9@gmail.com



Lance Campbell <lance.campbell@boston.gov>

NO ROOM FOR MORE TRAFFIC ON SPRAGUE STREET

Denise Potter <nise-p@hotmail.com>

Wed, Jan 24, 2018 at 12:29 PM

To: "lance.campbell@boston.gov" <lance.campbell@boston.gov>

Good afternoon-

I am one of those concerned citizens from Readville that travel Sprague street twice daily to and from work. I live on the Wolcott side and just last night sat over 15 minutes trying to get from Sprague street to Hyde Park Avenue which on the weekend would take a minute or less.

Having a housing project that big would add so much more to the already congested road.

I vote NO on Readville Housing Project

Denise O'Connell
25 Hamilton St



PROJECT OMB SPRAGUE LLC

dsarge1@verizon.net <dsarge1@verizon.net>
To: lance.campbell@boston.gov

Wed, Jan 17, 2018 at 11:37 AM

I HAD AN OPPORTUNITY TO BE A THE MEETING LAST WEEK (JANUARY 10TH) AT [20 COMO ROAD READVILLE](#). UNFORTUNATELY FOR THE READVILLE AND DEDHAM FOLKS THE MEETING WAS SAME OLD, SAME OLD. WE HAD A SHOW AND TELL ON HOW NICE THE PLACE WOULD BE AND ALL THE AMENITIES, INCLUDING A RESTAURANT. IF THE PLACE EXISTED, THE ONLY PEOPLE THAT WOULD GO THERE ARE THOSE THAT LIVED THERE. AS I INTERPRET THE PARKING SPACES AVAILABLE YOU ARE LOOKING AT OVER ONE THOUSAND MORE AUTOS TRYING TO COME OVER THE SPRAGUE STREET AND THE FATHER HARTE BRIDGES. TO ACCOMMODATE ALL THIS ADDITIONAL TRAFFIC IT WOULD REQUIRE SOME MAJOR INFA STRUCTURE CHANGES GIVING ACCESS TO A MAJOR HIGHWAY WHICH DOES NOT INCLUDE ROUTE 138 WHICH HAS TRAFFIC BUMPER TO BUMPER FROM DOLLAR LANE UP TO AND THRU ROYAL STREET. THERE FORE, TRAFFIC IS A MAJOR ISSUE WHICH THE PROJECT COMMITTEE DOESN'T SEEM TO WANT TO ACKNOWLEDGE. AT PREVIOUS MEETINGS THOSE THAT ATTENDED WERE NOT INFAVOR OF WHAT WAS PRESENTED.

WE WERE ADVISED BY OUR REPRESENTATIVE ANGELO SCACCIA, THAT HE HAD A MEETING WITH THE DIRECTOR OF THE BOSTON PLANNING AND DEVELOPMENT AGENCY AHD HE WAS ADVISED BY HIM THAT THE AGENCY'S DECISION ON THIS ISSUE WOULD BE DETERMINED BY, AND ONLY BY, THE RESIDENTS OF READVILLE. THAT BEING THE CASE PROJECT CMB SPRAGUE IS A "DEAD ISSUE" AND SHOULD BE TOSSED INTO SPRAGUES POND. THE READVILE FOLKS HAVE SPOKEN. IF THIS PROJECT GETS THROUGH, OUR GOVERNMENT IS NOT FUNCTIONING PROPERLY AS IT IS NOT REPESENTING THE PEOPLE, BUT SPECIAL INTEREST GROUPS.



36-70 Sprague Street

Dolores Porziella <mumsbecca20@verizon.net>
To: Lance.Campbell@boston.gov

Thu, Dec 21, 2017 at 3:55 PM

Dear Mr. Campbell:

Has anyone taken into consideration of the impact the traffic pile from morning and evening rush hour traffic coming from 138 and Truman Highway going through Neponset Valley Parkway through Wolcott Square over Father Hart Bridge or straight to Cleary Square would have in our area?

What is going to happen to the Residential area of Readville? Is it going to be a free for all of the traffic and cars going through and the new development in Readville which will only exacerbate the current situation. (i.e. Danny Road, Chesterfield St., Readville St) .

My other concern is what happens if the MBTA decides to eliminate the Readville stop for commuter rail all together which is the reason why the developer wants to build there in the first place what happens then? (they did in the past)

During rush hours it takes me 45 minutes to 1 hour to get home from Danny Road to Neponset Valley Apartments (usually a 5 minute drive) As I have advised before the size of this development is not conducive to this area. Even our City Councillor admitted as much over a year ago and the article was duly noted in the Hyde Park Bulletin what's changed since then I would like to know? If a smaller developer could not get approved to build 1/3 of that amount a year ago why should this developer get approved to build a development 3 times the size of that one.

The last time I reached out to me you did not respond, please give me the courtesy or acknowledgement that my concerns are taken into considerations.

Hope you have a nice holiday and have a conscience and do the right thing.

Regards,

Dolores Porziella
mumsbecca20@verizon.net



Lance Campbell <lance.campbell@boston.gov>

36-70 Sprague Street Project

Maria Petruzziello <mariaPETRUZZI@gmail.com>

Wed, Nov 22, 2017 at 9:09 AM

To: Lance.Campbell@boston.gov

Dear Mr. Campbell,

When you spoke at a meeting in Hyde Park at St. Anne's Collaborative Center, you said that we could send you our comments about this development.

I live in Hyde Park, and I am not against new development *per se*. Certainly there are enough "dead" and unsightly spaces here that would better serve as useful property for the community. What I am against is the *number* of units (521) that are planned for this project. I truly don't think that that particular area can handle 521 units. Why not scale it down to 150 - 200 max?

That number would be much more reasonable for the area, provide some new housing, and would still address some of the concerns that were raised at the meeting.

Thank you.

Citizens for the Preservation of Readville (CPR)
P.O. Box 316
Readville, Ma 02137
October 31, 2017

Mr. Lance Campbell
BRA dba BPDA - Boston City Hall

Dear Mr. Campbell:

As you've seen in the petition pages sent to you, this community wishes for the parcels at 36-70 Sprague Street to remain zoned for light industrial use. This region has a long history of industry, including the location of the Boston Blower and Westinghouse factories just down the street. Currently, Readville is booming with new industry. Across the street, we have arguably the most eclectic industrial park in the state. Boston/Dedham Commerce Park is thriving with gymnastics and rock-climbing gyms, some corporations, a piano manufacturer, and a separate world class drumstick manufacturing facility. In addition, they house a large number of artist studios. Just recently, a food manufacturer has moved in, as they were displaced out of Cambridge. In the neighborhood, we have a company that makes coffee cakes and they've expanded into another building next door to them. In Wolcott Square, we have a company that specializes in caramel candies and they've expanded into a second building in the neighborhood. On Meadow Road in Readville, we've just welcomed a liquor manufacturer, as they were displaced out of Somerville. They moved here, as they required access to the freight trains that facilitate this neighborhood. On that same road, we have a tire distributor and a produce distributor that was forced to transplant from Dorchester. Frequently, we see employment opportunities advertised on signs where the road intersects with Neponset Valley Parkway. This is all good for Hyde Park and the City, as a whole.

The City recognized the value of Readville as an industrial base in the 2030 report. We are discouraged to see the city encouraging the movement of successful companies from the Sprague Street location to areas out of the city. Boston is quickly forfeiting industrial lands for other uses and this is not healthy for a strong diverse economy. Not everyone will be working in the high-tech sector. Readville is situated to accommodate industry with easy access to freight trains and major highways.

In regards to traffic, the proponent loses any credibility when claiming that virtually all the tenants will be commuting via rail. Our group had a traffic count done on Gerraghty Apartments, a complex of 300 units and located one and a half blocks from this rail stop. On a sunny March day in 2016, from the hours of 6 to 9 AM, the temperatures were between 50 and 60 degrees. One hundred and seventy-nine cars and 6 school busses exited the complex. There were 3 pedestrians walking to the train to get to work...

With all due respect,

CPR - David Rea, Rosalie Carlson, Martha McDonough, Dianne Knecht, Craig Martin, Angela Finn



Lance Campbell <lance.campbell@boston.gov>

Development Project 36-70 Sprague Street

Angela Finn <nb9194@outlook.com>

Thu, Oct 19, 2017 at 8:39 AM

To: "Lance.campbell@Boston.gov" <Lance.campbell@boston.gov>

Hello Lance, it was suggested by members of the community that we submit comments to you on the Sprague Street project. I and my family live in Readville and we are strongly against this project. The traffic thru our city now is extreme. Even with the signalization of the lights and reconfiguration around the bridge and Wolcott Square that is in consideration I fear will not alleviate the existing traffic burden. Not to mention all the trucks and cut thru traffic of non residents to our community. To add an additional 521 residential units to that location will create even more traffic and havoc to all residents. Please consider another location outside of Readville.

Thank you listening

Sent from Windows Mail

Citizens for the Preservation
of Readville (CPR)
P.O. Box 316
Readville, Ma. 02137

Mr. Lance Campbell
BRA dba BPDA
One City Hall Square

October 26, 2017

RE: 36-70 Sprague St.

Dear Mr. Campbell,

Enclosed you shall find the results of a complete neighborhood petition drive our group, Citizens for the Preservation of Readville (CPR), conducted in opposition to the proposed change in zoning at the Sprague St. location to accomodate a massive apartment complex. Over the course of several weekends and some early evenings on weekdays we approached all 866 residential households on both sides of Readville, which is split in the middle by the railroad tracks.

Virtually half, 432, were not home despite a repeated attempt. Of the other half, 434, 21 were non-english speaking households; 18 were vacant properties; 12 were not interested in the matter; 13 claimed to be too busy at the moment; and 2 said they were city hall employees and, though opposed to the proposal, they were timid about formally declaring so.

When we deduct these households listed above, that presents a number of 368 from the 434 that could formally respond. 328 of those households were vigorously opposed while 32 were either fully unaware of this proposal or poorly informed and wished to know more before making a decision. Almost all hoped for better notification of future meetings. 8 of the respondents were not opposed. Thus, in percentages, 89% were opposed, 9% requested more knowledge of the subject before submitting an opinion and 2% were not opposed.

As the reader of this letter can plainly see, the residents of this community are substantially opposed to this proposal in stark contrast to the claims by the proponents that some folks are positively anticipating the large new Readville sign and better access to a piece of Sprague Pond. We could not find any of these folks. The 18 pages enclosed with this letter are filled wih 386 signatures from residents who appreciate the light industrial use at this location and contrary to the proponent's opinion we are not offended by the appearance of such.

Respectfully submitted,

CPR - Dave Rea
Angela Finn
Martha McDonough
Craig Martin
Rosalie Carlson
Dianne Knecht

cc: State Senator Rush
State Rep. Scacia
Mayor Walsh
City Councilors

36-70 Sprague St. Proposal

We, the undersigned, do oppose the change in use proposed for this location in Readville. Our neighborhood has coincided well with the current light industrial use and for that reason we greatly supported maintaining this zoning classification during the recent production of Article 69 by BRA.

Name	Address	Email (redacted)
WIKKI CIBULKA	78 SPRAGUE ST	
WIKKI PATRICK SPICER	78 SPRAGUE ST	
Martine Pierre-Victor	86 Sprague st	martine127@hotmail.com
Bachel manganelli	3 Lakeside Ave	bachelmanganelli@gmail.com
Susan Crossley	3 Lakeside Ave.	susanrossley@hotmail.com
BILL HUBBARD	94 SPRAGUE ST	billhubbard@readville.com
Sandra Cashen	98 Sprague St	Readville
Barbara Cashen	98 Sprague St	Readville.
JAMIE CASHEN	98 Sprague ST	Readville MA 02126
Elizabeth Kelley	45 Sprague Place	elizabethkelly@gmail.com
NANCY KELLEY	45 SPRAGUE PLACE	nancykelly@aol.com
Jehni Lewis	121 W Milton St 02130	jehni@gnzil.com
Valerie B. Lewis	101 W Milton st.	valerie@gnzil.com
RICHARD MCMURTRY	95 W. MILTON ST	richardmcmurtry@rcn.com
Brenda McMurtry	95 W. Milton St	
Sara Slater	65 W. Milton St	sarat@gnzil.com
KATHY RILEY	69 W. Milton St.	kathy@west@gnzil.com
PAUL RILEY	69 W. Milton St.	
CHRIS ROWAN	59 W. MILTON ST.	chrisrowan@comcast.net
Gerene Petrucci	53 W MILTON ST	HYDE PARK MA 02130
Mary Brennan	51 W. Milton St.	marybrennan.com
Patricia McLaughlin	5 Roberts Pl	Readville
Paul McLaughlin	5 Roberts Pl	

36-70 Sprague St. Proposal

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Name	Address	Email (Redacted)
Ijeoma Oyi	33 W. Milton st, Hyde park	
Costanza Cutane	27 W. Milton St.	02136
Liza Nuevstro	27 A W. Milton St	
MOISES Abreu	21 W Milton St	02136
Stephanie Valerio	21 W. Milton St	02136
PHYLLIS Kolostow	2 W. MILTON ST	02136
Mir Tamim-Karim	6 W. Milton st	02136
Elias Haille	10 W. Milton St	
Mark Glicker	16 W MILTON ST	mark.glicker@ad.com
Delous Amara-McKennd	16 W. Milton St	
Amy Nile	24 W Milton St	amy.nile@ad.com
Sahar Abdel-Khalik	24 W. Milton St.	
Justina Lopez	30 ^W Milton St	
Carla Lopez	32 West St	
DOUGLAS matute	44 west Milton	
Antonio Parise	54 West Milton Street	antonio.parise@ad.com
David Coyne	66 Wmilton St	david.coyne@ad.com
Kelly Coyne	66 Wmilton St	kelly.coyne@ad.com
Emesta Seaver	43 Sprague Pl	
Rosemarie Rampino	43 Sprague Pl #2	
Jessica McShee	43 Sprague Pl #2	
Michael Welch	74 Sprague St.	
Jim Clinton	80 Sprague St.	jim.clinton@ad.com

36-70 Sprague St. Proposal

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Name	Address	Email (Redacted)
Juan Hernandez	16 LAKESIDE AVE READVILLE	
Charles J. Knight	713 W. Milton St.	XXXXXXXXXX @AOL.COM
Kathleen Ryan	97 W. Milton St	XXXXXXXXXX @pipe.it
Pat Ryan (Paul Ryan)	97 W. Milton St	XXXXXXXXXX @AOL.COM
Mary Foley	77 W. Milton St. HP.	XXXXXXXXXX @hotmail.com
Ray Foley	77 W. Milton St. H.P.	
Juan Jose	15 WOODMILTON	
Anthony Vargas	17 W. Milton	
B. Gorman	3 W. Milton	
XXXXXXXXXX	XXXXXXXXXX	
Tsidoro DeValle	40 West Milton	
Eileen McEnaney	56 W. Milton St.	XXXXXXXXXX @AOL.COM
Donna Moore	64 W. Milton St	XXXXXXXXXX @AOL.COM
Dennis Moccia	71 W. Milton St.	
Richard Kanaskie	19 Pinefield Rd.	
Nicole McMullen	27 Pinefield Rd	
Eric McMullen	27 Pinefield Rd	
Derek Allen	14 Pinefield Rd	Dallen10910@gmail.com
BRENDAN PASCHAL	5 PINEFIELD RD	BRENDANCPASCHAL@GMAIL.COM
RYAN PASCHAL	5 PINEFIELD RD	
Sophia M. Egan	10 Pinefield Rd.	
Courtesy Healey	6 Pinefield Road	

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Name	Address	Email (Redacted)
Arba Healey	6 Pinefield Rd	ArbaHealey@Yahoo.com
Miriam Carr	1 Pinefield Rd.	MiriamCarr@Yahoo.com
Robert Carr	1 Pinefield Rd	RobertCarr@Yahoo.com
Man Bender	28 Pine Avenue	ManBender@gmail.com
Henry Bender	28 Pine Avenue	HenryBender@gmail.com
Mark A. Lewis	31 Como Rd	MarkALewis@gmail.com
Susan A. Carr	31 Como Rd	SusanA.Carr@Yahoo.com
Bette J. Young	37 Como Rd	BetteJ.Young@Yahoo.com
Robert R. Young	37 Como Rd	
CLAUDIA Foote	41 Como rd	
Adams Dice	45 Como Rd	
ALBANI, MARY E.	51 Como Rd	
Katherine Egersheim	55 Como Rd.	
Gene Cathlyn Russo	55 Como Rd	
Collyer	63 Como Rd	Collyer@Yahoo.com
Marie Joseph	69 Como Rd	
Joe Bonazzi	85 Como Rd	
Joan Bonazzi	89 Como Rd	
John J. Bonazzi	101 Como Rd	
Sandra Penella	88 Como Rd	
Mary E. Cronin	84 Como Rd.	
Eileen M. Keane	76 Como Rd	
Rebecca G. McKee	76 Como Road	

2/2

36-70 Sprague St. Proposal

We, the undersigned, do oppose the change in use proposed for this location in Readville. Our neighborhood has coincided well with the current light industrial use and for that reason we greatly supported maintaining this zoning classification during the recent production of Article 69 by BRA.

Name	Address	Email (Redacted)
Amanda Madison	72 Como Rd	amanda.madison@hatmail.com
Richard Ryan	54 Como Rd	
Tom Santomoro	52 Como Rd	
Michael Cuzz	42 Como Rd	
Maria Mariachet	40 Como Rd	
Robert Rand	38 Como Rd	
ROSA M. ESTOBAR	170 Readville St.	
VERNELL BRADY	126 Readville St	
Geraldine McElmyle	9 Pinefield Rd	
Sandra Rupp	114 Readville St.	sandra.rupp@hotmail.com
Gettelle Henderson	4 Buckingham St	
James Henderson	4 Buckingham St	
Robin Bullard	92 Readville St.	
Cindy Puls	2 Albemarle St.	
JOHN BATEY	92 Readville St	H.P
Kelly McDonald	76 Readville St.	H.P
Angel Santana	60 Readville St, H.P.	
Jose Santana	58 Readville St.	
Soberida Teña	58 Readville St	
Nancy Mann	39 Readville St	
John McPhillip	37 Readville St.	
Tsh	29 Readville	
Chris	25 - - -	

36-70 Sprague St. Proposal

We, the undersigned, do oppose the change in use proposed for this location in Readville. Our neighborhood has coincided well with the current light industrial use and for that reason we greatly supported maintaining this zoning classification during the recent production of Article 69 by BRA.

Name	Address	Email (Redacted)
Thomas J. Smith	1/2 Readville	
Dennis Burns	81 Readville St	
Mike Dixon	94 Readville	
John White	112 Readville St	
Roy Manning	123 Readville #1	
John Hann	110 Chesterfield St.	
James Allen	123 Readville St #2	
Wendy Johnson	47 Sprague Pl	Wendy Johnson @ AOL Conn
Paul McArthur	143 Readville St HP	
Carmela Gallavotta	135 Readville St	
Yobana Kares	17 Buckingham St	
John Barker	165 Noyard Valley Parkway	
DONALD STARROW	169 Noyard Valley Pkwy	
Joseph A. Ford	731 READVILLE SW	
Steve Knight	5 Danny Rd	Steve Knight @ gmail.com
Patty Sibanda	5a Danny Rd	
MIKE SFANNETTI	3 DANNY ST	
Suzio + Elba Palocci	9 DANNY RD	
Rockii Mitchell	25 Danny Rd	
Marilyn Demarcan	27 Danny Rd Readville, MA	
BRIAN CIAVOCA	31 DANNY ROAD READVILLE, MA	
TANHA CIAVOCA	31 DANNY Rd	
ALBERT MICOZZI	35 DANNY RD HP	Albert Micozzi @ OREN MA

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Name	Address	Email (Preferred)
Cheryl Micozzi	39 Danny Rd	
J. Madin	44 Danny Rd	
A. G.	56 Danny Rd	
S. Shepperd	57 Danny Rd	
H. W.	73 Danny Rd	
Michelle Nells	73 Danny Rd	
Sol Solitaro	77 DANNY RD	
Flordelinda Solitaro	77 DANNY RD	
M. M.	87 Danny R	
DAVID SULLIVAN	100 DANNY RD	
DENNIS DIMARZIO	96 DANNY Rd.	
Mrs. Finis	84 Danny Rd.	
Katharina Moker	76 Danny Rd	
H. Bannoy	72 DANNY RD	
Laurie Dorney	72 Danny Rd	
Guillelmo Barney	72 Danny Rd	
Dennis Joly	68 Danny Rd	
Dominick Pendergast	64 Danny Rd	
Jean Pendergast	64 Danny Road Readville	
Frah Biscaglia	48 Danny Rd	
Paul Blawie	40 Danny Rd	XXXXXXXXXX@tcr.com
George Forster	24 Danny Rd	XXXXXXXXXX@tcr.com
Carol Swinn	24 Danny Rd	XXXXXXXXXX@gmail.com

36-70 Sprague St. Proposal

We, the undersigned, do oppose the change in use proposed for this location in Readville. Our neighborhood has coincided well with the current light industrial use and for that reason we greatly supported maintaining this zoning classification during the recent production of Article 69 by BRA.

Name	Address	Email (checked)
Meghan McCarthy	20 Danny Rd.	
M. M. Mous	12 Danny Rd	
Francesca Cicciulli	14 Danny Rd.	
Dolans Porziella	27 Guley Rd.	
Aldo Porziella	" "	
Maria Berkeley	139 Readville St	
Beggy McCarthy	159 Readville St	
Robert F. Stannone	100 W. Milton St	
Yasmina Rhodes	41 Sprague Street-Place	potuail.com @potuail.com
Suzanny Bonnell	63 W. Milton	
Paul Paul	42 West Milton St Readville	
Mary Powell	42 W. Milton St Readville	
Joseph L. Pan	2 Vallaro, Readville	
Adeyemi Adifene	10, Vallaro Road	
FRANK GARIBALDI	41 Chestfield St	
	A house at the way it is 4-Turkeyville-71 Vallaro	
Fredlys Cardona	49 West Milton St	
MARIA Boyle	1 Fleet St Readville MA	
David Winston	23 Come Rd	
MARILYN DRACONE	12 Reynolds Rd	
AMADIA DRACONE	12 Reynolds Rd	
Alpha 2 Obie	7 Reynolds Rd	
BRENNAN + McARTHUR	5 REYNOLD RD.	

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Name	Address	Email
VINOD KUMAR	29 Manila Ave	
Carmen Teso	33 Manila Ave	
Moises Gomez	26 Manila Ave	
John Nicotera	22 MANILA AVE.	
JOHN CONSTANTINO	14 MANILA AVE.	
Richard Tierney	40 Norton St. H.P. 02136	
Edmond Edmond	25 NORTON ST	
James McDonnell	20 Norton	
COLIN MACDONNELL	20 NORTON ST	
CHRISTINE MACDONNELL	20 NORTON	
Christopher MacDonnell	16 NORTON ST	
MIKE TOMAS	3 CHESTERFIELD ST.	
Jacqueline Berna	11 chesterfield	
Stetan Crosby	11 chesterfield	
Olivia Joyce	74 Chesterfield Apt 2	
Rudie Muffi	78 Chesterfield Ave Apt #2	
Maryanne JACYN EASTMAN	78 Chesterfeld St Apt 1	
Lin Mosenoff	75 chesterfield ST 1	
Carlos Martinez	79 Chesterfield St.	
Jade Matthews	90 Chesterfield St	
Jacqueline Matthew	94 CHESTERFIELD ST	
William Moncortes	95 CHESTERFIELD ST.	

36-70 Sprague St. Proposal

We, the undersigned, do oppose the change in use proposed for this location in Readville. Our neighborhood has coincided well with the current light industrial use and for that reason we greatly supported maintaining this zoning classification during the recent production of Article 69 by BRA.

Name	Address	Email	(Address)
Patricia Flanagan	95 Chesterfield Trct.	patricia.flanagan@johnc.com	
Tina Burns	98 Chesterfield St	tina.burns@johnc.com	
Debbie Mann	103 Chesterfield St	Hyde Park	
Judith A. Pais	990 Chesterfield St	Hyde Park MA	
Esau Fournes	107 Chesterfield St.		
Karen Curley	3 Norton St		118
Diana Cherepian	223 Norton		
Alan De Mola	23 Norton		
Gracey Peterson	28 Norton St		
Corinna Casale	26 Norton St		
Ysabel Santana	35 Norton St.	Hyde Park	
Kathleen LaCorte	71 Imbaro Rd.		
Ysabel	75 Imbaro Road		
M. Sh	66 Imbaro Rd		
Ben Melius	67 Imbaro Rd.		
Brendan Sherry	36 Imbaro Rd		
Anita Costantino	16 Imbaro Rd		
M. Jan Tamor	1 Imbaro Rd.		
Austin Ukas	99 Readville St		
Colleen Cummins	5 McDonough Ct		
Ben Klaas	8 Waterloo St.	Hyde Park MA	
Kerry Klaas	8 Waterloo St.	Hyde Park MA	
Jay Hairston	12 Waterloo St		

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Name	Address	Email
Richard Giannangelo	21 Waterlous St	
Wendy Bouquet	131 Melrose Valley Hwy	
Timothy Jackson	11 Redville street	
William Gold	1724 River St	
Adunna Ogunbana	1730 River St.	
Carol Morse	1730 River St.	
Joseph M Lazdowski	1912 River St	
Sandy Doolan	1816 River St.	H.P. 02136
Jack Doolan	1816 RIVER	HP 02136
Sean Kane	1816 RIVER	02136
Bruce Newby	1816 River St.	
Carol Gifford	1822 River St	
Maria Costa-Braun	1821 River St	02136
Diane Cannata	1825 River St.	02136
Drew Roberts	22 Solaris Rd	02136
Mick Murphy	26 Solaris Rd	02136
Kim Murphy	26 Solaris Rd	02136
Gilcia Castillo	35 SOLARIS RD	02136
Clara Ruggiero	24 Chester Field	02136
Guy Ruggiero	24 Chester Field	02136
Helen Jasti	23 Chester Field St	02136
Augusta Akukwe	59 Chesterfield St	
CAROL RUGGIERO	61 CHESTERFIELD ST	

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Name	Address	Email (redacted)
Patricia Quintan	106 Chesterfield St.	patquintan@yahoo.com
Patricia Quintan	114 Chesterfield St.	
Miriam Ortiz	5 Sanford St - Hyde Park	
Robt. Karst	10 Sanford St. Hyde Park	
Guineira Funchalino	15 Sanford St Hyde Park	
Mario Funchalino	15 Sanford Hyde Park	
John Funchal	22 Sanford St	johnfunchal@gmail.com
Constanzo Powell	22 Sanford St	cpowell@comcast.net
Robert Powell	26 Sanford St Hyde Park	
Robert Powell	27 Sanford St Hyde Park	
John Smith	37 Sanford St	
Stacey Reed	54 Solaris	
Allen Reed	37 Solaris Rd H.P.	
William Wallace	37 Solaris Rd H.P.	
Becky Reed	37 Solaris Rd H.P.	
Robert	51 Solaris Rd Hyde Park	
Thomas Imahiyeroba	41 Solaris Rd Hyde Park	
Dominic Dimare	21 Solaris Rd Hyde Park	
JOHNNY LIMONTAS	1908 RIVER ST.	
Kathie Stribell	1888 River St	
Matt Goff	1882 River St	
Frank P. Hill	1883 River St.	
Harry P. Casden	1873 RIVER ST	

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Name	Address	Email
Jessica L Chapman	1858 River St apt 2	
Kurt M	1859 River St	
Antonio Lugo	60 chesterfield st	
Cat Kershaw	7 Manila Ave	
Matthew Deschault	19 Manila Ave	
Katiuscia Potter	31 Edson Street	
Andrea McElane	10 Edson	
Margaret James	3A Edson st	
Karen Tanley	7A Edson st	
Connor Duggan	11A Edson st	
Jennifer Francis	11 Edson st	
Paul Conn	91 Valtoro Rd	
Nicole Hillman	1858 River St	
Marion Barone	1846 River st	
Clarell	14 Ernest Ave	
Ernie JOHNSON	5 ERNEST AVE	
TOM Tierney	68 Como Road	

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Name	Address	Email
Bob Russell	23 Colchester	
Audrey Russell	23 Colchester	
John Burns	35 Colchester St.	
John Dever	48 Colchester St	
Matt Dever	48 Colchester St	
Robert Remis	39 Colchester St.	
Martin Malant	41 Colchester St	
Mameen Connell	46 Colchester St	
Shannon McCannell	43 Colchester St	
Mike Lee	43 Colchester St	
Catherine A. Pratt	17 Colchester St	
Anna Marie Lewis	1 Colchester St	
John E. Travers	247 Neponset Valley Pkwy.	
Henry McElstern	269 Neponset Valley Pkwy	
Kenneth Hughes	3 Meadow Rd.	
Kiet Buckley	25 Sienna Rd Hyde Park	
Smallwood	232 Neponset Valley Pk Hyde Park	
Heidi Lucas	18 Wingate Rd Hyde Park MA	
Scott Lucas	18 WINGATE	
Joyce Ikeasogwa	9 Wingate Rd Hyde park MA	
Ann Dionne	234 Neponset Valley Pk	
Connor Lewis	6 Clifford St Hyde	
Megan	1 Clifford St Hyde	

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Name	Address	Email
Dianne Knecht	10 Clifford St Readville, Ma.	
DAVID F. LEA	14 Clifford St. Readville, Ma	
Angela Finn	8 Clifford St, Readville Ma	
JOE Levin	12 Clifford St, Readville Ma	
Ellen Russell	16 Clifford St - Readville	
DAN O'SHAUGHNESSY	20 CLIFFORD ST READVILLE	
Jack Connor	42 Clifford St, Readville	
Janet	42 Clifford	
Virginia Stouzos	54 Colchester St #1	
Barbara Pickup	6 Colchester St. Hyde Park, Ma	
KE FALDASZ	22 Forestvale Rd. P	
Oscar Calderon	21 Lawton St	
Theresa Zogas	36 Lawton St. Hyde Park, ma.	
Michael Zogas	36 Lawton St. Hyde Park ma.	
Anthony W. Bisio	4 Lawton Terrace	
Joyce White	15 Lawton Terr.	
Jayne Lowe	12 Lawton Terr.	
Walter M. Linskey	9 Lawton St.	
William D. Kelly	59 Stanbro St.	
Karen Kelly	59 Stanbro St.	
Cynthia Hurley	47 Stanbro St	HP
Frankie Penn	56 Stanbro St.	
Jeanne McIsaac	60 STANBRO ST.	

36-70 Sprague St. Proposal

We, the undersigned, do oppose the change in use proposed for this location in Readville. Our neighborhood has coincided well with the current light industrial use and for that reason we greatly supported maintaining this zoning classification during the recent production of Article 69 by BRA.

Name	Address	Email (Redacted)
CHRISTINE M. SIMS	75 R READVILLE ST	CHRISTINE.SIMS@yahoo.com
LAURA A. SIMS	75 R READVILLE ST	LAURA.SIMS@verizon.net
Bob Huckox	64 Stankoe St 1.	
George E. Doherty Jr.	68 Stankoe St.	
Andrew Crawford	71 Stankoe St.	
My Mad...	5 Meadowview Rd	
GARY ROTH	2 Meadowview Rd	GARY.ROTH@yahoo.com
PAUL SHANNON	6 Meadowview Rd	
Jenni Petrus	9 Meadowview Rd	
Andrew Tarter	17 Meadowview Rd.	
Hank Tran	21 Meadowview Rd	
Jamie Pierce	49 Meadowview Rd	JAMIE.PIERCE@yahoo.com
Jennifer Harrington	72 Millstone Rd	
Timothy Foley	71 Millstone Rd	
Paul Joyce	39 Millstone Rd	
B. Joyce	46 Millstone Rd	
DAVID A WILLIAMS	39 Millstone Rd	
Douglas Carlson	17 Millstone Rd	
Rosalie A Carlson	17 Millstone Rd	
Anne Beale	4 Newton St. Readville MA	
Oliver Casper	255 Neponset Valley	
Doreen Hayes	265 Neponset Valley Pkwy	
Carol Hayes	265 Neponset Valley Pkwy	

36-70 Sprague St. Proposal

We, the undersigned, do oppose the change in use proposed for this location in Readville. Our neighborhood has coincided well with the current light industrial use and for that reason we greatly supported maintaining this zoning classification during the recent production of Article 69 by BRA.

Name	Address	Email (Redacted)
R. A. FREDRICKS	26 SIERRA RD	MACGILLIVRAY@GMAIL
P. Ahern	36 Stenbro St.	Ahern@ymail.com
Martha McDonough	26 Clifford St.	
Ed Pothan	22 Clifford St	
John Mackie	21 Clifford St.	
MIGUEL ARAUZO	28 HAMILTON ST.	
Matt Englander	1865 Hyde Park Ave	
Mejor Ray Ray	1855 HP AVE	
Mysia Louissaint	1891 HP AVE	
Sean Clarke	1920 Hyde Park Ave	
David Shamus	1920 Hyde park ave	
Willie Tabron	1931 Hyde Park ave	Tabron@gmail.com
Janette Robinson	66 PRESCOTT ST	
Peter Chapman	73 Prescott ST	
John Tabron	73 Prescott St	
Eugene Gulnan	73 Prescott St	
Samantha Chapman	73 Prescott St.	
Sue Anne Guptill	75 Prescott St	
Joan Nelson	74 PRESCOTT ST	
Ben Trapanick	64 Prescott St	
AME LUNA	60 PRESCOTT ST	
Barbara Owens	58 Prescott St.	
Edwin Martin	18 Prescott St.	

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Name	Address	Email (Redacted)
Harry Gardner	16 STANBRO ST	
Turnhor Raslid	19 Colchester	turnhor@colchesterpublicschools.org
Cyril Martin	5 Colchester St	schools.org
Wendy [unclear]	12 Park St	
Kathleen [unclear]	219 Neponset vlg	
Jacki Barden	50 Prescott St HP	jackibarden@aol.com
Emily Owen	58 Prescott St	owenst@gmail.com
Kay [unclear]	1652 Hyde Park Ave	
Armando [unclear]	1851 HYDE PARK AVE	
Ralph Kurpeska	1844 HP AVE	
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Magazine Willis	18 Parkson St.	magazine@comcast.net
Lisa [unclear]	50 Hamilton St.	lisa@comcast.net
Marina [unclear]	6 PARKSON	
John Nichey	59 Colchester St	
Maryann [unclear]	50 Meadowview Rd	maryann@comcast.net
[unclear]	58 COLCHESTER	
Mary [unclear]	50 Clifford St HP	
Patrick Colleran-Hay	73 Hamilton St. Readville MA	
Mary Keough	76 Hamilton St. Readville MA	
Flea [unclear]	62 Hamilton St. Readville	
Terry Stevens	62 Hamilton St. Readville	



Lance Campbell <lance.campbell@boston.gov>

36-70 Sprague Street

Victor Carrara <vcarrara@nercc.org>

Thu, Feb 1, 2018 at 3:44 PM

To: "lance.campbell@boston.gov" <lance.campbell@boston.gov>

Hello Lance,

I'm sending you this note to go on the record that I am in support of the development being proposed for Sprague Street by OMG Sprague LLC.

I've lived in the Readville neighborhood of Hyde Park my whole life and believe developments like this will benefit the area for a number of reasons. I see all over the city increased density in housing adding new restaurants and shops that are positive to living in the city. I also believe in transit oriented development and am hopeful that this project could help improve MBTA and commuter rail service to the Readville neighborhood. I very much hope to see my neighborhood benefit from this project as I fully believe more people living here will be an improvement to being surrounded by the heavy industrial presence we now have to deal with.

Sincerely,

Victor Carrara

41 Clifford Street

Hyde Park, MA 02136

Date	First Name	Last Name	Organization	Opinion	Comments
6/22/2017	Dolores	Porziella		Oppose	So the developer wants to build gigantic unit on a former MBTA land filled with arsenic, diesel fuel, and God knows what else in one of the only places in Boston that is like a small hamlet. He wants to cause massive traffic congestion more than what we have now. It takes me 45 minutes to get from Readville, to Wolcott Square during rush hour traffic. Who is this going to benefit anyway, the developer not the people of Readville, Dedham or Hyde Park. It will benefit the low income or the very rich not the middle class people who are the brunt of the people who live in Readville. These types of building is not made for such a small area this is a development that is made the downtown Boston and the Financial District. This has been a small family oriented area for over one hundred years. Shame on all of you who want to take this away from us. Money talks and I would like to know whose palms this developer is filling in order to get you to push this true. Remember this what goes around comes around it is called Karma.
6/22/2017	Dolores	Porziella		Oppose	So the developer wants to build gigantic unit on a former MBTA land filled with arsenic, diesel fuel, and God knows what else in one of the only places in Boston that is like a small hamlet. He wants to cause massive traffic congestion more than what we have now. It takes me 45 minutes to get from Readville, to Wolcott Square during rush hour traffic. Who is this going to benefit anyway, the developer not the people of Readville, Dedham or Hyde Park. It will benefit the low income or the very rich not the middle class people who are the brunt of the people who live in Readville. These types of building is not made for such a small area this is a development that is made the downtown Boston and the Financial District. This has been a small family oriented area for over one hundred years. Shame on all of you who want to take this away from us. Money talks and I would like to know whose palms this developer is filling in order to get you to push this true. Remember this what goes around comes around it is called Karma.
6/22/2017	Dolores	Porziella		Oppose	P.S. So another words the people of Readville have no say in the matter. The developer is going to be getting what he wants it doesn't matter how the residents feel. Whoa
6/23/2017	CHARLES	DOW	HYDE PARK & RESERVATION CORP.	Support	AN EXCELLENT MUCH NEEDED PROJECT.

6/26/2017	Dianne	Qualter		Oppose	Hi, Although this may be beneficial to the whole city, local residents will be negatively impacted based on the current proposal. As is, I DO NOT support it. "The Proponent continues to meet with individuals and groups from the Readville and greater Hyde Park residential and business communities, and plans to continue these meetings throughout its design, planning and development review process." - Based on the current proposal this is not true - one small example is at one meeting I attending there was a unanimous opinion that a Readville sign or monument was not wanted by residents but that is still in the plan. "Coordination with the City of Boston on, and potential contribution to the cost of, design and/or construction costs associated with signalization improvements at the Father Hart Bridge". - Residents do not want the bridge signalized and for anyone that has tried to make there was over the bridge in the morning or evening knows that signals will just compound the backup of traffic that is there now and local streets. Currently we do not go out during certain hours and guests will not come to our house during certain hours now due to traffic delays that can add a half hour of time. How will a signal at the Father Hart Bridge help that from happening ? Also, our neighborhood will also become even more of a cut thru which is already a large problem now with speed and people not stopping at stop signs. "This announcement was very quickly thereafter followed in April, 2017 by the even more significant announcement by Mayor Walsh and Councilor McCarthy that the City would expend an additional \$1.4 million to signalize both ends of the Father Hart Bridge and upgrade the existing signals in Wolcott Square. These steps are expected to materially improve existing traffic conditions in the immediate area of the Project." - The question is what is the plan if it doesn't ? What is the fix ? Can the traffic patterns not be fixed without this project happening if it is noted to be such a problem now ? Will resident only signs during certain hours on the neighboring streets turning into neighborhoods be put up ? Having lived in the area for ten years - traffic cutting thru neighborhoods because of the new phone apps has gotten very bad and at times very dangerous due to speed and people not stopping at stop signs in place. Will police presence be added so that this is being monitored in the neighborhoods ? Lastly, the neighborhood has requested a dog park for a couple of years - why is something like that not being incorporated ??? Why can't it just be some restaurants and less housing units ??? What happens if the residential units sit empty and money is lost like has happened in some projects around the city ??? Thank you.
6/26/2017	Costa	Tsolirides		Support	To whom it may concern: My name is Costa Tsolirides. I was a resident at 23 Leominster Rd for 27 years. I have kayaked and ice skated Spragues pond on many occasions and know the area well from both the water front and Sprague street. My parents still currently live at 23 Leominster Rd and I am still a resident of Dedham. I am very excited to see that a residential development project could be happening at 36 Spragues street. This is an area that has been an eye sore for a long time. The neighborhood will see a positive impact. I am happy to see that there will be green spaces but have a few concerns with the building design materials. I would love to see more renderings and get a clearer idea of details with this project. I will attend the meeting tomorrow and hopefully if there are neighbors with a negative view on the project I can be an ally in calming their concerns. This is a project that will impact the area in a positive way and I hope that we can see it through. Thank you for hearing my thoughts. -Costa Tsolirides
6/26/2017	Richard	Mckenna	None	Neutral	I hope this is going private housing Not a housing projeCT I am selling in that area if u r interested

6/26/2017	Erin	Reed		Oppose	<p>Traffic in Hyde Park is already a disaster due to the lack of reliable and affordable public transportation and the lack of attention given to safe active transportation in this part of the city. After several failed attempts to open your project documents, I'm less than impressed. Your initial project description does not seem to say how many of these would be affordable housing units. These industrial style units are unattractive and would only add to the overall traffic problems in Hyde Park and Dedham. It does not really matter how many of these are affordable housing units as the commuter rail in to Boston from the closest Zone 2 commuter rail, Readville Station, is over \$200 a month and has limited stops and parking which would cause commuters to have to travel to other stops in either Dedham and Hyde Park only compounding traffic problems. The Sprague St bridge is far too wide for adherence to the new 25 MPH speed limit. Boston Transportation Department has paid little attention to making Hyde Park safe for cyclists. It can't be expected that the residents of these 520 units are going to feel safe riding bicycles to destinations. Lighting in this area is poor and the sidewalks are less than desirable once the newly constructed sidewalks on the bridge end. Protected bike lanes would need to be installed in order to protect cyclists and narrow the driving lane and therefore slowing the increased amount of traffic. Additional bicycle parking, preferably covered bike racks would need to be added to the nearby commuter rail lots in order to accommodate any new bike commuters to the stations. As you know, Sprague St is a cut through to access 95/93 and in the opposite direction headed towards Hyde Park Ave to access 93 via Milton/Canton. Commuters are also cutting through Hyde Park to get to Forrest Hills and the Fairmount Station to avoid higher prices on the zone 1 and zone 2 commuter rail stops located in Hyde Park. These units would only be close to the commuter rail stop.</p>
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					<p>The closest grocery store is a half mile walk to the 32 bus leaving from Wolcott Square, which does not run as often as routes are split between ending in Cleary Sq and Wolcott Sq. I'm sure you're traffic studies in the report I cannot open indicate that traffic lights would need to be installed in key locations. You're going to have to do a lot to improve public and active transportation in Hyde Park. Furthermore, can the schools in Hyde Park even accommodate this many units? There aren't any plans to renovate any of the schools in the Hyde Park area. Families in the Hyde Park area are already placed on waiting lists for K1 kindergarten due to limited seats. They then get what's leftover at schools for K2 kindergarten. These units would add to the school traffic as families would most likely not have the children at neighborhood schools. The Channing School is 1.6 miles away and units would add traffic to River St and the local streets near the Channing. The Roosevelt School 1.7 and would add to the traffic problems on Hyde Park Ave and Wolcott Sq. The Grew School is 1.9 and would add to traffic problems in Cleary Square. The Boston Public School Transportation Department currently uses space near the Readville Train yard to park a portion of their fleet of buses. Multiple school buses would be in and out of this space in order to get students to various schools. Not every parent feels comfortable letting their child ride the bus, which again means more traffic in the area. This area does not need more housing units. Hyde Park lacks commercial space and jobs located within the neighborhood. Most people that live in Hyde Park have to drive or take the commuter rail downtown to get to their job. An office complex that perhaps preserves some of the current tenants that add value to the families that live in Hyde Park and Dedham is more desirable the cheap housing that will only cause more traffic. Hyde Park has some gems with the gymnastics gym, trampoline park and rock gym currently located at this location. The city of Boston should be investing more time and energy to bring employers to Hyde Park. I'm fairly confident census studies have shown that Hyde Park residents do not work in Hyde Park and spend a considerable amount of time traveling to jobs. This project is not what the neighborhood of Hyde Park needs. This is not why I voted yes for the Community Preservation Act. I want to see Boston preserving more open space, creating more space for outdoor recreation and preserving historic sites. Build affordable housing where it makes sense-not along the commuter rail. As far as MBTA is concerned the commuter rail is designed to bring people into Boston, they overlook that Hyde Park and Readville are actually part of Boston. I sincerely hope that you actually listen to residents and don't just force this on the community. What does the neighborhood of Hyde Park have to gain by allowing this project to move forward as it would only open the flood gate for similar projects like it. Thank you for your time.</p>
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6/28/2017	Vikki	Cibotti		Oppose	At this time, here are some of the concerns I have regarding this project: 1.) Currently we have no support from Boston for first responder fire or police. Dedham is the one to respond. One example of the neglect we already receive is at a recent neighborhood meeting, I brought up the frequent racing & speeding on Sprague Street & I was told that Dedham needs to address the problem, not Boston. More units on the Dedham side of the bridge should really be brought to Boston's attention even if they don't submit to you that they think it will be a problem, it will be. 2.) We currently have traffic problems getting in & out of our driveway, 532 more vehicles in my direct neighborhood, would only make this worse, MUCH worse! Our driveway is also mistaken for a place to turn around at least 8 times a day, with the increase in traffic, this will only get worse. 3.) There is real rat problem in this specific area which spills out into our yards, with the disruption, due to the construction of this project, the occupied blgs & non occupied blgs in that area will only displace even more rats & we will have a MUCH larger problem. I already have to pay for services to rid us of rats, collect the dead rats in our yard & dispose of them. I would like to one day not go out to my car & the morning & not see a rat in my yard. Construction of this project will ensure that will never happen. 4.) The disruption to my privacy and enjoyment of "non work" hours. The quality of my free time will be severely diminished. As we heard last night, the project can take anywhere from 18 months to 5 years depending on how well the units sell. Not to mention the parking lot & bar that will be located within feet of our home. The noise from the bar patrons and the transient traffic will also cause disruption to the peace & quite I would have. 5.) Loitering, we currently come home already to find people sitting on our porch loitering or standing, sometimes fighting in our front yard. The possibility of more than 750 so called neighbors, will only add to this I am sure, I do not want to have to pay for a fence to be put up because now I have even more people thinking that my front lawn is public property. I am sure there are many more reasons I can give, but at the moment these are at the top of my list & I wanted to be sure to submit something. I hope these are considered and recognized during this process and help prevent this project from taking fruition.
7/7/2017	Miriam	Carr	Resident	Oppose	I have lived in Readville for 14 years and have taken the train into work and I think this project is a terrible idea. There is already so much traffic in Readville and on Sprague Street with Amazon and all of the other companies that are on Sprague Street. Then we have companies and the BPS school buses at the Readville train station opening. As it is the trains are late every day. And it is packed with too many people. I think this project is going to have a negative effect on our neighborhood and our residents and our quality of living in the City of Boston and Readville.
7/7/2017	ROY	CROSSLEY		Oppose	REGARDING TRAFFIC AS OF NOW DURING RUSH HOUR IS MADNESS AND ANOTHER 521 UNITS AND UNITS OF WHAT? ARE THERE GOING TO GUARANTEE SAFETY AND OUR HOME VALUES?
7/7/2017	Jim	LaFond-Lewis		Oppose	Area infrastructure is insufficient for big increase in densely packed housing. The Father Hart bridge, onto which Walcott Square traffic already backs up at rush hour, is inadequate and appears will need to be taken out of service sometime in the relatively near future. Unless the plans include an additional bridge to cross the tracks, that situation will only get worse. Additionally, the volume of traffic through Walcott Square backs up, at times several light cycles in either direction. This project will only make matters worse.
7/7/2017	Jessica	Savino		Support	I support this project. I feel that an influx of new residents to the area will help local businesses and would be good for the neighborhood.

7/7/2017	Carol	Hayes		Oppose	The size of this development is outrageous for this area. The height of the buildings will also detract from the surrounding predominantly residential neighborhood. Readville is one of the few neighborhoods left in Boston that has a suburban feel and allows residents to own property and have decent sized yards. The Readville neighborhood and especially the area adjacent to the proposed development is extremely congested with traffic. The infrastructure of roads and traffic control devices in the area is not suitable to such a large development and has been severely neglected for over 20 years now. Traffic solutions for helping alleviate the daily mile plus traffic jam in multiple directions over the Father Heart (Milton St) bridge, Wolcott Square, and the Sprague Street bridge have yet to come to fruition. The proposed development will clog already clogged roads plagued by cut through traffic traveling to and from downtown Boston. The number of proposed parking spaces is unrealistic as most families have 2 cars. This in itself will cause problems for the neighborhood around this monstrous development. The Readville train station is still \$6.75 a trip while the Fairmont train station is \$2.75, making the argument that many people will chose to take the train from here instead of owning a car, ridiculous. Also, there are no grocery stores or shopping areas within walking distance to this development.
7/7/2017	Alyson	Gauley	Resident	Oppose	I cannot think of any project that would be more disastrous for Readville than the 36 - 70 Sprague Street project. We simply do not have the infrastructure for this many people and vehicles in our small community. That is what are - a small community. Our streets are already filled with unbearable traffic at rush hour and public transportation is deplorable. The commuter rail is expensive, unreliable and often filled to capacity when it reaches Readville station. Please do not go forward with this project. There is no need to overdevelop Readville. This is nothing more than a money making enterprise for those not invested in our community. They will build. They will get paid. They will leave. I am very concerned that these projects keep moving forward. We have new houses that are being built in Readville that clearly do not have proper frontage but are still approved for building. If this project goes through I would be very interested to know if there are special interests involved.
7/7/2017	Kathleen	Regan	Homeowner	Support	Very much opposed due to already heavy traffic and no where to put more cars on the road at rush hour right now we have to play chicken to get out of our drive (worst during school year with buses)
7/7/2017	michael	farren		Oppose	a project even half of what is proposed would be a traffic nightmare along Sprague st...what about Dedham residents quality of life...Marty Walsh had no problem bringing up the negative impact of a casino in Everett..I am against this project..
7/7/2017	Jarrod	LEBLANC		Oppose	I oppose the building of these projects. I am extremely concerned and worried for the safety of my children. With 521 rental units, there will be no stake in ownership and zero responsibility for the buildings and my community as evidenced by all the projects throughout Boston.
7/7/2017	Gale	Berger		Oppose	I work at Blue Hills Vocatonal School 2 evenings a week. A trip that should take 13 minutes takes me sometimes 40 minutes because of traffic. I have been on Sprague where it has been backed up beyond the proposed entrance to this complex. I am very concerned about the increased traffic and have heard nothing that would make that not impact the street negatively.
7/7/2017	Charles	Knecht	neighborhood resident	Oppose	The project is to large for that neighborhood, to many residents, vehicles and to much traffic.
7/7/2017	Ashley	R		Oppose	Sprague st, esp the intersection with Milton street, is not built for heavy traffic which will likely occur with 500+ apartments and a restaurant. Thank you.
7/8/2017	Michael	Healey	Resident	Oppose	I am opposed to this development The last thing we need is 500 cars a day in that neighborhood it's bad enough now . We already have a rat problem in Readville with this new construction It will bring more rats.

7/8/2017	Marianne	Martin		Oppose	This project will impact my neighborhood in the most negative way. I grew up in Readville/Dedham area. My parents first home was in Wolcott Square, Readville. We moved two miles into Dedham. I have attended St. Anne's Church for most of my 55 years. As a parent, my son would walk to church every Saturday afternoon as a pre-teen and I never worried about him. Most of my son's youth was spent at Bajko rink. Over the years, there has been an incredible increase in traffic congestion with commuters avoiding Route 128 and cutting through Milton, Readville and Dedham from the Expressway to the East Street exit. I can feel the change in the neighborhood. The Readville/Dedham area was always an urban, but quaint area. Family friendly. Walkable. And safe. We can address the traffic concerns; however this project will forever change the character of the residential feel of this area. Readville is one of more family friendly sections of Boston. It is a residential hidden gem. Boston as a whole will suffer with the loss of another family friendly neighborhood to a more urban/congested area. Does Boston want to encourage young families to leave the city and go to the suburbs? And added congestion will only impact the loyal, Boston homeowners whose home values are going to suffer. The charm of this area will be forever -- forever -- lost! Shame on Boston for not celebrating its family-friendly neighborhoods. This is the wrong project in the wrong neighborhood.
7/8/2017	Mary	Bender		Oppose	(Your options are too limited. I support a scaled-down version of this plan, only after careful review of all plans for the neighborhood.) I have been named to the Impact Advisory Group for this project. I want to see a thorough, in depth look at this project involving experts not paid by the developer and I am very skeptical that that is going to happen. So far all the information is coming from the developer. The numbers are all presented by him, the studies all paid for by him. He needs to be told to take a step back. We were told that this project will be 500 households to the Readville neighborhood, which as of now has 1500. That is a HUGE impact. He is proposing 521 units for the site. Who says that is the right Number? ... The developer does. Who says it will have no impact on the schools, on sewer and water, on police, fire, traffic? ... He does. Who says no other development is coming despite several dormant proposals .. the developer, again. Signalization is coming to Father Hart Bridge and the Sprague Street area. There was no neighborhood input on this that I am aware of. The only ones who seem to think this will solve anything is those who want to exploit our congested neighborhood. This plan needs to be studies on its own merits and with an awareness that others want to build all around the area as they can exploit the designation of "Transit Oriented development." We keep hearing the Mayor has designated Readville as the number 1 site for residential development, and I welcome that. But we must do it right, I fear this project is going too fast and with no real numbers whatsoever. I want to see us looking with an honest eye to the future and examining the plans for the Readville neighborhood as a whole.
7/8/2017	Pamela	Aist	Hillside Condo Resident	Oppose	Why do developers insist on putting housing next to railroad tracks? Residents will be complaining about the noise. Walls along the tracks only eliminate noise on the first floor. The quality of life is also diminished when so many people are crammed into small land areas. The height is inappropriate for the neighborhood. Stick to three stories.
7/8/2017	Eugene	Favret	Manor Neighborhood Assn.	Oppose	I believe that the traffic situation caused by the additional vehicles would forever change our neighborhood. I foresee AM and PM traffic periods far worse than they all ready are. Much of the Sprague St. traffic is generated by people using it as a cut though access to Rte 95 -128 - Rte. 1 and Rte 138, a problem generated by the Proliferation of handheld GPS units. We were told that young people no longer routinely use automobiles however all of the people I know have 1 or more vehicles. Will they utilize the (T)? I think not due to the fact that over and over it has been proven unreliable. Eugene Favret

7/8/2017	Karen	Palumbo		Oppose	I am opposing this project. We have too many people commuting and or driving down Sprague St. The excess amount of traffic now and then adding your proposed project will ultimately ruin Sprague St. and surrounding areas that are already heavily populated. This project doesn't benefit the current residents and or the community;it will only created more congestion, stress on community resources and environmental impact. Please rethink your project. From a concerned resident that lives on Sprague St. Dedham Karen Palumbo
7/9/2017	Rose	Favret	Manor Neighborhood Assoc.	Oppose	Thank you for this opportunity to voice my concerns. One of my concerns is the traffic on Sprague Street. It is a nightmare now and I feel you have not addressed this key point. Many people work from their cars in this day and age. It is a mobile society and cars have become an extension of their workplace. Many people only check into their offices once a week. This is a known fact. Long-time home owners in Readville and Dedham should not have to be subjected to this burden for the sake of people that do not have a vested interest in the community. They come and go with little regard to the impact to the area. Your presentations have said numerous times that they will live here, go to work, come home and when the time comes they will move on and buy a home, and I feel, most likely elsewhere. Why would they stay there, and put up with the traffic. I feel that this project will become a stand-alone community answerable only to itself. The people that live there will be doing their own thing and completely block out the old community. They will go to their jobs, meet friends in a more urban setting, utilize urban setting stores, come home and forget about the Readville/Walcott/Hyde Park neighborhood. Also something of this size would put a strain on city services. You have said that the services will be increased to accommodate the need. There is something called budgets and cities and town scrape for every dollar they can get and there is such a thing as priority of need. Will this complex have its own in-house 24/7 security? or will it be "self-policing"? This project is very large and the concept will create a different form of life style for an established real neighborhood with real people and a way of life that will be forever altered by a concept. Again thank you for allowing me to voice my concerns I appreciate being allowed to do so. Most respectfully, Rose Favret
7/9/2017	George	Wons		Oppose	I see no positives in this project. It will impact the police dept., the fire dept., let alone the impact it will have on the water supply, sewerage and traffic. Looks nice in paper (like most failures), but in the real world, all it does is feed the greed of developers who's only care are their pockets.
7/10/2017	Jim	Maher	Manor Neighborhood Assn	Oppose	As President of the Manor Neighborhood Assn, we feel our neighborhood will be impacted by the additional traffic generated by this development. We are concerned that traffic will impact the 4 major intersections closest to this apt complex. At the last public meeting, we asked for the number of approved or proposed BPDA projects for the is area and how they will also impact the traffic. We know Yard 5 has been approved and there this other proposed apt complex for Hyde Park Ave. How can this development go forward with linking the traffic issue of the approved or potential projects to the Readville and Manor neighborhoods. We maybe from Dedham, but a number of our residents have close family ties to Hyde Park/Readville, we shop in Hyde Park/Readville, Our Seniors visit their family and friends in Hyde Park/Readville, our local church is in Readville and our residents use the Readville Station to get to work in Boston. Please consider all the traffic and public safety issues this additional traffic will cause to both of our neighborhoods in Dedham and Boston. Sincerely, Jim Maher-Manor Neighborhood Assn- President
7/10/2017	Carla	Healey		Oppose	one of the main reasons I moved to Readville was for it's quaintance a country feel in a major city - however over the past five years or so the traffic has triple in size partly due to the added schools in the area and a short cut to the highways this complex will only add additional burden, congestion to this area. And there is talk of added another complex across the road. I understand the need for additional housing but one doesn't fit the community.

7/10/2017	Sean	Kelley		Neutral	I am deeply concerned about the added traffic that this project will bring. Specifically the ability to get over the tracks at Readville station and through the 3-way stop at the intersection of Sprague and W. Milton Street. What is the expected emergency response time for an emergency event during rush hour?
7/10/2017	Susan	Sarkis		Oppose	Oppose the size of the project, fact there are not homeownership opportunities. Homeownership brings pride to property area. Doubling population of area without increased fire and police services. Traffic issues, probability of expansion. Over abundance of rental properties in Hyde Park, crime increasing. Need onsite management...dealing with rodent issue in rental property on West Milton St., city can not do anything about, what happens with 500+ units. Concerned about home values. Empty nesters are not moving into these units. Please do not call.
7/10/2017	Roma	McKenzie-Campbell	Resident Readville Neighborhood watch	Oppose	The area the developer is proposing is the most congested area where traffic is concern. Often we sit in traffic for a long time just trying to navigating that area. Putting up a 500+ unit residential building with retail will just worsen the situation. Maybe a small building would be more appropriate for that area. This will be a traffic nightmare waiting to happen. Maybe while the developers are plan the building project, they should consider widening both both bridges in the area.
7/11/2017	Anthony	Ruscito		Oppose	I oppose this project, as 521 residential units will have a negative impact on the community With regard to traffic in the immediate area of the proposed construction project, motorist experience daily traffic congestion. Intersections are frequently blocked during traffic jams. The city needs to collect data on the traffic in the area by observing traffic patterns during the hours of 3:30 and 6:00 P.M. Also, traffic pattern should be examined during the early morning commute. Also, I strongly oppose the height of the proposed buildings. New buildings should conform to the height of the existing buildings in the community. Also, there is a project of 32 new units on River Street that will near completion soon. The River street project will add additional traffic. Sincerely, Anthony Ruscito
1/10/2018	Sheila	Burke	Southwest CDC	Oppose	Its a gray concept if you were tp build a college/university or even a time sharing/hotel but bad idea for an apt complex. First of all HOUSING IS A BASIC NEED. Why should you profit on a BASIC HUMAN NEED and exclude certain individuals and families from living and enjoying the benefits of a BASIC HUMAN NEED as housing. The Mayor and the Governor should be ashamed of supporting these expensive units going up. They are not for the homeless or individuals or families
1/10/2018	Sheila	Burke	Southwest CDC	Oppose	Its a gray concept if you were tp build a college/university or even a time sharing/hotel but bad idea for an apt complex. First of all HOUSING IS A BASIC NEED. Why should you profit on a BASIC HUMAN NEED and exclude certain individuals and families from living and enjoying the benefits of a BASIC HUMAN NEED as housing. The Mayor and the Governor should be ashamed of supporting these expensive units going up. They are not for the homeless, individuals and families searching for affordable housing. Second, they only have one and two bedrooms which discriminates against larger families Third, this is discretionary to be bias, discriminatory and profit greed.. Fourth, a development this size is not safe for children or grown ups. This is a haven for crime,traffic and again discrimination to only allow people who grew up there as children, raised their children, and their children's children.

1/11/2018	Francesca	Piccirilli		Oppose	I was at the meeting on January 10, 2018 at St. Annes. Angelo Scaccia represented spoke most eloquently for most of the people who live in READVILLE. I am opposed to this disgraceful greed that will effect our health and our life-style. They need to leave Readville alone and go find another place to build cheap housing for a buck. You where there you saw the response. And in regards to Jordans lecture about our children living there...they want to own their own ?homes? not live in apartments. HOMES are not affordable in Boston they want to live in a house. Tell him that. There is no traffic solution...most people will not take the ?T? and by the time the Franklin Train hits Readville it is full to capacity which is a safety hazard and it is usually late, not to mention the cost. Speaking of long so isn?t your web address. Again I OPPOSE this project. Thanks for your time.
1/11/2018	Aldo	Porziella	Resident	Oppose	The size of this type of project and restaurant, etc does not belong in an extremely small residential area which already suffers from congestion as a cut through for people who reside in Canton, Norwood, Dedham, Westwood to get to the main highways leading out to the city. People do not live in apartments for ever and have no invested interest in the community.
1/11/2018	Dolores	Porziella		Oppose	I have already emailed you before regarding my opposition to this project. I am resending as requested at last nights meeting since a petition was not going to be enough Has anyone taken into consideration of the impact the traffic pile from morning and evening rush hour traffic coming from 138 and Truman Highway going through Neponset Valley Parkway through Wolcott Square over Father Hart Bridge or straight to Cleary Square would have in our area? What is going to happen to the Residential area of Readville? Is it going to be a free for all of the traffic and cars going through and the new development in Readville which will only exacerbate the current situation. (i.e. Danny Road, Chesterfield St., Readville St) . My other concern is what happens if the MBTA decides to eliminate the Readville stop for commuter rail all together which is the reason why the developer wants to build there in the first place what happens then? (they did in the past) During rush hours it takes me 45 minutes to 1 hour to get home from Danny Road to Neponset Valley Apartments (usually a 5 minute drive) As I have advised before the size of this development is not conducive to this area. Even our City Councillor admitted as much over a year ago and the article was duly noted in the Hyde Park Bulletin what's changed since then I would like to know? If a smaller developer could not get approved to build 1/3 of that amount a year ago why should this developer get approved to build a development 3 times the size of that one. The last time I reached out to me you did not respond, please give me the courtesy or acknowledgement that my concerns are taken into considerations. Hope you have a nice holiday and have a conscience and do the right thing. Regards,
1/11/2018	Danielle	Jurdan		Oppose	I have been to a few meetings and not once have the developers or anyone from the City of Boston discussed traffic, traffic mitigation or the impact of basically doubling the number of residents in the neighborhood with this one project. Since this project has been proposed, Amazon has opened a distribution center in Dedham on Sprague Street which I believe has exacerbated the traffic situation to the point that the road can not handle even one quarter of what this development is proposing.
1/11/2018	Brandon	Gifford	Resident	Support	Overall I support the project but do worry about the attractiveness of living here with being disconnected from Wolcott. Can anything be done to connect the development with Readville Station/Wolcott Square via a walking path along/under the train tracks? Sprague street is fine but isn't exactly pedestrian friendly and doubles the distance to Wolcott. Given the traffic issues over Milton St bridge this may make more people walk to Wolcott/#32 as opposed to adding more traffic.

1/11/2018	Larry	Rich		Oppose	<p>By far the biggest issue of concern is the ever increasing traffic congestion. The issue of traffic has been the subject of many community meetings, and hasn't reared its head only to hamper this project. It is a real concern to the neighborhood. The fact that this developer was unaware of the traffic issue prior to making this proposal is indicative of having not done his homework. The traffic plan layed out by the developer leaves too much to chance, and relies on the decisions of others, of which he has no direct control. In short, it is not a plan, but a wish. The idea that the MBTA could add trains to the schedule is disingenuous. For the MBTA to add trains would require a ridership study, which would take some time. During that time potential riders would tire of the poor service and begin driving to work, thus adding to out traffic woes. While the project is being touted as a solution to Boston's middle income housing shortage, once again it seems that those with altruistic intent have come forward with a hand out. For many in the neighborhood, their property is their greatest investment and asset. Why should our investment suffer? Out of curiosity, I showed this proposal to a realtor, not a neighborhood guy, but one familiar with Readville. His reply was that if this developement goes through property values will fall. That was before I brought up the traffic issue. His reply, if the traffic situation isn't sorted, the values will drop even further. If this developer really wants to do something about the housing issue, he should not do it on the backs of the people who have invested in Readville (and Dedham and Milton). Let him develop a couple of cul-de-sacs with one and two family homes and off street parking, which would mirror the community. Of course this would result in either a loss or less profit for the developer, so I think we know he is trying to tap the altruistic nature of others. Of course, one can not be on the subject of middle income housing without really wondering what that is. Looking at the figures provided, the affordable rents, that is the 70% AMI, are actually more that the average mortgages for this neighborhood. That begs the question, what are the middle income rents? What is the middle income bracket? What is the average difference in cost between these middle income rents, and the rents downtown? Is this really about building middle income rental units, or is that just a convenient way to deflect criticism when the project meets resistance, as it has. Lastly. What is the net benefit to the existing community? The process can not simply be about mitigating impact. Quid-pro-quo, what does the neighborhood get in exchange for what will be a very large change to the lifestyle we invested in? Inclusion in a neighborhood is about much more than owning a home. No one in Readville wishes for more neighbors. People choose where to live for a number of reasons, and neighborhood density is one of them. Readville has provided a comfortable way of life to many people who have not asked for much more than some peace and quiet. What value does the process put on that? What value does the BPDA put on that? Not being very familiar with this process, and the parties involved, I truly hope the BPDA is looking out for the people of Boston and not just a step in the rubber stamp pipeline. Thank you for your consideration.</p>
1/11/2018	Tara	O'Brien		Oppose	<p>Hi to whom it may concern: I am very upset that there would be such an idea of massive construction in Readville. The traffic if awful already! I grew up in the area.. Im am restricted to live in the City of Boston due to its residency law that we have. My husband works for Boston EMS. We can barely afford to own our home on the city payroll. Now we have to worry about the quite neighborhood being destroyed. We ended up buying a house here because its quiet and we are raising 3 boys here. I highly doubt the owner of this project would even live here! You would be taking Readville's characture away from this town. The amount of apartments going in are ridiculous! We would be loosing the family superb feel we have. This would ruin our neighborhood! I would not to raise my family around this madness! If I wanted this I would move to the inner city area of Boston..This project is disrupting so many families. Its very dis hearing.</p>

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1/11/2018	Ann	Gentile	Resident	Oppose	Traffic enough there is already too much. Taxes they are already higher than surrounding towns. We have enough industry in the town new soccer field was vandalized we cannot build on edge of Boston too much crime Let's fix what we have we need new high school more important projects
1/12/2018	Jessica	Savino		Support	I am in full support of this project. Maybe 521 units is a little aggressive, but an influx of people would positively impact our business districts and also could bring in a new demographic of people that Hyde Park lacks right now.
1/12/2018	Dave	Vittorini		Support	I am in full support of this project. An influx of people would positively impact our business districts. I also think the amenities they are offering would appeal to young people and that is something the neighborhood needs.
1/12/2018	Sean	Sullivan	Resident	Oppose	This would not be good for the community. How about all the issues we have going on around Wolcott sq, Hydepark ave, and the bridge get fixed and see if it even helps. Please do not approve this project.
1/12/2018	Sean	Hurley		Neutral	Our main concern is how Sprague Street and the nearby Wolcott Square in Readville will support this massive endeavor. We are happy to support this provided that sufficient roadway infrastructure (roads, bridges, etc) is budgeted. Without significant infrastructure support, we have issues with the development.
1/12/2018	Jay	Paget		Support	As a resident of Hyde Park, I support this project. If Hyde Park has more and varied housing options I think this will have a positive impact in the community. In addition, the people who reside there will be shopping, eating, participating in the arts, recreational activities and other aspects of the of the neighborhood that could strengthen the community in many ways. Overall, I think this is a positive addition to Hyde Park.
1/12/2018	Maryanne	Dineen-Norton		Oppose	I oppose the current plan. I think the planned development is too large for the area infrastructure of roads and bridges. I am not at all convinced that the proposed residents would largely use the commuter rail. Who says they would be mostly people with downtown jobs convenient to the commuter rail system? What about the second resident in many of the units? Multiply the number of cars by the potential residents to reach the number of cars impacting the traffic. I think some residential development of the space could be a positive think for the area but not 521 units! I further think the planned buildings are incredibly ugly! Why would we want "industrial -like buildings" added to our area? Not a positive addition!
1/12/2018	Thaddeus	Constantine		Support	I think that Readville will benefit from having more residents that will help make it a more vibrant community. Added restaurants and stores will help keep people in Readville as well. Hopefully more residents will also encourage the MBTA to expand service to Readville. The added younger residents should help revitalize Wolcott Square as well. Better new residents who are likely to use the commuter rail into the city than more warehouses and distribution centers which just further clog up our roads. I hope that the developer will continue to work with the city and state to mitigate the current traffic issues on the Milton Street Bridge and into Wolcott Square
1/12/2018	Lisa	Goren		Support	We need more of this kind of development in HP! I hope there will be restaurants and coffee shops! It would be great if we could have the T come down this far too, to relieve traffic!
1/12/2018	Cyrus	Tehrani	Boston Resident	Support	I'd like to voice my support for this project as a Boston resident. This type of housing density is crucial to solving Boston's housing crisis and needs to happen across all neighborhoods. This will add a significant amount of IDP units as well as market rate units in a relatively affordable area of the city. There is no housing on this site currently and is right next to the Readville station. This is exactly the type of location where we need to be adding dense, transit-oriented housing. Cutting down the density of housing for this project hurts all Boston residents and the project should be approved as proposed.

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1/12/2018	Matthew	Conley		Oppose	While I live about 2 miles away from this proposed development I travel over the Milton St bridge on a daily basis. The bridge is gridlocked with traffic on a daily basis no matter the time of day. Building a development this size will only add more congestion over bridge and divert more traffic into the neighborhood.
1/12/2018	Patty	Hickey		Oppose	Born and raised in Readville , continuing to live within 1mile radius of site. I do not believe this will benefit the community. If market rate s don?t sustain, the units will be vacant and the city will fill them with people from outside our community. Traffic is horrendous already and bringing in more cars will be detrimental to our roads and lifestyles. Our police and fire will not be able to handle more conflict and trauma. So in total I am COMPLETELY against this proposal
1/12/2018	MaryAnn	MacPhail		Neutral	I think this will be a great addition to Readville, but I am concerned about the traffic impact. The traffic right now is pretty bad during peak rush hour 7-9am and 4-7pm the traffic over the bridge is awful.
1/13/2018	Stephanie	Golas		Support	I support this development. HP sorely needs good development/housing and young residents who will be transit oriented and invest in the community. It is important that street/traffic infrastructure be considered. I think this will be good for the neighborhood.
1/13/2018	Kristene	Boucher		Neutral	I would like to see a project of this size improve the neighborhood's access to public transportation. An increase in the regularity of #32 bus route, more commuter rail options, etc. I have seen that there is a proposal to turn the Fairmount Line into a T "indigo line." I would hope that the Sprague Street project would speed up the implementation of the indigo line. I have heard that there will be an improvement to street traffic infrastructure, however with the proposed population increase public transportation will be even more important than it is now.
1/13/2018	Kathy	Riley	HOME OWNER	Oppose	I am a homeowner in Readville and a number of things need to happen in order to get support for this project. We oppose it in its current form. 1) Don't take away our views. ! One of the reasons that we live in Readville is the Blue Hills. This project will obstruct our beautiful views of the Blue Hills. 2) Increased traffic, there is a huge traffic problem in Readville, adding 2-3 cars per minute greatly increases the problem. Right now it sometimes takes me 10 minutes during rush hour to get our of my driveway. 3) Commuter Rail pedestrian safety and fare restructure. The Readville commuter rail station is unsafe for pedestrians. If your not hit by a school bus then its a contractor vehicle coming out of Industrial Drive. The fare structure is inequitable. Many Readville, Dedham and Milton etc. residents choose to take the commuter rail out of Hyde Park vs Readville due to the cost differential of Zone 1 vs. Zone 2. In order to encourage residents to take the commuter rail this needs to be corrected with the MBTA. 4) Its too big for Readville - 521 apartment units approximate the number of homeowners in Readville. You go from a community of homeowners invested in the neighborhood to a community or renters not invested in the neighborhood. There is got to be a significant homeownership component to this project. Thank you for considering my comments.
1/13/2018	Nancy	Landry		Oppose	Way too much traffic already in this area at commute times. I live very nearby.
1/13/2018	Daniel	Farnkoff	resident	Neutral	you will have to build a brand new bridge to address the gargantuan traffic increase to what is already a nightmarish and hazardous traffic situation.
1/16/2018	mark	carr		Oppose	My opposition is based on all the concerns we've already discussed at the previous meetings; increased traffic congestion which could never be mitigated with new signals and sidewalks. Please build this ugly monstrosity elsewhere.

1/16/2018	Susan	Carr	Homeowner	Oppose	I have attended every public meeting concerning this project and strongly OPPOSE this Project. The current serious traffic concerns of this location alone should negate any plans for an apartment complex in this area. It is a matter of public safety. At the last meeting, signatures were collected and presented from the residents of Readville on the support of this project. 89% were apposed, 2 % were For and 9% were undecided. These statistics speak volumes on how the residents (the tax payers & voters) of this area feel about this project. This is non-negotiable! Reminder: Elected officials representing this area DO NOT support this project; Scaccia, Rush & McCarthy Thank you. Susan Carr
1/16/2018	Kelsey	Barber		Support	Good morning, I support this project, but with caveats. I am concerned that this project will act as permission for other buildings in Hyde Park to raise their rents. I was looking forward to moving here next year because it is one of the only remaining affordable neighborhoods in Boston. But if other buildings follow this development's lead, I and most of the people I know will never be able to afford Hyde Park. We are millennials, the alleged target demographic for buildings such as this, but we cannot live there. The proposed rents for these apartments are technically affordable for people who make 100% of the AMI, but not the mean income for Boston or Hyde Park. I would encourage the developer to use those data sets as a basis for their middle-income rent prices instead, and also pursue more affordable units. There is no point in having apartments that are priced to generate a lot of profit if no one can afford to rent them and they just sit empty. I ultimately want this project to succeed.
1/16/2018	Richard	McMurtry		Oppose	Hello, I would like to state my opposition to this project. I have loved living in this neighborhood for twenty years and have seen various changes. Some of these changes have had positive effects on the community while others have not. This proposed 521 unit development will have a negative effect. I understand more housing in Boston is desired, but there is also a need for commercial/industrial space also ,which is currently there. Traffic congestion is extremely heavy already and adding 521 more housing units will not help the matter.This proposed project should not be allowed to be built. Thank you, Richard McMurtry
1/16/2018	Danielle	McMurtry		Oppose	Hello, I understand the high demand for more housing in Boston. This issue is an important one, and I am open to more buildings being built for this reason, but only in the right circumstances and location. The proposed area is already extremely populated, with traffic rates high and an excessive amount of cars already on the road. With the construction of this building and the new tenants it is inviting into the neighborhood, it will prove to be to much. The 521 apartments to be built will most likely bring more than that many people, as well as their cars. This placement is a poor one and will only result in more issues being put on the neighborhood. Thank You. One of the hundreds of opposed members of the community, Danielle McMurtry
1/17/2018	Kelly	Coyne		Neutral	Hello, Regarding the project, I think it is just too big of project. If it could be scaled down to a smaller size. Readville has not seen a lot of growth and to just hit the area with 521 units it a bit too big. Boston needs housing, no denying that, but this section isn't ready for that many units. I I know the plans call for traffic enhancements and that will need to addressed foremost. We need to factor in all the resources that will be need to support a housing complex of this size. Police, Fire, EMS, MBTA, pedestrian traffic, vehicle traffic, BPS... the list goes on. Along with rental properties, we need to be able to offer ownership to people. Starting with a smaller amount of units will help the neighborhood grow in numbers and strength. We also need to take into consideration the quality of life issues that this will bring to the current residence of Readville, as we have seen a large uptick in traffic already in the area, as well as parking/ridership at the Readville Train. Thank you, Kelly Coyne
1/17/2018	Rachel	Roberts		Support	As a resident of Hyde Park, I am in favor of this project! This is a great community to live in, and the plans (inclusive of the pond park, parking, and improved traffic signals near the commuter line) will be a tremendous benefit to the community.

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1/18/2018	Thomas	Taylor	Readville resident	Support	My name is Thomas Taylor and I live approximately 1 block away from this development, along W Milton St. I am writing in support of this proposed project. Hyde park and specifically Readville have seen very little development compared to other parts of the city. I welcome this project and hope this is the beginning of revitalizing the plight of light industrial yards everywhere in Readville and along Hyde Park Ave. I hope this development encourages future projects and specifically the revitalization of Wolcot Sq. Readville deserves to have a couple of nice family restaurant/bars. Thank you
1/19/2018	Kadineyse	Paz	Boston Tenant Coalition	Neutral	Hello, my name is Kadineyse. I am a resident of Roslindale on the border between Hyde Park, and I am very concerned about the project proposed at 36-70 Sprague St. While I am not opposed to new investment in our neighborhood, I am against this project as it is currently proposed. Boston is already far too expensive for the average working family, and it is clear that this massive residential proposal is not intended for the current residents of Hyde Park, and will contribute to ever rising rents, and likely increase the speed of displacement happening across the city. I support the improvements to our neighborhood that this type of development could bring, such as the effort to turn the Fairmount Line into rapid transit. However, in order to ensure that the current residents who live in Hyde Park will be the ones who are able to afford living here, and enjoy such improvements, we need large projects like this to provide at least 35% affordable housing, at a cost of of no more than 50% AMI. In light of the impact this development will have on a wide range of people, we also ask that the review process is slowed down, that there are more public meetings, with a concerted effort made to inform and include the large immigrant population that lives in Hyde Park; a population that is 30% not native English speakers. Thank you for taking my concerns into consideration.
1/20/2018	Jayne	Washington		Support	I am a homeowner in Hyde Park and I support the proposed development. I would also like to be informed about meetings and updated about this project to show my support. Thank you.

1/23/2018	Erica	Schwarz	Southwest Boston CDC	Oppose	<p>I gave similar comments at the public meeting Jan 10th, but wanted to formally submit the following: I'm the Executive Director of Southwest Boston Community Development Corporation. Our mission is community development, broadly defined. We develop affordable housing, we have a summer youth jobs program and our resident-driven organizing committee is now advancing plans to turn the vacant Doyle playground into a neighborhood park. Southwest Boston CDC members support development ? and the benefits it can bring. The question is what kind of development and who is it for. Housing prices continue to skyrocket. The need for more deeply affordable housing is massive and growing. As is, this proposal will not only bring very expensive housing to Hyde Park that most local residents couldn't afford, but it will have an impact in raising prices here and in the surrounding area. This will cause even more families to be pushed out of Boston. Last year our organization commissioned a study from Tufts University to analyze the risk of displacement in Hyde Park and Roslindale. That study analyzed patterns of rising rents and of displacement of residents, largely caused by increased housing costs. It identified several indicators of the displacement. When they looked at Hyde Park, they found that 37% of Hyde Park census tracts have a ?high? vulnerability for displacement of current residents vs. 20% of Boston as a whole. One reason is because Hyde Park has not seen the same level of development that much of the rest of the city saw over the last few decades. So rents and land values are slightly lower here. Developers have now really discovered Hyde Park. But the wrong kind of new development will make that displacement risk become a reality. To have a development of this massive size and only require that 13% of units be affordable at 70% AMI is not right and it?s not fair. We can get creative. This proposal needs to be reworked with the developer so that it reflects the affordability that real families, living in Hyde Park right now, desperately need. Among our membership, I can think of people who work in Hyde Park restaurants, who are teachers, artists, who work as a handyman or painter, or have jobs as cashiers in Hyde Park, or who are retired, who could not afford these apartments. These same people now face rent increases of \$500 a month, or live in apartments with terrible conditions, or are overcrowded living with extended family because they can?t afford to move out. 43% of Hyde Park households earn less than \$50,000 a year. None of them could afford the market rates in this proposal. 31% of households earn less than \$35,000 a year. None of them could afford the affordable apartments in this proposal. Finally, residents who will be most impacted by new development must have a voice in deciding what kind of development come here. The standard municipal outreach is to alert abutters about a public meeting who live within 300 feet of the site. This is a 556,000 square foot proposal. And much of the abutting land is not occupied. Yet the BPDA stuck with the 300 square foot outreach. The City exists for its residents! I ask the PBDA to slow down this process to ensure those who will be impacted can help determine what is best. The City, local residents and The Noannet group have an opportunity to ensure that this huge site supports the needs and desires of Hyde Park residents. As is, this proposal is harmful to the people of Hyde Park and the surrounding neighborhoods.</p>
1/24/2018	Heidi	Eagles		Oppose	<p>I strongly oppose this project as a neighbor and community member. The traffic in this area is already horrendous, especially during rush hour. The bridge that crosses Milton Street and goes over the commuter rail tracks is literally falling apart and would be even further strained by the number of new residents that are proposed. Please do not approve this project. It will hurt the neighborhood.</p>
1/25/2018	Kerry	Klaas		Support	<p>This project is what Readville needs. We're raising our three kids here therefore we're the future of the neighborhood. Readville needs to accept the reality that Boston neighborhoods are expanding so instead of laying dormant as an undustrial depot this is our opportunity to become a more resident friendly place to live. Wolcott and Cleary Square businesses will never improve if we don?t have more mixed income residents move in. This is what Readville needs so desperately.</p>

1/26/2018	Karen	Palumbo		Oppose	I?m a resident on Sprague St and am OPPOSED to this current proposal of apts to Readville. Our roads and neighborhoods CAN NOT handle anymore traffic. As a resident on Sprague St, I bless myself every time I back out of my driveway because the continuous speedway that Sprague St has become is extremely dangerous. Regardless of the push for this "public transport lifestyle", your residents will still have cars whether it's a zip car, Tax, uber or lyft coming and going. There will be added traffic regardless! It takes 10 minutes to get out of my driveway and 20+ minutes to get over the bridge into Readville. By allowing this large apt complex to be built is trying to squeeze a round peg into a square hole. It doesn?t fit! The existing neighborhoods and roads can?t take anymore. The burden is real, I live it everyday and can?t take much more of it. Sincerely a concerned citizen, Karen Palumbo
1/27/2018	Albert	Micozzi		Oppose	The infrastructure can not handle the traffic. Traffic lights will only manage the flow causing the thur-put to slow down to avoid grid lock. The area needs thru-put already by the widening of roads, the addition of lanes (capacity) and removal of all bottle necks. There are many bottlenecks during busy hours at this time. The bridge on sprague st @ west milton st. is one lane. although the bridge over the tracks to HP ave. is two lanes it is feed by four roads and all are one lane. The underpass going to Walcott sq. is always backed up during rush hour. If a truck goes under that bridge it must block both directions to clear the top. The underpass is round at the top. Neponsite valley parkway leads to rte 138 by way of two one lane country roads. 138 is heavily congested at rush hour. On neposite valley parkway we have a large number of business such as THE RIDE, AMAZON delivery, a large Produce firm and at least 12 businesses. The river st bridge at Cleary Sq. is one lane and is feed by 6 roads. That bridge intersection is always a bottleneck during rush hour the lights slow the traffic to avoid grid lock! From the proposed project sprague st. is one lane though dedham. This leads to the Endicott rotory which is fed by 4 single lane roads going out to 128 via East st. East st. is very congested at rush hour already. In the oppsite direction there is a low railroad bridge so trucks have to use East st. to 128. Dedham residents as well as readville residents will be burdened. The addition of 521 units will add at least an additional 521 cars, some units will have two cars. Those units will over burden our two truck small walcott sq. fire station, very small walcott sq. Post office, Cleary sq. Police station and few local parks. A fire in my neighborhood during busy hours will make it impossible for the fire trucks and emergency services to get to the project side in efficient time. we are an older neighborhood and emergency services are very important. I have lived in Readville for 32 years and I am in total opposition to this project. It will degrade our quality of life and level of Safety. The Mayor and City councilors should know a petition was signed against this and 89% signed against it, 9% wanted to do research 1st and 2% did not want to comment at all. The only people that seem to be in favor is Treiney reality because of the rental business and long time residents in Readville will be selling their houses. Win fall for realitors!
1/27/2018	Ray	Foley		Oppose	I am opposed to any development that does not address traffic Currently rush hour are a nightmare the statement that this project will only add 2 to 3 cars per minute is grossly misleading It should have said 120 to 180 cars per hour during rush hour would love to see development but with a plan get rid of busses trash trucks
1/27/2018	Claretta	Tonetti		Oppose	As a tax paying resident of Hyde Park I am totally against this project : it will increase traffic , augment pollution and it will deteriorate the quality of life . The only " amenity " that I can think of is the choice of good music to help you spend more hours in traffic .

1/27/2018	Russel	Roberts	Dedham Resident	Oppose	While I like the idea of expansion and growth, sprague street is already severely bottle-necked at Readville Station and immediately past the station entrance at Milton Street to go over the bridge to Hyde Park Ave. This complex and additional traffic would cause even more of a backflow for patrons trying to use readville station (both entering and exiting), not to mention access to the Milton Street bridge. Additionally, this will create a more uneven flow of traffic in the other direction too going towards East street. Efforts to better regulate traffic in a more efficient manner on sprague street around the Readville junction should be put in place first before adding more burden to citizens who use the commuter rail services. Until that discussion is thoughtfully considered, I oppose the development. Thank you for your time.
1/27/2018	Stacey	Roberts		Neutral	The traffic on Sprague street and the mere design of the road with a sharp turn heading toward the ECEC lends for traffic concerns for those of us who live in the area. I am not opposed to having this wonderful development built as long as the traffic congestion by the train station is addressed and there is a redesign of the road by the Blue Jay an Village Manor restaurants where it is already difficult to pull out of now. Thank you -Stacey Roberts (64 Durham Road, Dedham MA 02026)
1/27/2018	Ean	White		Support	I generally support this project though I do have a couple of reservations about it. I won't be doing any sloganeering like "the Manhattanization of Hyde Park" though. Change is coming to Hyde Park whether we like it or not, and it would be better for the community to get behind a project and participate in the development process than to just get steamrolled later on. This proposed development does tick a lot of important boxes: middle income housing, transportation oriented design, et cetera. And, now, with some condo units being mixed in with the rental units I feel better about the project knowing that some residents will really have roots in the neighborhood. I do take issue with the material sensibility of the architectural design. The stated goal is to echo the historic mill building aesthetic. However, what historic mill building has a flat concrete facade? Brick would be the material of choice to achieve the stated design goal. Another strategy would be to vary the construction of the four buildings a little bit. While this would impact economies of scale somewhat, just giving the sense that the complex of buildings evolved over time rather than all being plopped down at once could help humanize the design. My biggest concern is, of course, traffic. While I appreciate that the developers have considered incentives to encourage commuter rail ridership and other transit oriented design measures, we do not in Boston have a corresponding development oriented transit process. The commuter rail in Hyde Park is heavy rail. Even for the Fairmount line which runs entirely within city limits. Heavy rail is ridiculously expensive to operate and maintain for short routes. That residents have to use heavy rail just to get around town is insane. A much better option would be to extend the existing light rail South from Forest Hills to Readville. The rail rights of way are already in place for this. Fixing this glaring transportation shortcoming is certainly not the job of this development, and there may be a bit of chicken/egg thing going on here; if there is enough development here then _maybe_ the MBTA will see fit to bring affordable light rail to Readville. Expecting a large percentage of the residents of this proposed development to embrace the obsolete, breakdown-prone and expensive heavy rail commuter line is, I think, overly optimistic. But, waiting for the MBTA to do something about the problem may not be practical either. I would like to propose that the entire development team (including City and T officials) take the commuter rail to and from Readville and South Station, during rush hour, every day for a month. And, twice a week during that month, attempt take the commuter rail to an event, like the symphony or a ball game, not during rush hour or on the weekend. Then, at the end of the month, consider whether the current estimates for the percentage of residents riding the commuter rail still make sense. Ean

1/28/2018	Lucille	Barney	tpbarney@com bast.net	Oppose	The reason I oppose this, have lived in Readville for 40 years, i have to go out west milton street or Neponset valley parkway to get to highway and Sprague street has become a nightmare between the bus traffic from the school in westinghouse and business and the buses that park at Readville station the last thing we need is 571 apartments with traffic coming on sprague street of monsignor Ryan bridge on to hyde park ave or more traffic on Neponset valley parkway AND also the traffic that will go up sprague to dedham and circle at bottom of hill on to east street you who proposed this building do not live in the area so why should you care I DO NOT SUPPORT THIS APARTMENT BUILDING I hope this does not pass because it will be a nightmare for the Readville residents
1/28/2018	Dan	Farnkoff	resident	Oppose	Boston has enough housing for the rich. Make this development 50% affordable or dont build it at all.
1/29/2018	Jennifer	Moses	Mrs.	Neutral	Hi, I am a Dedham resident who lives on Sprague St. so I've been trying to follow this project, unfortunately, I haven't made it to any of the meetings, it's just too hard to get to them with my work/family schedule, I don't know all of the details, only what I have been able to find online and in the various local papers. I think the complex looks great, much better than what is there now and I like the idea of another restaurant close by but I was just very disappointed to see that Brinks will still be there. We already have SO much traffic on Sprague St and people drive very fast, the trucks are so noisy and from what I can tell looking at the proposed photos this really doesn't replace much of the traffic we have now. The Brinks trucks (along with the Grants trucks) are one of the worst, I think because of their weight they are very noisy. I'm torn, I think the project would be an improvement but without addressing the traffic concerns and the volume, I don't think I can support this project. Cars already back up beyond the proposed entrance to this complex trying to get over the Sprague St. bridge at rush hour. I don't think we can handle the additional volume. This area is already so congested. I know I live on a busy street but the neighborhoods will also end up with way more cars cutting through to avoid the backup on Sprague St. at either end. The Amazon drivers are already doing it and with Waze bringing people through quiet streets adding 500-1000 (maybe more) cars to the street doesn't seem sustainable to me. I understand that you are saying that people will commute by train (as do my husband and I, we walk to the Endicott Station) BUT, and it's a big but, not everyone works in the city and those that do still need to grocery shop and run errands and live their lives when they aren't at work and to do that from that location requires getting in a car and that is going to result in SIGNIFICANTLY more traffic going by my house every day and will negatively impact my property value. I am still on the fence about this project and would love to hear what you are proposing in terms of traffic solutions without any I don't think it's possible to support this project. Sincerely, Jennifer Moses
1/29/2018	Diane	McDonnell		Oppose	I Am against the apartment development. I am concerned about the traffic, potential shadows, and noise that is possible from the development.
1/29/2018	Dianne	Qualter		Oppose	I oppose this as it is currently set up. I thought the suggestion of 55+ residents was a great one. I would suggest a split of half non 55+ and half required 55+ occupants to have a good mix but also provide the neighborhood with something that is needed - specific over age 55 housing - as mentioned Fuller Village is a thriving and excellent place, but there is a wait list and think this age group should be thought of specifically versus the younger generation and families. Putting a combination of specific age groups together in a complex seems like something that could work - and that I could and would support.

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1/29/2018	Verity	Steven	N/A	Support	I support the project. I believe it is well thought out and attractive. Yes, there are traffic issues in the area now. The largest traffic issue in my view has been forced on this neighborhood by the City of Boston itself. The school busses are the largest issue. Each bus contributes 8 trips per day through the neighborhood. I believe the project will add some, but not a tremendous amount of new traffic. The added human factor is what I see as a benefit to the area. Thank you.
1/29/2018	david	powell		Oppose	I have lived in Readville for my whole life and have seen the traffic navigating my neighborhood has completely gotten out of hand. please try to travel from sprague st to walcott sq for the evening commute. traffic barely moves trying to cross the father hart bridge. a distance of under a mile takes thirty to forty minutes to complete. I believe that adding over five hundred apartments will only serve to make a bad problem even worse. I also see that there is only parking for one vehicle per unit. where will the renters park their other vehicles? i believe they will park in the residential neighborhood near by. I believe adding a housing project of this size to a small community is a mistake and will have drastic consequences to the residents of readville. PLease do not approve this project
1/29/2018	Gerry	Roth	Resident	Oppose	This proposal will just add additional congestion to an already unacceptable traffic problem that exists every workday especially around the rush hour time frames (6AM-9AM & 3PM-7PM). I have been already stuck in traffic starting down by the village manner restaurant taking more than 30 minutes to go less than 1/2 mile to get home. From the other side in can be just as bad trying to approach from RT 138 where I have been stopped at the top of Neponset Valley Parkway trying to go about a 1/2 mile to home. These problems continue to get worse even without the additional traffic that would be added by this proposal as more and more people use automated traffic options on their cell phones that route even more cars our way when ever there is a traffic accident or excess congestion on any of the surrounding area Highways. Until these existing issues are resolved there can be no additional traffic added as this 500+ unit would create.
1/29/2018	Robert	Babiaza		Oppose	We fully oppose the building of 521 Unit Housing Development at 36-70 Sprague street!!!!We feel the traffic will be impassable due to the increase in cars (approx.) 1000 plus vehicles that will be added to the area! We feel this is not a good fit for the neighborhood as it will impact the ability to get access through the neighborhood during morning rush hour and afternoon rush hour, and also the school buses have a impact on morning traffic as well.We feel the neighborhood cannot support the extra traffic as it is by adding an additional 1000 plus cars.
1/29/2018	Leon	Martin	1979	Oppose	I do like the idea and design proposal, but until there is a concrete, meaningful improvement of the traffic and infrastructure PRIOR TO the approval of a project anywhere near this scale, I will remain opposed to this and and other development which has the potential to severely exacerbate the already problematic traffic. Further, even with improvement of traffic flow, I think the size of this proposal is way too aggressive
1/29/2018	Joanne	Connerty		Support	Although this looks beautiful I am very very concerned about traffic
1/29/2018	Harriet	DiMarzio		Oppose	I am very much against the 521 unit housing proposal. The area is saturated with traffic now. I can only imagine if 521 units with at least one car per unit and traffic for a 150 seat restaurant was added to,the mix. The parking spaces provided will not prevent an overload of parked cars along Sprague Street. This area of Readville is not conducive to a development of that proportion. Readville is a pass through for people coming off of 95 in Dedham wanting to head into Boston as it is --our roads and bridge can not take the additional burden of the proposed development.

1/30/2018	Anita	Costantino		Oppose	I strongly oppose the building of this apartment complex. The traffic on the St. Anne's side of the Fr. Heart bridge is already congested, adding these additional residents and cars will make it nearly impossible to get through the area in a timely manner. I live less than a mile from the train station and it can take 10 minutes or more for me to get home in the evening because of the congestion, it should take 1-2 minutes.. I take the commuter rail into Boston and the Franklin line trains are already overcrowded by the time they reach Readville. I rarely get a seat on the train now, adding 500+ additional riders will make it impossible. Often times when the weather is bad the train is so full that it won't allow people to board at Readville. How can they handle an additional 500+ riders. There are already too many large trucks and buses that go through the T parking lot to get to businesses under the Sprague Street bridge area, the construction vehicles for this project will make walking in the area extremely hazardous. I have witnessed first hand a woman being hit by a small truck while attempting to catch a train, and a few years back someone was killed by a bus passing through the parking lot. This area is extremely dangerous now for anyone attempting to walk to/from the train station, adding construction vehicles and then 500+ cars is a recipe for disaster. The Wolcott Square area is very congested now due to the traffic from Dunkin Donuts, the gas station, the train station, and the bus stop along with all the traffic going to Rt, 128. Add an additional 500+ cars and it will be impossible to pass through the area. There are already a number of apartment units being built in Hyde Park with more being proposed. This is more than the neighborhood can and should have to accommodate. I have lived in Readville for 56 years, my family has owned property for more than 100 years. I do not want to see a new development change the area in such a negative way. The residents of the area should have the final say on this project, and the majority say NO!
1/31/2018	Allan	McNab		Support	this sort of mass transit accessible development is what the city needs.
1/31/2018	Ariel	Leitao		Oppose	What will be done to address traffic on Sprague street with all of these new units going in? It's already unbearable trying to drive during rush hour. Have any studies been done on the impact on traffic? Additionally, has an environmental impact study been done? I strongly oppose this, unless a solid plan is in place to address traffic.
1/31/2018	John	Kenney	Home (Wakefield Washington group)	Neutral	This looks like a beautiful project. However, the traffic patterns around the Sprague St., East Milton St. and the whole Readville/Wolcott Sq. rail crossings are already overloaded. The area is dangerous and gridlocked during both office AND after school rush hours. The Readville station area is a great transportation hub with a lot of history and if this project can incorporate sorely needed traffic control improvements like traffic lights, cameras, and sensors then it might actually work and benefit the whole community not just the property developers. Hyde Park is a spread out, near suburban neighborhood. Cars are required for quick efficient travel around the village. Bus lines are slow, bound to heavy traffic and best operate in a north - south direction. Crossing east-west over the 2 sets of tracks has always been difficult. If this project can remedy the traffic problems while adding housing and business to the area BEFORE more residents and customers arrive, then I would be FOR this project. Pleas help make that happen. It would be a win-win proposal. Thanks, John.
1/31/2018	John	Malinsky		Oppose	You have to be kidding putting all those units in and expect the bridge to get into Readville and then on to Dedham, Boston, etc. Has anyone ever looked at the current traffic bottleneck that happens in the morning, and afternoon?? Someone said to me there is a proposed traffic light that will solve the problem. I think NOT! This proposal will create bottlenecks that are far worse than the ones we have now. I OPPOSE!!!!

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1/31/2018	Joyce	Barnes		Neutral	I am VERY CONCERNED about the inevitable worsening of the already debilitating and dangerous traffic snarl that happens on the Milton St. bridge and through Readville. I take no issue with additional housing, and would welcome new restaurants, BUT this development plan MUST include a comprehensive traffic solution that would benefit the whole neighborhood. An integrated system of traffic lights, signage, and pedestrian and bicyclist safety features should be a high priority for the city, even without this development.
1/31/2018	Jay	Baskowski		Support	I think the project would be a lot better than having what's there now, which is essentially nothing. I do have concerns, like many, about the influx in traffic to an already congested area and have yet to hear what plans are in place to deal with such an increase. Have you addressed this yet?
1/31/2018	Michael	Nestrud		Neutral	Rotary at East Street and Sprague in Dedham is already overwhelmed. This intersection may need to be redone and a light put in or other traffic modifications to support volume.
2/1/2018	philip	cabral		Oppose	This proposed project contains way too many apartment units for that location. The area already has major traffic issues. Access to this project will primarily route traffic through Dedham. Sprague Street is already an area seeing increases in traffic due to the Amazon distribution terminal location. Residents of Dedham's Manor neighborhood have had significant issues with tractor trailers entering the neighborhood streets causing power line failures. I believe that a smaller scale project would be a beneficial use for that property, but certainly not a 500 plus unit complex. Also any developer who thinks that a restaurant in that location would succeed needs to rethink about that type of investment. Numerous restaurants have been started and gone out of business at far more accessible locations than Readville. Suggest they study some of the closures at the University Ave development off Route 128. There is nothing in that Readville location to attract people, let alone a view of a polluted pond.
2/1/2018	Jarred	Jones	Independent	Oppose	Having lived in this neighborhood as a child and frequenting Truman Highway, Sprague Street and Hyde Park Avenue. It is obvious to me that the number of parking spots is insufficient. In theory, it is a good number but the reality of the situation is that until the fares are lowered or Rapid Transit service is brought to Hyde Park people here are going to have at least 1 car and they are also going to have visitors. There should be roughly 1.4/1.5 parking spots per unit. In addition without sit down restaurants to attract residents with disposable income, the apartment will essentially serve to raise commercial rents for the few small businesses in the area and to add congestion to a bridge that desperately needs to be widened. You would be better off compelling Mr. Warshaw to seek federal grants and subsidize more of these apartments (25-30% if he is successful in securing even funds to secure 12.5% of all units, the city should tap into the Affordable Housing Fund and match him. Implement a 32Xpress bus to facilitate the transportation of residents with more modest incomes.
2/1/2018	Jo-Ann	Duke	4 Albemarle Court	Support	Readville is a quiet intimate neighborhood building the 5 yard Sprague apartments would be devastating to the neighborhood. There's a lot of traffic in Readville as it is just can't handle any more.
2/1/2018	John	Bunker		Oppose	The traffic congestion over the bridges, on Sprague St., West Milton St., and on Neponsit Valley Parkway is already a nightmare without adding over 500 apartments.

2/1/2018	Anthony	Dowling		Support	Anthony G. Dowling 36 Clifford Street Readville, MA 02136 857-719-2054 February 1, 2018 To the BPDA, Regarding the proposed development concerning 36-70 Sprague Street in Readville. Being a Resident of Readville for my entire life (60 years) and a home Owner, I am in favor of this project as it has been proposed, but with a few concerns. Being a Member of the IAG and just speaking for myself, I find the following items issue for further discussion: 1. Height ? Building 2, 3, & 4 concern me (especially 3&4) a. Height needs to be discussed b. I would suggest to the Developer to immediately disregard construction of the READVILLE sign. 2. Design ? I think the Community has spoken enough about the design and the Developer should begin making exterior design changes asap. The Utilitarian/Industrial look not cutting it! 3. Density ? this piggy backs height, seems to be too many apartments. 4. Condos ? Is this a thought and how many 5. Sound ? Great point brought up regarding sound echoing off the buildings back into Readville. Baffles should be considered for the sides of buildings abutting the Railroad tracks. 6. Completion ? Will the Developer 100% complete the project? I feel this proposed project is just the beginning for this type construction in this area, and I feel it is incumbent of the Neighborhood to try to be a positive influence in its process. It's my feeling that if the Community gets this project right, the projects coming (and you can bet they're coming) in the future will be par too this project or even better. We should not box Ourselves out, by not having a positive role in the future of Readville. Sincerely, Anthony G. Dowling
2/1/2018	Catherine	Dunphy		Oppose	The area of the proposed development is current a traffic nightmare. The bridges are time consuming to pass through and significant increasing the number of people residing in the area along with adding restaurants and other businesses will cripple current commuters ability to get to work. As a Hyde Park resident working for a Boston hospital in Longwood Medical Area my commute, which is less than 8 miles, currently takes 45-60 minutes. Without traffic it takes roughly 22 minutes. Quality of life of Hyde Park residents is at jeopardy. Pease vote no on this proposal.
2/1/2018	Teresa	Neff		Neutral	I support using this land for residential housing. However, 521 units are too many. 350 units seems more reasonable for the neighborhood. I would like to see the developers substantively address the following: 1.Leverage the MBTA so that more trains are added. The trains should go both to Boston and to points west, such as Legacy Place and University Ave. The station at Readville also needs to be maintained to a higher standard. 2. The campus amenities should include a small grocery store, such as those now being tested by Amazon. A laundry should also be included in the amenities plan, especially if the units are not equipped with washer/dryers. This would potentially reduce traffic. 3. The building should leave no carbon footprint. 4. Traffic must be addressed. Make this project the model of how large semi-self-contained communities can be part of existing neighborhoods. Essentially, Readville residents were offered nothing but 2-3 more cars per minute during the already highly congested morning and evening rush hours. Improvements to the Readville Station, better traffic planning, and realizing that people need cars to do more than go to work (and that car services are still bringing more vehicles to the area) would go a long way to creating good public relations with this project.
2/1/2018	tom	brennan		Oppose	Why are we jamming a large residential complex into an area of primarily one and two family homes? I like the idea of the neighborhood improving with development but would rather see the large T property cleaned and put to good use. 521 residential units on Sprague St. will cause considerable congestion. The gridlock on the Neponset Valley Pkwy. and RR bridge is already significant and very difficult to negotiate at rush hour. A development like the one proposed here would make more sense at the old Stop & Shop site where the newly created traffic would have easy access to two wide roadways and closer proximity to I-95.

2/1/2018	Peter	Aldins		Neutral	I am very concerned about traffic and although the developers did observe traffic patterns, I think they need to be more proactive in addressing the traffic problems that will result from 521 units as well as the construction of campus.
2/1/2018	Anna	Aldins		Support	As a senior in high school intending on moving back to Readville after college, I have a vested interest in this community. Overall, I believe that adding more homes and residents, especially younger families, will be good for the neighborhood. However, the project must be done correctly. The campus needs to be able to leave no ecological footprint, which will draw people to it and make this development the guide for others. If the residents are intended to bike or use the MBTA? something I agree most younger families will be open, if not expecting, to? proper amenities (such as small grocery stores and bike paths) and cooperation with the MBTA on scheduling more trains (to meet the intended uptick in rides from the area) are a necessity. The residents of Readville, whether living at the Sprague Street Development or not, should be able to gain something from this improvement: closer amenities (markets, restaurants, shops, etc.) within walking distance of home (to reduce CO2 emissions) and a safer and cleaner area around the currently-polluted pond. I think this idea is a good one, but it could negatively effect my community if not done properly.

2/1/2018	Roberta	Johnnene	n/a Resident	Oppose	<p>Dear Mr. Campbell: Please accept this communication in opposition to the proposal by OMB Sprague LLC to build a 4 buildings (some 7 & 8 stories high), 521 unit apartment complex at this local industrial site (L1) that is landlocked by 3 railroad track lines (Providence Line, Franklin Line & Fairmount Line), 2 bridges (Father Hart & Sprague) and a pond. I am a Readville resident within 500 or so feet of the proposed site (just over the Sprague Bridge). My reasons for objection to this project are: A: Project is not a fit for the neighborhood / location 1. Readville is a community of mostly single home (with some multi-family, owner occupied properties). It has a high concentration of elderly. An apartment / rental development that is 20% or more of the total homes in Readville will irreparably destroy the nature and identity of the neighborhood; 2. Safety is a major problem. The geographical limitations at the proposed site restrict egress to the proposed 521 apartments to one small driveway at the base of the Sprague Bridge. A single entry and exit point does not support a residential apartment complex of this or any size and if allowed would prove disastrous for residents and first responders in an emergency; 3. The entire Hyde Park community worked for a long time with the city during the recent zoning reviews in 2014 to identify, maintain and tighten the local industrial zoning (LI-1) within the HP area and want to keep it; 4. The 1F-6000 residential sub district near the Dedham line of the Boston development will be negatively impacted by the project; 5. The proposed height of the project, at 7 & 8 stories, even given the grading of the site, will significantly and / or totally block the view that the Readville neighborhood has of Blue Hills. Those heights will also add significant shadowing to the residential single family homes off of Sprague, West Milton and Readville streets and block the morning sun that will rise in back of the buildings. B. There are too Many Variances for one project 6. The project use is not "as of right" and the community, particularly abutters and close proximity neighbors, do not support a use variance for the project; 7. The scope of the apartment project is too large and dense for the footprint the developer has under agreement and out of proportion to other approved projects in the city. 8. The Floor Area ratio (FAR) of 1.9 for the project is not within zoning requirements of either the LI-1 (1.0) or the 1F-6000 (0.3) zoning rules and the doubling and tripling of the ratio should not be approved; 9. The proposed heights of the project is outside the allowable zoning restrictions and will negatively impact the neighborhood's quality of life. C. Brings Negative Impacts to Quality of Life and Neighborhood: 10. The congestion, noise, fumes and traffic in the area is already past solvable and this project will further aggravate the congestion issues and deteriorate the quality of life in the area; 11. Proposed ? lights? at the Farther Hart Bridge will not solve (or need time to demonstrate their effectiveness before any new projects get greenlighted) the volume or traffic flow issues already in existence in the area; 12. The intersections at Sprague, West Milton, Milton, & Readville Streets, as well as Fleet & Milton, Neponset and Hyde Park Ave are too tight, restricted and cannot, particularly on the bridges, handle the volume of traffic currently in the area nor an increase a project this size would generate; D. Other reasons to deny: 13. The Readville Yard 5 project which has been recently modified and is being built, will add more truck (including large truck traffic, equipment, vans and car traffic, from businesses and their employees to this same area and that impact has yet to be felt or truly addressed; 14. Readville Yard 1& 2 are still being contemplated for additional projects as part of the MBTA layover, facilities and use projects and as they are, as of right projects, will need little oversight and therefore their impact is not being considered; 15. The maximum 68 ?affordable? units out of the total 521 units the developer is touting at 70% of median income will not in any way offset the damage to Readville by transforming it from a ?high owner occupied single family neighborhood to a ?transit?, transient rental community; 16. Nor will the rentals units in any way support or assist the high concentration of senior citizens in the Readville / Hyde Park neighborhood who linger on decade long waiting list for neighborhood housing that is suitable, safe, income restricted places to live; 17. The staggered construction schedule proposed to ? maximize lease buildup? will itself result in years of construction that itself will harm the single family residential Readville neighborhood; and finally 18. Due to the significant and unmovable railway track boundaries, and inability to move the pond or build new infrastructure like new bridges to traverse the tracks, there is absolutely no room or options for any significant roadway and/or access, diversion, flow reconfiguration or expansion of traffic in the area of the proposal that will alleviate any of the above problems with site location, access, safety, congestion or pollution that 521 rental housing units would bring. Therefore I request the BRA</p>
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36-70 Sprague Street Public Comments via website form 2018-03-28

2/2/2018	Robert	Gallagher		Support	Hello, I am a member of the IAG. I support the idea of the project, but I do have some concerns. 1. The sheer size of the project is concerning. The number of units is very high. I am hoping we can agree upon a lower number of units, maybe in the 300-400 range. 2. I support more units for ownership and less for rental. 3. The proposed design is unattractive. Specifically, the material looks too industrial and prison-like. I support a more modern design. This project will change the landscape of Readville. As such, the IAG is drafting a mitigation package. We expect the developers to invest in our community in ways separate from this project.
2/2/2018	Michael	Goff	IAG member	Oppose	Mr Lance Campbell, BPDA I would like to thank you for organizing the meeting on 1/10/18. I'm opposed to the proposal based on the height and density as presented. The project does not fit into the neighborhood of one and two family homes very well. It presents a multitude of problems both in size and scope. Therefore I am in opposition to the project as presented. Sincerely, Michael P Goff
2/2/2018	Carol	Hayes		Oppose	I am opposed to the 521 unit development proposal currently being planned for 36-70 Sprague Street. I live in the Readville, MA neighborhood and know the project would have a negative impact on my neighborhood. There are currently severe traffic problems in the immediate area that create bumper to bumper traffic in the mornings and afternoons. Adding such a large apartment complex will greatly increase this problem and reduce the quality of life in my neighborhood.
2/2/2018	Doreen	Hayes	Mrs.	Oppose	I am opposed to this development because it will create too much traffic in an over taxed street structure. I believe the developer has not considered the light industry across the road that is noisy (for example: dump truck's drive under the Sprague St. passing the edge of the development bridge all night long to exit onto Milton St.). This development will ruin our neighborhood.
2/2/2018	Rauny	Baez		Support	Dear Lance, As a former Hyde Park business owner and current resident of over 14 years I fully support this development project. Hyde Park has always been a great community to live, but we're always behind other vibrant neighborhoods in the city when it comes to businesses and improving our community. The city of Boston is changing and we need the additional housing to attract new residents to our neighborhood who will in turn support current and new businesses. This project will also provide reasonable rental options for professionals and young families who would like to share and make this wonderful community even better than it is. Sincerely, Rauny

Appendix A

Transportation

APPENDIX A: Transportation Supporting Documentation

Traffic Volume Data

- Turning Movement Counts (TMCs)
- Automatic Traffic Recorder (ATR)

Synchro Level of Service (LOS) Reports

- 2016 Existing Conditions
- 2021 No-Build Conditions
- 2021 Build Conditions
- 2021 Build Mitigated Conditions



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N/S: Sprague Street
E/W: Garage Driveway/ Industrial Driveway
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 A
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Sprague Street From North				Garage Driveway From East				Sprague Street From South				Industrial Driveway From West				Int. Total	
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		
07:00 AM	5	46	0	0	0	0	0	0	0	130	4	0	0	0	0	0	0	185
07:15 AM	3	69	0	0	0	0	0	0	0	124	6	0	1	0	1	0	0	204
07:30 AM	7	75	1	0	0	0	0	0	1	115	10	0	1	0	0	0	0	210
07:45 AM	4	64	0	0	0	0	0	0	0	112	5	0	3	0	0	0	0	188
Total	19	254	1	0	0	0	0	0	1	481	25	0	5	0	1	0	0	787
08:00 AM	7	76	0	0	0	0	0	0	0	103	6	0	2	0	2	0	0	196
08:15 AM	4	54	0	0	0	0	0	0	0	94	6	0	0	0	2	0	0	160
08:30 AM	5	63	0	0	0	0	0	0	0	90	18	1	0	0	2	0	0	179
08:45 AM	3	67	1	0	0	0	0	0	1	82	14	0	0	0	0	0	0	168
Total	19	260	1	0	0	0	0	0	1	369	44	1	2	0	6	0	0	703
Grand Total	38	514	2	0	0	0	0	0	2	850	69	1	7	0	7	0	0	1490
Apprch %	6.9	92.8	0.4	0	0	0	0	0	0.2	92.2	7.5	0.1	50	0	50	0	0	
Total %	2.6	34.5	0.1	0	0	0	0	0	0.1	57	4.6	0.1	0.5	0	0.5	0	0	
Cars	35	437	2	0	0	0	0	0	2	796	64	1	3	0	4	0	0	1344
% Cars	92.1	85	100	0	0	0	0	0	100	93.6	92.8	100	42.9	0	57.1	0	0	90.2
Heavy Vehicles	3	77	0	0	0	0	0	0	0	54	5	0	4	0	3	0	0	146
% Heavy Vehicles	7.9	15	0	0	0	0	0	0	0	6.4	7.2	0	57.1	0	42.9	0	0	9.8

Start Time	Sprague Street From North					Garage Driveway From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	3	69	0	0	72	0	0	0	0	0	0	124	6	0	130	1	0	1	0	2	204
07:30 AM	7	75	1	0	83	0	0	0	0	0	1	115	10	0	126	1	0	0	0	1	210
07:45 AM	4	64	0	0	68	0	0	0	0	0	0	112	5	0	117	3	0	0	0	3	188
08:00 AM	7	76	0	0	83	0	0	0	0	0	0	103	6	0	109	2	0	2	0	4	196
Total Volume	21	284	1	0	306	0	0	0	0	0	1	454	27	0	482	7	0	3	0	10	798
% App. Total	6.9	92.8	0.3	0		0	0	0	0		0.2	94.2	5.6	0		70	0	30	0		
PHF	.750	.934	.250	.000	.922	.000	.000	.000	.000	.000	.250	.915	.675	.000	.927	.583	.000	.375	.000	.625	.950
Cars	20	234	1	0	255	0	0	0	0	0	1	419	25	0	445	3	0	3	0	6	706
% Cars	95.2	82.4	100	0	83.3	0	0	0	0	0	100	92.3	92.6	0	92.3	42.9	0	100	0	60.0	88.5
Heavy Vehicles	1	50	0	0	51	0	0	0	0	0	0	35	2	0	37	4	0	0	0	4	92
% Heavy Vehicles	4.8	17.6	0	0	16.7	0	0	0	0	0	0	7.7	7.4	0	7.7	57.1	0	0	0	40.0	11.5



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Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

N/S: Sprague Street
E/W: Garage Driveway/ Industrial Driveway
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Cars

Start Time	Sprague Street From North				Garage Driveway From East				Sprague Street From South				Industrial Driveway From West				Int. Total	
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		
07:00 AM	4	39	0	0	0	0	0	0	0	119	4	0	0	0	0	0	0	166
07:15 AM	2	59	0	0	0	0	0	0	0	111	5	0	0	0	1	0	0	178
07:30 AM	7	62	1	0	0	0	0	0	1	111	9	0	0	0	0	0	0	191
07:45 AM	4	49	0	0	0	0	0	0	0	104	5	0	1	0	0	0	0	163
Total	17	209	1	0	0	0	0	0	1	445	23	0	1	0	1	0	0	698
08:00 AM	7	64	0	0	0	0	0	0	0	93	6	0	2	0	2	0	0	174
08:15 AM	4	45	0	0	0	0	0	0	0	91	6	0	0	0	0	0	0	146
08:30 AM	4	53	0	0	0	0	0	0	0	87	18	1	0	0	1	0	0	164
08:45 AM	3	66	1	0	0	0	0	0	1	80	11	0	0	0	0	0	0	162
Total	18	228	1	0	0	0	0	0	1	351	41	1	2	0	3	0	0	646
Grand Total	35	437	2	0	0	0	0	0	2	796	64	1	3	0	4	0	0	1344
Apprch %	7.4	92.2	0.4	0	0	0	0	0	0.2	92.2	7.4	0.1	42.9	0	57.1	0	0	
Total %	2.6	32.5	0.1	0	0	0	0	0	0.1	59.2	4.8	0.1	0.2	0	0.3	0	0	

Start Time	Sprague Street From North					Garage Driveway From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	2	59	0	0	61	0	0	0	0	0	0	111	5	0	116	0	0	1	0	1	178
07:30 AM	7	62	1	0	70	0	0	0	0	0	1	111	9	0	121	0	0	0	0	0	191
07:45 AM	4	49	0	0	53	0	0	0	0	0	0	104	5	0	109	1	0	0	0	1	163
08:00 AM	7	64	0	0	71	0	0	0	0	0	0	93	6	0	99	2	0	2	0	4	174
Total Volume	20	234	1	0	255	0	0	0	0	0	1	419	25	0	445	3	0	3	0	6	706
% App. Total	7.8	91.8	0.4	0		0	0	0	0		0.2	94.2	5.6	0		50	0	50	0		
PHF	.714	.914	.250	.000	.898	.000	.000	.000	.000	.000	.250	.944	.694	.000	.919	.375	.000	.375	.000	.375	.924



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N/S: Sprague Street
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Groups Printed- Heavy Vehicles

Start Time	Sprague Street From North				Garage Driveway From East				Sprague Street From South				Industrial Driveway From West				Int. Total	
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		
07:00 AM	1	7	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	19
07:15 AM	1	10	0	0	0	0	0	0	0	13	1	0	1	0	0	0	0	26
07:30 AM	0	13	0	0	0	0	0	0	0	4	1	0	1	0	0	0	0	19
07:45 AM	0	15	0	0	0	0	0	0	0	8	0	0	2	0	0	0	0	25
Total	2	45	0	0	0	0	0	0	0	36	2	0	4	0	0	0	0	89
08:00 AM	0	12	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	22
08:15 AM	0	9	0	0	0	0	0	0	0	3	0	0	0	0	2	0	0	14
08:30 AM	1	10	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	15
08:45 AM	0	1	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	6
Total	1	32	0	0	0	0	0	0	0	18	3	0	0	0	3	0	0	57
Grand Total	3	77	0	0	0	0	0	0	0	54	5	0	4	0	3	0	0	146
Apprch %	3.8	96.2	0	0	0	0	0	0	0	91.5	8.5	0	57.1	0	42.9	0	0	
Total %	2.1	52.7	0	0	0	0	0	0	0	37	3.4	0	2.7	0	2.1	0	0	

Start Time	Sprague Street From North					Garage Driveway From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	1	10	0	0	11	0	0	0	0	0	0	13	1	0	14	1	0	0	0	1	26
07:30 AM	0	13	0	0	13	0	0	0	0	0	0	4	1	0	5	1	0	0	0	1	19
07:45 AM	0	15	0	0	15	0	0	0	0	0	0	8	0	0	8	2	0	0	0	2	25
08:00 AM	0	12	0	0	12	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	22
Total Volume	1	50	0	0	51	0	0	0	0	0	0	35	2	0	37	4	0	0	0	4	92
% App. Total	2	98	0	0		0	0	0	0		0	94.6	5.4	0		100	0	0	0		
PHF	.250	.833	.000	.000	.850	.000	.000	.000	.000	.000	.000	.673	.500	.000	.661	.500	.000	.000	.000	.500	.885



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Groups Printed- Peds and Bikes

Start Time	Sprague Street From North					Garage Driveway From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	
07:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	1	1	7
08:00 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	3	7
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	1	3	8
Grand Total	0	0	0	0	0	0	0	0	4	5	0	0	0	0	0	0	0	0	2	4	15
Apprch %	0	0	0	0	0	0	0	0	44.4	55.6	0	0	0	0	0	0	0	0	33.3	66.7	
Total %	0	0	0	0	0	0	0	0	26.7	33.3	0	0	0	0	0	0	0	0	13.3	26.7	

Start Time	Sprague Street From North						Garage Driveway From East						Sprague Street From South						Industrial Driveway From West						Int. Total			
	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total				
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																												
Peak Hour for Entire Intersection Begins at 07:15 AM																												
07:15 AM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1		
08:00 AM	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	1	3	4	7	7		
Total Volume	0	0	0	0	0	0	0	0	0	3	3	6	0	0	0	0	0	0	0	0	0	2	4	6	6	12		
% App. Total	0	0	0	0	0	0	0	0	0	50	50		0	0	0	0	0		0	0	0	33.3	66.7					
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.333	.375	.429			



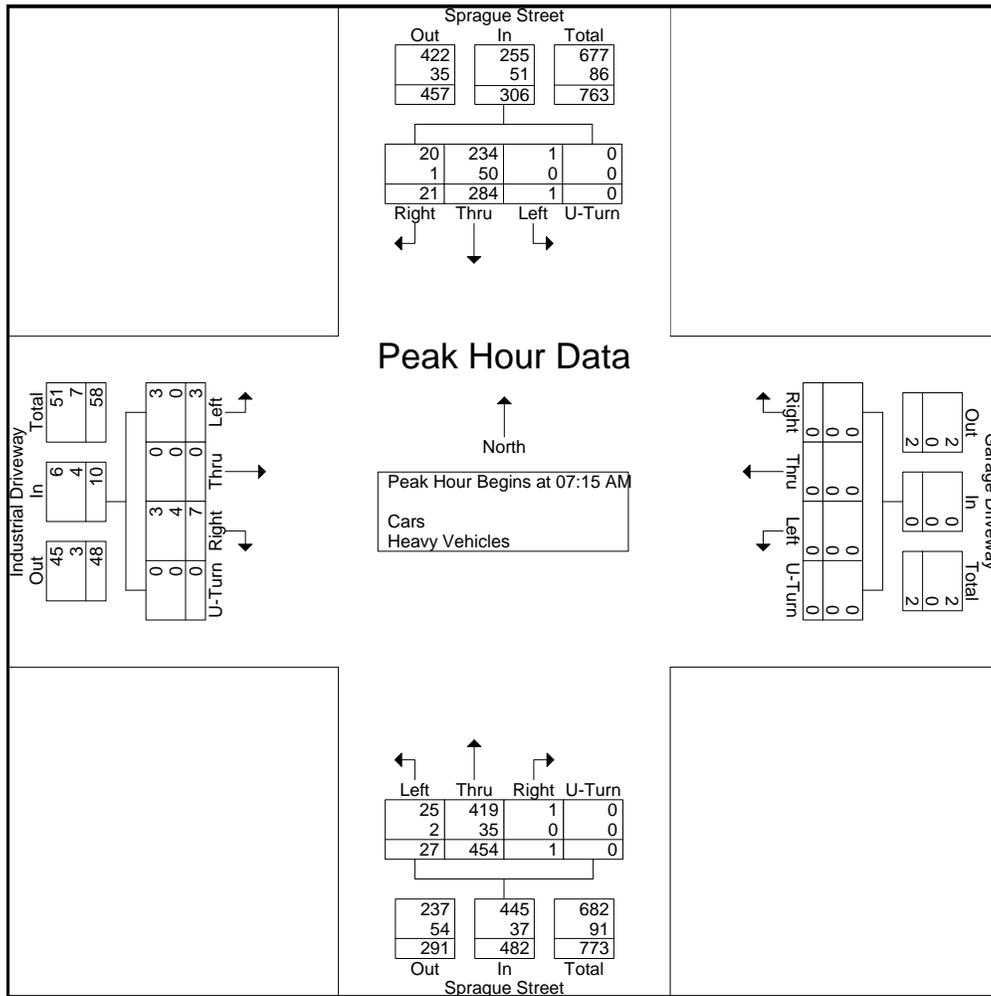
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	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	3	69	0	0	72	0	0	0	0	0	0	124	6	0	130	1	0	1	0	2	204
07:30 AM	7	75	1	0	83	0	0	0	0	0	1	115	10	0	126	1	0	0	0	1	210
07:45 AM	4	64	0	0	68	0	0	0	0	0	0	112	5	0	117	3	0	0	0	3	188
08:00 AM	7	76	0	0	83	0	0	0	0	0	0	103	6	0	109	2	0	2	0	4	196
Total Volume	21	284	1	0	306	0	0	0	0	0	1	454	27	0	482	7	0	3	0	10	798
% App. Total	6.9	92.8	0.3	0		0	0	0	0		0.2	94.2	5.6	0		70	0	30	0		
PHF	.750	.934	.250	.000	.922	.000	.000	.000	.000	.000	.250	.915	.675	.000	.927	.583	.000	.375	.000	.625	.950
Cars	20	234	1	0	255	0	0	0	0	0	1	419	25	0	445	3	0	3	0	6	706
% Cars	95.2	82.4	100	0	83.3	0	0	0	0	0	100	92.3	92.6	0	92.3	42.9	0	100	0	60.0	88.5
Heavy Vehicles	1	50	0	0	51	0	0	0	0	0	0	35	2	0	37	4	0	0	0	4	92
% Heavy Vehicles	4.8	17.6	0	0	16.7	0	0	0	0	0	0	7.7	7.4	0	7.7	57.1	0	0	0	40.0	11.5





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Groups Printed- Cars - Heavy Vehicles

Start Time	Sprague Street From North				Garage Driveway From East				Sprague Street From South				Industrial Driveway From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	1	85	0	0	3	0	1	0	0	60	2	0	14	0	12	0	178
04:15 PM	2	87	0	0	0	0	0	0	0	55	2	0	9	0	4	0	159
04:30 PM	4	96	0	0	0	0	0	0	0	76	3	0	11	0	12	0	202
04:45 PM	2	102	0	0	0	0	0	0	0	67	2	0	6	0	9	0	188
Total	9	370	0	0	3	0	1	0	0	258	9	0	40	0	37	0	727
05:00 PM	2	104	0	0	0	0	0	0	0	102	3	0	17	0	10	0	238
05:15 PM	0	101	0	0	0	0	0	0	0	86	5	0	11	0	4	0	207
05:30 PM	1	91	0	0	0	0	0	0	0	81	2	0	6	0	4	0	185
05:45 PM	1	92	0	0	0	0	0	0	0	73	3	0	6	0	4	0	179
Total	4	388	0	0	0	0	0	0	0	342	13	0	40	0	22	0	809
Grand Total	13	758	0	0	3	0	1	0	0	600	22	0	80	0	59	0	1536
Apprch %	1.7	98.3	0	0	75	0	25	0	0	96.5	3.5	0	57.6	0	42.4	0	
Total %	0.8	49.3	0	0	0.2	0	0.1	0	0	39.1	1.4	0	5.2	0	3.8	0	
Cars	9	740	0	0	3	0	1	0	0	574	16	0	76	0	56	0	1475
% Cars	69.2	97.6	0	0	100	0	100	0	0	95.7	72.7	0	95	0	94.9	0	96
Heavy Vehicles	4	18	0	0	0	0	0	0	0	26	6	0	4	0	3	0	61
% Heavy Vehicles	30.8	2.4	0	0	0	0	0	0	0	4.3	27.3	0	5	0	5.1	0	4

Start Time	Sprague Street From North					Garage Driveway From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	4	96	0	0	100	0	0	0	0	0	0	76	3	0	79	11	0	12	0	23	202
04:45 PM	2	102	0	0	104	0	0	0	0	0	0	67	2	0	69	6	0	9	0	15	188
05:00 PM	2	104	0	0	106	0	0	0	0	0	0	102	3	0	105	17	0	10	0	27	238
05:15 PM	0	101	0	0	101	0	0	0	0	0	0	86	5	0	91	11	0	4	0	15	207
Total Volume	8	403	0	0	411	0	0	0	0	0	0	331	13	0	344	45	0	35	0	80	835
% App. Total	1.9	98.1	0	0		0	0	0	0	0	0	96.2	3.8	0		56.2	0	43.8	0		
PHF	.500	.969	.000	.000	.969	.000	.000	.000	.000	.000	.000	.811	.650	.000	.819	.662	.000	.729	.000	.741	.877
Cars	6	391	0	0	397	0	0	0	0	0	0	317	11	0	328	43	0	32	0	75	800
% Cars	75.0	97.0	0	0	96.6	0	0	0	0	0	0	95.8	84.6	0	95.3	95.6	0	91.4	0	93.8	95.8
Heavy Vehicles	2	12	0	0	14	0	0	0	0	0	0	14	2	0	16	2	0	3	0	5	35
% Heavy Vehicles	25.0	3.0	0	0	3.4	0	0	0	0	0	0	4.2	15.4	0	4.7	4.4	0	8.6	0	6.3	4.2



PRECISION
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N/S: Sprague Street
E/W: Garage Driveway/ Industrial Driveway
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 AA
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars

Start Time	Sprague Street From North				Garage Driveway From East				Sprague Street From South				Industrial Driveway From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	83	0	0	3	0	1	0	0	56	1	0	14	0	12	0	170
04:15 PM	1	84	0	0	0	0	0	0	0	50	1	0	9	0	4	0	149
04:30 PM	4	92	0	0	0	0	0	0	0	72	3	0	10	0	10	0	191
04:45 PM	1	98	0	0	0	0	0	0	0	61	0	0	6	0	9	0	175
Total	6	357	0	0	3	0	1	0	0	239	5	0	39	0	35	0	685
05:00 PM	1	100	0	0	0	0	0	0	0	100	3	0	16	0	9	0	229
05:15 PM	0	101	0	0	0	0	0	0	0	84	5	0	11	0	4	0	205
05:30 PM	1	90	0	0	0	0	0	0	0	80	1	0	6	0	4	0	182
05:45 PM	1	92	0	0	0	0	0	0	0	71	2	0	4	0	4	0	174
Total	3	383	0	0	0	0	0	0	0	335	11	0	37	0	21	0	790
Grand Total	9	740	0	0	3	0	1	0	0	574	16	0	76	0	56	0	1475
Apprch %	1.2	98.8	0	0	75	0	25	0	0	97.3	2.7	0	57.6	0	42.4	0	
Total %	0.6	50.2	0	0	0.2	0	0.1	0	0	38.9	1.1	0	5.2	0	3.8	0	

Start Time	Sprague Street From North					Garage Driveway From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	4	92	0	0	96	0	0	0	0	0	0	72	3	0	75	10	0	10	0	20	191
04:45 PM	1	98	0	0	99	0	0	0	0	0	0	61	0	0	61	6	0	9	0	15	175
05:00 PM	1	100	0	0	101	0	0	0	0	0	0	100	3	0	103	16	0	9	0	25	229
05:15 PM	0	101	0	0	101	0	0	0	0	0	0	84	5	0	89	11	0	4	0	15	205
Total Volume	6	391	0	0	397	0	0	0	0	0	0	317	11	0	328	43	0	32	0	75	800
% App. Total	1.5	98.5	0	0		0	0	0	0		0	96.6	3.4	0		57.3	0	42.7	0		
PHF	.375	.968	.000	.000	.983	.000	.000	.000	.000	.000	.000	.793	.550	.000	.796	.672	.000	.800	.000	.750	.873



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N/S: Sprague Street
E/W: Garage Driveway/ Industrial Driveway
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 AA
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Sprague Street From North				Garage Driveway From East				Sprague Street From South				Industrial Driveway From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	1	2	0	0	0	0	0	0	0	4	1	0	0	0	0	0	8
04:15 PM	1	3	0	0	0	0	0	0	0	5	1	0	0	0	0	0	10
04:30 PM	0	4	0	0	0	0	0	0	0	4	0	0	1	0	2	0	11
04:45 PM	1	4	0	0	0	0	0	0	0	6	2	0	0	0	0	0	13
Total	3	13	0	0	0	0	0	0	0	19	4	0	1	0	2	0	42
05:00 PM	1	4	0	0	0	0	0	0	0	2	0	0	1	0	1	0	9
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
05:30 PM	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3
05:45 PM	0	0	0	0	0	0	0	0	0	2	1	0	2	0	0	0	5
Total	1	5	0	0	0	0	0	0	0	7	2	0	3	0	1	0	19
Grand Total	4	18	0	0	0	0	0	0	0	26	6	0	4	0	3	0	61
Apprch %	18.2	81.8	0	0	0	0	0	0	0	81.2	18.8	0	57.1	0	42.9	0	
Total %	6.6	29.5	0	0	0	0	0	0	0	42.6	9.8	0	6.6	0	4.9	0	

Start Time	Sprague Street From North					Garage Driveway From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	1	3	0	0	4	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	10
04:30 PM	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	1	0	2	0	3	11
04:45 PM	1	4	0	0	5	0	0	0	0	0	0	6	2	0	8	0	0	0	0	0	13
05:00 PM	1	4	0	0	5	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	9
Total Volume	3	15	0	0	18	0	0	0	0	0	0	17	3	0	20	2	0	3	0	5	43
% App. Total	16.7	83.3	0	0		0	0	0	0	0	0	85	15	0		40	0	60	0		
PHF	.750	.938	.000	.000	.900	.000	.000	.000	.000	.000	.000	.708	.375	.000	.625	.500	.000	.375	.000	.417	.827



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City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 AA
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Peds and Bikes

Start Time	Sprague Street From North					Garage Driveway From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	
04:00 PM	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	5
04:15 PM	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	1	0	4
04:30 PM	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	0	0	0	0	7
04:45 PM	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	1	5
Total	0	0	0	0	0	0	0	0	10	8	0	1	0	0	0	0	0	0	1	1	21
05:00 PM	0	0	0	0	0	0	0	0	3	6	0	0	0	0	0	0	0	0	0	0	9
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	0	0	0	0	11
Grand Total	0	0	0	0	0	0	0	0	15	14	0	1	0	0	0	0	0	0	1	1	32
Apprch %	0	0	0	0	0	0	0	0	51.7	48.3	0	100	0	0	0	0	0	0	50	50	
Total %	0	0	0	0	0	0	0	0	46.9	43.8	0	3.1	0	0	0	0	0	0	3.1	3.1	

Start Time	Sprague Street From North						Garage Driveway From East						Sprague Street From South						Industrial Driveway From West						Int. Total
	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:15 PM																									
04:15 PM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	1	0	1	4
04:30 PM	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0	0	0	7
04:45 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	0	0	1	0	0	0	0	1	1	5
05:00 PM	0	0	0	0	0	0	0	0	0	3	6	9	0	0	0	0	0	0	0	0	0	0	0	0	9
Total Volume	0	0	0	0	0	0	0	0	0	12	10	22	0	1	0	0	0	1	0	0	0	1	1	2	25
% App. Total	0	0	0	0	0		0	0	0	54.5	45.5		0	100	0	0	0		0	0	0	50	50		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750	.417	.611	.000	.250	.000	.000	.000	.250	.000	.000	.000	.250	.250	.500	.694



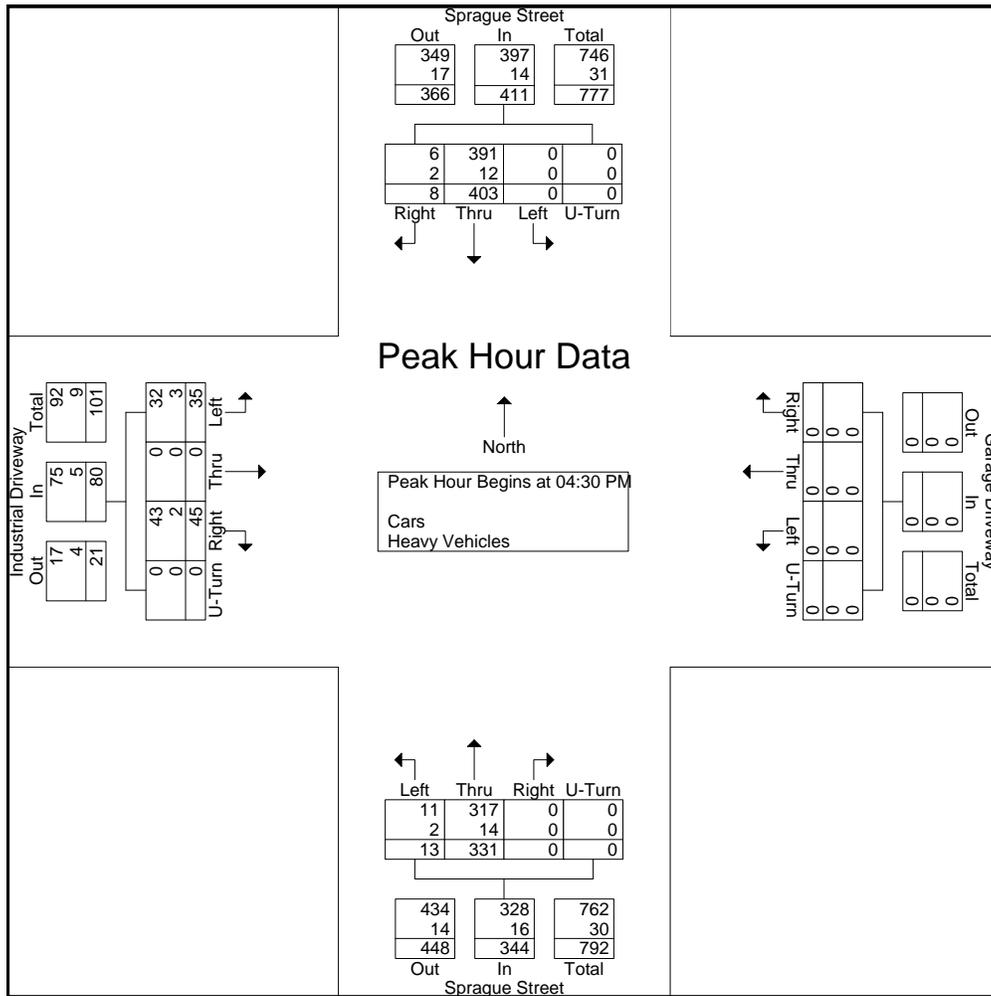
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Start Time	Sprague Street From North					Garage Driveway From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	4	96	0	0	100	0	0	0	0	0	0	76	3	0	79	11	0	12	0	23	202
04:45 PM	2	102	0	0	104	0	0	0	0	0	0	67	2	0	69	6	0	9	0	15	188
05:00 PM	2	104	0	0	106	0	0	0	0	0	0	102	3	0	105	17	0	10	0	27	238
05:15 PM	0	101	0	0	101	0	0	0	0	0	0	86	5	0	91	11	0	4	0	15	207
Total Volume	8	403	0	0	411	0	0	0	0	0	0	331	13	0	344	45	0	35	0	80	835
% App. Total	1.9	98.1	0	0		0	0	0	0	0	0	96.2	3.8	0		56.2	0	43.8	0		
PHF	.500	.969	.000	.000	.969	.000	.000	.000	.000	.000	.000	.811	.650	.000	.819	.662	.000	.729	.000	.741	.877
Cars	6	391	0	0	397	0	0	0	0	0	0	317	11	0	328	43	0	32	0	75	800
% Cars	75.0	97.0	0	0	96.6	0	0	0	0	0	0	95.8	84.6	0	95.3	95.6	0	91.4	0	93.8	95.8
Heavy Vehicles	2	12	0	0	14	0	0	0	0	0	0	14	2	0	16	2	0	3	0	5	35
% Heavy Vehicles	25.0	3.0	0	0	3.4	0	0	0	0	0	0	4.2	15.4	0	4.7	4.4	0	8.6	0	6.3	4.2





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City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 B
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Sprague Street From North				Horne Street From East				Sprague Street From South				Industrial Driveway From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	12	56	8	0	3	0	3	0	1	121	1	0	0	0	4	0	209
07:15 AM	6	64	4	0	3	0	2	0	3	137	2	0	0	0	3	0	224
07:30 AM	14	76	6	0	2	0	6	0	2	111	1	0	1	0	1	0	220
07:45 AM	10	66	1	0	1	0	2	0	2	103	2	0	0	0	1	0	188
Total	42	262	19	0	9	0	13	0	8	472	6	0	1	0	9	0	841
08:00 AM	10	74	1	0	1	0	4	0	1	102	5	0	1	0	2	0	201
08:15 AM	10	55	3	0	4	0	1	0	1	87	6	0	0	0	1	0	168
08:30 AM	6	74	2	1	0	0	0	0	1	89	3	0	1	0	0	0	177
08:45 AM	19	59	0	0	1	0	0	0	0	81	7	0	4	0	5	0	176
Total	45	262	6	1	6	0	5	0	3	359	21	0	6	0	8	0	722
Grand Total	87	524	25	1	15	0	18	0	11	831	27	0	7	0	17	0	1563
Apprch %	13.7	82.3	3.9	0.2	45.5	0	54.5	0	1.3	95.6	3.1	0	29.2	0	70.8	0	
Total %	5.6	33.5	1.6	0.1	1	0	1.2	0	0.7	53.2	1.7	0	0.4	0	1.1	0	
Cars	86	468	24	1	4	0	1	0	10	770	27	0	7	0	17	0	1415
% Cars	98.9	89.3	96	100	26.7	0	5.6	0	90.9	92.7	100	0	100	0	100	0	90.5
Heavy Vehicles	1	56	1	0	11	0	17	0	1	61	0	0	0	0	0	0	148
% Heavy Vehicles	1.1	10.7	4	0	73.3	0	94.4	0	9.1	7.3	0	0	0	0	0	0	9.5

Start Time	Sprague Street From North					Horne Street From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	12	56	8	0	76	3	0	3	0	6	1	121	1	0	123	0	0	4	0	4	209
07:15 AM	6	64	4	0	74	3	0	2	0	5	3	137	2	0	142	0	0	3	0	3	224
07:30 AM	14	76	6	0	96	2	0	6	0	8	2	111	1	0	114	1	0	1	0	2	220
07:45 AM	10	66	1	0	77	1	0	2	0	3	2	103	2	0	107	0	0	1	0	1	188
Total Volume	42	262	19	0	323	9	0	13	0	22	8	472	6	0	486	1	0	9	0	10	841
% App. Total	13	81.1	5.9	0		40.9	0	59.1	0		1.6	97.1	1.2	0		10	0	90	0		
PHF	.750	.862	.594	.000	.841	.750	.000	.542	.000	.688	.667	.861	.750	.000	.856	.250	.000	.563	.000	.625	.939
Cars	42	229	18	0	289	2	0	1	0	3	7	436	6	0	449	1	0	9	0	10	751
% Cars	100	87.4	94.7	0	89.5	22.2	0	7.7	0	13.6	87.5	92.4	100	0	92.4	100	0	100	0	100	89.3
Heavy Vehicles	0	33	1	0	34	7	0	12	0	19	1	36	0	0	37	0	0	0	0	0	90
% Heavy Vehicles	0	12.6	5.3	0	10.5	77.8	0	92.3	0	86.4	12.5	7.6	0	0	7.6	0	0	0	0	0	10.7



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Start Date : 3/30/2016
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Groups Printed- Cars

Start Time	Sprague Street From North				Horne Street From East				Sprague Street From South				Industrial Driveway From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	12	51	7	0	2	0	0	0	1	110	1	0	0	0	4	0	188
07:15 AM	6	54	4	0	0	0	0	0	3	123	2	0	0	0	3	0	195
07:30 AM	14	69	6	0	0	0	1	0	1	107	1	0	1	0	1	0	201
07:45 AM	10	55	1	0	0	0	0	0	2	96	2	0	0	0	1	0	167
Total	42	229	18	0	2	0	1	0	7	436	6	0	1	0	9	0	751
08:00 AM	10	67	1	0	0	0	0	0	1	92	5	0	1	0	2	0	179
08:15 AM	9	49	3	0	1	0	0	0	1	80	6	0	0	0	1	0	150
08:30 AM	6	65	2	1	0	0	0	0	1	84	3	0	1	0	0	0	163
08:45 AM	19	58	0	0	1	0	0	0	0	78	7	0	4	0	5	0	172
Total	44	239	6	1	2	0	0	0	3	334	21	0	6	0	8	0	664
Grand Total	86	468	24	1	4	0	1	0	10	770	27	0	7	0	17	0	1415
Apprch %	14.9	80.8	4.1	0.2	80	0	20	0	1.2	95.4	3.3	0	29.2	0	70.8	0	
Total %	6.1	33.1	1.7	0.1	0.3	0	0.1	0	0.7	54.4	1.9	0	0.5	0	1.2	0	

Start Time	Sprague Street From North					Horne Street From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	12	51	7	0	70	2	0	0	0	2	1	110	1	0	112	0	0	4	0	4	188
07:15 AM	6	54	4	0	64	0	0	0	0	0	3	123	2	0	128	0	0	3	0	3	195
07:30 AM	14	69	6	0	89	0	0	1	0	1	1	107	1	0	109	1	0	1	0	2	201
07:45 AM	10	55	1	0	66	0	0	0	0	0	2	96	2	0	100	0	0	1	0	1	167
Total Volume	42	229	18	0	289	2	0	1	0	3	7	436	6	0	449	1	0	9	0	10	751
% App. Total	14.5	79.2	6.2	0		66.7	0	33.3	0		1.6	97.1	1.3	0		10	0	90	0		
PHF	.750	.830	.643	.000	.812	.250	.000	.250	.000	.375	.583	.886	.750	.000	.877	.250	.000	.563	.000	.625	.934



PRECISION
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File Name : 165002 B
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

N/S: Sprague Street
E/W: Horne Street/ Industrial Driveway
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Peds and Bikes

Start Time	Sprague Street From North					Horne Street From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	
07:00 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
07:45 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	2	0	0	0	2	4	0	0	0	0	0	0	0	0	0	1	9
08:00 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	6
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0	3	9
Grand Total	0	0	0	0	2	0	0	0	4	8	0	0	0	0	0	0	0	0	0	4	18
Apprch %	0	0	0	0	100	0	0	0	33.3	66.7	0	0	0	0	0	0	0	0	0	100	
Total %	0	0	0	0	11.1	0	0	0	22.2	44.4	0	0	0	0	0	0	0	0	0	22.2	

Start Time	Sprague Street From North						Horne Street From East						Sprague Street From South						Industrial Driveway From West						Int. Total			
	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total				
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																												
Peak Hour for Entire Intersection Begins at 07:15 AM																												
07:15 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2		
07:45 AM	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
08:00 AM	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	3	3	6	6		
Total Volume	0	0	0	0	2	2	0	0	0	2	4	6	0	0	0	0	0	0	0	0	0	0	4	4	12	12		
% App. Total	0	0	0	0	100		0	0	0	33.3	66.7		0	0	0	0	0		0	0	0	0	100					
PHF	.000	.000	.000	.000	.500	.500	.000	.000	.000	.500	.500	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.333	.333	.500	.500		



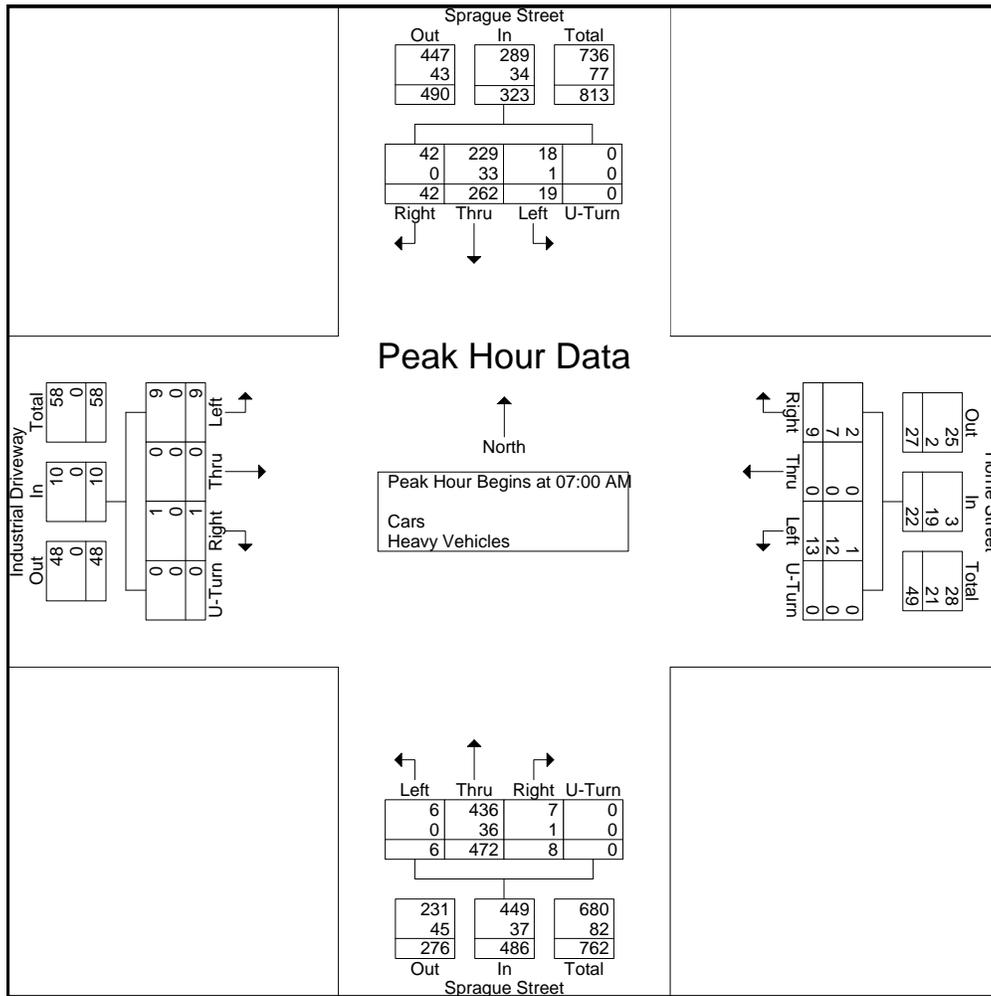
PRECISION
D A T A
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N/S: Sprague Street
E/W: Horne Street/ Industrial Driveway
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 B
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Start Time	Sprague Street From North					Horne Street From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	12	56	8	0	76	3	0	3	0	6	1	121	1	0	123	0	0	4	0	4	209
07:15 AM	6	64	4	0	74	3	0	2	0	5	3	137	2	0	142	0	0	3	0	3	224
07:30 AM	14	76	6	0	96	2	0	6	0	8	2	111	1	0	114	1	0	1	0	2	220
07:45 AM	10	66	1	0	77	1	0	2	0	3	2	103	2	0	107	0	0	1	0	1	188
Total Volume	42	262	19	0	323	9	0	13	0	22	8	472	6	0	486	1	0	9	0	10	841
% App. Total	13	81.1	5.9	0		40.9	0	59.1	0		1.6	97.1	1.2	0		10	0	90	0		
PHF	.750	.862	.594	.000	.841	.750	.000	.542	.000	.688	.667	.861	.750	.000	.856	.250	.000	.563	.000	.625	.939
Cars	42	229	18	0	289	2	0	1	0	3	7	436	6	0	449	1	0	9	0	10	751
% Cars	100	87.4	94.7	0	89.5	22.2	0	7.7	0	13.6	87.5	92.4	100	0	92.4	100	0	100	0	100	89.3
Heavy Vehicles	0	33	1	0	34	7	0	12	0	19	1	36	0	0	37	0	0	0	0	0	90
% Heavy Vehicles	0	12.6	5.3	0	10.5	77.8	0	92.3	0	86.4	12.5	7.6	0	0	7.6	0	0	0	0	0	10.7





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Client: VHB/ C. Dube

File Name : 165002 BB
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Sprague Street From North				Horne Street From East				Sprague Street From South				Industrial Driveway From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	15	83	2	0	4	0	1	0	2	74	2	0	2	0	10	0	195
04:15 PM	17	81	0	0	3	1	1	0	3	55	7	0	4	0	14	0	186
04:30 PM	12	85	1	0	2	0	2	0	3	82	5	0	12	0	49	0	253
04:45 PM	14	105	1	0	2	0	4	0	4	77	7	0	5	1	31	0	251
Total	58	354	4	0	11	1	8	0	12	288	21	0	23	1	104	0	885
05:00 PM	9	96	3	0	2	0	5	0	1	91	6	0	6	0	23	0	242
05:15 PM	14	84	1	0	3	0	9	0	2	77	8	1	3	0	8	0	210
05:30 PM	16	83	4	0	5	0	1	0	0	78	3	0	9	0	17	0	216
05:45 PM	28	94	0	0	1	0	2	0	1	68	9	0	4	0	13	0	220
Total	67	357	8	0	11	0	17	0	4	314	26	1	22	0	61	0	888
Grand Total	125	711	12	0	22	1	25	0	16	602	47	1	45	1	165	0	1773
Apprch %	14.7	83.8	1.4	0	45.8	2.1	52.1	0	2.4	90.4	7.1	0.2	21.3	0.5	78.2	0	
Total %	7.1	40.1	0.7	0	1.2	0.1	1.4	0	0.9	34	2.7	0.1	2.5	0.1	9.3	0	
Cars	120	689	5	0	20	1	25	0	3	581	47	1	45	0	163	0	1700
% Cars	96	96.9	41.7	0	90.9	100	100	0	18.8	96.5	100	100	100	0	98.8	0	95.9
Heavy Vehicles	5	22	7	0	2	0	0	0	13	21	0	0	0	1	2	0	73
% Heavy Vehicles	4	3.1	58.3	0	9.1	0	0	0	81.2	3.5	0	0	0	100	1.2	0	4.1

Start Time	Sprague Street From North					Horne Street From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	12	85	1	0	98	2	0	2	0	4	3	82	5	0	90	12	0	49	0	61	253
04:45 PM	14	105	1	0	120	2	0	4	0	6	4	77	7	0	88	5	1	31	0	37	251
05:00 PM	9	96	3	0	108	2	0	5	0	7	1	91	6	0	98	6	0	23	0	29	242
05:15 PM	14	84	1	0	99	3	0	9	0	12	2	77	8	1	88	3	0	8	0	11	210
Total Volume	49	370	6	0	425	9	0	20	0	29	10	327	26	1	364	26	1	111	0	138	956
% App. Total	11.5	87.1	1.4	0		31	0	69	0		2.7	89.8	7.1	0.3		18.8	0.7	80.4	0		
PHF	.875	.881	.500	.000	.885	.750	.000	.556	.000	.604	.625	.898	.813	.250	.929	.542	.250	.566	.000	.566	.945
Cars	45	358	2	0	405	7	0	20	0	27	1	316	26	1	344	26	0	109	0	135	911
% Cars	91.8	96.8	33.3	0	95.3	77.8	0	100	0	93.1	10.0	96.6	100	100	94.5	100	0	98.2	0	97.8	95.3
Heavy Vehicles	4	12	4	0	20	2	0	0	0	2	9	11	0	0	20	0	1	2	0	3	45
% Heavy Vehicles	8.2	3.2	66.7	0	4.7	22.2	0	0	0	6.9	90.0	3.4	0	0	5.5	0	100	1.8	0	2.2	4.7



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N/S: Sprague Street
E/W: Horne Street/ Industrial Driveway
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 BB
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars

Start Time	Sprague Street From North				Horne Street From East				Sprague Street From South				Industrial Driveway From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	15	80	2	0	4	0	1	0	1	72	2	0	2	0	10	0	189
04:15 PM	16	76	0	0	3	1	1	0	1	49	7	0	4	0	14	0	172
04:30 PM	11	83	1	0	2	0	2	0	0	77	5	0	12	0	49	0	242
04:45 PM	12	97	0	0	1	0	4	0	1	75	7	0	5	0	29	0	231
Total	54	336	3	0	10	1	8	0	3	273	21	0	23	0	102	0	834
05:00 PM	9	94	1	0	1	0	5	0	0	88	6	0	6	0	23	0	233
05:15 PM	13	84	0	0	3	0	9	0	0	76	8	1	3	0	8	0	205
05:30 PM	16	82	1	0	5	0	1	0	0	77	3	0	9	0	17	0	211
05:45 PM	28	93	0	0	1	0	2	0	0	67	9	0	4	0	13	0	217
Total	66	353	2	0	10	0	17	0	0	308	26	1	22	0	61	0	866
Grand Total	120	689	5	0	20	1	25	0	3	581	47	1	45	0	163	0	1700
Apprch %	14.7	84.6	0.6	0	43.5	2.2	54.3	0	0.5	91.9	7.4	0.2	21.6	0	78.4	0	
Total %	7.1	40.5	0.3	0	1.2	0.1	1.5	0	0.2	34.2	2.8	0.1	2.6	0	9.6	0	

Start Time	Sprague Street From North					Horne Street From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	11	83	1	0	95	2	0	2	0	4	0	77	5	0	82	12	0	49	0	61	242
04:45 PM	12	97	0	0	109	1	0	4	0	5	1	75	7	0	83	5	0	29	0	34	231
05:00 PM	9	94	1	0	104	1	0	5	0	6	0	88	6	0	94	6	0	23	0	29	233
05:15 PM	13	84	0	0	97	3	0	9	0	12	0	76	8	1	85	3	0	8	0	11	205
Total Volume	45	358	2	0	405	7	0	20	0	27	1	316	26	1	344	26	0	109	0	135	911
% App. Total	11.1	88.4	0.5	0		25.9	0	74.1	0		0.3	91.9	7.6	0.3		19.3	0	80.7	0		
PHF	.865	.923	.500	.000	.929	.583	.000	.556	.000	.563	.250	.898	.813	.250	.915	.542	.000	.556	.000	.553	.941



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N/S: Sprague Street
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Groups Printed- Heavy Vehicles

Start Time	Sprague Street From North				Horne Street From East				Sprague Street From South				Industrial Driveway From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	3	0	0	0	0	0	0	1	2	0	0	0	0	0	0	6
04:15 PM	1	5	0	0	0	0	0	0	2	6	0	0	0	0	0	0	14
04:30 PM	1	2	0	0	0	0	0	0	3	5	0	0	0	0	0	0	11
04:45 PM	2	8	1	0	1	0	0	0	3	2	0	0	0	1	2	0	20
Total	4	18	1	0	1	0	0	0	9	15	0	0	0	1	2	0	51
05:00 PM	0	2	2	0	1	0	0	0	1	3	0	0	0	0	0	0	9
05:15 PM	1	0	1	0	0	0	0	0	2	1	0	0	0	0	0	0	5
05:30 PM	0	1	3	0	0	0	0	0	0	1	0	0	0	0	0	0	5
05:45 PM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	3
Total	1	4	6	0	1	0	0	0	4	6	0	0	0	0	0	0	22
Grand Total	5	22	7	0	2	0	0	0	13	21	0	0	0	1	2	0	73
Apprch %	14.7	64.7	20.6	0	100	0	0	0	38.2	61.8	0	0	0	33.3	66.7	0	
Total %	6.8	30.1	9.6	0	2.7	0	0	0	17.8	28.8	0	0	0	1.4	2.7	0	

Start Time	Sprague Street From North					Horne Street From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	1	5	0	0	6	0	0	0	0	0	2	6	0	0	8	0	0	0	0	0	14
04:30 PM	1	2	0	0	3	0	0	0	0	0	3	5	0	0	8	0	0	0	0	0	11
04:45 PM	2	8	1	0	11	1	0	0	0	1	3	2	0	0	5	0	1	2	0	3	20
05:00 PM	0	2	2	0	4	1	0	0	0	1	1	3	0	0	4	0	0	0	0	0	9
Total Volume	4	17	3	0	24	2	0	0	0	2	9	16	0	0	25	0	1	2	0	3	54
% App. Total	16.7	70.8	12.5	0		100	0	0	0		36	64	0	0		0	33.3	66.7	0		
PHF	.500	.531	.375	.000	.545	.500	.000	.000	.000	.500	.750	.667	.000	.000	.781	.000	.250	.250	.000	.250	.675



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Groups Printed- Peds and Bikes

Start Time	Sprague Street From North					Horne Street From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	
04:00 PM	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	6
04:15 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	1	7
04:30 PM	0	0	0	1	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	4
04:45 PM	0	0	0	1	0	0	0	0	4	3	0	0	0	0	0	0	0	0	0	1	9
Total	0	0	0	2	0	0	0	0	9	9	0	1	0	0	0	0	0	0	3	2	26
05:00 PM	0	0	0	0	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	7
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	0	0	0	1	0	0	0	3	4	0	0	0	0	0	0	0	0	0	3	11
Grand Total	0	0	0	2	1	0	0	0	12	13	0	1	0	0	0	0	0	0	3	5	37
Apprch %	0	0	0	66.7	33.3	0	0	0	48	52	0	100	0	0	0	0	0	0	37.5	62.5	
Total %	0	0	0	5.4	2.7	0	0	0	32.4	35.1	0	2.7	0	0	0	0	0	0	8.1	13.5	

Start Time	Sprague Street From North						Horne Street From East						Sprague Street From South						Industrial Driveway From West						Int. Total
	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:15 PM																									
04:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	3	1	4	7
04:30 PM	0	0	0	1	0	1	0	0	0	0	2	2	0	1	0	0	0	1	0	0	0	0	0	0	4
04:45 PM	0	0	0	1	0	1	0	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0	1	1	9
05:00 PM	0	0	0	0	1	1	0	0	0	3	3	6	0	0	0	0	0	0	0	0	0	0	0	0	7
Total Volume	0	0	0	2	1	3	0	0	0	10	8	18	0	1	0	0	0	1	0	0	0	3	2	5	27
% App. Total	0	0	0	66.7	33.3		0	0	0	55.6	44.4		0	100	0	0	0		0	0	0	60	40		
PHF	.000	.000	.000	.500	.250	.750	.000	.000	.000	.625	.667	.643	.000	.250	.000	.000	.000	.250	.000	.000	.000	.250	.500	.313	.750



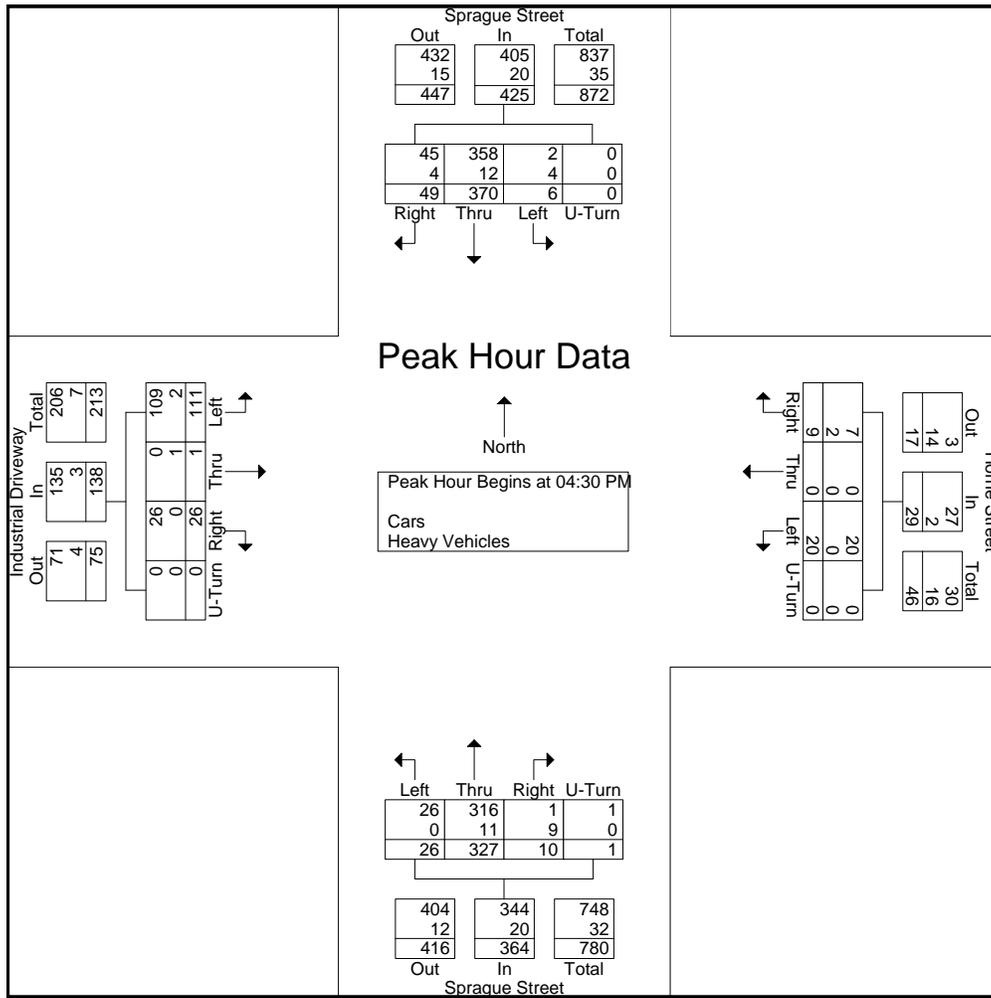
PRECISION
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N/S: Sprague Street
E/W: Horne Street/ Industrial Driveway
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 BB
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Start Time	Sprague Street From North					Horne Street From East					Sprague Street From South					Industrial Driveway From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	12	85	1	0	98	2	0	2	0	4	3	82	5	0	90	12	0	49	0	61	253
04:45 PM	14	105	1	0	120	2	0	4	0	6	4	77	7	0	88	5	1	31	0	37	251
05:00 PM	9	96	3	0	108	2	0	5	0	7	1	91	6	0	98	6	0	23	0	29	242
05:15 PM	14	84	1	0	99	3	0	9	0	12	2	77	8	1	88	3	0	8	0	11	210
Total Volume	49	370	6	0	425	9	0	20	0	29	10	327	26	1	364	26	1	111	0	138	956
% App. Total	11.5	87.1	1.4	0		31	0	69	0		2.7	89.8	7.1	0.3		18.8	0.7	80.4	0		
PHF	.875	.881	.500	.000	.885	.750	.000	.556	.000	.604	.625	.898	.813	.250	.929	.542	.250	.566	.000	.566	.945
Cars	45	358	2	0	405	7	0	20	0	27	1	316	26	1	344	26	0	109	0	135	911
% Cars	91.8	96.8	33.3	0	95.3	77.8	0	100	0	93.1	10.0	96.6	100	100	94.5	100	0	98.2	0	97.8	95.3
Heavy Vehicles	4	12	4	0	20	2	0	0	0	2	9	11	0	0	20	0	1	2	0	3	45
% Heavy Vehicles	8.2	3.2	66.7	0	4.7	22.2	0	0	0	6.9	90.0	3.4	0	0	5.5	0	100	1.8	0	2.2	4.7





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N/S: Milton Street/ Sprague Street
W/NW: West Milton St/ Reedville St
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 C
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Milton Street From North				Sprague Street From South				West Milton Street From West				Reedville Street From Northwest				Int. Total
	Hard Right	Right	Thru	U-Turn	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	
07:00 AM	0	44	61	0	112	0	16	0	7	60	1	0	5	2	1	0	309
07:15 AM	1	57	68	0	104	1	24	0	4	65	0	0	10	4	1	0	339
07:30 AM	0	44	82	0	100	2	21	0	9	69	1	0	7	1	0	0	336
07:45 AM	0	59	69	0	98	1	11	0	8	65	1	0	4	4	1	0	321
Total	1	204	280	0	414	4	72	0	28	259	3	0	26	11	3	0	1305
08:00 AM	0	47	75	0	93	0	8	0	13	72	2	0	1	0	0	0	311
08:15 AM	1	51	58	0	88	0	4	0	10	62	0	0	5	0	0	0	279
08:30 AM	2	45	62	0	84	0	10	0	15	46	1	0	2	0	0	0	267
08:45 AM	0	47	68	0	78	0	9	0	17	41	1	0	1	1	1	0	264
Total	3	190	263	0	343	0	31	0	55	221	4	0	9	1	1	0	1121
Grand Total	4	394	543	0	757	4	103	0	83	480	7	0	35	12	4	0	2426
Apprch %	0.4	41.9	57.7	0	87.6	0.5	11.9	0	14.6	84.2	1.2	0	68.6	23.5	7.8	0	
Total %	0.2	16.2	22.4	0	31.2	0.2	4.2	0	3.4	19.8	0.3	0	1.4	0.5	0.2	0	
Cars	4	340	484	0	694	4	93	0	77	450	6	0	31	12	3	0	2198
% Cars	100	86.3	89.1	0	91.7	100	90.3	0	92.8	93.8	85.7	0	88.6	100	75	0	90.6
Heavy Vehicles	0	54	59	0	63	0	10	0	6	30	1	0	4	0	1	0	228
% Heavy Vehicles	0	13.7	10.9	0	8.3	0	9.7	0	7.2	6.2	14.3	0	11.4	0	25	0	9.4

Start Time	Milton Street From North					Sprague Street From South					West Milton Street From West					Reedville Street From Northwest					Int. Total
	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	1	57	68	0	126	104	1	24	0	129	4	65	0	0	69	10	4	1	0	15	339
07:30 AM	0	44	82	0	126	100	2	21	0	123	9	69	1	0	79	7	1	0	0	8	336
07:45 AM	0	59	69	0	128	98	1	11	0	110	8	65	1	0	74	4	4	1	0	9	321
08:00 AM	0	47	75	0	122	93	0	8	0	101	13	72	2	0	87	1	0	0	0	1	311
Total Volume	1	207	294	0	502	395	4	64	0	463	34	271	4	0	309	22	9	2	0	33	1307
% App. Total	0.2	41.2	58.6	0		85.3	0.9	13.8	0		11	87.7	1.3	0		66.7	27.3	6.1	0		
PHF	.250	.877	.896	.000	.980	.950	.500	.667	.000	.897	.654	.941	.500	.000	.888	.550	.563	.500	.000	.550	.964
Cars	1	173	258	0	432	358	4	58	0	420	32	251	3	0	286	20	9	2	0	31	1169
% Cars	100	83.6	87.8	0	86.1	90.6	100	90.6	0	90.7	94.1	92.6	75.0	0	92.6	90.9	100	100	0	93.9	89.4
Heavy Vehicles	0	34	36	0	70	37	0	6	0	43	2	20	1	0	23	2	0	0	0	2	138
% Heavy Vehicles	0	16.4	12.2	0	13.9	9.4	0	9.4	0	9.3	5.9	7.4	25.0	0	7.4	9.1	0	0	0	6.1	10.6



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W/NW: West Milton St/ Reedville St
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 C
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars

Start Time	Milton Street From North				Sprague Street From South				West Milton Street From West				Reedville Street From Northwest				Int. Total
	Hard Right	Right	Thru	U-Turn	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	
07:00 AM	0	42	56	0	102	0	14	0	7	60	1	0	5	2	0	0	289
07:15 AM	1	48	57	0	91	1	20	0	4	62	0	0	9	4	1	0	298
07:30 AM	0	37	77	0	93	2	21	0	7	64	0	0	6	1	0	0	308
07:45 AM	0	44	58	0	91	1	9	0	8	59	1	0	4	4	1	0	280
Total	1	171	248	0	377	4	64	0	26	245	2	0	24	11	2	0	1175
08:00 AM	0	44	66	0	83	0	8	0	13	66	2	0	1	0	0	0	283
08:15 AM	1	43	49	0	81	0	3	0	9	58	0	0	4	0	0	0	248
08:30 AM	2	40	55	0	78	0	9	0	14	44	1	0	2	0	0	0	245
08:45 AM	0	42	66	0	75	0	9	0	15	37	1	0	0	1	1	0	247
Total	3	169	236	0	317	0	29	0	51	205	4	0	7	1	1	0	1023
Grand Total	4	340	484	0	694	4	93	0	77	450	6	0	31	12	3	0	2198
Apprch %	0.5	41.1	58.5	0	87.7	0.5	11.8	0	14.4	84.4	1.1	0	67.4	26.1	6.5	0	
Total %	0.2	15.5	22	0	31.6	0.2	4.2	0	3.5	20.5	0.3	0	1.4	0.5	0.1	0	

Start Time	Milton Street From North					Sprague Street From South					West Milton Street From West					Reedville Street From Northwest					Int. Total
	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	42	56	0	98	102	0	14	0	116	7	60	1	0	68	5	2	0	0	7	289
07:15 AM	1	48	57	0	106	91	1	20	0	112	4	62	0	0	66	9	4	1	0	14	298
07:30 AM	0	37	77	0	114	93	2	21	0	116	7	64	0	0	71	6	1	0	0	7	308
07:45 AM	0	44	58	0	102	91	1	9	0	101	8	59	1	0	68	4	4	1	0	9	280
Total Volume	1	171	248	0	420	377	4	64	0	445	26	245	2	0	273	24	11	2	0	37	1175
% App. Total	0.2	40.7	59	0		84.7	0.9	14.4	0		9.5	89.7	0.7	0		64.9	29.7	5.4	0		
PHF	.250	.891	.805	.000	.921	.924	.500	.762	.000	.959	.813	.957	.500	.000	.961	.667	.688	.500	.000	.661	.954



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City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 C
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Milton Street From North				Sprague Street From South				West Milton Street From West				Reedville Street From Northwest				Int. Total
	Hard Right	Right	Thru	U-Turn	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	
07:00 AM	0	2	5	0	10	0	2	0	0	0	0	0	0	0	1	0	20
07:15 AM	0	9	11	0	13	0	4	0	0	3	0	0	1	0	0	0	41
07:30 AM	0	7	5	0	7	0	0	0	2	5	1	0	1	0	0	0	28
07:45 AM	0	15	11	0	7	0	2	0	0	6	0	0	0	0	0	0	41
Total	0	33	32	0	37	0	8	0	2	14	1	0	2	0	1	0	130
08:00 AM	0	3	9	0	10	0	0	0	0	6	0	0	0	0	0	0	28
08:15 AM	0	8	9	0	7	0	1	0	1	4	0	0	1	0	0	0	31
08:30 AM	0	5	7	0	6	0	1	0	1	2	0	0	0	0	0	0	22
08:45 AM	0	5	2	0	3	0	0	0	2	4	0	0	1	0	0	0	17
Total	0	21	27	0	26	0	2	0	4	16	0	0	2	0	0	0	98
Grand Total	0	54	59	0	63	0	10	0	6	30	1	0	4	0	1	0	228
Apprch %	0	47.8	52.2	0	86.3	0	13.7	0	16.2	81.1	2.7	0	80	0	20	0	
Total %	0	23.7	25.9	0	27.6	0	4.4	0	2.6	13.2	0.4	0	1.8	0	0.4	0	

Start Time	Milton Street From North					Sprague Street From South					West Milton Street From West					Reedville Street From Northwest					Int. Total
	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	9	11	0	20	13	0	4	0	17	0	3	0	0	3	1	0	0	0	1	41
07:30 AM	0	7	5	0	12	7	0	0	0	7	2	5	1	0	8	1	0	0	0	1	28
07:45 AM	0	15	11	0	26	7	0	2	0	9	0	6	0	0	6	0	0	0	0	0	41
08:00 AM	0	3	9	0	12	10	0	0	0	10	0	6	0	0	6	0	0	0	0	0	28
Total Volume	0	34	36	0	70	37	0	6	0	43	2	20	1	0	23	2	0	0	0	2	138
% App. Total	0	48.6	51.4	0		86	0	14	0		8.7	87	4.3	0		100	0	0	0		
PHF	.000	.567	.818	.000	.673	.712	.000	.375	.000	.632	.250	.833	.250	.000	.719	.500	.000	.000	.000	.500	.841



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City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 C
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Peds and Bikes

Start Time	Milton Street From North					Sprague Street From South					West Milton Street From West					Reedville Street From Northwest					Int. Total
	Hard Right	Right	Thru	Peds EB	Peds WB	Thru	Bear Left	Left	Peds WB	Peds EB	Right	Left	Hard Left	Peds NB	Peds SB	Hard Right	Bear Right	Hard Left	Peds NEB	Peds SWB	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	1	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	8
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	0	0	0	7	1	13
Apprch %	0	0	0	0	0	0	0	0	0	0	0	20	0	0	80	0	0	0	87.5	12.5	
Total %	0	0	0	0	0	0	0	0	0	0	0	7.7	0	0	30.8	0	0	0	53.8	7.7	

Start Time	Milton Street From North						Sprague Street From South						West Milton Street From West						Reedville Street From Northwest						Int. Total
	Hard Right	Right	Thru	Peds EB	Peds WB	App. Total	Thru	Bear Left	Left	Peds WB	Peds EB	App. Total	Right	Left	Hard Left	Peds NB	Peds SB	App. Total	Hard Right	Bear Right	Hard Left	Peds NEB	Peds SWB	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:15 AM																									
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	1	0	1	5
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	4	1	5	9
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100		0	0	0	80	20		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.500	.250	.417	.450



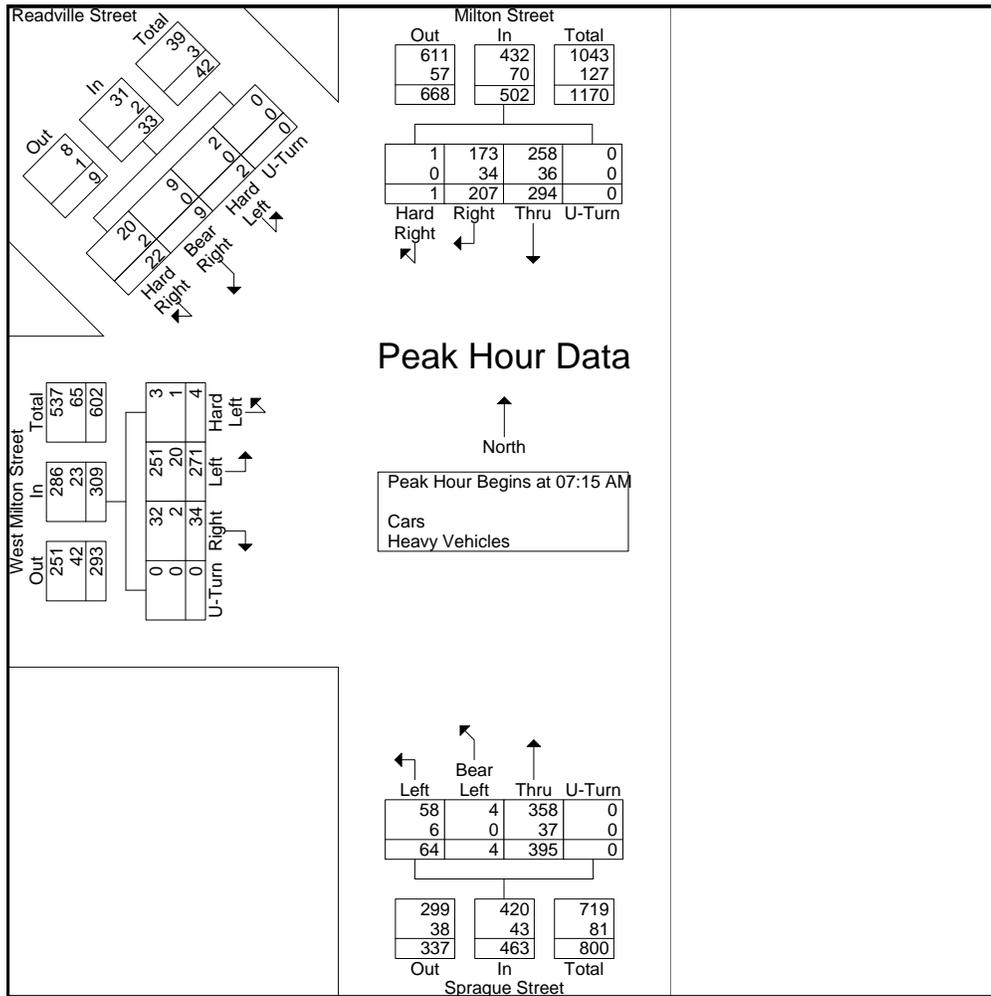
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Start Date : 3/30/2016
Page No : 1

Start Time	Milton Street From North					Sprague Street From South					West Milton Street From West					Reedville Street From Northwest					Int. Total
	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	1	57	68	0	126	104	1	24	0	129	4	65	0	0	69	10	4	1	0	15	339
07:30 AM	0	44	82	0	126	100	2	21	0	123	9	69	1	0	79	7	1	0	0	8	336
07:45 AM	0	59	69	0	128	98	1	11	0	110	8	65	1	0	74	4	4	1	0	9	321
08:00 AM	0	47	75	0	122	93	0	8	0	101	13	72	2	0	87	1	0	0	0	1	311
Total Volume	1	207	294	0	502	395	4	64	0	463	34	271	4	0	309	22	9	2	0	33	1307
% App. Total	0.2	41.2	58.6	0		85.3	0.9	13.8	0		11	87.7	1.3	0		66.7	27.3	6.1	0		
PHF	.250	.877	.896	.000	.980	.950	.500	.667	.000	.897	.654	.941	.500	.000	.888	.550	.563	.500	.000	.550	.964
Cars	1	173	258	0	432	358	4	58	0	420	32	251	3	0	286	20	9	2	0	31	1169
% Cars	100	83.6	87.8	0	86.1	90.6	100	90.6	0	90.7	94.1	92.6	75.0	0	92.6	90.9	100	100	0	93.9	89.4
Heavy Vehicles	0	34	36	0	70	37	0	6	0	43	2	20	1	0	23	2	0	0	0	2	138
% Heavy Vehicles	0	16.4	12.2	0	13.9	9.4	0	9.4	0	9.3	5.9	7.4	25.0	0	7.4	9.1	0	0	0	6.1	10.6





PRECISION
D A T A
INDUSTRIES, LLC

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N/S: Milton Street/ Sprague Street
W/NW: West Milton St/ Readville St
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 CC
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Milton Street From North				Sprague Street From South				West Milton Street From West				Readville Street From Northwest				Int. Total
	Hard Right	Right	Thru	U-Turn	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	
04:00 PM	1	42	77	0	72	6	14	0	17	63	6	0	1	4	0	0	303
04:15 PM	1	52	76	0	53	1	9	0	16	67	5	0	3	4	0	0	287
04:30 PM	1	35	83	0	120	2	13	0	18	55	3	0	5	4	0	0	339
04:45 PM	1	54	88	0	89	6	10	0	20	66	2	1	9	6	0	0	352
Total	4	183	324	0	334	15	46	0	71	251	16	1	18	18	0	0	1281
05:00 PM	1	49	86	0	103	3	13	0	17	62	2	0	5	2	1	0	344
05:15 PM	1	48	72	0	91	5	7	0	25	72	4	0	5	3	1	0	334
05:30 PM	1	43	84	0	90	4	14	0	15	66	2	0	13	2	0	0	334
05:45 PM	0	41	98	0	63	0	14	0	22	53	1	0	9	1	2	0	304
Total	3	181	340	0	347	12	48	0	79	253	9	0	32	8	4	0	1316
Grand Total	7	364	664	0	681	27	94	0	150	504	25	1	50	26	4	0	2597
Apprch %	0.7	35.2	64.2	0	84.9	3.4	11.7	0	22.1	74.1	3.7	0.1	62.5	32.5	5	0	
Total %	0.3	14	25.6	0	26.2	1	3.6	0	5.8	19.4	1	0	1.9	1	0.2	0	
Cars	7	355	636	0	662	26	93	0	141	483	20	1	50	26	4	0	2504
% Cars	100	97.5	95.8	0	97.2	96.3	98.9	0	94	95.8	80	100	100	100	100	0	96.4
Heavy Vehicles	0	9	28	0	19	1	1	0	9	21	5	0	0	0	0	0	93
% Heavy Vehicles	0	2.5	4.2	0	2.8	3.7	1.1	0	6	4.2	20	0	0	0	0	0	3.6

Start Time	Milton Street From North					Sprague Street From South					West Milton Street From West					Readville Street From Northwest					Int. Total
	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	1	35	83	0	119	120	2	13	0	135	18	55	3	0	76	5	4	0	0	9	339
04:45 PM	1	54	88	0	143	89	6	10	0	105	20	66	2	1	89	9	6	0	0	15	352
05:00 PM	1	49	86	0	136	103	3	13	0	119	17	62	2	0	81	5	2	1	0	8	344
05:15 PM	1	48	72	0	121	91	5	7	0	103	25	72	4	0	101	5	3	1	0	9	334
Total Volume	4	186	329	0	519	403	16	43	0	462	80	255	11	1	347	24	15	2	0	41	1369
% App. Total	0.8	35.8	63.4	0		87.2	3.5	9.3	0		23.1	73.5	3.2	0.3		58.5	36.6	4.9	0		
PHF	1.00	.861	.935	.000	.907	.840	.667	.827	.000	.856	.800	.885	.688	.250	.859	.667	.625	.500	.000	.683	.972
Cars	4	181	311	0	496	392	15	42	0	449	74	245	8	1	328	24	15	2	0	41	1314
% Cars	100	97.3	94.5	0	95.6	97.3	93.8	97.7	0	97.2	92.5	96.1	72.7	100	94.5	100	100	100	0	100	96.0
Heavy Vehicles	0	5	18	0	23	11	1	1	0	13	6	10	3	0	19	0	0	0	0	0	55
% Heavy Vehicles	0	2.7	5.5	0	4.4	2.7	6.3	2.3	0	2.8	7.5	3.9	27.3	0	5.5	0	0	0	0	0	4.0



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W/NW: West Milton St/ Readville St
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 CC
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars

Start Time	Milton Street From North				Sprague Street From South				West Milton Street From West				Readville Street From Northwest				Int. Total
	Hard Right	Right	Thru	U-Turn	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	
04:00 PM	1	41	76	0	69	6	14	0	14	59	6	0	1	4	0	0	291
04:15 PM	1	51	72	0	48	1	9	0	16	66	3	0	3	4	0	0	274
04:30 PM	1	34	78	0	115	2	13	0	16	51	3	0	5	4	0	0	322
04:45 PM	1	53	82	0	85	6	10	0	17	65	1	1	9	6	0	0	336
Total	4	179	308	0	317	15	46	0	63	241	13	1	18	18	0	0	1223
05:00 PM	1	47	80	0	101	2	12	0	17	58	2	0	5	2	1	0	328
05:15 PM	1	47	71	0	91	5	7	0	24	71	2	0	5	3	1	0	328
05:30 PM	1	41	80	0	90	4	14	0	15	62	2	0	13	2	0	0	324
05:45 PM	0	41	97	0	63	0	14	0	22	51	1	0	9	1	2	0	301
Total	3	176	328	0	345	11	47	0	78	242	7	0	32	8	4	0	1281
Grand Total	7	355	636	0	662	26	93	0	141	483	20	1	50	26	4	0	2504
Apprch %	0.7	35.6	63.7	0	84.8	3.3	11.9	0	21.9	74.9	3.1	0.2	62.5	32.5	5	0	
Total %	0.3	14.2	25.4	0	26.4	1	3.7	0	5.6	19.3	0.8	0	2	1	0.2	0	

Start Time	Milton Street From North					Sprague Street From South					West Milton Street From West					Readville Street From Northwest					Int. Total
	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	1	53	82	0	136	85	6	10	0	101	17	65	1	1	84	9	6	0	0	15	336
05:00 PM	1	47	80	0	128	101	2	12	0	115	17	58	2	0	77	5	2	1	0	8	328
05:15 PM	1	47	71	0	119	91	5	7	0	103	24	71	2	0	97	5	3	1	0	9	328
05:30 PM	1	41	80	0	122	90	4	14	0	108	15	62	2	0	79	13	2	0	0	15	324
Total Volume	4	188	313	0	505	367	17	43	0	427	73	256	7	1	337	32	13	2	0	47	1316
% App. Total	0.8	37.2	62	0		85.9	4	10.1	0		21.7	76	2.1	0.3		68.1	27.7	4.3	0		
PHF	1.00	.887	.954	.000	.928	.908	.708	.768	.000	.928	.760	.901	.875	.250	.869	.615	.542	.500	.000	.783	.979



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N/S: Milton Street/ Sprague Street
W/NW: West Milton St/ Readville St
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 CC
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Milton Street From North				Sprague Street From South				West Milton Street From West				Readville Street From Northwest				Int. Total
	Hard Right	Right	Thru	U-Turn	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	
04:00 PM	0	1	1	0	3	0	0	0	3	4	0	0	0	0	0	0	12
04:15 PM	0	1	4	0	5	0	0	0	0	1	2	0	0	0	0	0	13
04:30 PM	0	1	5	0	5	0	0	0	2	4	0	0	0	0	0	0	17
04:45 PM	0	1	6	0	4	0	0	0	3	1	1	0	0	0	0	0	16
Total	0	4	16	0	17	0	0	0	8	10	3	0	0	0	0	0	58
05:00 PM	0	2	6	0	2	1	1	0	0	4	0	0	0	0	0	0	16
05:15 PM	0	1	1	0	0	0	0	0	1	1	2	0	0	0	0	0	6
05:30 PM	0	2	4	0	0	0	0	0	0	4	0	0	0	0	0	0	10
05:45 PM	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
Total	0	5	12	0	2	1	1	0	1	11	2	0	0	0	0	0	35
Grand Total	0	9	28	0	19	1	1	0	9	21	5	0	0	0	0	0	93
Apprch %	0	24.3	75.7	0	90.5	4.8	4.8	0	25.7	60	14.3	0	0	0	0	0	
Total %	0	9.7	30.1	0	20.4	1.1	1.1	0	9.7	22.6	5.4	0	0	0	0	0	

Start Time	Milton Street From North					Sprague Street From South					West Milton Street From West					Readville Street From Northwest					Int. Total
	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	1	4	0	5	5	0	0	0	5	0	1	2	0	3	0	0	0	0	0	13
04:30 PM	0	1	5	0	6	5	0	0	0	5	2	4	0	0	6	0	0	0	0	0	17
04:45 PM	0	1	6	0	7	4	0	0	0	4	3	1	1	0	5	0	0	0	0	0	16
05:00 PM	0	2	6	0	8	2	1	1	0	4	0	4	0	0	4	0	0	0	0	0	16
Total Volume	0	5	21	0	26	16	1	1	0	18	5	10	3	0	18	0	0	0	0	0	62
% App. Total	0	19.2	80.8	0		88.9	5.6	5.6	0		27.8	55.6	16.7	0		0	0	0	0		
PHF	.000	.625	.875	.000	.813	.800	.250	.250	.000	.900	.417	.625	.375	.000	.750	.000	.000	.000	.000	.000	.912



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Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

N/S: Milton Street/ Sprague Street
W/NW: West Milton St/ Readville St
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Peds and Bikes

Start Time	Milton Street From North					Sprague Street From South					West Milton Street From West					Readville Street From Northwest					Int. Total
	Hard Right	Right	Thru	Peds EB	Peds WB	Thru	Bear Left	Left	Peds WB	Peds EB	Right	Left	Hard Left	Peds NB	Peds SB	Hard Right	Bear Right	Hard Left	Peds NEB	Peds SWB	
04:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	4
04:15 PM	0	0	0	3	0	0	0	0	0	1	0	0	0	5	1	0	0	0	0	1	11
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3
Total	0	0	0	3	0	0	0	0	0	3	0	1	0	9	1	1	0	0	2	3	23
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	6
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	1	6
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	2	4	0	0	0	1	6	14
Grand Total	0	0	0	3	0	0	0	0	0	4	0	1	0	11	5	1	0	0	3	9	37
Apprch %	0	0	0	100	0	0	0	0	0	100	0	5.9	0	64.7	29.4	7.7	0	0	23.1	69.2	
Total %	0	0	0	8.1	0	0	0	0	0	10.8	0	2.7	0	29.7	13.5	2.7	0	0	8.1	24.3	

Start Time	Milton Street From North						Sprague Street From South						West Milton Street From West						Readville Street From Northwest						Int. Total
	Hard Right	Right	Thru	Peds EB	Peds WB	App. Total	Thru	Bear Left	Left	Peds WB	Peds EB	App. Total	Right	Left	Hard Left	Peds NB	Peds SB	App. Total	Hard Right	Bear Right	Hard Left	Peds NEB	Peds SWB	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:15 PM																									
04:15 PM	0	0	0	3	0	3	0	0	0	0	1	1	0	0	0	5	1	6	0	0	0	0	1	1	11
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	5	0	0	0	0	0	0	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	6	6
Total Volume	0	0	0	3	0	3	0	0	0	0	1	1	0	1	0	9	1	11	1	0	0	1	8	10	25
% App. Total	0	0	0	100	0		0	0	0	0	100		0	9.1	0	81.8	9.1		10	0	0	10	80		
PHF	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250	.250	.000	.250	.000	.450	.250	.458	.250	.000	.000	.250	.400	.417	.568



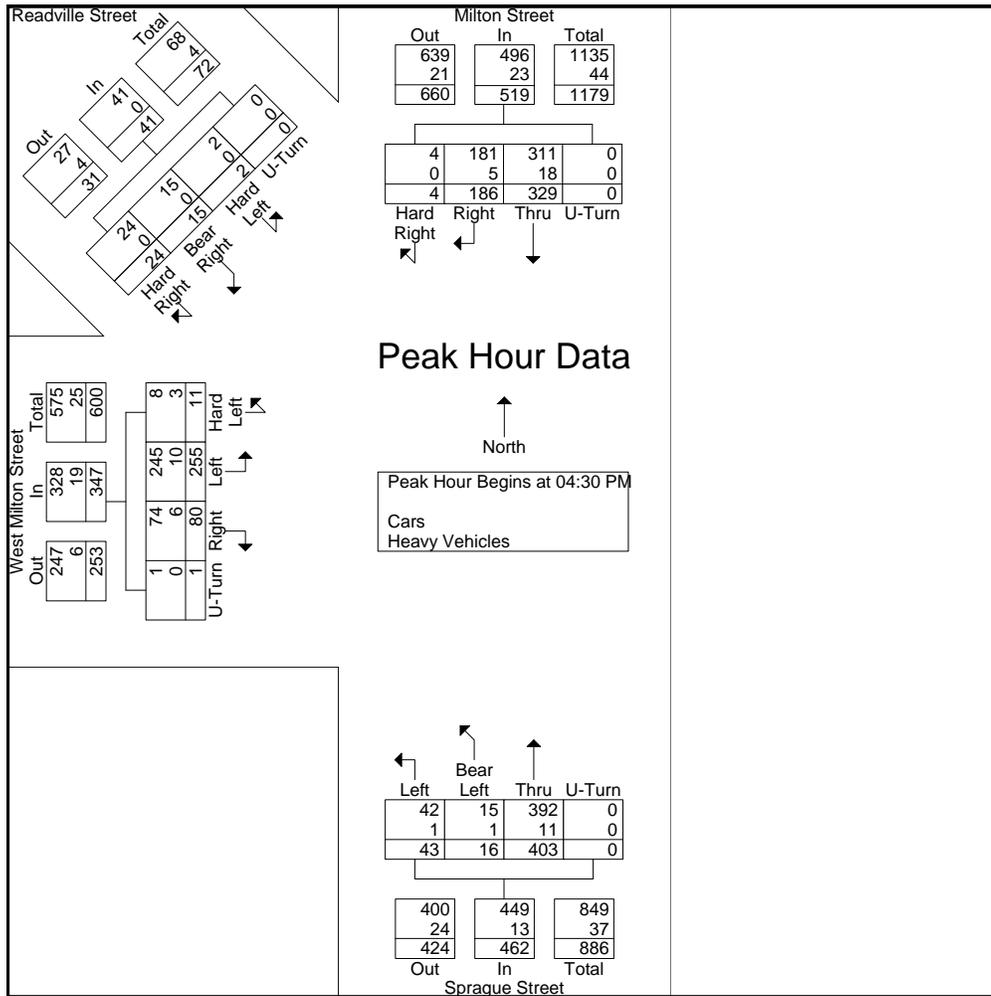
PRECISION
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N/S: Milton Street/ Sprague Street
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Start Time	Milton Street From North					Sprague Street From South					West Milton Street From West					Readville Street From Northwest					Int. Total
	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	1	35	83	0	119	120	2	13	0	135	18	55	3	0	76	5	4	0	0	9	339
04:45 PM	1	54	88	0	143	89	6	10	0	105	20	66	2	1	89	9	6	0	0	15	352
05:00 PM	1	49	86	0	136	103	3	13	0	119	17	62	2	0	81	5	2	1	0	8	344
05:15 PM	1	48	72	0	121	91	5	7	0	103	25	72	4	0	101	5	3	1	0	9	334
Total Volume	4	186	329	0	519	403	16	43	0	462	80	255	11	1	347	24	15	2	0	41	1369
% App. Total	0.8	35.8	63.4	0		87.2	3.5	9.3	0		23.1	73.5	3.2	0.3		58.5	36.6	4.9	0		
PHF	1.00	.861	.935	.000	.907	.840	.667	.827	.000	.856	.800	.885	.688	.250	.859	.667	.625	.500	.000	.683	.972
Cars	4	181	311	0	496	392	15	42	0	449	74	245	8	1	328	24	15	2	0	41	1314
% Cars	100	97.3	94.5	0	95.6	97.3	93.8	97.7	0	97.2	92.5	96.1	72.7	100	94.5	100	100	100	0	100	96.0
Heavy Vehicles	0	5	18	0	23	11	1	1	0	13	6	10	3	0	19	0	0	0	0	0	55
% Heavy Vehicles	0	2.7	5.5	0	4.4	2.7	6.3	2.3	0	2.8	7.5	3.9	27.3	0	5.5	0	0	0	0	0	4.0





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File Name : 165002 D
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

N/S: Neponset Valley Parkway/ Milton St
E: Milton Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Cars - Heavy Vehicles

Start Time	Neponset Valley Parkway From North			Milton Street From East			Milton Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
07:00 AM	13	47	0	83	102	0	125	27	0	397
07:15 AM	20	56	0	131	108	0	132	31	0	478
07:30 AM	14	68	0	97	109	0	137	26	0	451
07:45 AM	13	65	0	99	112	0	142	20	0	451
Total	60	236	0	410	431	0	536	104	0	1777
08:00 AM	16	63	0	85	107	0	142	9	0	422
08:15 AM	24	56	0	72	108	0	117	15	0	392
08:30 AM	21	50	0	79	107	0	122	15	0	394
08:45 AM	18	47	0	45	111	0	109	22	0	352
Total	79	216	0	281	433	0	490	61	0	1560
Grand Total	139	452	0	691	864	0	1026	165	0	3337
Apprch %	23.5	76.5	0	44.4	55.6	0	86.1	13.9	0	
Total %	4.2	13.5	0	20.7	25.9	0	30.7	4.9	0	
Cars	114	433	0	664	737	0	940	154	0	3042
% Cars	82	95.8	0	96.1	85.3	0	91.6	93.3	0	91.2
Heavy Vehicles	25	19	0	27	127	0	86	11	0	295
% Heavy Vehicles	18	4.2	0	3.9	14.7	0	8.4	6.7	0	8.8

Start Time	Neponset Valley Parkway From North				Milton Street From East				Milton Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	20	56	0	76	131	108	0	239	132	31	0	163	478
07:30 AM	14	68	0	82	97	109	0	206	137	26	0	163	451
07:45 AM	13	65	0	78	99	112	0	211	142	20	0	162	451
08:00 AM	16	63	0	79	85	107	0	192	142	9	0	151	422
Total Volume	63	252	0	315	412	436	0	848	553	86	0	639	1802
% App. Total	20	80	0		48.6	51.4	0		86.5	13.5	0		
PHF	.788	.926	.000	.960	.786	.973	.000	.887	.974	.694	.000	.980	.942
Cars	58	241	0	299	396	376	0	772	503	79	0	582	1653
% Cars	92.1	95.6	0	94.9	96.1	86.2	0	91.0	91.0	91.9	0	91.1	91.7
Heavy Vehicles	5	11	0	16	16	60	0	76	50	7	0	57	149
% Heavy Vehicles	7.9	4.4	0	5.1	3.9	13.8	0	9.0	9.0	8.1	0	8.9	8.3



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N/S: Neponset Valley Parkway/ Milton St
E: Milton Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 D
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars

Start Time	Neponset Valley Parkway From North			Milton Street From East			Milton Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
07:00 AM	13	43	0	80	93	0	116	26	0	371
07:15 AM	20	53	0	129	91	0	118	26	0	437
07:30 AM	13	64	0	94	101	0	129	26	0	427
07:45 AM	11	62	0	94	90	0	130	19	0	406
Total	57	222	0	397	375	0	493	97	0	1641
08:00 AM	14	62	0	79	94	0	126	8	0	383
08:15 AM	15	55	0	69	84	0	105	14	0	342
08:30 AM	15	48	0	74	86	0	114	14	0	351
08:45 AM	13	46	0	45	98	0	102	21	0	325
Total	57	211	0	267	362	0	447	57	0	1401
Grand Total	114	433	0	664	737	0	940	154	0	3042
Apprch %	20.8	79.2	0	47.4	52.6	0	85.9	14.1	0	
Total %	3.7	14.2	0	21.8	24.2	0	30.9	5.1	0	

Start Time	Neponset Valley Parkway From North				Milton Street From East				Milton Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	20	53	0	73	129	91	0	220	118	26	0	144	437
07:30 AM	13	64	0	77	94	101	0	195	129	26	0	155	427
07:45 AM	11	62	0	73	94	90	0	184	130	19	0	149	406
08:00 AM	14	62	0	76	79	94	0	173	126	8	0	134	383
Total Volume	58	241	0	299	396	376	0	772	503	79	0	582	1653
% App. Total	19.4	80.6	0		51.3	48.7	0		86.4	13.6	0		
PHF	.725	.941	.000	.971	.767	.931	.000	.877	.967	.760	.000	.939	.946



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N/S: Neponset Valley Parkway/ Milton St
E: Milton Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Heavy Vehicles

Start Time	Neponset Valley Parkway From North			Milton Street From East			Milton Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
07:00 AM	0	4	0	3	9	0	9	1	0	26
07:15 AM	0	3	0	2	17	0	14	5	0	41
07:30 AM	1	4	0	3	8	0	8	0	0	24
07:45 AM	2	3	0	5	22	0	12	1	0	45
Total	3	14	0	13	56	0	43	7	0	136
08:00 AM	2	1	0	6	13	0	16	1	0	39
08:15 AM	9	1	0	3	24	0	12	1	0	50
08:30 AM	6	2	0	5	21	0	8	1	0	43
08:45 AM	5	1	0	0	13	0	7	1	0	27
Total	22	5	0	14	71	0	43	4	0	159
Grand Total	25	19	0	27	127	0	86	11	0	295
Apprch %	56.8	43.2	0	17.5	82.5	0	88.7	11.3	0	
Total %	8.5	6.4	0	9.2	43.1	0	29.2	3.7	0	

Start Time	Neponset Valley Parkway From North				Milton Street From East				Milton Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	2	3	0	5	5	22	0	27	12	1	0	13	45
08:00 AM	2	1	0	3	6	13	0	19	16	1	0	17	39
08:15 AM	9	1	0	10	3	24	0	27	12	1	0	13	50
08:30 AM	6	2	0	8	5	21	0	26	8	1	0	9	43
Total Volume	19	7	0	26	19	80	0	99	48	4	0	52	177
% App. Total	73.1	26.9	0		19.2	80.8	0		92.3	7.7	0		
PHF	.528	.583	.000	.650	.792	.833	.000	.917	.750	1.00	.000	.765	.885



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Client: VHB/ C. Dube

File Name : 165002 D
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Peds and Bikes

Start Time	Neponset Valley Parkway From North				Milton Street From East				Milton Street From South				Int. Total
	Thru	Left	Peds EB	Peds WB	Right	Left	Peds SB	Peds NB	Right	Thru	Peds WB	Peds EB	
07:00 AM	0	1	1	1	0	0	1	14	1	0	0	0	19
07:15 AM	0	0	0	0	0	0	5	1	0	0	0	0	6
07:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
Total	0	1	1	1	0	0	6	20	1	0	0	0	30
08:00 AM	0	0	0	4	0	0	1	0	0	0	0	0	5
08:15 AM	0	0	2	0	0	0	2	0	0	0	0	0	4
08:30 AM	0	0	0	0	0	0	2	2	0	0	0	0	4
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	4	0	0	5	2	0	0	0	0	13
Grand Total	0	1	3	5	0	0	11	22	1	0	0	0	43
Apprch %	0	11.1	33.3	55.6	0	0	33.3	66.7	100	0	0	0	
Total %	0	2.3	7	11.6	0	0	25.6	51.2	2.3	0	0	0	

Start Time	Neponset Valley Parkway From North					Milton Street From East					Milton Street From South					Int. Total
	Thru	Left	Peds EB	Peds WB	App. Total	Right	Left	Peds SB	Peds NB	App. Total	Right	Thru	Peds WB	Peds EB	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 07:00 AM																
07:00 AM	0	1	1	1	3	0	0	1	14	15	1	0	0	0	1	19
07:15 AM	0	0	0	0	0	0	0	5	1	6	0	0	0	0	0	6
07:30 AM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	3
Total Volume	0	1	1	1	3	0	0	6	20	26	1	0	0	0	1	30
% App. Total	0	33.3	33.3	33.3		0	0	23.1	76.9		100	0	0	0		
PHF	.000	.250	.250	.250	.250	.000	.000	.300	.357	.433	.250	.000	.000	.000	.250	.395



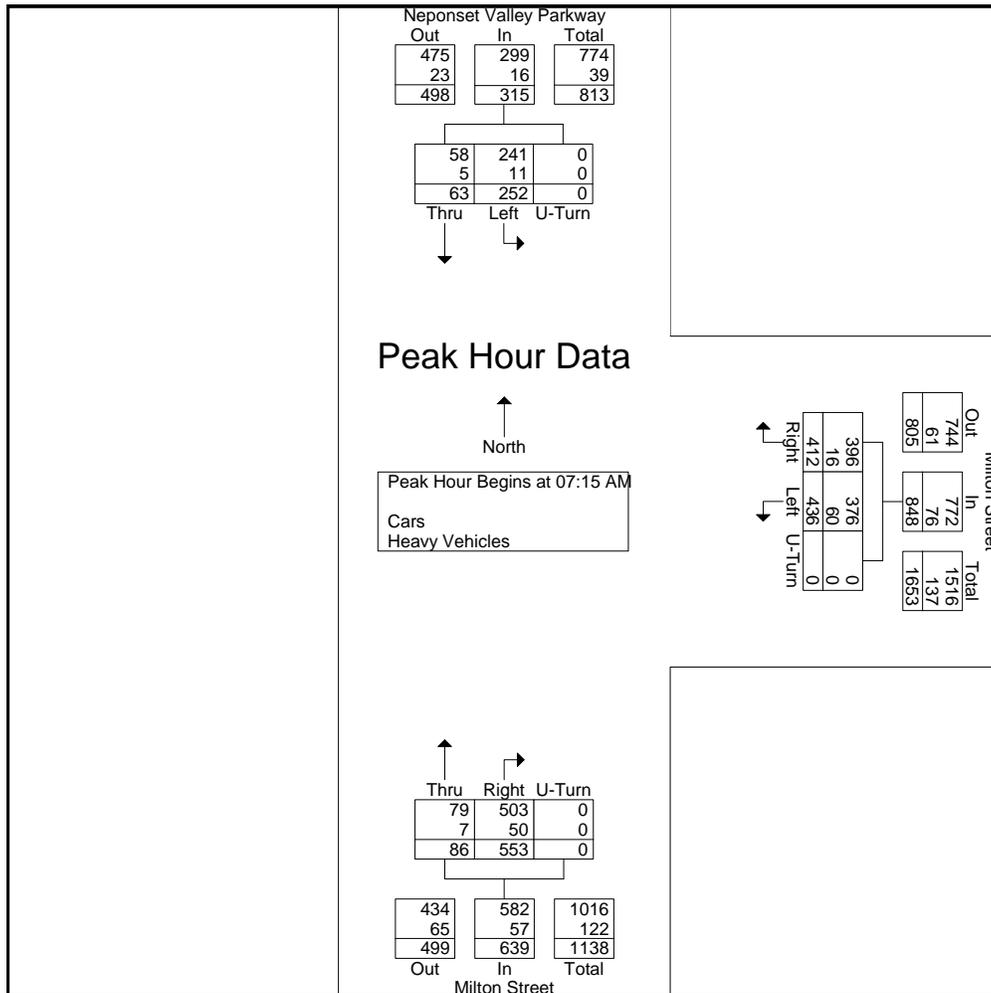
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Start Time	Neponset Valley Parkway From North				Milton Street From East				Milton Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	20	56	0	76	131	108	0	239	132	31	0	163	478
07:30 AM	14	68	0	82	97	109	0	206	137	26	0	163	451
07:45 AM	13	65	0	78	99	112	0	211	142	20	0	162	451
08:00 AM	16	63	0	79	85	107	0	192	142	9	0	151	422
Total Volume	63	252	0	315	412	436	0	848	553	86	0	639	1802
% App. Total	20	80	0		48.6	51.4	0		86.5	13.5	0		
PHF	.788	.926	.000	.960	.786	.973	.000	.887	.974	.694	.000	.980	.942
Cars	58	241	0	299	396	376	0	772	503	79	0	582	1653
% Cars	92.1	95.6	0	94.9	96.1	86.2	0	91.0	91.0	91.9	0	91.1	91.7
Heavy Vehicles	5	11	0	16	16	60	0	76	50	7	0	57	149
% Heavy Vehicles	7.9	4.4	0	5.1	3.9	13.8	0	9.0	9.0	8.1	0	8.9	8.3





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File Name : 165002 DD
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Neponset Valley Parkway From North			Milton Street From East			Milton Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
04:00 PM	25	53	0	46	114	0	135	15	0	388
04:15 PM	26	60	0	67	109	0	127	12	0	401
04:30 PM	27	67	0	72	110	0	174	18	0	468
04:45 PM	40	47	0	70	116	0	158	24	0	455
Total	118	227	0	255	449	0	594	69	0	1712
05:00 PM	27	60	0	63	109	0	163	22	0	444
05:15 PM	28	74	0	66	105	0	157	15	0	445
05:30 PM	34	52	0	77	110	0	160	23	0	456
05:45 PM	29	60	0	89	125	0	127	17	0	447
Total	118	246	0	295	449	0	607	77	0	1792
Grand Total	236	473	0	550	898	0	1201	146	0	3504
Apprch %	33.3	66.7	0	38	62	0	89.2	10.8	0	
Total %	6.7	13.5	0	15.7	25.6	0	34.3	4.2	0	
Cars	153	457	0	543	795	0	1178	142	0	3268
% Cars	64.8	96.6	0	98.7	88.5	0	98.1	97.3	0	93.3
Heavy Vehicles	83	16	0	7	103	0	23	4	0	236
% Heavy Vehicles	35.2	3.4	0	1.3	11.5	0	1.9	2.7	0	6.7

Start Time	Neponset Valley Parkway From North				Milton Street From East				Milton Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	27	67	0	94	72	110	0	182	174	18	0	192	468
04:45 PM	40	47	0	87	70	116	0	186	158	24	0	182	455
05:00 PM	27	60	0	87	63	109	0	172	163	22	0	185	444
05:15 PM	28	74	0	102	66	105	0	171	157	15	0	172	445
Total Volume	122	248	0	370	271	440	0	711	652	79	0	731	1812
% App. Total	33	67	0		38.1	61.9	0		89.2	10.8	0		
PHF	.763	.838	.000	.907	.941	.948	.000	.956	.937	.823	.000	.952	.968
Cars	72	242	0	314	268	385	0	653	640	77	0	717	1684
% Cars	59.0	97.6	0	84.9	98.9	87.5	0	91.8	98.2	97.5	0	98.1	92.9
Heavy Vehicles	50	6	0	56	3	55	0	58	12	2	0	14	128
% Heavy Vehicles	41.0	2.4	0	15.1	1.1	12.5	0	8.2	1.8	2.5	0	1.9	7.1



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Start Date : 3/30/2016
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Groups Printed- Cars

Start Time	Neponset Valley Parkway From North			Milton Street From East			Milton Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
04:00 PM	18	50	0	44	105	0	130	15	0	362
04:15 PM	18	57	0	65	101	0	125	11	0	377
04:30 PM	14	66	0	69	94	0	170	17	0	430
04:45 PM	24	45	0	70	99	0	156	24	0	418
Total	74	218	0	248	399	0	581	67	0	1587
05:00 PM	18	58	0	63	97	0	158	21	0	415
05:15 PM	16	73	0	66	95	0	156	15	0	421
05:30 PM	24	49	0	77	92	0	158	22	0	422
05:45 PM	21	59	0	89	112	0	125	17	0	423
Total	79	239	0	295	396	0	597	75	0	1681
Grand Total	153	457	0	543	795	0	1178	142	0	3268
Apprch %	25.1	74.9	0	40.6	59.4	0	89.2	10.8	0	
Total %	4.7	14	0	16.6	24.3	0	36	4.3	0	

Start Time	Neponset Valley Parkway From North				Milton Street From East				Milton Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	14	66	0	80	69	94	0	163	170	17	0	187	430
04:45 PM	24	45	0	69	70	99	0	169	156	24	0	180	418
05:00 PM	18	58	0	76	63	97	0	160	158	21	0	179	415
05:15 PM	16	73	0	89	66	95	0	161	156	15	0	171	421
Total Volume	72	242	0	314	268	385	0	653	640	77	0	717	1684
% App. Total	22.9	77.1	0		41	59	0		89.3	10.7	0		
PHF	.750	.829	.000	.882	.957	.972	.000	.966	.941	.802	.000	.959	.979



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File Name : 165002 DD
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Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Neponset Valley Parkway From North			Milton Street From East			Milton Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
04:00 PM	7	3	0	2	9	0	5	0	0	26
04:15 PM	8	3	0	2	8	0	2	1	0	24
04:30 PM	13	1	0	3	16	0	4	1	0	38
04:45 PM	16	2	0	0	17	0	2	0	0	37
Total	44	9	0	7	50	0	13	2	0	125
05:00 PM	9	2	0	0	12	0	5	1	0	29
05:15 PM	12	1	0	0	10	0	1	0	0	24
05:30 PM	10	3	0	0	18	0	2	1	0	34
05:45 PM	8	1	0	0	13	0	2	0	0	24
Total	39	7	0	0	53	0	10	2	0	111
Grand Total	83	16	0	7	103	0	23	4	0	236
Apprch %	83.8	16.2	0	6.4	93.6	0	85.2	14.8	0	
Total %	35.2	6.8	0	3	43.6	0	9.7	1.7	0	

Start Time	Neponset Valley Parkway From North				Milton Street From East				Milton Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	8	3	0	11	2	8	0	10	2	1	0	3	24
04:30 PM	13	1	0	14	3	16	0	19	4	1	0	5	38
04:45 PM	16	2	0	18	0	17	0	17	2	0	0	2	37
05:00 PM	9	2	0	11	0	12	0	12	5	1	0	6	29
Total Volume	46	8	0	54	5	53	0	58	13	3	0	16	128
% App. Total	85.2	14.8	0		8.6	91.4	0		81.2	18.8	0		
PHF	.719	.667	.000	.750	.417	.779	.000	.763	.650	.750	.000	.667	.842



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File Name : 165002 DD
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Page No : 1

Groups Printed- Peds and Bikes

Start Time	Neponset Valley Parkway From North				Milton Street From East				Milton Street From South				Int. Total
	Thru	Left	Peds EB	Peds WB	Right	Left	Peds SB	Peds NB	Right	Thru	Peds WB	Peds EB	
04:00 PM	0	0	0	0	0	0	5	1	0	0	0	0	6
04:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
04:30 PM	0	0	2	1	0	1	1	1	0	0	0	0	6
04:45 PM	1	1	0	0	0	0	1	2	0	0	0	0	5
Total	1	1	2	1	0	1	8	4	0	0	0	0	18
05:00 PM	0	0	1	1	0	0	2	3	0	0	0	0	7
05:15 PM	0	2	0	1	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	2	1	1	0	11	0	0	0	0	2	17
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	3	3	1	0	13	3	0	0	0	2	27
Grand Total	1	3	5	4	1	1	21	7	0	0	0	2	45
Apprch %	7.7	23.1	38.5	30.8	3.3	3.3	70	23.3	0	0	0	100	
Total %	2.2	6.7	11.1	8.9	2.2	2.2	46.7	15.6	0	0	0	4.4	

Start Time	Neponset Valley Parkway From North					Milton Street From East					Milton Street From South					Int. Total
	Thru	Left	Peds EB	Peds WB	App. Total	Right	Left	Peds SB	Peds NB	App. Total	Right	Thru	Peds WB	Peds EB	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 04:45 PM																
04:45 PM	1	1	0	0	2	0	0	1	2	3	0	0	0	0	0	5
05:00 PM	0	0	1	1	2	0	0	2	3	5	0	0	0	0	0	7
05:15 PM	0	2	0	1	3	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	2	1	3	1	0	11	0	12	0	0	0	2	2	17
Total Volume	1	3	3	3	10	1	0	14	5	20	0	0	0	2	2	32
% App. Total	10	30	30	30		5	0	70	25		0	0	0	100		
PHF	.250	.375	.375	.750	.833	.250	.000	.318	.417	.417	.000	.000	.000	.250	.250	.471



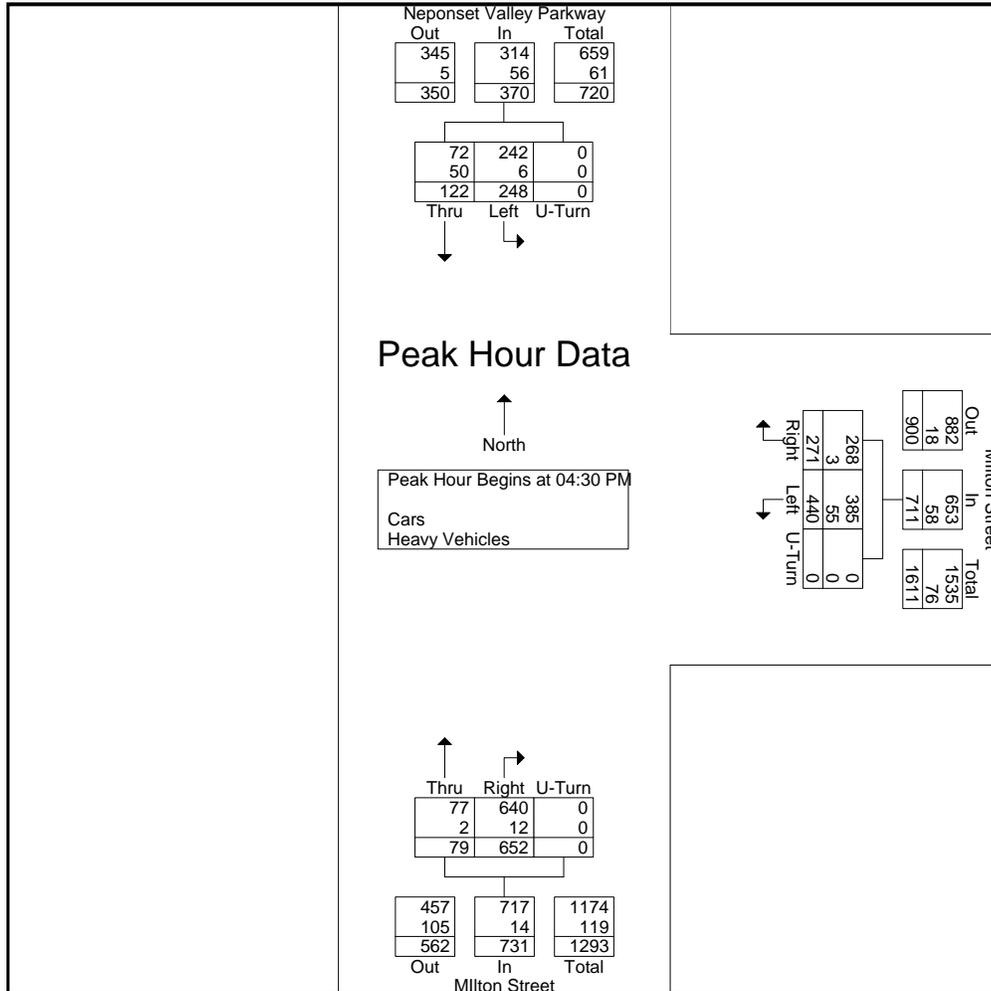
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P.O. Box 301 Berlin, MA 01503
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N/S: Neponset Valley Parkway/ Milton St
E: Milton Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 DD
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Start Time	Neponset Valley Parkway From North				Milton Street From East				Milton Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	27	67	0	94	72	110	0	182	174	18	0	192	468
04:45 PM	40	47	0	87	70	116	0	186	158	24	0	182	455
05:00 PM	27	60	0	87	63	109	0	172	163	22	0	185	444
05:15 PM	28	74	0	102	66	105	0	171	157	15	0	172	445
Total Volume	122	248	0	370	271	440	0	711	652	79	0	731	1812
% App. Total	33	67	0		38.1	61.9	0		89.2	10.8	0		
PHF	.763	.838	.000	.907	.941	.948	.000	.956	.937	.823	.000	.952	.968
Cars	72	242	0	314	268	385	0	653	640	77	0	717	1684
% Cars	59.0	97.6	0	84.9	98.9	87.5	0	91.8	98.2	97.5	0	98.1	92.9
Heavy Vehicles	50	6	0	56	3	55	0	58	12	2	0	14	128
% Heavy Vehicles	41.0	2.4	0	15.1	1.1	12.5	0	8.2	1.8	2.5	0	1.9	7.1





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File Name : 165002 E
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

N/S: Hyde Park Avenue
E/W: Commuter Rail/ Milton Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Cars - Heavy Vehicles

Start Time	Hyde Park Avenue From North				Commuter Rail Driveway From East				Hyde Park Avenue From South				Milton Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	51	19	0	0	0	0	4	0	6	49	143	0	108	3	58	0	441
07:15 AM	65	25	0	0	2	3	0	0	3	47	174	0	118	4	57	0	498
07:30 AM	56	50	0	0	1	0	1	0	1	48	148	0	126	1	51	0	483
07:45 AM	51	31	1	0	0	1	2	0	5	49	152	0	129	4	53	0	478
Total	223	125	1	0	3	4	7	0	15	193	617	0	481	12	219	0	1900
08:00 AM	45	28	0	0	1	2	1	0	1	39	138	0	158	1	48	0	462
08:15 AM	56	36	0	0	1	1	4	0	3	43	136	0	130	3	42	0	455
08:30 AM	35	37	1	0	1	2	2	0	3	42	137	0	118	2	50	0	430
08:45 AM	41	24	0	0	0	2	1	0	3	18	109	0	111	0	46	0	355
Total	177	125	1	0	3	7	8	0	10	142	520	0	517	6	186	0	1702
Grand Total	400	250	2	0	6	11	15	0	25	335	1137	0	998	18	405	0	3602
Apprch %	61.3	38.3	0.3	0	18.8	34.4	46.9	0	1.7	22.4	76	0	70.2	1.3	28.5	0	
Total %	11.1	6.9	0.1	0	0.2	0.3	0.4	0	0.7	9.3	31.6	0	27.7	0.5	11.2	0	
Cars	323	213	2	0	4	9	13	0	25	307	1065	0	945	18	347	0	3271
% Cars	80.8	85.2	100	0	66.7	81.8	86.7	0	100	91.6	93.7	0	94.7	100	85.7	0	90.8
Heavy Vehicles	77	37	0	0	2	2	2	0	0	28	72	0	53	0	58	0	331
% Heavy Vehicles	19.2	14.8	0	0	33.3	18.2	13.3	0	0	8.4	6.3	0	5.3	0	14.3	0	9.2

Start Time	Hyde Park Avenue From North					Commuter Rail Driveway From East					Hyde Park Avenue From South					Milton Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	65	25	0	0	90	2	3	0	0	5	3	47	174	0	224	118	4	57	0	179	498
07:30 AM	56	50	0	0	106	1	0	1	0	2	1	48	148	0	197	126	1	51	0	178	483
07:45 AM	51	31	1	0	83	0	1	2	0	3	5	49	152	0	206	129	4	53	0	186	478
08:00 AM	45	28	0	0	73	1	2	1	0	4	1	39	138	0	178	158	1	48	0	207	462
Total Volume	217	134	1	0	352	4	6	4	0	14	10	183	612	0	805	531	10	209	0	750	1921
% App. Total	61.6	38.1	0.3	0		28.6	42.9	28.6	0		1.2	22.7	76	0		70.8	1.3	27.9	0		
PHF	.835	.670	.250	.000	.830	.500	.500	.500	.000	.700	.500	.934	.879	.000	.898	.840	.625	.917	.000	.906	.964
Cars	176	114	1	0	291	2	6	3	0	11	10	169	577	0	756	500	10	176	0	686	1744
% Cars	81.1	85.1	100	0	82.7	50.0	100	75.0	0	78.6	100	92.3	94.3	0	93.9	94.2	100	84.2	0	91.5	90.8
Heavy Vehicles	41	20	0	0	61	2	0	1	0	3	0	14	35	0	49	31	0	33	0	64	177
% Heavy Vehicles	18.9	14.9	0	0	17.3	50.0	0	25.0	0	21.4	0	7.7	5.7	0	6.1	5.8	0	15.8	0	8.5	9.2



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File Name : 165002 E
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

N/S: Hyde Park Avenue
E/W: Commuter Rail/ Milton Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Cars

Start Time	Hyde Park Avenue From North				Commuter Rail Driveway From East				Hyde Park Avenue From South				Milton Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	45	17	0	0	0	0	4	0	6	46	136	0	101	3	51	0	409
07:15 AM	53	21	0	0	2	3	0	0	3	43	168	0	109	4	51	0	457
07:30 AM	49	46	0	0	0	0	1	0	1	44	143	0	117	1	43	0	445
07:45 AM	38	26	1	0	0	1	2	0	5	45	138	0	125	4	41	0	426
Total	185	110	1	0	2	4	7	0	15	178	585	0	452	12	186	0	1737
08:00 AM	36	21	0	0	0	2	0	0	1	37	128	0	149	1	41	0	416
08:15 AM	43	32	0	0	1	1	3	0	3	40	124	0	124	3	35	0	409
08:30 AM	22	31	1	0	1	1	2	0	3	36	125	0	113	2	45	0	382
08:45 AM	37	19	0	0	0	1	1	0	3	16	103	0	107	0	40	0	327
Total	138	103	1	0	2	5	6	0	10	129	480	0	493	6	161	0	1534
Grand Total	323	213	2	0	4	9	13	0	25	307	1065	0	945	18	347	0	3271
Apprch %	60	39.6	0.4	0	15.4	34.6	50	0	1.8	22	76.2	0	72.1	1.4	26.5	0	
Total %	9.9	6.5	0.1	0	0.1	0.3	0.4	0	0.8	9.4	32.6	0	28.9	0.6	10.6	0	

Start Time	Hyde Park Avenue From North					Commuter Rail Driveway From East					Hyde Park Avenue From South					Milton Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	53	21	0	0	74	2	3	0	0	5	3	43	168	0	214	109	4	51	0	164	457
07:30 AM	49	46	0	0	95	0	0	1	0	1	1	44	143	0	188	117	1	43	0	161	445
07:45 AM	38	26	1	0	65	0	1	2	0	3	5	45	138	0	188	125	4	41	0	170	426
08:00 AM	36	21	0	0	57	0	2	0	0	2	1	37	128	0	166	149	1	41	0	191	416
Total Volume	176	114	1	0	291	2	6	3	0	11	10	169	577	0	756	500	10	176	0	686	1744
% App. Total	60.5	39.2	0.3	0		18.2	54.5	27.3	0		1.3	22.4	76.3	0		72.9	1.5	25.7	0		
PHF	.830	.620	.250	.000	.766	.250	.500	.375	.000	.550	.500	.939	.859	.000	.883	.839	.625	.863	.000	.898	.954



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File Name : 165002 E
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

N/S: Hyde Park Avenue
E/W: Commuter Rail/ Milton Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Heavy Vehicles

Start Time	Hyde Park Avenue From North				Commuter Rail Driveway From East				Hyde Park Avenue From South				Milton Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	6	2	0	0	0	0	0	0	0	3	7	0	7	0	7	0	32
07:15 AM	12	4	0	0	0	0	0	0	0	4	6	0	9	0	6	0	41
07:30 AM	7	4	0	0	1	0	0	0	0	4	5	0	9	0	8	0	38
07:45 AM	13	5	0	0	0	0	0	0	0	4	14	0	4	0	12	0	52
Total	38	15	0	0	1	0	0	0	0	15	32	0	29	0	33	0	163
08:00 AM	9	7	0	0	1	0	1	0	0	2	10	0	9	0	7	0	46
08:15 AM	13	4	0	0	0	0	1	0	0	3	12	0	6	0	7	0	46
08:30 AM	13	6	0	0	0	1	0	0	0	6	12	0	5	0	5	0	48
08:45 AM	4	5	0	0	0	1	0	0	0	2	6	0	4	0	6	0	28
Total	39	22	0	0	1	2	2	0	0	13	40	0	24	0	25	0	168
Grand Total	77	37	0	0	2	2	2	0	0	28	72	0	53	0	58	0	331
Apprch %	67.5	32.5	0	0	33.3	33.3	33.3	0	0	28	72	0	47.7	0	52.3	0	
Total %	23.3	11.2	0	0	0.6	0.6	0.6	0	0	8.5	21.8	0	16	0	17.5	0	

Start Time	Hyde Park Avenue From North					Commuter Rail Driveway From East					Hyde Park Avenue From South					Milton Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	13	5	0	0	18	0	0	0	0	0	0	4	14	0	18	4	0	12	0	16	52
08:00 AM	9	7	0	0	16	1	0	1	0	2	0	2	10	0	12	9	0	7	0	16	46
08:15 AM	13	4	0	0	17	0	0	1	0	1	0	3	12	0	15	6	0	7	0	13	46
08:30 AM	13	6	0	0	19	0	1	0	0	1	0	6	12	0	18	5	0	5	0	10	48
Total Volume	48	22	0	0	70	1	1	2	0	4	0	15	48	0	63	24	0	31	0	55	192
% App. Total	68.6	31.4	0	0		25	25	50	0		0	23.8	76.2	0		43.6	0	56.4	0		
PHF	.923	.786	.000	.000	.921	.250	.250	.500	.000	.500	.000	.625	.857	.000	.875	.667	.000	.646	.000	.859	.923



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N/S: Hyde Park Avenue
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City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Peds and Bikes

Start Time	Hyde Park Avenue From North					Commuter Rail Driveway From East					Hyde Park Avenue From South					Milton Street From West					Int. Total
	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	
07:00 AM	0	0	0	0	0	0	0	0	5	0	0	0	0	0	3	2	0	0	18	1	29
07:15 AM	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	1	12
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2
Total	0	0	0	1	0	0	0	0	6	0	0	0	1	0	3	2	0	0	28	6	47
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	1	1	5
08:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	2	0	0	0	0	4	2	0	0	0	0	3	0	0	0	2	3	16
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	0	4
Total	0	0	0	2	0	0	0	0	5	3	0	0	0	1	7	0	0	0	4	4	26
Grand Total	0	0	0	3	0	0	0	0	11	3	0	0	1	1	10	2	0	0	32	10	73
Apprch %	0	0	0	100	0	0	0	0	78.6	21.4	0	0	8.3	8.3	83.3	4.5	0	0	72.7	22.7	
Total %	0	0	0	4.1	0	0	0	0	15.1	4.1	0	0	1.4	1.4	13.7	2.7	0	0	43.8	13.7	

Start Time	Hyde Park Avenue From North						Commuter Rail Driveway From East						Hyde Park Avenue From South						Milton Street From West						Int. Total
	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:00 AM																									
07:00 AM	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	3	3	2	0	0	18	1	21	29
07:15 AM	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	9	1	10	12
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1	2
Total Volume	0	0	0	1	0	1	0	0	0	6	0	6	0	0	1	0	3	4	2	0	0	28	6	36	47
% App. Total	0	0	0	100	0		0	0	0	100	0		0	0	25	0	75		5.6	0	0	77.8	16.7		
PHF	.000	.000	.000	.250	.000	.250	.000	.000	.000	.300	.000	.300	.000	.000	.250	.000	.250	.333	.250	.000	.000	.389	.500	.429	.405



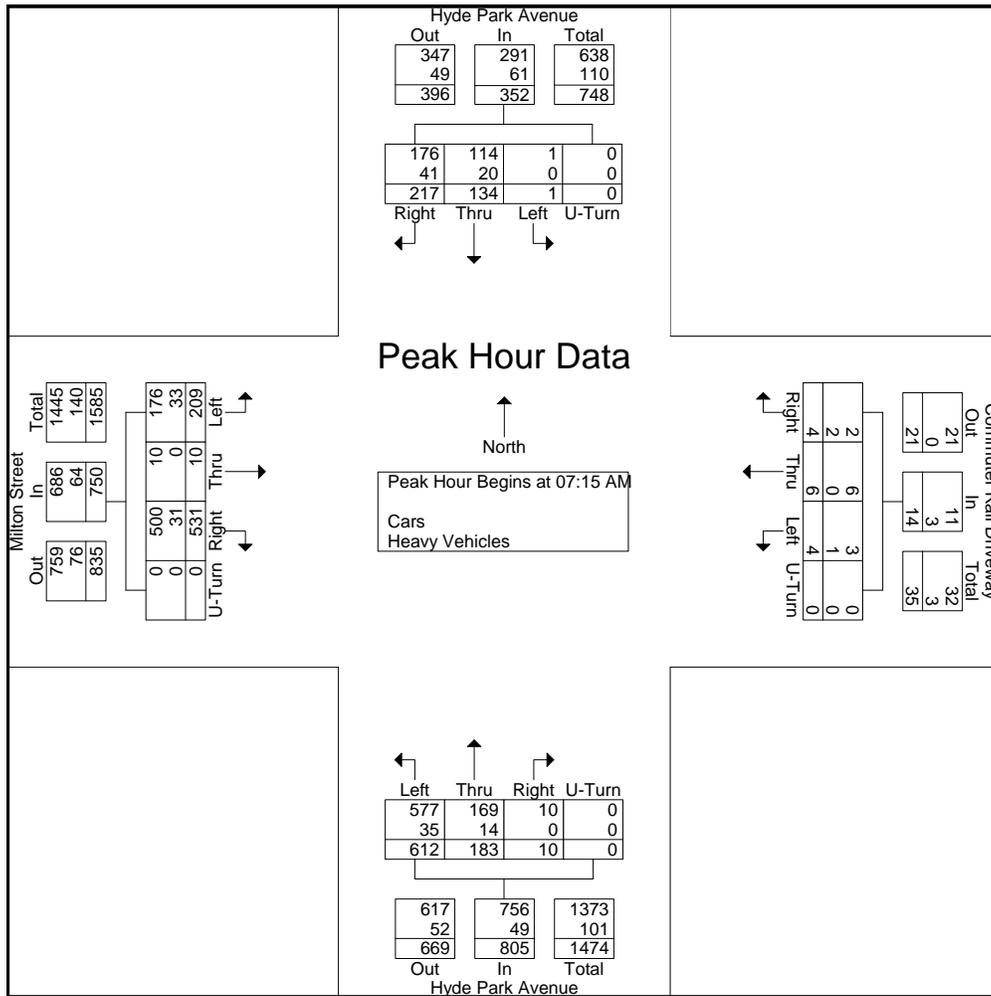
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DATA
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File Name : 165002 E
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

N/S: Hyde Park Avenue
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City, State: Hyde Park, MA
Client: VHB/ C. Dube

Start Time	Hyde Park Avenue From North					Commuter Rail Driveway From East					Hyde Park Avenue From South					Milton Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	65	25	0	0	90	2	3	0	0	5	3	47	174	0	224	118	4	57	0	179	498
07:30 AM	56	50	0	0	106	1	0	1	0	2	1	48	148	0	197	126	1	51	0	178	483
07:45 AM	51	31	1	0	83	0	1	2	0	3	5	49	152	0	206	129	4	53	0	186	478
08:00 AM	45	28	0	0	73	1	2	1	0	4	1	39	138	0	178	158	1	48	0	207	462
Total Volume	217	134	1	0	352	4	6	4	0	14	10	183	612	0	805	531	10	209	0	750	1921
% App. Total	61.6	38.1	0.3	0		28.6	42.9	28.6	0		1.2	22.7	76	0		70.8	1.3	27.9	0		
PHF	.835	.670	.250	.000	.830	.500	.500	.500	.000	.700	.500	.934	.879	.000	.898	.840	.625	.917	.000	.906	.964
Cars	176	114	1	0	291	2	6	3	0	11	10	169	577	0	756	500	10	176	0	686	1744
% Cars	81.1	85.1	100	0	82.7	50.0	100	75.0	0	78.6	100	92.3	94.3	0	93.9	94.2	100	84.2	0	91.5	90.8
Heavy Vehicles	41	20	0	0	61	2	0	1	0	3	0	14	35	0	49	31	0	33	0	64	177
% Heavy Vehicles	18.9	14.9	0	0	17.3	50.0	0	25.0	0	21.4	0	7.7	5.7	0	6.1	5.8	0	15.8	0	8.5	9.2





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N/S: Hyde Park Avenue
E/W: Commuter Rail/ Milton Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Cars - Heavy Vehicles

Start Time	Hyde Park Avenue From North				Commuter Rail Driveway From East				Hyde Park Avenue From South				Milton Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	56	55	0	0	1	1	0	0	0	41	117	0	137	2	57	0	467
04:15 PM	43	46	0	0	0	1	0	0	0	20	127	0	154	0	41	0	432
04:30 PM	64	39	1	0	0	1	0	0	1	32	118	0	173	1	62	0	492
04:45 PM	50	38	0	0	2	1	0	0	0	29	129	0	154	0	48	0	451
Total	213	178	1	0	3	4	0	0	1	122	491	0	618	3	208	0	1842
05:00 PM	53	40	0	0	2	1	3	0	0	36	124	0	155	1	58	0	473
05:15 PM	48	41	0	1	0	0	0	0	1	34	118	0	170	0	50	0	463
05:30 PM	87	33	1	0	2	0	1	0	1	31	104	0	166	0	57	0	483
05:45 PM	73	37	0	0	0	2	0	0	0	35	137	0	144	1	38	0	467
Total	261	151	1	1	4	3	4	0	2	136	483	0	635	2	203	0	1886
Grand Total	474	329	2	1	7	7	4	0	3	258	974	0	1253	5	411	0	3728
Apprch %	58.8	40.8	0.2	0.1	38.9	38.9	22.2	0	0.2	20.9	78.9	0	75.1	0.3	24.6	0	
Total %	12.7	8.8	0.1	0	0.2	0.2	0.1	0	0.1	6.9	26.1	0	33.6	0.1	11	0	
Cars	413	311	2	1	7	7	4	0	3	239	924	0	1227	5	392	0	3535
% Cars	87.1	94.5	100	100	100	100	100	0	100	92.6	94.9	0	97.9	100	95.4	0	94.8
Heavy Vehicles	61	18	0	0	0	0	0	0	0	19	50	0	26	0	19	0	193
% Heavy Vehicles	12.9	5.5	0	0	0	0	0	0	0	7.4	5.1	0	2.1	0	4.6	0	5.2

Start Time	Hyde Park Avenue From North					Commuter Rail Driveway From East					Hyde Park Avenue From South					Milton Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	53	40	0	0	93	2	1	3	0	6	0	36	124	0	160	155	1	58	0	214	473
05:15 PM	48	41	0	1	90	0	0	0	0	0	1	34	118	0	153	170	0	50	0	220	463
05:30 PM	87	33	1	0	121	2	0	1	0	3	1	31	104	0	136	166	0	57	0	223	483
05:45 PM	73	37	0	0	110	0	2	0	0	2	0	35	137	0	172	144	1	38	0	183	467
Total Volume	261	151	1	1	414	4	3	4	0	11	2	136	483	0	621	635	2	203	0	840	1886
% App. Total	63	36.5	0.2	0.2		36.4	27.3	36.4	0		0.3	21.9	77.8	0		75.6	0.2	24.2	0		
PHF	.750	.921	.250	.250	.855	.500	.375	.333	.000	.458	.500	.944	.881	.000	.903	.934	.500	.875	.000	.942	.976
Cars	227	139	1	1	368	4	3	4	0	11	2	125	466	0	593	626	2	195	0	823	1795
% Cars	87.0	92.1	100	100	88.9	100	100	100	0	100	100	91.9	96.5	0	95.5	98.6	100	96.1	0	98.0	95.2
Heavy Vehicles	34	12	0	0	46	0	0	0	0	0	0	11	17	0	28	9	0	8	0	17	91
% Heavy Vehicles	13.0	7.9	0	0	11.1	0	0	0	0	0	0	8.1	3.5	0	4.5	1.4	0	3.9	0	2.0	4.8



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N/S: Hyde Park Avenue
E/W: Commuter Rail/ Milton Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 EE
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars

Start Time	Hyde Park Avenue From North				Commuter Rail Driveway From East				Hyde Park Avenue From South				Milton Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	54	54	0	0	1	1	0	0	0	40	108	0	130	2	52	0	442
04:15 PM	34	44	0	0	0	1	0	0	0	19	122	0	150	0	39	0	409
04:30 PM	54	37	1	0	0	1	0	0	1	29	109	0	170	1	58	0	461
04:45 PM	44	37	0	0	2	1	0	0	0	26	119	0	151	0	48	0	428
Total	186	172	1	0	3	4	0	0	1	114	458	0	601	3	197	0	1740
05:00 PM	45	36	0	0	2	1	3	0	0	32	120	0	152	1	54	0	446
05:15 PM	40	37	0	1	0	0	0	0	1	31	114	0	169	0	50	0	443
05:30 PM	78	31	1	0	2	0	1	0	1	30	99	0	164	0	54	0	461
05:45 PM	64	35	0	0	0	2	0	0	0	32	133	0	141	1	37	0	445
Total	227	139	1	1	4	3	4	0	2	125	466	0	626	2	195	0	1795
Grand Total	413	311	2	1	7	7	4	0	3	239	924	0	1227	5	392	0	3535
Apprch %	56.8	42.8	0.3	0.1	38.9	38.9	22.2	0	0.3	20.5	79.2	0	75.6	0.3	24.1	0	
Total %	11.7	8.8	0.1	0	0.2	0.2	0.1	0	0.1	6.8	26.1	0	34.7	0.1	11.1	0	

Start Time	Hyde Park Avenue From North					Commuter Rail Driveway From East					Hyde Park Avenue From South					Milton Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	45	36	0	0	81	2	1	3	0	6	0	32	120	0	152	152	1	54	0	207	446
05:15 PM	40	37	0	1	78	0	0	0	0	0	1	31	114	0	146	169	0	50	0	219	443
05:30 PM	78	31	1	0	110	2	0	1	0	3	1	30	99	0	130	164	0	54	0	218	461
05:45 PM	64	35	0	0	99	0	2	0	0	2	0	32	133	0	165	141	1	37	0	179	445
Total Volume	227	139	1	1	368	4	3	4	0	11	2	125	466	0	593	626	2	195	0	823	1795
% App. Total	61.7	37.8	0.3	0.3		36.4	27.3	36.4	0		0.3	21.1	78.6	0		76.1	0.2	23.7	0		
PHF	.728	.939	.250	.250	.836	.500	.375	.333	.000	.458	.500	.977	.876	.000	.898	.926	.500	.903	.000	.939	.973



PRECISION
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File Name : 165002 EE
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

N/S: Hyde Park Avenue
E/W: Commuter Rail/ Milton Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Heavy Vehicles

Start Time	Hyde Park Avenue From North				Commuter Rail Driveway From East				Hyde Park Avenue From South				Milton Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	2	1	0	0	0	0	0	0	0	1	9	0	7	0	5	0	25
04:15 PM	9	2	0	0	0	0	0	0	0	1	5	0	4	0	2	0	23
04:30 PM	10	2	0	0	0	0	0	0	0	3	9	0	3	0	4	0	31
04:45 PM	6	1	0	0	0	0	0	0	0	3	10	0	3	0	0	0	23
Total	27	6	0	0	0	0	0	0	0	8	33	0	17	0	11	0	102
05:00 PM	8	4	0	0	0	0	0	0	0	4	4	0	3	0	4	0	27
05:15 PM	8	4	0	0	0	0	0	0	0	3	4	0	1	0	0	0	20
05:30 PM	9	2	0	0	0	0	0	0	0	1	5	0	2	0	3	0	22
05:45 PM	9	2	0	0	0	0	0	0	0	3	4	0	3	0	1	0	22
Total	34	12	0	0	0	0	0	0	0	11	17	0	9	0	8	0	91
Grand Total	61	18	0	0	0	0	0	0	0	19	50	0	26	0	19	0	193
Apprch %	77.2	22.8	0	0	0	0	0	0	0	27.5	72.5	0	57.8	0	42.2	0	
Total %	31.6	9.3	0	0	0	0	0	0	0	9.8	25.9	0	13.5	0	9.8	0	

Start Time	Hyde Park Avenue From North					Commuter Rail Driveway From East					Hyde Park Avenue From South					Milton Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	9	2	0	0	11	0	0	0	0	0	0	1	5	0	6	4	0	2	0	6	23
04:30 PM	10	2	0	0	12	0	0	0	0	0	0	3	9	0	12	3	0	4	0	7	31
04:45 PM	6	1	0	0	7	0	0	0	0	0	0	3	10	0	13	3	0	0	0	3	23
05:00 PM	8	4	0	0	12	0	0	0	0	0	0	4	4	0	8	3	0	4	0	7	27
Total Volume	33	9	0	0	42	0	0	0	0	0	0	11	28	0	39	13	0	10	0	23	104
% App. Total	78.6	21.4	0	0		0	0	0	0	0	0	28.2	71.8	0		56.5	0	43.5	0		
PHF	.825	.563	.000	.000	.875	.000	.000	.000	.000	.000	.000	.688	.700	.000	.750	.813	.000	.625	.000	.821	.839



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N/S: Hyde Park Avenue
E/W: Commuter Rail/ Milton Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 EE
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Peds and Bikes

Start Time	Hyde Park Avenue From North					Commuter Rail Driveway From East					Hyde Park Avenue From South					Milton Street From West					Int. Total
	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	
04:00 PM	0	0	0	0	1	0	0	0	2	2	0	0	0	0	2	0	0	0	1	1	9
04:15 PM	0	0	0	1	0	0	0	0	2	1	0	0	0	0	4	0	0	0	0	4	12
04:30 PM	0	0	0	0	1	0	0	0	0	3	0	0	1	0	10	1	0	0	1	3	20
04:45 PM	0	0	0	1	0	0	0	0	1	2	0	0	1	0	0	1	0	0	0	0	6
Total	0	0	0	2	2	0	0	0	5	8	0	0	2	0	16	2	0	0	2	8	47
05:00 PM	0	0	0	0	0	0	0	0	6	0	0	0	0	0	1	0	0	0	1	0	8
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	2	1	0	0	1	0	6	0	0	0	1	1	12
05:45 PM	1	0	0	0	0	0	0	0	3	1	0	0	0	0	3	0	0	0	0	0	8
Total	1	0	0	0	0	0	0	0	11	2	0	0	2	0	10	2	0	0	2	1	31
Grand Total	1	0	0	2	2	0	0	0	16	10	0	0	4	0	26	4	0	0	4	9	78
Apprch %	20	0	0	40	40	0	0	0	61.5	38.5	0	0	13.3	0	86.7	23.5	0	0	23.5	52.9	
Total %	1.3	0	0	2.6	2.6	0	0	0	20.5	12.8	0	0	5.1	0	33.3	5.1	0	0	5.1	11.5	

Start Time	Hyde Park Avenue From North						Commuter Rail Driveway From East						Hyde Park Avenue From South						Milton Street From West						Int. Total
	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:00 PM																									
04:00 PM	0	0	0	0	1	1	0	0	0	2	2	4	0	0	0	0	2	2	0	0	0	1	1	2	9
04:15 PM	0	0	0	1	0	1	0	0	0	2	1	3	0	0	0	0	4	4	0	0	0	0	4	4	12
04:30 PM	0	0	0	0	1	1	0	0	0	0	3	3	0	0	1	0	10	11	1	0	0	1	3	5	20
04:45 PM	0	0	0	1	0	1	0	0	0	1	2	3	0	0	1	0	0	1	1	0	0	0	0	1	6
Total Volume	0	0	0	2	2	4	0	0	0	5	8	13	0	0	2	0	16	18	2	0	0	2	8	12	47
% App. Total	0	0	0	50	50		0	0	0	38.5	61.5		0	0	11.1	0	88.9		16.7	0	0	16.7	66.7		
PHF	.000	.000	.000	.500	.500	1.00	.000	.000	.000	.625	.667	.813	.000	.000	.500	.000	.409		.500	.000	.000	.500	.500	.600	.588



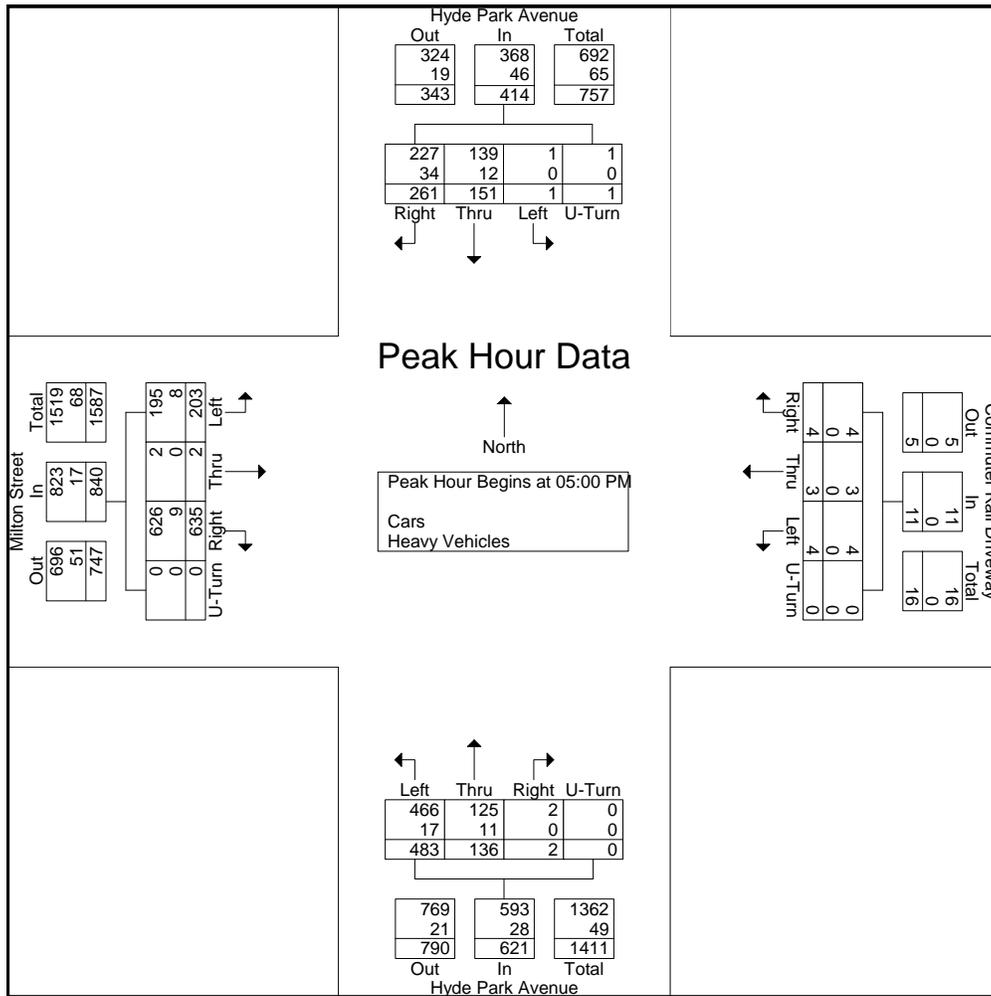
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N/S: Hyde Park Avenue
E/W: Commuter Rail/ Milton Street
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File Name : 165002 EE
Site Code : 2152111
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Page No : 1

Start Time	Hyde Park Avenue From North					Commuter Rail Driveway From East					Hyde Park Avenue From South					Milton Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	53	40	0	0	93	2	1	3	0	6	0	36	124	0	160	155	1	58	0	214	473
05:15 PM	48	41	0	1	90	0	0	0	0	0	1	34	118	0	153	170	0	50	0	220	463
05:30 PM	87	33	1	0	121	2	0	1	0	3	1	31	104	0	136	166	0	57	0	223	483
05:45 PM	73	37	0	0	110	0	2	0	0	2	0	35	137	0	172	144	1	38	0	183	467
Total Volume	261	151	1	1	414	4	3	4	0	11	2	136	483	0	621	635	2	203	0	840	1886
% App. Total	63	36.5	0.2	0.2		36.4	27.3	36.4	0		0.3	21.9	77.8	0		75.6	0.2	24.2	0		
PHF	.750	.921	.250	.250	.855	.500	.375	.333	.000	.458	.500	.944	.881	.000	.903	.934	.500	.875	.000	.942	.976
Cars	227	139	1	1	368	4	3	4	0	11	2	125	466	0	593	626	2	195	0	823	1795
% Cars	87.0	92.1	100	100	88.9	100	100	100	0	100	100	91.9	96.5	0	95.5	98.6	100	96.1	0	98.0	95.2
Heavy Vehicles	34	12	0	0	46	0	0	0	0	0	0	11	17	0	28	9	0	8	0	17	91
% Heavy Vehicles	13.0	7.9	0	0	11.1	0	0	0	0	0	0	8.1	3.5	0	4.5	1.4	0	3.9	0	2.0	4.8





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N/S/SW: Wolcott St/Hyde Park Ave/Wolcott
E/W: Neponset Valley Pkwy/Hyde Park Av
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 F
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Wolcott Street From North					Neponset Valley Parkway From East					Hyde Park Avenue From South					Wolcott Square From Southwest					Hyde Park Avenue From West					Int. Total
	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	
07:00 AM	6	0	0	13	0	33	154	0	0	0	1	6	21	1	0	1	6	0	3	0	0	0	97	22	0	364
07:15 AM	9	0	2	11	0	30	163	0	0	0	0	2	15	0	0	0	3	2	0	0	1	4	132	16	0	390
07:30 AM	5	0	0	15	0	31	148	0	0	0	1	3	11	0	0	0	5	3	1	0	0	3	152	23	0	401
07:45 AM	7	0	1	23	0	34	162	0	0	0	2	4	13	0	0	0	1	1	3	0	0	0	143	27	0	421
Total	27	0	3	62	0	128	627	0	0	0	4	15	60	1	0	1	15	6	7	0	1	7	524	88	0	1576
08:00 AM	11	0	2	14	0	27	120	0	2	0	0	5	8	0	0	0	2	0	4	0	1	3	142	17	0	358
08:15 AM	5	0	1	18	0	31	135	0	1	0	5	5	17	0	0	0	6	1	1	0	0	8	134	17	0	385
08:30 AM	5	0	1	19	0	27	131	0	3	0	0	3	14	0	0	0	0	1	1	0	0	5	117	19	0	346
08:45 AM	6	0	0	24	0	31	99	0	0	0	3	2	4	0	0	3	2	2	0	0	0	5	91	31	0	303
Total	27	0	4	75	0	116	485	0	6	0	8	15	43	0	0	3	10	4	6	0	1	21	484	84	0	1392
Grand Total	54	0	7	137	0	244	1112	0	6	0	12	30	103	1	0	4	25	10	13	0	2	28	1008	172	0	2968
Apprch %	27.3	0	3.5	69.2	0	17.9	81.6	0	0.4	0	8.2	20.5	70.5	0.7	0	7.7	48.1	19.2	25	0	0.2	2.3	83.3	14.2	0	
Total %	1.8	0	0.2	4.6	0	8.2	37.5	0	0.2	0	0.4	1	3.5	0	0	0.1	0.8	0.3	0.4	0	0.1	0.9	34	5.8	0	
Cars	26	0	6	129	0	230	1040	0	6	0	12	29	98	1	0	4	20	10	10	0	2	25	954	151	0	2753
% Cars	48.1	0	85.7	94.2	0	94.3	93.5	0	100	0	100	96.7	95.1	100	0	100	80	100	76.9	0	100	89.3	94.6	87.8	0	92.8
Heavy Vehicles	28	0	1	8	0	14	72	0	0	0	0	1	5	0	0	0	5	0	3	0	0	3	54	21	0	215
% Heavy Vehicles	51.9	0	14.3	5.8	0	5.7	6.5	0	0	0	0	3.3	4.9	0	0	0	20	0	23.1	0	0	10.7	5.4	12.2	0	7.2

Start Time	Wolcott Street From North						Neponset Valley Parkway From East						Hyde Park Avenue From South						Wolcott Square From Southwest						Hyde Park Avenue From West						Int. Total	
	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total		
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																
Peak Hour for Entire Intersection Begins at 07:00 AM																																
07:00 AM	6	0	0	13	0	19	33	154	0	0	0	187	1	6	21	1	0	29	1	6	0	3	0	10	0	0	97	22	0	119	364	
07:15 AM	9	0	2	11	0	22	30	163	0	0	0	193	0	2	15	0	0	17	0	3	2	0	0	5	1	4	132	16	0	153	390	
07:30 AM	5	0	0	15	0	20	31	148	0	0	0	179	1	3	11	0	0	15	0	5	3	1	0	9	0	3	152	23	0	178	401	
07:45 AM	7	0	1	23	0	31	34	162	0	0	0	196	2	4	13	0	0	19	0	1	1	3	0	5	0	0	143	27	0	170	421	
Total Volume	27	0	3	62	0	92	128	627	0	0	0	755	4	15	60	1	0	80	1	15	6	7	0	29	1	7	524	88	0	620	1576	
% App. Total	29.3	0	3.3	67.4	0		17	83	0	0	0		5	18.8	75	1.2	0		3.4	51.7	20.7	24.1	0		0.2	1.1	84.5	14.2	0			
PHF	.750	.000	.375	.674	.000	.742	.941	.962	.000	.000	.000	.963	.500	.625	.714	.250	.000	.690	.250	.625	.500	.583	.000	.725	.250	.438	.862	.815	.000	.871	.936	
Cars	16	0	2	58	0	76	121	592	0	0	0	713	4	15	59	1	0	79	1	12	6	6	0	25	1	7	494	78	0	580	1473	
% Cars	59.3	0	66.7	93.5	0	82.6	94.5	94.4	0	0	0	94.4	100	100	98.3	100	0	98.8	100	80.0	100	85.7	0	86.2	100	100	94.3	88.6	0	93.5	93.5	
Heavy Vehicles	11	0	1	4	0	16	7	35	0	0	0	42	0	0	1	0	0	1	0	3	0	1	0	4	0	0	30	10	0	40	103	
% Heavy Vehicles	40.7	0	33.3	6.5	0	17.4	5.5	5.6	0	0	0	5.6	0	0	1.7	0	0	1.3	0	20.0	0	14.3	0	13.8	0	0	5.7	11.4	0	6.5	6.5	



PRECISION
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N/S/SW: Wolcott St/Hyde Park Ave/Wolcott
E/W: Neponset Valley Pkwy/Hyde Park Av
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 F
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars

Start Time	Wolcott Street From North					Neponset Valley Parkway From East					Hyde Park Avenue From South					Wolcott Square From Southwest					Hyde Park Avenue From West					Int. Total
	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	
07:00 AM	3	0	0	12	0	30	146	0	0	0	1	6	21	1	0	1	6	0	3	0	0	0	90	21	0	341
07:15 AM	7	0	1	10	0	27	157	0	0	0	0	2	14	0	0	0	3	2	0	0	1	4	123	13	0	364
07:30 AM	2	0	0	13	0	30	142	0	0	0	1	3	11	0	0	0	2	3	0	0	0	3	145	21	0	376
07:45 AM	4	0	1	23	0	34	147	0	0	0	2	4	13	0	0	0	1	1	3	0	0	0	136	23	0	392
Total	16	0	2	58	0	121	592	0	0	0	4	15	59	1	0	1	12	6	6	0	1	7	494	78	0	1473
08:00 AM	5	0	2	12	0	24	111	0	2	0	0	5	8	0	0	0	1	0	2	0	1	3	133	15	0	324
08:15 AM	2	0	1	18	0	31	124	0	1	0	5	5	16	0	0	0	5	1	1	0	0	6	129	13	0	358
08:30 AM	1	0	1	18	0	26	119	0	3	0	0	3	12	0	0	0	0	1	1	0	0	4	113	17	0	319
08:45 AM	2	0	0	23	0	28	94	0	0	0	3	1	3	0	0	3	2	2	0	0	0	5	85	28	0	279
Total	10	0	4	71	0	109	448	0	6	0	8	14	39	0	0	3	8	4	4	0	1	18	460	73	0	1280
Grand Total	26	0	6	129	0	230	1040	0	6	0	12	29	98	1	0	4	20	10	10	0	2	25	954	151	0	2753
Apprch %	16.1	0	3.7	80.1	0	18	81.5	0	0.5	0	8.6	20.7	70	0.7	0	9.1	45.5	22.7	22.7	0	0.2	2.2	84.3	13.3	0	
Total %	0.9	0	0.2	4.7	0	8.4	37.8	0	0.2	0	0.4	1.1	3.6	0	0	0.1	0.7	0.4	0.4	0	0.1	0.9	34.7	5.5	0	

Start Time	Wolcott Street From North						Neponset Valley Parkway From East						Hyde Park Avenue From South						Wolcott Square From Southwest						Hyde Park Avenue From West						Int. Total	
	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total		
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																
Peak Hour for Entire Intersection Begins at 07:00 AM																																
07:00 AM	3	0	0	12	0	15	30	146	0	0	0	176	1	6	21	1	0	29	1	6	0	3	0	10	0	0	90	21	0	111	341	
07:15 AM	7	0	1	10	0	18	27	157	0	0	0	184	0	2	14	0	0	16	0	3	2	0	0	5	1	4	123	13	0	141	364	
07:30 AM	2	0	0	13	0	15	30	142	0	0	0	172	1	3	11	0	0	15	0	2	3	0	0	5	0	3	145	21	0	169	376	
07:45 AM	4	0	1	23	0	28	34	147	0	0	0	181	2	4	13	0	0	19	0	1	1	3	0	5	0	0	136	23	0	159	392	
Total Volume	16	0	2	58	0	76	121	592	0	0	0	713	4	15	59	1	0	79	1	12	6	6	0	25	1	7	494	78	0	580	1473	
% App. Total	21.1	0	2.6	76.3	0		17	83	0	0	0		5.1	19	74.7	1.3	0		4	48	24	24	0		0.2	1.2	85.2	13.4	0			
PHF	.571	.000	.500	.630	.000	.679	.890	.943	.000	.000	.000	.969	.500	.625	.702	.250	.000	.681	.250	.500	.500	.500	.000	.625	.250	.438	.852	.848	.000	.858	.939	



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E/W: Neponset Valley Pkwy/Hyde Park Av
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 F
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Wolcott Street From North					Neponset Valley Parkway From East					Hyde Park Avenue From South					Wolcott Square From Southwest					Hyde Park Avenue From West					Int. Total
	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	
07:00 AM	3	0	0	1	0	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	23
07:15 AM	2	0	1	1	0	3	6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	3	0	26
07:30 AM	3	0	0	2	0	1	6	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	7	2	0	25
07:45 AM	3	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4	0	29
Total	11	0	1	4	0	7	35	0	0	0	0	0	1	0	0	0	3	0	1	0	0	0	30	10	0	103
08:00 AM	6	0	0	2	0	3	9	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	9	2	0	34
08:15 AM	3	0	0	0	0	0	11	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	5	4	0	27
08:30 AM	4	0	0	1	0	1	12	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	4	2	0	27
08:45 AM	4	0	0	1	0	3	5	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	6	3	0	24
Total	17	0	0	4	0	7	37	0	0	0	0	1	4	0	0	0	2	0	2	0	0	3	24	11	0	112
Grand Total	28	0	1	8	0	14	72	0	0	0	0	1	5	0	0	0	5	0	3	0	0	3	54	21	0	215
Apprch %	75.7	0	2.7	21.6	0	16.3	83.7	0	0	0	0	16.7	83.3	0	0	0	62.5	0	37.5	0	0	3.8	69.2	26.9	0	
Total %	13	0	0.5	3.7	0	6.5	33.5	0	0	0	0	0.5	2.3	0	0	0	2.3	0	1.4	0	0	1.4	25.1	9.8	0	

Start Time	Wolcott Street From North						Neponset Valley Parkway From East						Hyde Park Avenue From South						Wolcott Square From Southwest						Hyde Park Avenue From West						Int. Total						
	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total							
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 07:45 AM																																					
07:45 AM	3	0	0	0	0	3	0	15	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4	0	11	29
08:00 AM	6	0	0	2	0	8	3	9	0	0	0	12	0	0	0	0	0	0	0	1	0	2	0	3	0	0	9	2	0	11	0	0	11	27			
08:15 AM	3	0	0	0	0	3	0	11	0	0	0	11	0	0	1	0	0	1	0	1	0	0	0	1	0	2	5	4	0	11	0	0	27	27			
08:30 AM	4	0	0	1	0	5	1	12	0	0	0	13	0	0	2	0	0	2	0	0	0	0	0	0	0	1	4	2	0	7	0	0	27	27			
Total Volume	16	0	0	3	0	19	4	47	0	0	0	51	0	0	3	0	0	3	0	2	0	2	0	4	0	3	25	12	0	40	0	0	117				
% App. Total	84.2	0	0	15.8	0	7.8	92.2	0	0	0	0	0	100	0	0	0	50	0	50	0	0	7.5	62.5	30	0												
PHF	.667	.000	.000	.375	.000	.594	.333	.783	.000	.000	.000	.850	.000	.000	.375	.000	.000	.375	.000	.500	.000	.250	.000	.333	.000	.375	.694	.750	.000	.909	.860						



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E/W: Neponset Valley Pkwy/Hyde Park Av
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 F
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Peds and Bikes

Start Time	Wolcott Street From North						Neponset Valley Parkway From East						Hyde Park Avenue From South						Wolcott Square From Southwest						Hyde Park Avenue From West						Int. Total
	Right	Bear Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Bear Left	Left	Peds SB	Peds NB	Right	Thru	Left	Hard Left	Peds WB	Peds EB	Hard Right	Bear Right	Bear Left	Hard Left	Peds NWB	Peds SEB	Hard Right	Right	Thru	Left	Peds NB	Peds SB	
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	4	1	0	0	0	0	9	1	0	0	1	0	2	4	24
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12	0	0	0	0	2	1	3	27	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	3	3	0	0	0	0	0	5	13	
07:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6	0	0	0	0	0	9	1	0	0	0	0	2	2	21	
Total	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	23	2	0	0	0	0	33	5	0	0	1	0	6	12	85	
08:00 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	6	
08:15 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	1	0	7	7	
08:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	3	1	0	0	0	0	4	2	0	0	0	0	0	1	13	13	
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	1	0	0	0	0	4	4	0	0	0	0	0	0	0	13	
Total	0	0	0	0	1	3	0	0	0	3	1	0	0	0	7	3	0	0	0	0	9	7	0	0	0	0	2	3	39	39	
Grand Total	0	0	0	0	1	3	0	1	0	4	2	0	0	0	30	5	0	0	0	0	42	12	0	0	1	0	8	15	124	124	
Apprch %	0	0	0	0	25	75	0	14.3	0	0	57.1	28.6	0	0	0	85.7	14.3	0	0	0	77.8	22.2	0	0	4.2	0	33.3	62.5			
Total %	0	0	0	0	0.8	2.4	0	0.8	0	0	3.2	1.6	0	0	0	24.2	4	0	0	0	33.9	9.7	0	0	0.8	0	6.5	12.1			

Start Time	Wolcott Street From North							Neponset Valley Parkway From East							Hyde Park Avenue From South							Wolcott Square From Southwest							Hyde Park Avenue From West							Int. Total
	Right	Bear Right	Thru	Left	Peds s E	Peds s W	App. Total	Right	Thru	Bear Left	Left	Peds s S	Peds s N	App. Total	Right	Thru	Left	Hard Left	Peds s W	Peds s E	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds s N	Peds s S	App. Total	Hard Right	Right	Thru	Left	Peds s N	Peds s S	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	4	1	5	0	0	0	0	9	1	10	0	0	1	0	2	4	7	24	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	12	0	0	0	0	12	0	12	0	0	0	0	2	1	3	27		
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	3	3	6	0	0	0	0	0	5	5	13	13		
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	6	0	6	0	0	0	9	1	10	0	0	0	0	2	2	4	21	21		
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	1	3	0	0	0	23	2	25	0	0	0	0	33	5	38	0	0	1	0	6	12	19	85	
% App. Total								33.3	0	0	33.3	33.3			0	0	0	92	8		0	0	0	0	86.8	13.2		0	0	5.3	0	31.6	63.2			
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250	.375	.000	.000	.000	.000	.479	.500	.521	.000	.000	.000	.000	.688	.417	.792	.000	.000	.250	.000	.750	.600	.679	.787

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM



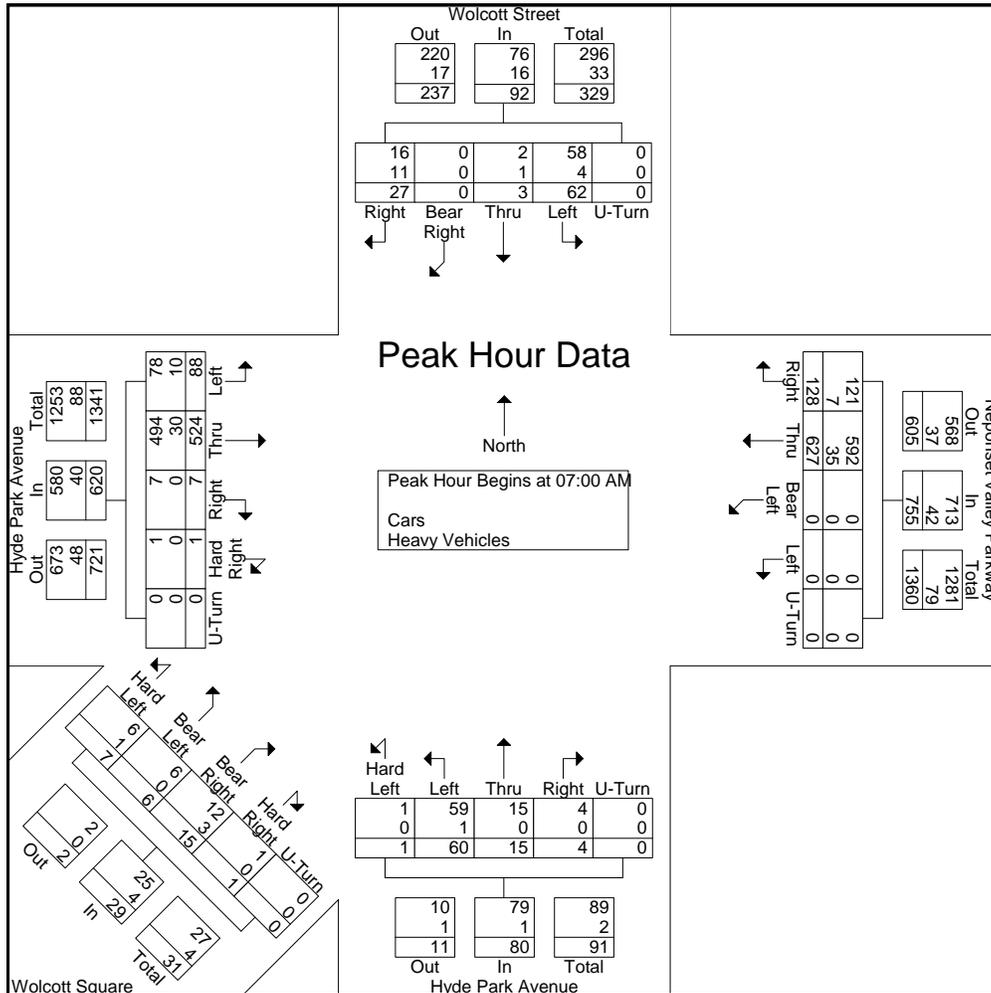
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Start Time	Wolcott Street From North						Neponset Valley Parkway From East						Hyde Park Avenue From South						Wolcott Square From Southwest						Hyde Park Avenue From West						Int. Total
	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:00 AM																															
07:00 AM	6	0	0	13	0	19	33	154	0	0	0	187	1	6	21	1	0	29	1	6	0	3	0	10	0	0	97	22	0	119	364
07:15 AM	9	0	2	11	0	22	30	163	0	0	0	193	0	2	15	0	0	17	0	3	2	0	0	5	1	4	132	16	0	153	390
07:30 AM	5	0	0	15	0	20	31	148	0	0	0	179	1	3	11	0	0	15	0	5	3	1	0	9	0	3	152	23	0	178	401
07:45 AM	7	0	1	23	0	31	34	162	0	0	0	196	2	4	13	0	0	19	0	1	1	3	0	5	0	0	143	27	0	170	421
Total Volume	27	0	3	62	0	92	128	627	0	0	0	755	4	15	60	1	0	80	1	15	6	7	0	29	1	7	524	88	0	620	1576
% App. Total	29.3	0	3.3	67.4	0		17	83	0	0	0		5	18.8	75	1.2	0		3.4	51.7	20.7	24.1	0		0.2	1.1	84.5	14.2	0		
PHF	.750	.000	.375	.674	.000	.742	.941	.962	.000	.000	.000	.963	.500	.625	.714	.250	.000	.690	.250	.625	.500	.583	.000	.725	.250	.438	.862	.815	.000	.871	.936
Cars	16	0	2	58	0	76	121	592	0	0	0	713	4	15	59	1	0	79	1	12	6	6	0	25	1	7	494	78	0	580	1473
% Cars	59.3	0	66.7	93.5	0	82.6	94.5	94.4	0	0	0	94.4	100	100	98.3	100	0	98.8	100	80.0	100	85.7	0	86.2	100	100	94.3	88.6	0	93.5	93.5
Heavy Vehicles	11	0	1	4	0	16	7	35	0	0	0	42	0	0	1	0	0	1	0	3	0	1	0	4	0	0	30	10	0	40	103
% Heavy Vehicles	40.7	0	33.3	6.5	0	17.4	5.5	5.6	0	0	0	5.6	0	0	1.7	0	0	1.3	0	20.0	0	14.3	0	13.8	0	0	5.7	11.4	0	6.5	6.5





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E/W: Neponset Valley Pkwy/Hyde Park Av
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 FF
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Wolcott Street From North					Neponset Valley Parkway From East					Hyde Park Avenue From South					Wolcott Square From Southwest					Hyde Park Avenue From West					Int. Total
	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	
04:00 PM	17	0	1	13	0	11	121	0	0	0	2	2	7	0	0	0	9	2	3	0	0	3	161	15	0	367
04:15 PM	9	0	0	14	0	13	112	0	0	0	1	3	6	0	0	0	12	0	7	0	0	0	166	11	0	354
04:30 PM	9	0	0	14	0	13	122	1	0	0	3	4	16	0	0	1	9	0	2	0	0	4	155	13	0	366
04:45 PM	9	0	0	23	0	11	131	0	0	0	5	2	7	0	0	0	9	1	3	0	0	3	145	5	0	354
Total	44	0	1	64	0	48	486	1	0	0	11	11	36	0	0	1	39	3	15	0	0	10	627	44	0	1441
05:00 PM	3	0	2	10	0	9	148	0	0	0	2	3	7	0	0	1	7	0	2	0	0	5	191	6	0	396
05:15 PM	1	0	1	11	0	10	126	0	0	0	1	1	10	0	0	0	6	2	5	0	0	1	176	12	0	363
05:30 PM	1	0	1	14	0	6	121	0	0	0	1	0	3	0	0	2	6	0	1	0	0	4	179	12	0	351
05:45 PM	0	0	0	5	0	15	151	0	3	0	2	0	7	0	0	1	6	0	0	0	0	1	156	7	0	354
Total	5	0	4	40	0	40	546	0	3	0	6	4	27	0	0	4	25	2	8	0	0	11	702	37	0	1464
Grand Total	49	0	5	104	0	88	1032	1	3	0	17	15	63	0	0	5	64	5	23	0	0	21	1329	81	0	2905
Apprch %	31	0	3.2	65.8	0	7.8	91.8	0.1	0.3	0	17.9	15.8	66.3	0	0	5.2	66	5.2	23.7	0	0	1.5	92.9	5.7	0	
Total %	1.7	0	0.2	3.6	0	3	35.5	0	0.1	0	0.6	0.5	2.2	0	0	0.2	2.2	0.2	0.8	0	0	0.7	45.7	2.8	0	
Cars	38	0	5	101	0	81	982	1	2	0	16	14	61	0	0	5	63	5	21	0	0	19	1302	64	0	2780
% Cars	77.6	0	100	97.1	0	92	95.2	100	66.7	0	94.1	93.3	96.8	0	0	100	98.4	100	91.3	0	0	90.5	98	79	0	95.7
Heavy Vehicles	11	0	0	3	0	7	50	0	1	0	1	1	2	0	0	0	1	0	2	0	0	2	27	17	0	125
% Heavy Vehicles	22.4	0	0	2.9	0	8	4.8	0	33.3	0	5.9	6.7	3.2	0	0	0	1.6	0	8.7	0	0	9.5	2	21	0	4.3

Start Time	Wolcott Street From North						Neponset Valley Parkway From East						Hyde Park Avenue From South						Wolcott Square From Southwest						Hyde Park Avenue From West						Int. Total	
	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																
Peak Hour for Entire Intersection Begins at 04:30 PM																																
04:30 PM	9	0	0	14	0	23	13	122	1	0	0	136	3	4	16	0	0	23	1	9	0	2	0	12	0	4	155	13	0	172	366	
04:45 PM	9	0	0	23	0	32	11	131	0	0	0	142	5	2	7	0	0	14	0	9	1	3	0	13	0	3	145	5	0	153	354	
05:00 PM	3	0	2	10	0	15	9	148	0	0	0	157	2	3	7	0	0	12	1	7	0	2	0	10	0	5	191	6	0	202	396	
05:15 PM	1	0	1	11	0	13	10	126	0	0	0	136	1	1	10	0	0	12	0	6	2	5	0	13	0	1	176	12	0	189	363	
Total Volume	22	0	3	58	0	83	43	527	1	0	0	571	11	10	40	0	0	61	2	31	3	12	0	48	0	13	667	36	0	716	1479	
% App. Total	26.5	0	3.6	69.9	0	7.5	92.3	0.2	0	0	18	16.4	65.6	0	0	4.2	64.6	6.2	25	0	0	1.8	93.2	5	0							
PHF	.611	.000	.375	.630	.000	.648	.827	.890	.250	.000	.000	.909	.550	.625	.625	.000	.000	.663	.500	.861	.375	.600	.000	.923	.000	.650	.873	.692	.000	.886	.934	
Cars	18	0	3	57	0	78	38	496	1	0	0	535	10	10	39	0	0	59	2	31	3	11	0	47	0	12	655	28	0	695	1414	
% Cars	81.8	0	100	98.3	0	94.0	88.4	94.1	100	0	0	93.7	90.9	100	97.5	0	0	96.7	100	100	100	91.7	0	97.9	0	92.3	98.2	77.8	0	97.1	95.6	
Heavy Vehicles	4	0	0	1	0	5	5	31	0	0	0	36	1	0	1	0	0	2	0	0	0	1	0	1	0	1	12	8	0	21	65	
% Heavy Vehicles	18.2	0	0	1.7	0	6.0	11.6	5.9	0	0	0	6.3	9.1	0	2.5	0	0	3.3	0	0	0	8.3	0	2.1	0	7.7	1.8	22.2	0	2.9	4.4	



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N/S/SW: Wolcott St/Hyde Park Ave/Wolcott
E/W: Neponset Valley Pkwy/Hyde Park Av
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 FF
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Cars

Start Time	Wolcott Street From North					Neponset Valley Parkway From East					Hyde Park Avenue From South					Wolcott Square From Southwest					Hyde Park Avenue From West					Int. Total
	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	
04:00 PM	12	0	1	12	0	10	112	0	0	0	2	2	7	0	0	0	9	2	3	0	0	2	154	12	0	340
04:15 PM	7	0	0	13	0	12	110	0	0	0	1	2	6	0	0	0	12	0	6	0	0	0	164	8	0	341
04:30 PM	8	0	0	14	0	12	111	1	0	0	3	4	16	0	0	1	9	0	2	0	0	4	151	12	0	348
04:45 PM	7	0	0	22	0	10	121	0	0	0	5	2	7	0	0	0	9	1	2	0	0	3	141	3	0	333
Total	34	0	1	61	0	44	454	1	0	0	11	10	36	0	0	1	39	3	13	0	0	9	610	35	0	1362
05:00 PM	2	0	2	10	0	7	141	0	0	0	2	3	7	0	0	1	7	0	2	0	0	4	189	4	0	381
05:15 PM	1	0	1	11	0	9	123	0	0	0	0	1	9	0	0	0	6	2	5	0	0	1	174	9	0	352
05:30 PM	1	0	1	14	0	6	116	0	0	0	1	0	3	0	0	2	5	0	1	0	0	4	176	11	0	341
05:45 PM	0	0	0	5	0	15	148	0	2	0	2	0	6	0	0	1	6	0	0	0	0	1	153	5	0	344
Total	4	0	4	40	0	37	528	0	2	0	5	4	25	0	0	4	24	2	8	0	0	10	692	29	0	1418
Grand Total	38	0	5	101	0	81	982	1	2	0	16	14	61	0	0	5	63	5	21	0	0	19	1302	64	0	2780
Apprch %	26.4	0	3.5	70.1	0	7.6	92.1	0.1	0.2	0	17.6	15.4	67	0	0	5.3	67	5.3	22.3	0	0	1.4	94	4.6	0	
Total %	1.4	0	0.2	3.6	0	2.9	35.3	0	0.1	0	0.6	0.5	2.2	0	0	0.2	2.3	0.2	0.8	0	0	0.7	46.8	2.3	0	

Start Time	Wolcott Street From North						Neponset Valley Parkway From East						Hyde Park Avenue From South						Wolcott Square From Southwest						Hyde Park Avenue From West						Int. Total	
	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																
Peak Hour for Entire Intersection Begins at 05:00 PM																																
05:00 PM	2	0	2	10	0	14	7	141	0	0	0	148	2	3	7	0	0	12	1	7	0	2	0	10	0	4	189	4	0	197	381	
05:15 PM	1	0	1	11	0	13	9	123	0	0	0	132	0	1	9	0	0	10	0	6	2	5	0	13	0	1	174	9	0	184	352	
05:30 PM	1	0	1	14	0	16	6	116	0	0	0	122	1	0	3	0	0	4	2	5	0	1	0	8	0	4	176	11	0	191	341	
05:45 PM	0	0	0	5	0	5	15	148	0	2	0	165	2	0	6	0	0	8	1	6	0	0	0	7	0	1	153	5	0	159	344	
Total Volume	4	0	4	40	0	48	37	528	0	2	0	567	5	4	25	0	0	34	4	24	2	8	0	38	0	10	692	29	0	731	1418	
% App. Total	8.3	0	8.3	83.3	0		6.5	93.1	0	0.4	0		14.7	11.8	73.5	0	0		10.5	63.2	5.3	21.1	0		0	1.4	94.7	4	0			
PHF	.500	.000	.500	.714	.000	.750	.617	.892	.000	.250	.000	.859	.625	.333	.694	.000	.000	.708	.500	.857	.250	.400	.000	.731	.000	.625	.915	.659	.000	.928	.930	



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City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165002 FF
Site Code : 2152111
Start Date : 3/30/2016
Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Wolcott Street From North					Neponset Valley Parkway From East					Hyde Park Avenue From South					Wolcott Square From Southwest					Hyde Park Avenue From West					Int. Total
	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	
04:00 PM	5	0	0	1	0	1	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	3	0	27
04:15 PM	2	0	0	1	0	1	2	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2	3	0	13
04:30 PM	1	0	0	0	0	1	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	18
04:45 PM	2	0	0	1	0	1	10	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	2	0	21
Total	10	0	0	3	0	4	32	0	0	0	0	1	0	0	0	0	0	0	2	0	0	1	17	9	0	79
05:00 PM	1	0	0	0	0	2	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	15
05:15 PM	0	0	0	0	0	1	3	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	3	0	11
05:30 PM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	1	0	10
05:45 PM	0	0	0	0	0	0	3	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	3	2	0	10
Total	1	0	0	0	0	3	18	0	1	0	1	0	2	0	0	0	1	0	0	0	0	1	10	8	0	46
Grand Total	11	0	0	3	0	7	50	0	1	0	1	1	2	0	0	0	1	0	2	0	0	2	27	17	0	125
Apprch %	78.6	0	0	21.4	0	12.1	86.2	0	1.7	0	25	25	50	0	0	0	33.3	0	66.7	0	0	4.3	58.7	37	0	
Total %	8.8	0	0	2.4	0	5.6	40	0	0.8	0	0.8	0.8	1.6	0	0	0	0.8	0	1.6	0	0	1.6	21.6	13.6	0	

Start Time	Wolcott Street From North						Neponset Valley Parkway From East						Hyde Park Avenue From South						Wolcott Square From Southwest						Hyde Park Avenue From West						Int. Total						
	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total							
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 04:00 PM																																					
04:00 PM	5	0	0	1	0	6	1	9	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	3	0	11	27
04:15 PM	2	0	0	1	0	3	1	2	0	0	0	3	0	1	0	0	0	1	0	0	0	1	0	1	0	0	0	2	3	0	5	13					
04:30 PM	1	0	0	0	0	1	1	11	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5	18					
04:45 PM	2	0	0	1	0	3	1	10	0	0	0	11	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	4	2	0	6	21					
Total Volume	10	0	0	3	0	13	4	32	0	0	0	36	0	1	0	0	0	1	0	0	0	2	0	2	0	1	17	9	0	27	79						
% App. Total	76.9	0	0	23.1	0		11.1	88.9	0	0	0		0	100	0	0	0		0	0	0	100	0		0	3.7	63	33.3	0								
PHF	.500	.000	.000	.750	.000	.542	1.0	.727	.000	.000	.000	.750	.000	.250	.000	.000	.000	.250	.000	.000	.000	.500	.000	.500	.000	.250	.607	.750	.000	.614	.731						



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Start Date : 3/30/2016
Page No : 1

Groups Printed- Peds and Bikes

Start Time	Wolcott Street From North						Neponset Valley Parkway From East						Hyde Park Avenue From South						Wolcott Square From Southwest						Hyde Park Avenue From West						Int. Total
	Right	Bear Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Bear Left	Left	Peds SB	Peds NB	Right	Thru	Left	Hard Left	Peds WB	Peds EB	Hard Right	Bear Right	Bear Left	Hard Left	Peds NWB	Peds SEB	Hard Right	Right	Thru	Left	Peds NB	Peds SB	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3	0	0	0	0	2	5	0	0	0	0	0	1	13
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	0	0	8	0	0	0	0	1	2	19
04:30 PM	0	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	3	2	0	0	0	0	3	8	0	0	0	0	3	4	27
04:45 PM	1	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	2	0	0	0	0	9	5	0	0	0	0	2	4	27	
Total	1	0	0	0	2	1	1	1	0	0	2	1	0	0	0	6	14	0	0	0	0	14	26	0	0	0	0	6	11	86	
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	6	0	0	0	0	2	11	0	0	0	0	2	0	23	
05:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	5	0	0	0	0	2	5	0	0	0	0	3	0	19	
05:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	6	0	0	0	0	3	8	0	0	0	0	2	0	23	
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	3	2	16	
Total	0	0	0	0	0	0	0	2	0	0	1	2	0	0	0	8	19	0	0	0	0	9	28	0	0	0	0	10	2	81	
Grand Total	1	0	0	0	2	1	1	3	0	0	3	3	0	0	0	14	33	0	0	0	0	23	54	0	0	0	0	16	13	167	
Apprch %	25	0	0	0	50	25	10	30	0	0	30	30	0	0	0	29.8	70.2	0	0	0	0	29.9	70.1	0	0	0	0	55.2	44.8		
Total %	0.6	0	0	0	1.2	0.6	0.6	1.8	0	0	1.8	1.8	0	0	0	8.4	19.8	0	0	0	0	13.8	32.3	0	0	0	0	9.6	7.8		

Start Time	Wolcott Street From North							Neponset Valley Parkway From East							Hyde Park Avenue From South							Wolcott Square From Southwest							Hyde Park Avenue From West							Int. Total
	Right	Bear Right	Thru	Left	Peds s E	Peds s W	App. Total	Right	Thru	Bear Left	Left	Peds s S	Peds s N	App. Total	Right	Thru	Left	Hard Left	Peds s W	Peds s E	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds s N	Peds s S	App. Total	Hard Right	Right	Thru	Left	Peds s N	Peds s B	App. Total	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	8	0	0	0	0	0	8	8	0	0	0	1	2	3	19		
04:30 PM	0	0	0	0	2	0	2	0	1	0	0	1	0	2	0	0	0	0	3	2	5	0	0	0	0	3	8	11	0	0	0	3	4	7	27	
04:45 PM	1	0	0	0	0	1	2	1	0	0	0	1	0	2	0	0	0	0	1	2	3	0	0	0	0	9	5	14	0	0	0	2	4	6	27	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	6	7	0	0	0	0	2	11	13	0	0	0	2	0	2	23	
Total Volume																																				
% App. Total	25	0	0	0	50	25		20	20	0	0	60	0		0	0	0	0	26.1	73.9					14	32	46	0	0	0	0	8	10	18	96	
PHF	.250	.000	.000	.000	.250	.250	.500	.250	.250	.000	.000	.750	.000	.625	.000	.000	.000	.000	.500	.607	.719	.000	.000	.000	.000	.389	.727	.821	.000	.000	.000	.000	.667	.625	.643	.889

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM



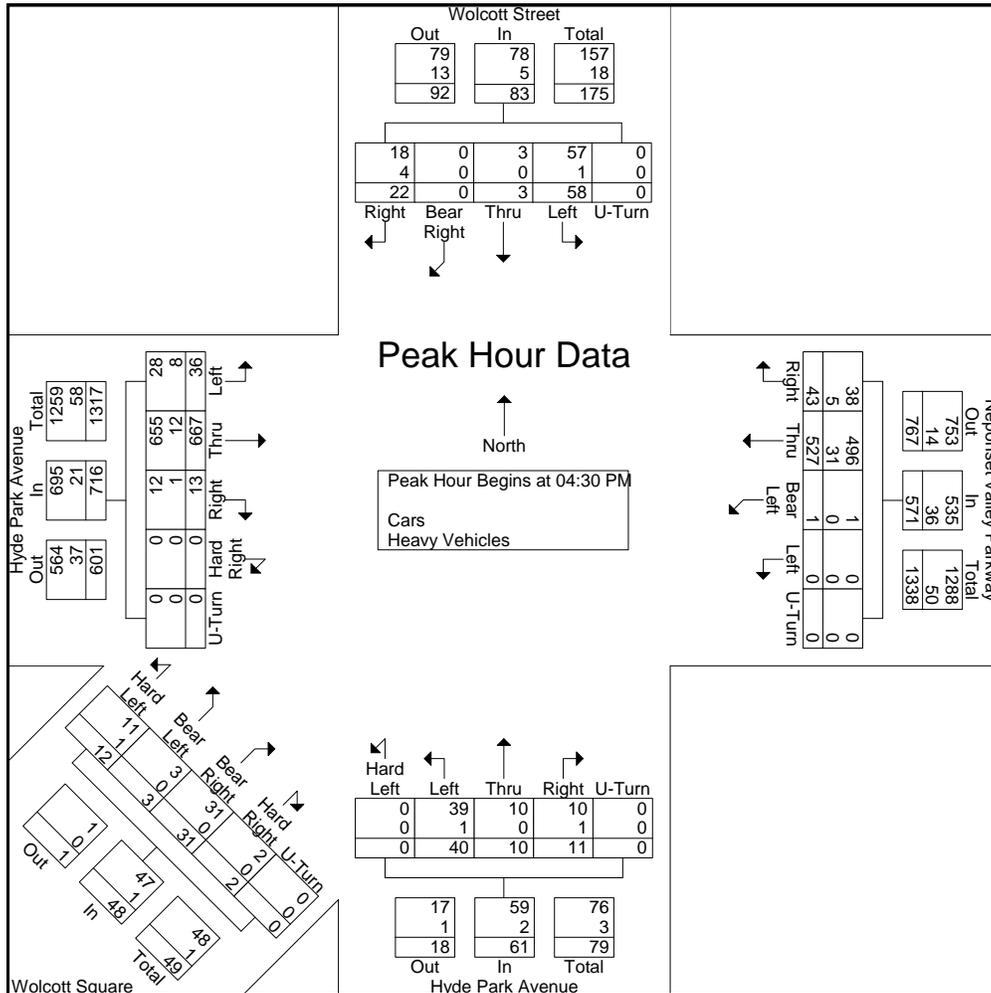
PRECISION
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Start Date : 3/30/2016
Page No : 1

Start Time	Wolcott Street From North					Neponset Valley Parkway From East					Hyde Park Avenue From South					Wolcott Square From Southwest					Hyde Park Avenue From West					Int. Total					
	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right		Right	Thru	Left	U-Turn	App. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 04:30 PM																															
04:30 PM	9	0	0	14	0	23	13	122	1	0	0	136	3	4	16	0	0	23	1	9	0	2	0	12	0	4	155	13	0	172	366
04:45 PM	9	0	0	23	0	32	11	131	0	0	0	142	5	2	7	0	0	14	0	9	1	3	0	13	0	3	145	5	0	153	354
05:00 PM	3	0	2	10	0	15	9	148	0	0	0	157	2	3	7	0	0	12	1	7	0	2	0	10	0	5	191	6	0	202	396
05:15 PM	1	0	1	11	0	13	10	126	0	0	0	136	1	1	10	0	0	12	0	6	2	5	0	13	0	1	176	12	0	189	363
Total Volume	22	0	3	58	0	83	43	527	1	0	0	571	11	10	40	0	0	61	2	31	3	12	0	48	0	13	667	36	0	716	1479
% App. Total	26.5	0	3.6	69.9	0	.648	7.5	92.3	0.2	0	0	.909	18	16.4	65.6	0	0	.663	4.2	64.6	6.2	25	0	.923	0	1.8	93.2	5	0	.934	
PHF	.611	.000	.375	.630	.000	.648	.827	.890	.250	.000	.000	.909	.550	.625	.625	.000	.000	.663	.500	.861	.375	.600	.000	.923	.000	.650	.873	.692	.000	.886	.934
Cars	18	0	3	57	0	78	38	496	1	0	0	535	10	10	39	0	0	59	2	31	3	11	0	47	0	12	655	28	0	695	1414
% Cars	81.8	0	100	98.3	0	94.0	88.4	94.1	100	0	0	93.7	90.9	100	97.5	0	0	96.7	100	100	100	91.7	0	97.9	0	92.3	98.2	77.8	0	97.1	95.6
Heavy Vehicles	4	0	0	1	0	5	5	31	0	0	0	36	1	0	1	0	0	2	0	0	0	1	0	1	0	1	12	8	0	21	65
% Heavy Vehicles	18.2	0	0	1.7	0	6.0	11.6	5.9	0	0	0	6.3	9.1	0	2.5	0	0	3.3	0	0	0	8.3	0	2.1	0	7.7	1.8	22.2	0	2.9	4.4





PRECISION
D A T A
INDUSTRIES, LLC

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N/S: Milton Street
E/W: Industrial Drive/ Fleet Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165155 A
Site Code : TBA
Start Date : 6/23/2016
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Milton Street From North				Industrial Drive From East				Milton Street From South				Fleet Street From West				Int. Total	
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		
07:00 AM	0	115	13	0	27	0	16	0	19	112	0	0	0	0	1	0	0	303
07:15 AM	0	111	13	0	22	0	21	0	19	136	0	0	1	0	0	0	0	323
07:30 AM	1	109	5	0	15	0	16	0	9	118	0	0	1	0	0	0	0	274
07:45 AM	0	127	9	1	11	0	6	0	18	122	0	0	0	0	0	0	0	294
Total	1	462	40	1	75	0	59	0	65	488	0	0	2	0	1	0	0	1194
08:00 AM	1	118	5	0	6	0	8	0	18	130	0	0	0	0	0	0	0	286
08:15 AM	0	86	21	0	10	0	7	0	14	138	0	0	0	0	3	0	0	279
08:30 AM	1	106	18	0	21	0	10	0	16	91	0	0	0	0	1	0	0	264
08:45 AM	1	107	20	0	13	0	6	0	5	103	0	0	0	0	0	0	0	255
Total	3	417	64	0	50	0	31	0	53	462	0	0	0	0	4	0	0	1084
Grand Total	4	879	104	1	125	0	90	0	118	950	0	0	2	0	5	0	0	2278
Apprch %	0.4	89	10.5	0.1	58.1	0	41.9	0	11	89	0	0	28.6	0	71.4	0	0	
Total %	0.2	38.6	4.6	0	5.5	0	4	0	5.2	41.7	0	0	0.1	0	0.2	0	0	
Cars	3	808	54	1	62	0	58	0	87	877	0	0	2	0	5	0	0	1957
% Cars	75	91.9	51.9	100	49.6	0	64.4	0	73.7	92.3	0	0	100	0	100	0	0	85.9
Heavy Vehicles	1	71	50	0	63	0	32	0	31	73	0	0	0	0	0	0	0	321
% Heavy Vehicles	25	8.1	48.1	0	50.4	0	35.6	0	26.3	7.7	0	0	0	0	0	0	0	14.1

Start Time	Milton Street From North					Industrial Drive From East					Milton Street From South					Fleet Street From West					Int. Total
	Right	Thru	Left	U-Turn	App.Total	Right	Thru	Left	U-Turn	App.Total	Right	Thru	Left	U-Turn	App.Total	Right	Thru	Left	U-Turn	App.Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	115	13	0	128	27	0	16	0	43	19	112	0	0	131	0	0	1	0	1	303
07:15 AM	0	111	13	0	124	22	0	21	0	43	19	136	0	0	155	1	0	0	0	1	323
07:30 AM	1	109	5	0	115	15	0	16	0	31	9	118	0	0	127	1	0	0	0	1	274
07:45 AM	0	127	9	1	137	11	0	6	0	17	18	122	0	0	140	0	0	0	0	0	294
Total Volume	1	462	40	1	504	75	0	59	0	134	65	488	0	0	553	2	0	1	0	3	1194
% App. Total	0.2	91.7	7.9	0.2		56	0	44	0		11.8	88.2	0	0		66.7	0	33.3	0		
PHF	.250	.909	.769	.250	.920	.694	.000	.702	.000	.779	.855	.897	.000	.000	.892	.500	.000	.250	.000	.750	.924
Cars	1	430	35	1	467	28	0	44	0	72	54	449	0	0	503	2	0	1	0	3	1045
% Cars	100	93.1	87.5	100	92.7	37.3	0	74.6	0	53.7	83.1	92.0	0	0	91.0	100	0	100	0	100	87.5
Heavy Vehicles	0	32	5	0	37	47	0	15	0	62	11	39	0	0	50	0	0	0	0	0	149
% Heavy Vehicles	0	6.9	12.5	0	7.3	62.7	0	25.4	0	46.3	16.9	8.0	0	0	9.0	0	0	0	0	0	12.5



PRECISION
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City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165155 A
Site Code : TBA
Start Date : 6/23/2016
Page No : 1

Groups Printed- Cars

Start Time	Milton Street From North				Industrial Drive From East				Milton Street From South				Fleet Street From West				Int. Total		
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn			
07:00 AM	0	108	11	0	8	0	14	0	18	103	0	0	0	0	1	0	0	0	263
07:15 AM	0	102	12	0	7	0	16	0	17	125	0	0	1	0	0	0	0	0	280
07:30 AM	1	106	4	0	7	0	11	0	3	108	0	0	1	0	0	0	0	0	241
07:45 AM	0	114	8	1	6	0	3	0	16	113	0	0	0	0	0	0	0	0	261
Total	1	430	35	1	28	0	44	0	54	449	0	0	2	0	1	0	0	0	1045
08:00 AM	0	106	2	0	4	0	4	0	14	120	0	0	0	0	0	0	0	0	250
08:15 AM	0	75	5	0	4	0	3	0	7	127	0	0	0	0	3	0	0	0	224
08:30 AM	1	98	6	0	14	0	4	0	11	86	0	0	0	0	1	0	0	0	221
08:45 AM	1	99	6	0	12	0	3	0	1	95	0	0	0	0	0	0	0	0	217
Total	2	378	19	0	34	0	14	0	33	428	0	0	0	0	4	0	0	0	912
Grand Total	3	808	54	1	62	0	58	0	87	877	0	0	2	0	5	0	0	0	1957
Apprch %	0.3	93.3	6.2	0.1	51.7	0	48.3	0	9	91	0	0	28.6	0	71.4	0	0	0	
Total %	0.2	41.3	2.8	0.1	3.2	0	3	0	4.4	44.8	0	0	0.1	0	0.3	0	0	0	

Start Time	Milton Street From North					Industrial Drive From East					Milton Street From South					Fleet Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	108	11	0	119	8	0	14	0	22	18	103	0	0	121	0	0	1	0	1	263
07:15 AM	0	102	12	0	114	7	0	16	0	23	17	125	0	0	142	1	0	0	0	1	280
07:30 AM	1	106	4	0	111	7	0	11	0	18	3	108	0	0	111	1	0	0	0	1	241
07:45 AM	0	114	8	1	123	6	0	3	0	9	16	113	0	0	129	0	0	0	0	0	261
Total Volume	1	430	35	1	467	28	0	44	0	72	54	449	0	0	503	2	0	1	0	3	1045
% App. Total	0.2	92.1	7.5	0.2		38.9	0	61.1	0		10.7	89.3	0	0		66.7	0	33.3	0		
PHF	.250	.943	.729	.250	.949	.875	.000	.688	.000	.783	.750	.898	.000	.000	.886	.500	.000	.250	.000	.750	.933



PRECISION
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City, State: Hyde Park, MA
Client: VHB/ C. Dube

File Name : 165155 A
Site Code : TBA
Start Date : 6/23/2016
Page No : 1

Groups Printed- Peds and Bicycles

Start Time	Milton Street From North					Industrial Drive From East					Milton Street From South						Fleet Street From West					Int. Total	
	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds Mid WB	Peds Mid EB	Peds WB	Peds EB	Right	Thru	Left	Peds NB		Peds SB
07:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	4	7
07:15 AM	0	0	0	0	0	0	0	0	4	0	0	0	0	1	0	0	0	0	0	0	1	2	8
07:30 AM	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	2	1	7
Total	0	0	0	2	0	0	0	0	9	1	0	0	0	2	0	0	0	0	0	0	5	7	26
08:00 AM	0	1	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	5
08:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	1	4
08:30 AM	0	0	0	0	0	0	0	0	6	0	0	1	0	0	0	0	1	0	0	0	1	0	9
08:45 AM	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	1	1	7
Total	0	1	0	2	0	0	0	0	10	4	0	2	0	0	0	0	2	0	0	0	2	2	25
Grand Total	0	1	0	4	0	0	0	0	19	5	0	2	0	2	0	0	2	0	0	0	7	9	51
Apprch %	0	20	0	80	0	0	0	0	79.2	20.8	0	33.3	0	33.3	0	0	33.3	0	0	0	43.8	56.2	
Total %	0	2	0	7.8	0	0	0	0	37.3	9.8	0	3.9	0	3.9	0	0	3.9	0	0	0	13.7	17.6	

Start Time	Milton Street From North						Industrial Drive From East						Milton Street From South						Fleet Street From West						Int. Total		
	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds Mid WB	Peds Mid EB	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB		Peds SB	App. Total
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	4	6	7
07:15 AM	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	1	0	0	0	1	0	0	0	1	2	3	8
07:30 AM	0	0	0	2	0	2	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	1	0	0	0	1	0	0	0	2	1	3	7
Total Volume	0	0	0	2	0	2	0	0	0	9	1	10	0	0	0	2	0	0	0	2	0	0	0	5	7	12	26
% App. Total	0	0	0	100	0		0	0	0	90	10		0	0	0	100	0	0	0		0	0	0	41.7	58.3		
PHF	.000	.000	.000	.250	.000	.250	.000	.000	.000	.563	.250	.625	.000	.000	.000	.500	.000	.000	.000	.500	.000	.000	.000	.625	.438	.500	.813

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:00 AM



PRECISION
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File Name : 165155 AA
Site Code : TBA
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Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Milton Street From North				Industrial Drive From East				Milton Street From South				Fleet Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	125	10	0	21	0	14	0	4	150	3	0	0	0	1	0	328
04:15 PM	1	116	6	0	9	0	3	0	7	146	1	0	1	0	0	0	290
04:30 PM	1	103	15	0	12	0	21	0	5	148	0	0	0	0	1	0	306
04:45 PM	1	113	13	0	18	0	11	0	3	188	0	0	0	0	0	0	347
Total	3	457	44	0	60	0	49	0	19	632	4	0	1	0	2	0	1271
05:00 PM	1	131	7	0	8	0	6	0	0	165	0	0	1	0	2	0	321
05:15 PM	2	131	5	0	14	0	14	0	0	159	0	0	1	0	3	0	329
05:30 PM	1	144	5	0	8	0	8	0	1	167	0	0	0	0	0	0	334
05:45 PM	0	119	2	0	4	0	2	0	1	156	1	0	0	0	0	0	285
Total	4	525	19	0	34	0	30	0	2	647	1	0	2	0	5	0	1269
Grand Total	7	982	63	0	94	0	79	0	21	1279	5	0	3	0	7	0	2540
Apprch %	0.7	93.3	6	0	54.3	0	45.7	0	1.6	98	0.4	0	30	0	70	0	
Total %	0.3	38.7	2.5	0	3.7	0	3.1	0	0.8	50.4	0.2	0	0.1	0	0.3	0	
Cars	7	962	19	0	94	0	73	0	11	1239	5	0	3	0	7	0	2420
% Cars	100	98	30.2	0	100	0	92.4	0	52.4	96.9	100	0	100	0	100	0	95.3
Heavy Vehicles	0	20	44	0	0	0	6	0	10	40	0	0	0	0	0	0	120
% Heavy Vehicles	0	2	69.8	0	0	0	7.6	0	47.6	3.1	0	0	0	0	0	0	4.7

Start Time	Milton Street From North					Industrial Drive From East					Milton Street From South					Fleet Street From West					Int. Total
	Right	Thru	Left	U-Turn	App.Total	Right	Thru	Left	U-Turn	App.Total	Right	Thru	Left	U-Turn	App.Total	Right	Thru	Left	U-Turn	App.Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	1	113	13	0	127	18	0	11	0	29	3	188	0	0	191	0	0	0	0	0	347
05:00 PM	1	131	7	0	139	8	0	6	0	14	0	165	0	0	165	1	0	2	0	3	321
05:15 PM	2	131	5	0	138	14	0	14	0	28	0	159	0	0	159	1	0	3	0	4	329
05:30 PM	1	144	5	0	150	8	0	8	0	16	1	167	0	0	168	0	0	0	0	0	334
Total Volume	5	519	30	0	554	48	0	39	0	87	4	679	0	0	683	2	0	5	0	7	1331
% App. Total	0.9	93.7	5.4	0		55.2	0	44.8	0		0.6	99.4	0	0		28.6	0	71.4	0		
PHF	.625	.901	.577	.000	.923	.667	.000	.696	.000	.750	.333	.903	.000	.000	.894	.500	.000	.417	.000	.438	.959
Cars	5	513	9	0	527	48	0	37	0	85	3	663	0	0	666	2	0	5	0	7	1285
% Cars	100	98.8	30.0	0	95.1	100	0	94.9	0	97.7	75.0	97.6	0	0	97.5	100	0	100	0	100	96.5
Heavy Vehicles	0	6	21	0	27	0	0	2	0	2	1	16	0	0	17	0	0	0	0	0	46
% Heavy Vehicles	0	1.2	70.0	0	4.9	0	0	5.1	0	2.3	25.0	2.4	0	0	2.5	0	0	0	0	0	3.5



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N/S: Milton Street
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Groups Printed- Cars

Start Time	Milton Street From North				Industrial Drive From East				Milton Street From South				Fleet Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	120	1	0	21	0	13	0	1	139	3	0	0	0	1	0	299
04:15 PM	1	113	1	0	9	0	1	0	3	142	1	0	1	0	0	0	272
04:30 PM	1	100	7	0	12	0	20	0	3	141	0	0	0	0	1	0	285
04:45 PM	1	111	3	0	18	0	10	0	2	182	0	0	0	0	0	0	327
Total	3	444	12	0	60	0	44	0	9	604	4	0	1	0	2	0	1183
05:00 PM	1	129	0	0	8	0	5	0	0	161	0	0	1	0	2	0	307
05:15 PM	2	131	2	0	14	0	14	0	0	155	0	0	1	0	3	0	322
05:30 PM	1	142	4	0	8	0	8	0	1	165	0	0	0	0	0	0	329
05:45 PM	0	116	1	0	4	0	2	0	1	154	1	0	0	0	0	0	279
Total	4	518	7	0	34	0	29	0	2	635	1	0	2	0	5	0	1237
Grand Total	7	962	19	0	94	0	73	0	11	1239	5	0	3	0	7	0	2420
Apprch %	0.7	97.4	1.9	0	56.3	0	43.7	0	0.9	98.7	0.4	0	30	0	70	0	
Total %	0.3	39.8	0.8	0	3.9	0	3	0	0.5	51.2	0.2	0	0.1	0	0.3	0	

Start Time	Milton Street From North					Industrial Drive From East					Milton Street From South					Fleet Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	1	111	3	0	115	18	0	10	0	28	2	182	0	0	184	0	0	0	0	0	327
05:00 PM	1	129	0	0	130	8	0	5	0	13	0	161	0	0	161	1	0	2	0	3	307
05:15 PM	2	131	2	0	135	14	0	14	0	28	0	155	0	0	155	1	0	3	0	4	322
05:30 PM	1	142	4	0	147	8	0	8	0	16	1	165	0	0	166	0	0	0	0	0	329
Total Volume	5	513	9	0	527	48	0	37	0	85	3	663	0	0	666	2	0	5	0	7	1285
% App. Total	0.9	97.3	1.7	0		56.5	0	43.5	0		0.5	99.5	0	0		28.6	0	71.4	0		
PHF	.625	.903	.563	.000	.896	.667	.000	.661	.000	.759	.375	.911	.000	.000	.905	.500	.000	.417	.000	.438	.976



PRECISION
D A T A
INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

File Name : 165155 AA
Site Code : TBA
Start Date : 6/23/2016
Page No : 1

N/S: Milton Street
E/W: Industrial Drive/ Fleet Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Groups Printed- Peds and Bicycles

Start Time	Milton Street From North					Industrial Drive From East					Milton Street From South						Fleet Street From West					Int. Total	
	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds Mid WB	Peds Mid EB	Peds WB	Peds EB	Right	Thru	Left	Peds NB		Peds SB
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	1	4	9
04:15 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	1	1	0	0	0	0	0	0	1	7
04:30 PM	0	0	0	2	0	0	0	0	3	4	1	1	0	12	3	0	0	0	0	0	2	2	30
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	18	0	0	0	0	0	18	2	41
Total	0	2	0	2	0	0	0	0	3	6	1	1	0	19	23	0	0	0	0	0	21	9	87
05:00 PM	0	0	0	2	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	2	0	8
05:15 PM	0	1	0	3	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	2	13
05:30 PM	0	0	0	2	0	0	0	0	1	2	0	0	0	1	0	0	0	0	0	0	3	1	10
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2
Total	0	1	0	7	2	0	0	0	3	3	0	0	0	1	3	0	0	0	0	0	10	3	33
Grand Total	0	3	0	9	2	0	0	0	6	9	1	1	0	20	26	0	0	0	0	0	31	12	120
Apprch %	0	21.4	0	64.3	14.3	0	0	0	40	60	2.1	2.1	0	41.7	54.2	0	0	0	0	0	72.1	27.9	
Total %	0	2.5	0	7.5	1.7	0	0	0	5	7.5	0.8	0.8	0	16.7	21.7	0	0	0	0	0	25.8	10	

Start Time	Milton Street From North						Industrial Drive From East						Milton Street From South						Fleet Street From West						Int. Total		
	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds Mid WB	Peds Mid EB	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB		Peds SB	App. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 04:30 PM																											
04:30 PM	0	0	0	2	0	2	0	0	0	3	4	7	1	1	0	12	3	0	0	17	0	0	0	2	2	4	30
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	18	0	0	21	0	0	0	18	2	20	41
05:00 PM	0	0	0	2	0	2	0	0	0	1	1	2	0	0	0	0	2	0	0	2	0	0	0	2	0	2	8
05:15 PM	0	1	0	3	2	6	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	4	2	6	13
Total Volume	0	1	0	7	2	10	0	0	0	5	5	10	1	1	0	15	23	0	0	40	0	0	0	26	6	32	92
% App. Total	0	10	0	70	20	0	0	0	50	50	2.5	2.5	0	37.5	57.5	0	0	0	0	0	81.2	18.8					
PHF	.000	.250	.000	.583	.250	.417	.000	.000	.000	.417	.313	.357	.250	.250	.000	.313	.319	.000	.000	.476	.000	.000	.000	.361	.750	.400	.561



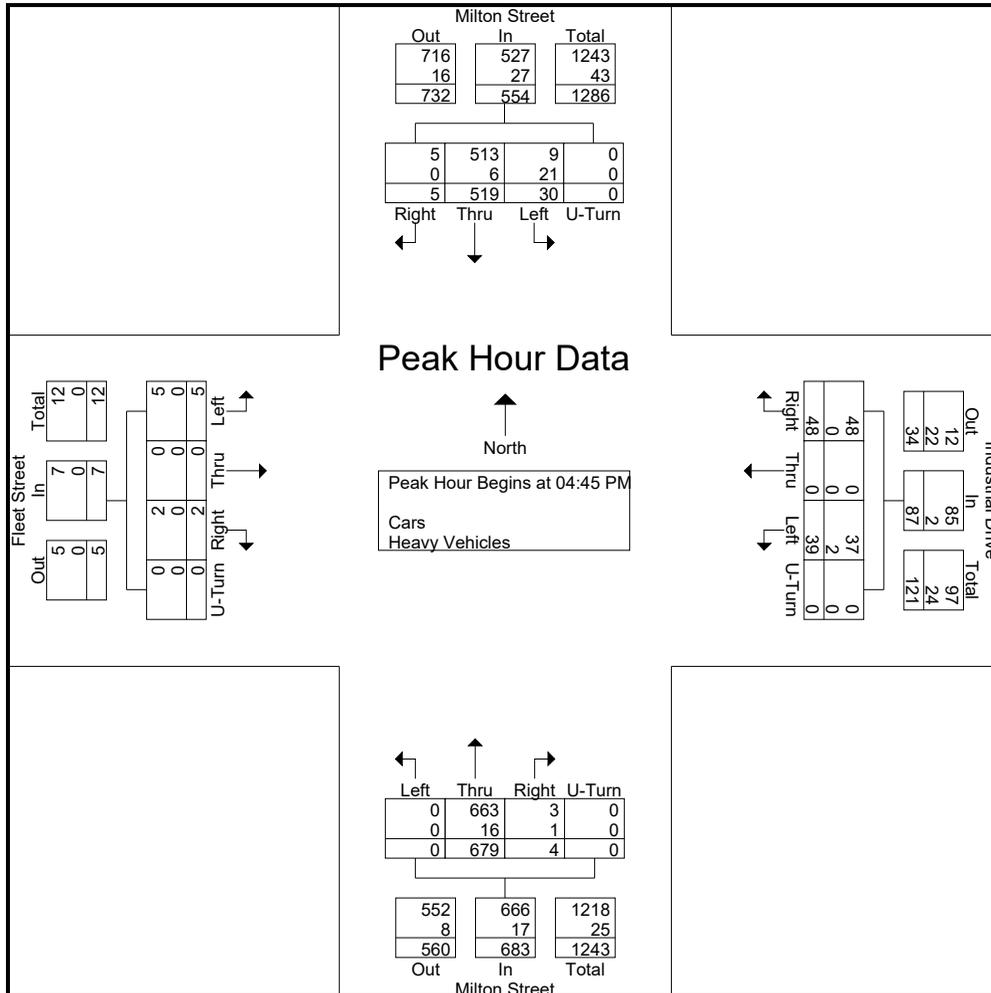
PRECISION
D A T A
INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

File Name : 165155 AA
Site Code : TBA
Start Date : 6/23/2016
Page No : 1

N/S: Milton Street
E/W: Industrial Drive/ Fleet Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube

Start Time	Milton Street From North					Industrial Drive From East					Milton Street From South					Fleet Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	1	113	13	0	127	18	0	11	0	29	3	188	0	0	191	0	0	0	0	0	347
05:00 PM	1	131	7	0	139	8	0	6	0	14	0	165	0	0	165	1	0	2	0	3	321
05:15 PM	2	131	5	0	138	14	0	14	0	28	0	159	0	0	159	1	0	3	0	4	329
05:30 PM	1	144	5	0	150	8	0	8	0	16	1	167	0	0	168	0	0	0	0	0	334
Total Volume	5	519	30	0	554	48	0	39	0	87	4	679	0	0	683	2	0	5	0	7	1331
% App. Total	0.9	93.7	5.4	0		55.2	0	44.8	0		0.6	99.4	0	0		28.6	0	71.4	0		
PHF	.625	.901	.577	.000	.923	.667	.000	.696	.000	.750	.333	.903	.000	.000	.894	.500	.000	.417	.000	.438	.959
Cars	5	513	9	0	527	48	0	37	0	85	3	663	0	0	666	2	0	5	0	7	1285
% Cars	100	98.8	30.0	0	95.1	100	0	94.9	0	97.7	75.0	97.6	0	0	97.5	100	0	100	0	100	96.5
Heavy Vehicles	0	6	21	0	27	0	0	2	0	2	1	16	0	0	17	0	0	0	0	0	46
% Heavy Vehicles	0	1.2	70.0	0	4.9	0	0	5.1	0	2.3	25.0	2.4	0	0	2.5	0	0	0	0	0	3.5



Sprague Street
north of Horne Street
City, Hyde Park, MA
Client: VHB/C. Dube



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

165002 A Class
Site Code: 13464.00
Date Start: 30-Mar-16

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
03/30/1														
6	1	21	0	1	0	1	0	0	0	0	0	0	0	24
01:00	0	11	5	0	0	0	0	0	0	0	0	0	0	16
02:00	0	8	0	0	0	2	0	0	0	0	0	0	0	10
03:00	0	2	8	0	1	0	0	0	0	0	0	0	0	11
04:00	0	11	11	0	6	0	0	0	0	0	0	0	0	28
05:00	1	64	30	0	21	2	0	0	0	0	0	0	0	118
06:00	2	189	64	2	37	2	0	2	3	0	0	0	0	301
07:00	5	329	92	6	46	4	2	4	3	0	0	0	0	491
08:00	2	262	65	4	29	1	0	3	5	0	0	0	0	371
09:00	1	191	72	3	33	3	1	3	7	0	0	0	0	314
10:00	5	141	51	6	41	6	3	1	4	0	0	0	0	258
11:00	0	162	58	4	31	5	1	0	6	0	0	0	0	267
12 PM	9	192	48	3	22	4	2	1	4	0	0	0	0	285
13:00	4	165	36	5	22	9	1	2	1	0	0	0	0	245
14:00	7	187	51	4	31	8	2	4	2	0	0	0	0	296
15:00	6	259	56	1	27	7	1	0	1	0	0	0	0	358
16:00	0	296	72	1	17	5	0	0	0	0	0	0	0	391
17:00	9	306	63	0	18	3	0	0	0	0	0	0	0	399
18:00	2	273	53	0	19	1	0	1	0	0	0	0	0	349
19:00	1	195	45	2	7	1	0	0	0	0	0	0	0	251
20:00	0	140	37	0	7	2	0	0	0	0	0	0	0	186
21:00	2	116	30	0	6	1	0	0	0	0	0	0	0	155
22:00	1	74	17	0	7	1	0	0	0	0	0	0	0	100
23:00	1	69	19	1	3	2	0	0	0	0	0	0	0	95
Total	59	3663	983	43	431	70	13	21	36	0	0	0	0	5319
Percent	1.1%	68.9%	18.5%	0.8%	8.1%	1.3%	0.2%	0.4%	0.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	07:00	10:00	10:00	07:00	09:00					07:00
Vol.	5	329	92	6	46	6	3	4	7					491
PM Peak	12:00	17:00	16:00	13:00	14:00	13:00	12:00	14:00	12:00					17:00
Vol.	9	306	72	5	31	9	2	4	4					399

Sprague Street
north of Horne Street
City, Hyde Park, MA
Client: VHB/C. Dube



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

165002 A Class
Site Code: 13464.00
Date Start: 30-Mar-16

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
03/31/1														
6	0	15	4	1	1	1	0	0	0	0	0	0	0	22
01:00	0	6	1	0	2	0	0	0	0	0	0	0	0	9
02:00	0	7	0	0	3	0	0	0	0	0	0	0	0	10
03:00	0	4	3	0	0	0	0	0	0	0	0	0	0	7
04:00	0	20	9	0	2	0	0	0	0	0	0	0	0	31
05:00	1	63	27	2	24	0	0	0	2	2	0	0	0	121
06:00	4	180	54	1	25	2	0	0	4	1	0	0	0	271
07:00	3	337	84	12	49	3	2	4	4	0	0	0	0	498
08:00	3	285	56	9	36	3	0	2	5	0	0	0	0	399
09:00	1	177	68	2	35	5	0	2	8	1	0	0	0	299
10:00	6	159	81	3	27	5	2	0	5	0	0	0	0	288
11:00	1	156	49	1	61	2	1	4	6	1	0	0	0	282
12 PM	5	212	56	5	31	5	1	1	3	1	0	0	0	320
13:00	6	180	65	2	27	5	2	2	7	1	0	0	0	297
14:00	9	187	70	3	27	7	0	1	7	1	0	0	0	312
15:00	2	266	77	3	29	5	0	1	4	0	0	0	0	387
16:00	3	255	73	2	26	8	0	2	1	0	0	0	0	370
17:00	4	288	71	3	15	0	0	0	0	0	0	0	0	381
18:00	1	253	51	1	12	1	0	1	0	0	0	0	0	320
19:00	2	189	44	0	8	2	0	0	0	0	0	0	0	245
20:00	0	161	36	1	9	0	0	0	0	0	0	0	0	207
21:00	1	110	27	0	5	1	0	0	0	0	0	0	0	144
22:00	2	70	14	0	9	0	0	0	0	0	0	0	0	95
23:00	0	65	20	1	4	1	0	0	0	0	0	0	0	91
Total	54	3645	1040	52	467	56	8	20	56	8	0	0	0	5406
Percent	1.0%	67.4%	19.2%	1.0%	8.6%	1.0%	0.1%	0.4%	1.0%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	07:00	11:00	09:00	07:00	07:00	09:00	05:00				07:00
Vol.	6	337	84	12	61	5	2	4	8	2				498
PM Peak	14:00	17:00	15:00	12:00	12:00	16:00	13:00	13:00	13:00	12:00				15:00
Vol.	9	288	77	5	31	8	2	2	7	1				387
Total		7308	2023	95	898	126	21	41	92	8	0	0	0	10725

Sprague Street
north of Horne Street
City, Hyde Park, MA
Client: VHB/C. Dube



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

165002 A Class
Site Code: 13464.00
Date Start: 30-Mar-16

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
03/30/1														
6	0	10	7	1	0	0	0	0	0	0	0	0	0	18
01:00	0	2	3	0	2	1	0	0	0	0	0	0	0	8
02:00	0	4	6	0	1	1	0	0	0	0	0	0	0	12
03:00	0	2	2	0	4	0	0	0	0	0	0	0	0	8
04:00	0	10	26	2	9	0	0	0	0	0	0	0	0	47
05:00	0	32	44	0	11	1	0	0	0	0	0	0	0	88
06:00	3	133	72	6	23	8	1	1	2	1	0	0	0	250
07:00	4	168	98	3	32	6	0	0	5	0	0	0	0	316
08:00	3	173	85	6	37	6	0	1	5	0	0	0	0	316
09:00	4	168	51	5	38	4	0	4	1	0	0	0	0	275
10:00	1	124	67	6	40	3	0	0	11	0	0	0	0	252
11:00	4	133	61	6	47	8	0	1	7	0	0	0	0	267
12 PM	3	159	67	2	24	3	0	1	2	0	0	0	0	261
13:00	2	147	60	9	32	6	0	4	3	0	0	0	0	263
14:00	3	163	84	2	40	6	1	6	0	0	0	0	0	305
15:00	2	220	90	4	47	2	0	2	0	0	0	0	0	367
16:00	4	258	99	2	41	2	0	1	0	0	0	0	0	407
17:00	2	278	99	0	39	3	0	6	0	0	0	0	0	427
18:00	2	258	79	2	36	0	0	0	0	0	0	0	0	377
19:00	0	158	65	0	24	3	0	1	0	0	0	0	0	251
20:00	2	99	48	0	16	2	0	0	1	0	0	0	0	168
21:00	0	63	32	0	6	0	0	0	1	0	0	0	0	102
22:00	2	46	28	0	14	1	0	0	0	0	0	0	0	91
23:00	0	23	22	0	6	1	0	1	0	0	0	0	0	53
Total	41	2831	1295	56	569	67	2	29	38	1	0	0	0	4929
Percent	0.8%	57.4%	26.3%	1.1%	11.5%	1.4%	0.0%	0.6%	0.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	07:00	06:00	11:00	06:00	06:00	09:00	10:00	06:00				07:00
Vol.	4	173	98	6	47	8	1	4	11	1				316
PM Peak	16:00	17:00	16:00	13:00	15:00	13:00	14:00	14:00	13:00					17:00
Vol.	4	278	99	9	47	6	1	6	3					427

Sprague Street
north of Horne Street
City, Hyde Park, MA
Client: VHB/C. Dube



PRECISION
D A T A
INDUSTRIES, LLC

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Email: datarequests@pdillc.com

165002 A Class
Site Code: 13464.00
Date Start: 30-Mar-16

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
03/31/1														
6	0	12	14	1	4	0	0	0	0	0	0	0	0	31
01:00	0	3	4	0	1	0	0	0	0	0	0	0	0	8
02:00	0	3	5	0	0	1	0	0	0	0	0	0	0	9
03:00	0	2	2	0	3	0	0	0	0	0	0	0	0	7
04:00	0	15	11	1	3	1	0	0	0	0	0	0	0	31
05:00	0	59	27	0	10	3	0	0	1	0	0	0	0	100
06:00	2	162	50	5	19	6	0	2	1	2	0	0	0	249
07:00	3	187	79	5	35	6	0	0	4	1	0	0	0	320
08:00	2	185	69	2	24	7	0	0	4	0	0	0	0	293
09:00	3	165	65	6	30	2	0	2	1	4	0	0	0	278
10:00	3	140	63	4	28	6	0	1	2	0	0	0	0	247
11:00	3	119	52	8	46	4	0	4	5	4	0	0	0	245
12 PM	6	151	77	3	43	8	0	1	2	0	0	0	0	291
13:00	8	168	60	5	29	5	1	3	4	5	0	0	0	288
14:00	3	196	70	9	42	2	0	3	7	0	0	0	0	332
15:00	4	201	83	3	49	3	1	3	0	0	0	0	0	347
16:00	2	225	120	3	53	2	0	2	0	0	0	0	0	407
17:00	1	232	85	2	40	0	0	2	0	0	0	0	0	362
18:00	2	253	94	3	44	0	0	0	0	0	0	0	0	396
19:00	3	182	47	2	21	0	0	0	0	0	0	0	0	255
20:00	1	109	56	1	12	0	0	0	0	0	0	0	0	179
21:00	2	90	30	1	7	1	0	0	0	0	0	0	0	131
22:00	0	62	23	0	8	0	0	0	0	0	0	0	0	93
23:00	0	31	18	0	6	0	0	0	0	0	0	0	0	55
Total	48	2952	1204	64	557	57	2	23	31	16	0	0	0	4954
Percent	1.0%	59.6%	24.3%	1.3%	11.2%	1.2%	0.0%	0.5%	0.6%	0.3%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	11:00	11:00	08:00		11:00	11:00	09:00				07:00
Vol.	3	187	79	8	46	7		4	5	4				320
PM Peak	13:00	18:00	16:00	14:00	16:00	12:00	13:00	13:00	14:00	13:00				16:00
Vol.	8	253	120	9	53	8	1	3	7	5				407
Total		5783	2499	120	1126	124	4	52	69	17	0	0	0	9883



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Sprague Street
north of Home Street
City, Hyde Park, MA
Client: VHB/C. Dube

165002 A Speed
Site Code: 13464.00
Date Start: 30-Mar-16

NB

Start Time	1	15	20	25	30	35	40	45	50	55	60	65	70	Total	85th %ile	Ave Speed
03/30/16	0	0	3	2	4	5	8	2	0	0	0	0	0	24	42	36
01:00	0	0	0	2	1	5	3	5	0	0	0	0	0	16	46	39
02:00	0	1	0	2	2	4	1	0	0	0	0	0	0	10	38	32
03:00	0	0	0	0	0	4	4	2	1	0	0	0	0	11	47	42
04:00	0	0	1	0	0	8	9	5	4	1	0	0	0	28	50	43
05:00	0	3	3	1	14	41	39	11	3	3	0	0	0	118	43	39
06:00	0	1	6	19	78	124	61	11	1	0	0	0	0	301	41	36
07:00	1	2	15	19	126	232	77	16	2	0	1	0	0	491	40	36
08:00	11	1	6	29	88	153	76	7	0	0	0	0	0	371	40	35
09:00	0	1	6	29	99	125	44	8	2	0	0	0	0	314	39	35
10:00	0	0	8	46	78	92	28	5	0	1	0	0	0	258	38	34
11:00	0	2	14	32	94	80	33	10	1	0	0	1	0	267	39	34
12 PM	3	3	7	40	89	93	39	9	1	1	0	0	0	285	39	34
13:00	7	1	9	23	82	88	31	3	1	0	0	0	0	245	38	34
14:00	1	3	9	48	97	99	36	3	0	0	0	0	0	296	38	34
15:00	1	0	11	54	107	130	47	7	0	1	0	0	0	358	39	34
16:00	1	2	23	73	121	134	30	6	1	0	0	0	0	391	38	33
17:00	1	1	17	50	124	128	70	8	0	0	0	0	0	399	40	35
18:00	2	2	15	52	105	121	44	8	0	0	0	0	0	349	38	34
19:00	0	1	10	46	68	86	29	10	1	0	0	0	0	251	39	34
20:00	0	1	3	17	48	73	34	8	1	0	1	0	0	186	41	36
21:00	1	0	10	25	42	44	28	4	1	0	0	0	0	155	40	34
22:00	0	0	0	6	27	45	17	3	2	0	0	0	0	100	41	36
23:00	1	2	6	10	18	33	25	0	0	0	0	0	0	95	41	35
Total	30	27	182	625	1512	1947	813	151	22	7	2	1	0	5319		
%	0.6%	0.5%	3.4%	11.8%	28.4%	36.6%	15.3%	2.8%	0.4%	0.1%	0.0%	0.0%	0.0%			
AM Peak	08:00	05:00	07:00	08:00	07:00	07:00	07:00	07:00	04:00	05:00	07:00			07:00		
Vol.	11	3	15	29	126	232	77	16	4	3	1			491		
Midday Peak	13:00	12:00	11:00	14:00	14:00	14:00	12:00	11:00	11:00	12:00		11:00		14:00		
Vol.	7	3	14	48	97	99	39	10	1	1		1		296		
PM Peak	18:00	16:00	16:00	16:00	17:00	16:00	17:00	19:00	22:00	15:00	20:00			17:00		
Vol.	2	2	23	73	124	134	70	10	2	1	1			399		
%iles			15th Percentile :			28 MPH										
			50th Percentile :			34 MPH										
			85th Percentile :			40 MPH										
			95th Percentile :			43 MPH										

Stats
 10 MPH Pace Speed : 30-39 MPH
 Number in Pace : 3459
 Percent in Pace : 65.0%
 Number of Vehicles > 35 MPH : 2554
 Percent of Vehicles > 35 MPH : 48.0%
 Mean Speed(Average) : 35 MPH

Sprague Street
north of Horne Street
City, Hyde Park, MA
Client: VHB/C. Dube



PRECISION
D A T A
INDUSTRIES, LLC

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Email: datarequests@pdillc.com

165002 A Speed
Site Code: 13464.00
Date Start: 30-Mar-16

NB

Start Time	1	15	20	25	30	35	40	45	50	55	60	65	70	Total	85th %ile	Ave Speed
	14	19	24	29	34	39	44	49	54	59	64	69	9999			
03/31/16	0	0	2	3	5	5	4	3	0	0	0	0	0	22	43	35
01:00	0	1	0	1	2	4	0	1	0	0	0	0	0	9	38	34
02:00	0	0	0	1	1	4	1	2	1	0	0	0	0	10	47	40
03:00	0	0	0	0	2	2	2	1	0	0	0	0	0	7	43	38
04:00	0	0	1	1	4	10	8	5	1	1	0	0	0	31	46	40
05:00	0	3	1	8	19	44	32	10	4	0	0	0	0	121	43	38
06:00	0	1	2	43	66	111	37	10	1	0	0	0	0	271	39	35
07:00	3	5	19	57	140	177	88	9	0	0	0	0	0	498	40	35
08:00	0	2	1	30	116	170	69	10	1	0	0	0	0	399	40	36
09:00	0	1	6	31	87	105	56	13	0	0	0	0	0	299	41	36
10:00	0	0	13	36	89	98	40	10	1	0	1	0	0	288	40	35
11:00	1	2	7	30	73	114	44	8	3	0	0	0	0	282	40	35
12 PM	0	1	7	42	95	122	40	11	0	1	1	0	0	320	39	35
13:00	0	4	8	60	87	92	34	10	1	1	0	0	0	297	39	34
14:00	2	5	14	40	93	95	44	13	5	0	1	0	0	312	40	34
15:00	0	1	15	52	135	126	45	11	2	0	0	0	0	387	38	34
16:00	0	0	17	62	95	120	54	18	4	0	0	0	0	370	40	35
17:00	1	1	10	68	115	135	37	12	0	0	1	1	0	381	38	34
18:00	0	1	12	43	93	117	43	11	0	0	0	0	0	320	39	35
19:00	0	1	5	45	79	78	32	3	2	0	0	0	0	245	39	34
20:00	0	0	8	20	59	86	27	4	3	0	0	0	0	207	39	35
21:00	0	0	5	18	38	57	19	4	3	0	0	0	0	144	40	35
22:00	1	2	0	7	28	35	19	3	0	0	0	0	0	95	41	35
23:00	0	1	5	16	12	30	21	4	0	1	1	0	0	91	42	36
Total	8	32	158	714	1533	1937	796	186	32	4	5	1	0	5406		
%	0.1%	0.6%	2.9%	13.2%	28.4%	35.8%	14.7%	3.4%	0.6%	0.1%	0.1%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	07:00	07:00	07:00	09:00	05:00	04:00				07:00		
Vol.	3	5	19	57	140	177	88	13	4	1				498		
Midday Peak	14:00	14:00	14:00	13:00	12:00	12:00	11:00	14:00	14:00	12:00	12:00			12:00		
Vol.	2	5	14	60	95	122	44	13	5	1	1			320		
PM Peak	17:00	22:00	16:00	17:00	15:00	17:00	16:00	16:00	16:00	23:00	17:00	17:00		15:00		
Vol.	1	2	17	68	135	135	54	18	4	1	1	1		387		
%iles				15th Percentile :			28 MPH									
				50th Percentile :			34 MPH									
				85th Percentile :			40 MPH									
				95th Percentile :			43 MPH									

Stats
 10 MPH Pace Speed : 30-39 MPH
 Number in Pace : 3470
 Percent in Pace : 64.2%
 Number of Vehicles > 35 MPH : 2574
 Percent of Vehicles > 35 MPH : 47.6%
 Mean Speed(Average) : 35 MPH

Sprague Street
north of Home Street
City, Hyde Park, MA
Client: VHB/C. Dube



PRECISION
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INDUSTRIES, LLC

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Email: datarequests@pdillc.com

165002 A Speed
Site Code: 13464.00
Date Start: 30-Mar-16

SB

Start Time	1	15	20	25	30	35	40	45	50	55	60	65	70	Total	85th %ile	Ave Speed
	14	19	24	29	34	39	44	49	54	59	64	69	9999			
03/30/																
16	0	0	1	1	4	4	6	2	0	0	0	0	0	18	43	37
01:00	0	0	0	1	1	3	2	1	0	0	0	0	0	8	43	38
02:00	0	0	1	1	0	3	4	3	0	0	0	0	0	12	46	39
03:00	0	0	0	0	0	2	3	1	2	0	0	0	0	8	51	44
04:00	0	0	0	0	4	12	11	13	4	1	1	1	0	47	48	43
05:00	0	0	1	3	13	29	22	17	1	1	1	0	0	88	45	40
06:00	1	4	8	37	56	86	38	18	2	0	0	0	0	250	41	35
07:00	1	2	2	22	67	117	82	17	5	1	0	0	0	316	42	37
08:00	2	3	8	18	67	122	74	18	4	0	0	0	0	316	42	37
09:00	0	2	4	19	96	105	38	8	2	1	0	0	0	275	40	35
10:00	1	1	1	11	67	122	46	3	0	0	0	0	0	252	40	36
11:00	0	2	5	23	75	107	42	13	0	0	0	0	0	267	40	36
12 PM	1	2	1	11	66	111	59	9	1	0	0	0	0	261	41	37
13:00	0	1	2	23	74	114	44	5	0	0	0	0	0	263	40	36
14:00	1	2	7	25	87	124	47	12	0	0	0	0	0	305	40	35
15:00	0	0	1	26	98	165	67	8	1	1	0	0	0	367	40	36
16:00	0	0	4	31	122	178	61	11	0	0	0	0	0	407	39	36
17:00	0	3	5	41	127	173	67	11	0	0	0	0	0	427	40	35
18:00	1	1	8	29	90	181	61	6	0	0	0	0	0	377	39	36
19:00	0	0	4	17	79	106	38	6	1	0	0	0	0	251	39	36
20:00	0	1	1	6	21	83	47	5	4	0	0	0	0	168	42	38
21:00	1	0	0	5	13	46	31	6	0	0	0	0	0	102	42	38
22:00	0	0	0	6	13	37	23	9	2	0	1	0	0	91	43	38
23:00	0	1	0	0	4	15	22	9	1	1	0	0	0	53	45	41
Total	9	25	64	356	1244	2045	935	211	30	6	3	1	0	4929		
%	0.2%	0.5%	1.3%	7.2%	25.2%	41.5%	19.0%	4.3%	0.6%	0.1%	0.1%	0.0%	0.0%			
AM Peak	08:00	06:00	06:00	06:00	09:00	08:00	07:00	06:00	07:00	04:00	04:00	04:00		07:00		
Vol.	2	4	8	37	96	122	82	18	5	1	1	1		316		
Midday Peak	12:00	11:00	14:00	14:00	14:00	14:00	12:00	11:00	12:00					14:00		
Vol.	1	2	7	25	87	124	59	13	1					305		
PM Peak	18:00	17:00	18:00	17:00	17:00	18:00	15:00	16:00	20:00	15:00	22:00			17:00		
Vol.	1	3	8	41	127	181	67	11	4	1	1			427		
%iles				15th Percentile :			30 MPH									
				50th Percentile :			35 MPH									
				85th Percentile :			41 MPH									
				95th Percentile :			44 MPH									

Stats
10 MPH Pace Speed : 30-39 MPH
Number in Pace : 3289
Percent in Pace : 66.7%
Number of Vehicles > 35 MPH : 2822
Percent of Vehicles > 35 MPH : 57.3%
Mean Speed(Average) : 36 MPH

Sprague Street
north of Home Street
City, Hyde Park, MA
Client: VHB/C. Dube



PRECISION
D A T A
INDUSTRIES, LLC

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165002 A Speed
Site Code: 13464.00
Date Start: 30-Mar-16

SB

Start Time	1	15	20	25	30	35	40	45	50	55	60	65	70	Total	85th %ile	Ave Speed
	14	19	24	29	34	39	44	49	54	59	64	69	9999			
03/31/																
16	0	0	0	3	4	6	10	6	2	0	0	0	0	31	46	40
01:00	0	0	0	0	3	2	3	0	0	0	0	0	0	8	42	37
02:00	0	0	0	1	0	4	2	2	0	0	0	0	0	9	45	39
03:00	0	0	0	0	0	2	4	1	0	0	0	0	0	7	43	41
04:00	0	0	0	0	6	12	6	4	2	1	0	0	0	31	46	40
05:00	0	1	0	3	15	37	31	10	3	0	0	0	0	100	43	39
06:00	0	2	4	30	77	89	43	4	0	0	0	0	0	249	40	35
07:00	1	1	8	29	80	117	64	17	3	0	0	0	0	320	41	36
08:00	6	2	5	24	60	123	62	10	0	1	0	0	0	293	41	36
09:00	0	2	4	23	90	117	34	7	1	0	0	0	0	278	39	35
10:00	0	0	5	19	69	114	34	5	1	0	0	0	0	247	39	35
11:00	1	2	4	13	91	88	40	4	2	0	0	0	0	245	40	35
12 PM	0	0	3	19	63	142	56	5	2	1	0	0	0	291	40	36
13:00	4	3	9	33	89	92	50	8	0	0	0	0	0	288	40	34
14:00	0	0	6	35	73	148	60	9	1	0	0	0	0	332	40	36
15:00	2	2	7	23	92	141	69	9	2	0	0	0	0	347	41	36
16:00	0	0	4	31	109	196	58	8	0	1	0	0	0	407	39	36
17:00	1	2	4	32	95	160	57	11	0	0	0	0	0	362	40	36
18:00	0	0	4	25	116	180	64	6	0	0	1	0	0	396	39	36
19:00	0	0	0	11	87	116	39	2	0	0	0	0	0	255	39	36
20:00	0	0	0	12	33	75	47	12	0	0	0	0	0	179	42	37
21:00	0	0	1	7	25	55	37	6	0	0	0	0	0	131	42	37
22:00	0	0	0	2	7	46	28	9	0	0	1	0	0	93	43	39
23:00	0	0	0	4	4	24	15	7	0	1	0	0	0	55	43	39
Total	15	17	68	379	1288	2086	913	162	19	5	2	0	0	4954		
%	0.3%	0.3%	1.4%	7.7%	26.0%	42.1%	18.4%	3.3%	0.4%	0.1%	0.0%	0.0%	0.0%			
AM Peak	08:00	06:00	07:00	06:00	09:00	08:00	07:00	07:00	05:00	04:00				07:00		
Vol.	6	2	8	30	90	123	64	17	3	1				320		
Midday Peak	13:00	13:00	13:00	14:00	11:00	14:00	14:00	14:00	11:00	12:00				14:00		
Vol.	4	3	9	35	91	148	60	9	2	1				332		
PM Peak	15:00	15:00	15:00	17:00	18:00	16:00	15:00	20:00	15:00	16:00	18:00			16:00		
Vol.	2	2	7	32	116	196	69	12	2	1	1			407		
%iles				15th Percentile :		30 MPH										
				50th Percentile :		35 MPH										
				85th Percentile :		40 MPH										
				95th Percentile :		43 MPH										

Stats
 10 MPH Pace Speed : 30-39 MPH
 Number in Pace : 3374
 Percent in Pace : 68.1%
 Number of Vehicles > 35 MPH : 2770
 Percent of Vehicles > 35 MPH : 55.9%
 Mean Speed(Average) : 36 MPH

Sprague Street
north of Home Street
City, Hyde Park, MA
Client: VHB/C. Dube



PRECISION
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INDUSTRIES, LLC

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165002 A Volume
Site Code: 13464.00
Date Start: 30-Mar-16

Start Time	NB		SB		Combin ed		30-Mar-16 Wed
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
12:00	4	92	6	72	10	164	
12:15	8	69	4	63	12	132	
12:30	5	61	3	63	8	124	
12:45	7	63	285	5	18	63	261
01:00	6	60	2	63	12	42	126
01:15	5	69	0	53	8	123	546
01:30	2	58	2	76	5	122	
01:45	3	58	245	4	8	71	263
02:00	2	78	6	66	7	24	129
02:15	3	77	1	65	8	144	508
02:30	1	75	4	89	4	142	
02:45	4	66	296	1	12	85	305
03:00	1	89	3	87	5	22	151
03:15	1	83	1	121	4	176	601
03:30	3	97	1	70	2	204	
03:45	6	89	358	3	8	89	367
04:00	2	87	6	92	9	19	178
04:15	4	66	8	108	8	179	725
04:30	11	126	18	100	12	174	
04:45	11	112	391	15	47	107	407
05:00	19	115	8	108	26	75	219
05:15	26	107	15	106	27	223	798
05:30	38	106	30	85	41	213	
05:45	35	71	399	35	88	128	427
06:00	59	109	40	113	70	206	199
06:15	65	94	58	92	99	222	826
06:30	85	83	63	85	68	191	
06:45	92	63	349	89	250	87	377
07:00	128	64	70	69	181	551	150
07:15	133	61	76	72	198	133	726
07:30	117	76	87	61	209	133	
07:45	113	50	251	83	316	49	251
08:00	95	48	90	46	196	807	99
08:15	92	52	68	47	185	94	99
08:30	93	48	80	33	160	81	
08:45	91	38	186	78	316	42	168
09:00	76	45	72	25	169	687	80
09:15	91	43	81	37	148	70	354
09:30	80	42	49	19	172	80	
09:45	67	25	155	73	275	21	102
10:00	70	34	65	18	129	61	257
10:15	66	28	47	30	140	589	46
10:30	60	18	71	25	135	52	
10:45	62	20	100	69	252	18	91
11:00	73	32	57	17	131	510	38
11:15	63	29	70	13	130	49	191
11:30	64	16	68	10	133	42	
11:45	67	18	95	72	132	26	
Total	2209	3110	1857	3072	4066	6182	148
Percent	54.3%	50.3%	45.7%	49.7%			
Day Total		5319		4929		10248	
Peak	07:00	-	04:30	-	07:15	-	05:15
Vol.	491	-	460	-	336	-	432
P.H.F.	0.923	-	0.913	-	0.933	-	0.844

Sprague Street
north of Home Street
City, Hyde Park, MA
Client: VHB/C. Dube



PRECISION
D A T A
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165002 A Volume
Site Code: 13464.00
Date Start: 30-Mar-16

Start Time	NB		SB		Combin ed		31-Mar-16 Thu
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
12:00	4	91	12	77	16	168	
12:15	6	84	8	72	14	156	
12:30	3	87	4	69	7	156	
12:45	9	58	7	73	16	131	611
01:00	1	85	2	77	3	162	
01:15	2	69	2	79	4	148	
01:30	3	73	1	69	4	142	
01:45	3	70	3	63	6	133	585
02:00	1	100	1	86	2	186	
02:15	4	60	1	80	5	140	
02:30	4	74	2	96	6	170	
02:45	1	78	5	70	6	148	644
03:00	2	82	1	76	3	158	
03:15	0	90	2	92	2	182	
03:30	1	106	2	94	3	200	
03:45	4	109	2	85	6	194	734
04:00	2	84	3	102	5	186	
04:15	6	87	8	89	14	176	
04:30	12	116	10	107	22	223	
04:45	11	83	10	109	21	192	777
05:00	22	118	12	88	34	206	
05:15	22	90	18	91	40	181	
05:30	38	78	33	83	71	161	
05:45	39	95	37	100	76	195	743
06:00	59	100	45	102	104	202	
06:15	61	68	50	94	111	162	
06:30	73	92	67	100	140	192	
06:45	78	60	87	100	165	160	716
07:00	123	66	73	81	196	147	
07:15	144	70	77	76	221	146	
07:30	123	47	71	45	194	92	
07:45	108	62	99	53	207	115	500
08:00	111	54	72	43	183	97	
08:15	102	56	77	45	179	101	
08:30	101	55	72	40	173	95	
08:45	85	42	72	51	157	93	386
09:00	82	42	87	50	169	92	
09:15	78	36	72	36	150	72	
09:30	73	40	54	16	127	56	
09:45	66	26	65	29	131	55	275
10:00	74	19	70	26	144	45	
10:15	84	32	61	19	145	51	
10:30	75	20	67	18	142	38	
10:45	55	24	49	30	104	54	188
11:00	68	28	53	11	121	39	
11:15	76	30	63	14	139	44	
11:30	72	26	69	13	141	39	
11:45	66	7	60	17	126	24	146
Total	2237	3169	1818	3136	4055	6305	
Percent	55.2%	50.3%	44.8%	49.7%			
Day Total		5406		4954		10360	
Peak Vol.	07:00 498	- 407	04:30 -	07:00 320	- 407	04:00 -	07:00 818
P.H.F.	0.865	0.862	0.808	0.933	0.925	0.899	

Sprague Street
north of Horne Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube



PRECISION
D A T A
INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

165155 A Volume
Site Code: TBD

Start Time	NB		SB		Combin ed		22-Jun-16 Wed
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
12:00	6	84	11	88	17	172	
12:15	7	82	4	88	11	170	
12:30	4	73	4	78	8	151	
12:45	4	83	4	78	8	161	654
01:00	6	69	5	81	11	150	
01:15	2	60	4	73	6	133	
01:30	4	75	3	76	7	151	
01:45	0	86	0	100	0	186	620
02:00	23	111	8	77	31	188	
02:15	8	69	9	101	17	170	
02:30	6	69	3	123	9	192	
02:45	5	77	4	100	9	177	727
03:00	3	79	2	100	5	179	
03:15	4	90	1	102	5	192	
03:30	2	94	3	99	5	193	
03:45	5	93	4	102	9	195	759
04:00	8	111	7	96	15	207	
04:15	3	83	6	94	9	177	
04:30	7	112	10	109	17	221	
04:45	11	95	10	93	21	188	793
05:00	26	124	16	84	42	208	
05:15	25	82	18	103	43	185	
05:30	48	84	36	130	84	214	
05:45	53	72	32	96	85	168	775
06:00	73	87	49	82	122	169	
06:15	81	64	65	97	146	161	
06:30	99	83	63	82	162	165	
06:45	96	86	90	88	186	174	669
07:00	121	93	84	74	205	167	
07:15	107	68	78	75	185	143	
07:30	106	74	83	72	189	146	
07:45	100	71	79	78	179	149	605
08:00	112	85	70	67	182	152	
08:15	110	72	69	55	179	127	
08:30	90	46	88	50	178	96	
08:45	76	63	94	35	207	98	473
09:00	106	43	88	40	194	83	
09:15	81	43	56	33	137	76	
09:30	69	38	62	33	131	71	
09:45	79	27	84	41	163	68	298
10:00	87	25	68	25	155	50	
10:15	72	23	56	32	128	55	
10:30	81	34	46	23	127	57	
10:45	61	29	76	33	137	62	224
11:00	62	30	77	11	139	41	
11:15	65	33	71	11	136	44	
11:30	61	19	78	16	139	35	
11:45	81	15	97	8	172	23	143
Total	2346	3308	1969	3432	4315	6740	
Percent	54.4%	49.1%	45.6%	50.9%			
Day Total		5654		5401		11055	
Peak	07:00	- 04:15	- 08:15	- 02:30	- 06:45	- 04:30	- - -
Vol.	434	- 414	- 339	- 425	- 765	- 802	- - -
P.H.F.	0.897	0.835	0.902	0.864	0.933	0.907	

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165155 A Volume
Site Code: TBD

Start Time	NB		SB		Combin ed	23-Jun-16 Thu							
	A.M.	P.M.	A.M.	P.M.									
12:00	17	80	13	73	30	153							
12:15	10	74	5	70	15	144							
12:30	9	61	4	83	13	144							
12:45	7	43 85	300 4	26 77	303 11	69 162 603							
01:00	2	79	3	89	5	168							
01:15	7	46	5	74	12	120							
01:30	3	72	1	79	4	151							
01:45	1	13 68	265 4	13 75	317 5	26 143 582							
02:00	14	82	4	88	18	170							
02:15	3	76	6	85	9	161							
02:30	5	68	9	97	14	165							
02:45	2	24 69	295 2	21 98	368 4	45 167 663							
03:00	5	91	1	101	6	192							
03:15	4	78	3	113	7	191							
03:30	6	110	3	81	9	191							
03:45	4	19 80	359 4	11 98	393 8	30 178 752							
04:00	5	103	4	100	9	203							
04:15	3	85	8	100	11	185							
04:30	6	105	6	94	12	199							
04:45	15	29 128	421 12	30 107	401 27	59 235 822							
05:00	20	99	17	92	37	191							
05:15	26	90	20	105	46	195							
05:30	56	99	26	119	82	218							
05:45	55	157 84	372 44	107 98	414 99	264 182 786							
06:00	64	92	50	92	114	184							
06:15	69	76	49	115	118	191							
06:30	90	74	64	78	154	152							
06:45	106	329 77	319 101	264 72	357 207	593 149 676							
07:00	96	74	77	77	173	151							
07:15	124	62	72	62	196	124							
07:30	94	78	86	71	180	149							
07:45	98	412 76	290 89	324 63	273 187	736 139 563							
08:00	123	64	88	60	211	124							
08:15	100	75	61	56	161	131							
08:30	75	44	74	57	149	101							
08:45	70	368 58	241 86	309 46	219 156	677 104 460							
09:00	115	57	68	48	183	105							
09:15	62	64	76	39	138	103							
09:30	72	46	74	48	146	94							
09:45	77	326 44	211 94	312 59	194 171	638 103 405							
10:00	75	44	60	39	135	83							
10:15	68	39	61	29	129	68							
10:30	82	25	64	30	146	55							
10:45	80	305 23	131 70	255 20	118 150	560 43 249							
11:00	68	21	56	19	124	40							
11:15	71	33	67	12	138	45							
11:30	57	12	59	16	116	28							
11:45	85	281 13	79 74	256 8	55 159	537 21 134							
Total	2306	3283	1928	3412	4234	6695							
Percent	54.5%	49.0%	45.5%	51.0%									
Day Total		5589		5340		10929							
Peak	07:15	-	04:30	-	06:45	-	05:30	-	07:15	-	04:45	-	-
Vol.	439	-	422	-	336	-	424	-	774	-	839	-	-
P.H.F.	0.885		0.824		0.832		0.891		0.917		0.893		

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165155 A Class
Site Code: TBD

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/22/1														
6	0	17	3	0	1	0	0	0	0	0	0	0	0	21
01:00	0	9	1	0	1	1	0	0	0	0	0	0	0	12
02:00	0	36	4	0	2	0	0	0	0	0	0	0	0	42
03:00	0	9	3	0	2	0	0	0	0	0	0	0	0	14
04:00	0	16	6	0	6	0	1	0	0	0	0	0	0	29
05:00	4	80	45	0	17	3	0	2	1	0	0	0	0	152
06:00	4	207	70	2	49	11	0	1	5	0	0	0	0	349
07:00	7	298	84	11	20	6	1	2	5	0	0	0	0	434
08:00	7	266	59	4	36	9	2	2	3	0	0	0	0	388
09:00	4	207	69	9	37	5	0	1	3	0	0	0	0	335
10:00	2	171	67	4	43	6	1	1	6	0	0	0	0	301
11:00	5	162	57	4	23	9	0	2	7	0	0	0	0	269
12 PM	3	211	66	3	26	5	1	2	5	0	0	0	0	322
13:00	5	199	42	0	24	8	1	2	8	1	0	0	0	290
14:00	3	208	66	4	33	4	0	3	5	0	0	0	0	326
15:00	5	253	57	3	30	8	0	0	0	0	0	0	0	356
16:00	7	287	76	3	19	4	2	0	3	0	0	0	0	401
17:00	9	274	53	3	18	4	0	1	0	0	0	0	0	362
18:00	6	230	50	2	32	0	0	0	0	0	0	0	0	320
19:00	4	221	55	0	25	1	0	0	0	0	0	0	0	306
20:00	3	194	51	1	16	1	0	0	0	0	0	0	0	266
21:00	3	109	32	1	5	1	0	0	0	0	0	0	0	151
22:00	0	95	13	1	2	0	0	0	0	0	0	0	0	111
23:00	1	69	21	0	3	3	0	0	0	0	0	0	0	97
Total	82	3828	1050	55	470	89	9	19	51	1	0	0	0	5654
Percent	1.5%	67.7%	18.6%	1.0%	8.3%	1.6%	0.2%	0.3%	0.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	06:00	06:00	08:00	05:00	11:00					07:00
Vol.	7	298	84	11	49	11	2	2	7					434
PM Peak	17:00	16:00	16:00	14:00	14:00	13:00	16:00	14:00	13:00	13:00				16:00
Vol.	9	287	76	4	33	8	2	3	8	1				401

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165155 A Class
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NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/23/1														
6	0	32	8	0	3	0	0	0	0	0	0	0	0	43
01:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
02:00	0	23	1	0	0	0	0	0	0	0	0	0	0	24
03:00	0	12	5	0	2	0	0	0	0	0	0	0	0	19
04:00	0	18	10	0	1	0	0	0	0	0	0	0	0	29
05:00	3	84	44	0	21	2	0	1	2	0	0	0	0	157
06:00	4	206	66	0	43	6	0	1	3	0	0	0	0	329
07:00	5	264	79	12	40	3	1	2	6	0	0	0	0	412
08:00	12	240	59	9	37	5	0	4	2	0	0	0	0	368
09:00	2	187	66	9	37	13	1	1	10	0	0	0	0	326
10:00	6	173	69	2	47	4	0	1	3	0	0	0	0	305
11:00	2	177	55	2	27	10	0	1	7	0	0	0	0	281
12 PM	7	173	66	5	31	9	0	2	7	0	0	0	0	300
13:00	8	179	42	0	21	3	1	3	8	0	0	0	0	265
14:00	6	191	51	4	30	6	0	2	5	0	0	0	0	295
15:00	16	249	70	1	16	5	0	1	1	0	0	0	0	359
16:00	8	297	80	2	26	5	0	2	1	0	0	0	0	421
17:00	8	263	77	2	22	0	0	0	0	0	0	0	0	372
18:00	9	227	55	0	27	1	0	0	0	0	0	0	0	319
19:00	4	200	58	1	22	2	0	2	1	0	0	0	0	290
20:00	4	162	61	0	13	1	0	0	0	0	0	0	0	241
21:00	5	143	43	1	15	3	0	0	1	0	0	0	0	211
22:00	1	94	21	2	12	0	0	0	1	0	0	0	0	131
23:00	2	52	22	0	2	1	0	0	0	0	0	0	0	79
Total	112	3657	1110	52	495	79	3	23	58	0	0	0	0	5589
Percent	2.0%	65.4%	19.9%	0.9%	8.9%	1.4%	0.1%	0.4%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	07:00	10:00	09:00	07:00	08:00	09:00					07:00
Vol.	12	264	79	12	47	13	1	4	10					412
PM Peak	15:00	16:00	16:00	12:00	12:00	12:00	13:00	13:00	13:00					16:00
Vol.	16	297	80	5	31	9	1	3	8					421

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SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/22/1														
6	1	10	9	0	2	1	0	0	0	0	0	0	0	23
01:00	0	9	2	0	0	1	0	0	0	0	0	0	0	12
02:00	0	20	4	0	0	0	0	0	0	0	0	0	0	24
03:00	0	6	1	0	2	0	0	0	1	0	0	0	0	10
04:00	0	18	10	1	4	0	0	0	0	0	0	0	0	33
05:00	2	64	28	0	6	1	0	1	0	0	0	0	0	102
06:00	9	168	43	5	31	7	0	0	4	0	0	0	0	267
07:00	1	197	75	4	40	2	1	1	3	0	0	0	0	324
08:00	2	212	55	4	37	8	1	0	2	0	0	0	0	321
09:00	6	159	70	8	39	5	1	0	2	0	0	0	0	290
10:00	2	138	52	8	35	5	1	2	3	0	0	0	0	246
11:00	1	190	64	10	37	2	2	6	5	0	0	0	0	317
12 PM	0	184	79	5	47	7	1	5	4	0	0	0	0	332
13:00	4	181	79	7	46	5	3	0	5	0	0	0	0	330
14:00	6	229	95	4	45	9	0	4	9	0	0	0	0	401
15:00	8	225	94	4	57	9	0	3	3	0	0	0	0	403
16:00	8	253	80	3	44	2	0	1	1	0	0	0	0	392
17:00	3	283	83	3	39	2	0	0	0	0	0	0	0	413
18:00	0	247	72	4	24	0	0	2	0	0	0	0	0	349
19:00	8	203	58	2	27	1	0	0	0	0	0	0	0	299
20:00	3	151	37	1	15	0	0	0	0	0	0	0	0	207
21:00	1	103	35	0	6	1	0	0	1	0	0	0	0	147
22:00	3	78	26	2	4	0	0	0	0	0	0	0	0	113
23:00	0	34	11	0	1	0	0	0	0	0	0	0	0	46
Total	68	3362	1162	75	588	68	10	25	43	0	0	0	0	5401
Percent	1.3%	62.2%	21.5%	1.4%	10.9%	1.3%	0.2%	0.5%	0.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	08:00	07:00	11:00	07:00	08:00	11:00	11:00	11:00					07:00
Vol.	9	212	75	10	40	8	2	6	5					324
PM Peak	15:00	17:00	14:00	13:00	15:00	14:00	13:00	12:00	14:00					17:00
Vol.	8	283	95	7	57	9	3	5	9					413

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SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/23/1														
6	0	18	2	1	5	0	0	0	0	0	0	0	0	26
01:00	0	10	3	0	0	0	0	0	0	0	0	0	0	13
02:00	0	18	3	0	0	0	0	0	0	0	0	0	0	21
03:00	0	7	3	0	1	0	0	0	0	0	0	0	0	11
04:00	0	20	8	0	2	0	0	0	0	0	0	0	0	30
05:00	1	60	37	0	6	1	2	0	0	0	0	0	0	107
06:00	6	164	35	3	40	8	1	2	5	0	0	0	0	264
07:00	6	207	61	4	38	2	1	3	2	0	0	0	0	324
08:00	5	185	50	8	45	6	1	3	6	0	0	0	0	309
09:00	4	168	79	9	39	8	2	1	2	0	0	0	0	312
10:00	0	142	60	3	33	5	0	4	8	0	0	0	0	255
11:00	1	152	50	5	36	5	0	3	4	0	0	0	0	256
12 PM	4	183	65	3	32	7	1	2	6	0	0	0	0	303
13:00	5	190	65	6	35	6	1	2	7	0	0	0	0	317
14:00	5	224	74	8	39	5	2	4	7	0	0	0	0	368
15:00	9	246	76	7	45	4	0	2	4	0	0	0	0	393
16:00	4	251	99	2	34	6	0	4	1	0	0	0	0	401
17:00	5	302	72	0	31	3	0	0	1	0	0	0	0	414
18:00	5	258	65	1	28	0	0	0	0	0	0	0	0	357
19:00	3	193	55	0	21	1	0	0	0	0	0	0	0	273
20:00	3	154	47	0	14	0	0	0	1	0	0	0	0	219
21:00	3	148	28	0	14	1	0	0	0	0	0	0	0	194
22:00	0	85	29	0	4	0	0	0	0	0	0	0	0	118
23:00	1	41	6	2	5	0	0	0	0	0	0	0	0	55
Total	70	3426	1072	62	547	68	11	30	54	0	0	0	0	5340
Percent	1.3%	64.2%	20.1%	1.2%	10.2%	1.3%	0.2%	0.6%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	09:00	09:00	08:00	06:00	05:00	10:00	10:00					07:00
Vol.	6	207	79	9	45	8	2	4	8					324
PM Peak	15:00	17:00	16:00	14:00	15:00	12:00	14:00	14:00	13:00					17:00
Vol.	9	302	99	8	45	7	2	4	7					414

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46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

165155 A Speed
Site Code: TBD

NB	Start Time	14	15	19	20	24	25	29	30	34	35	39	40	44	45	49	50	54	55	59	60	64	65	69	70	9999	Total	85th % ile	Ave Speed	
06/22/	16	0	0	1	5	5	5	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	43	35	
	01:00	0	0	1	0	2	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	41	36	
	02:00	1	1	1	2	14	11	4	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	45	36	
	03:00	0	0	1	1	2	3	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	43	38	
	04:00	0	0	1	1	4	11	7	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	45	39	
	05:00	2	3	2	8	25	53	38	16	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	152	43	38	
	06:00	1	4	9	25	91	149	51	15	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	349	40	36	
	07:00	7	5	12	35	131	183	55	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	434	38	34	
	08:00	14	9	8	41	147	125	35	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	388	38	33	
	09:00	3	6	11	50	111	109	37	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	335	38	34	
	10:00	1	1	13	41	108	104	27	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	301	38	34	
	11:00	4	2	8	38	90	98	26	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	269	38	33	
	12 PM	3	2	17	63	125	95	14	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	322	37	32	
	13:00	6	2	9	47	119	83	18	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	37	33	
	14:00	7	2	12	49	151	75	22	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	326	37	32	
	15:00	2	3	10	56	135	106	40	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	356	38	33	
	16:00	5	4	11	58	171	113	32	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	401	38	33	
	17:00	4	5	24	43	116	129	34	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	38	33	
	18:00	5	1	9	26	96	135	34	12	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	320	38	35		
	19:00	2	1	7	25	73	125	60	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	306	41	36	
	20:00	1	0	6	37	103	85	26	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	266	38	34		
	21:00	1	0	2	23	40	64	15	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151	38	35	
	22:00	0	0	3	13	32	38	19	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	41	35	
	23:00	1	2	4	18	26	25	15	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97	41	34	
	Total	70	53	182	705	1917	1930	619	132	26	13	2	0	5	5654															
	%	1.2%	0.9%	3.2%	12.5%	33.9%	34.1%	10.9%	2.3%	0.5%	0.2%	0.0%	0.0%	0.1%																
AM Peak	08:00	08:00	10:00	09:00	08:00	07:00	07:00	05:00	05:00	05:00	06:00															06:00	07:00			
Vol.	14	9	13	50	147	183	55	16	3	2	1															1	434			
PM Peak	14:00	17:00	17:00	12:00	16:00	18:00	19:00	18:00	19:00	21:00	21:00															14:00	16:00			
Vol.	7	5	24	63	171	135	60	12	3	2	1															2	401			

Stats

15th Percentile : 27 MPH
50th Percentile : 33 MPH
85th Percentile : 38 MPH
95th Percentile : 43 MPH

Mean Speed(Average) : 34 MPH
10 MPH Pace Speed : 30-39 MPH
Number in Pace : 3847
Percent in Pace : 68.0%
Number of Vehicles > 35 MPH : 2341
Percent of Vehicles > 35 MPH : 41.4%

Sprague Street
north of Horne Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube



PRECISION
D A T A
INDUSTRIES, LLC

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165155 A Speed
Site Code: TBD

NB	Start Time	14	15	19	20	24	25	29	30	34	35	39	40	44	45	49	50	54	55	59	60	64	65	69	70	9999	Total	85th % ile	Ave Speed	
06/23/	16	0	1	3	3	12	13	9	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	41	35		
	01:00	0	0	2	2	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	40	33		
	02:00	0	0	0	0	10	4	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	49	39		
	03:00	0	0	1	2	2	4	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	45	39		
	04:00	0	0	0	2	3	10	4	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	48	41		
	05:00	1	2	3	5	32	58	40	12	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	157	43	37		
	06:00	1	1	3	12	81	145	77	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	329	41	37		
	07:00	1	10	10	32	121	173	61	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	412	39	35		
	08:00	7	3	11	29	105	147	54	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	368	39	35			
	09:00	2	2	16	41	131	105	25	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	326	38	33		
	10:00	4	1	8	22	97	129	37	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	305	38	35		
	11:00	0	1	3	32	125	92	23	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	281	38	34		
	12 PM	2	3	13	41	102	108	27	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	300	38	33		
	13:00	6	1	11	28	104	74	36	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	265	39	33		
	14:00	3	1	3	35	121	98	30	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	295	38	34		
	15:00	25	3	23	64	113	82	39	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	359	38	31		
	16:00	6	5	29	82	154	108	27	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	421	37	32		
	17:00	8	3	13	59	111	117	45	13	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	372	39	34			
	18:00	6	0	5	22	97	110	59	16	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	319	41	36			
	19:00	2	0	4	28	90	116	39	6	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	39	35		
	20:00	3	1	10	20	77	94	27	6	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	241	38	35		
	21:00	4	0	5	17	80	75	21	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	211	38	34		
	22:00	0	0	6	17	46	45	12	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	131	38	34			
	23:00	0	1	2	5	25	32	11	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	39	35		
	Total	81	39	184	600	1842	1942	714	139	33	5	1	2	7	5589															
	%	1.4%	0.7%	3.3%	10.7%	33.0%	34.7%	12.8%	2.5%	0.6%	0.1%	0.0%	0.0%	0.1%																
AM Peak	08:00	07:00	09:00	09:00	09:00	07:00	06:00	05:00	02:00	04:00	05:00			02:00	07:00															
Vol.	7	10	16	41	131	173	77	12	4	1	1			1	412															
PM Peak	15:00	16:00	16:00	16:00	16:00	17:00	18:00	18:00	19:00	14:00			17:00	12:00	16:00															
Vol.	25	5	29	82	154	117	59	16	5	1			1	1	421															

Stats

15th Percentile : 28 MPH
50th Percentile : 34 MPH
85th Percentile : 39 MPH
95th Percentile : 43 MPH

Mean Speed(Average) : 34 MPH
10 MPH Pace Speed : 30-39 MPH
Number in Pace : 3784
Percent in Pace : 67.7%
Number of Vehicles > 35 MPH : 2455
Percent of Vehicles > 35 MPH : 43.9%

Sprague Street
north of Horne Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube



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165155 A Speed
Site Code: TBD

SB

Start Time	14	15	19	20	24	25	29	30	34	35	39	40	44	45	49	50	54	55	59	60	64	65	69	70	9999	Total	85th % ile	Ave Speed	
06/22/16	0	0	0	3	1	7	10	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	38	34	
01:00	0	0	0	1	4	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	39	35	
02:00	1	0	0	1	6	8	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	43	36	
03:00	0	0	1	1	1	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	40	35	
04:00	0	1	0	1	5	13	6	5	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	33	46	39	
05:00	1	0	4	11	25	44	13	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102	39	35	
06:00	1	3	8	34	88	94	35	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	267	38	34	
07:00	2	4	16	45	97	118	35	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	324	38	34	
08:00	3	1	8	33	96	125	50	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	321	39	35	
09:00	2	3	9	36	117	82	37	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	38	34	
10:00	1	2	16	20	67	101	37	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	246	39	34	
11:00	1	5	14	36	93	132	33	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	317	38	34	
12 PM	3	3	15	51	111	115	29	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	332	38	33	
13:00	2	3	15	41	125	112	26	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	330	38	33	
14:00	3	4	18	48	141	134	45	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	401	38	34	
15:00	1	4	9	26	137	153	61	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	403	40	35	
16:00	5	3	7	29	115	179	48	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	392	38	35	
17:00	4	3	12	14	109	206	56	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	413	39	35	
18:00	0	6	9	18	92	152	58	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	349	40	36	
19:00	3	0	3	21	77	144	41	8	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	299	39	36	
20:00	1	0	0	7	61	113	20	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	207	38	36	
21:00	1	0	1	6	44	70	21	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	147	39	36	
22:00	1	0	0	4	29	48	25	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113	41	37	
23:00	0	1	1	2	6	22	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	41	37	
Total	36	46	169	487	1653	2185	697	111	12	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	5401			
%	0.7%	0.9%	3.1%	9.0%	30.6%	40.5%	12.9%	2.1%	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%					
AM Peak	08:00	11:00	07:00	07:00	09:00	11:00	08:00	04:00	07:00	07:00	04:00																07:00		
Vol.	3	5	16	45	117	132	50	5	2	1	1																324		
PM Peak	16:00	18:00	14:00	12:00	14:00	17:00	15:00	15:00	18:00												19:00	22:00	14:00	17:00					
Vol.	5	6	18	51	141	206	61	12	2												1	1	1				413		

Stats

- 15th Percentile : 29 MPH
- 50th Percentile : 34 MPH
- 85th Percentile : 39 MPH
- 95th Percentile : 42 MPH

- Mean Speed(Average) : 35 MPH
- 10 MPH Pace Speed : 30-39 MPH
- Number in Pace : 3838
- Percent in Pace : 71.1%
- Number of Vehicles > 35 MPH : 2573
- Percent of Vehicles > 35 MPH : 47.6%

Sprague Street
north of Horne Street
City, State: Hyde Park, MA
Client: VHB/ C. Dube



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165155 A Speed
Site Code: TBD

SB	Start Time	14	15	19	20	24	25	29	30	34	35	39	40	44	45	49	50	54	55	59	60	64	65	69	70	9999	Total	85th % ile	Ave Speed	
06/23/	16	0	0	0	1	5	14	3	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	26	42	38		
	01:00	0	0	0	2	3	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	46	38		
	02:00	0	0	0	1	5	7	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	42	37		
	03:00	0	0	0	2	0	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	43	38		
	04:00	0	0	0	1	6	10	7	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	46	39		
	05:00	1	0	2	8	26	44	19	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	107	41	36		
	06:00	6	2	14	42	79	85	27	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	264	38	33		
	07:00	5	1	19	47	101	93	50	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	324	39	34		
	08:00	1	0	17	44	108	102	28	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	309	38	34		
	09:00	2	0	3	27	98	130	45	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	312	39	35		
	10:00	0	4	5	16	73	113	34	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	255	39	35		
	11:00	0	2	2	24	72	110	41	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	256	39	35		
	12 PM	4	2	2	37	90	123	39	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	303	38	35		
	13:00	3	5	15	26	95	128	38	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	317	38	34		
	14:00	6	5	3	21	126	154	47	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	368	38	35		
	15:00	6	4	12	32	118	168	42	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	393	38	34		
	16:00	2	2	12	52	143	145	40	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	401	38	34		
	17:00	2	1	4	32	146	168	56	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	414	38	35		
	18:00	2	3	5	19	78	189	53	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	357	39	36		
	19:00	0	0	6	21	69	115	44	14	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	273	41	36		
	20:00	1	2	2	23	75	93	17	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	219	38	34		
	21:00	1	1	1	17	61	87	23	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	194	38	35		
	22:00	0	1	1	8	32	53	19	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118	40	36		
	23:00	0	0	2	3	15	19	13	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	41	36		
	Total	42	35	127	506	1624	2157	698	123	22	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5340				
	%	0.8%	0.7%	2.4%	9.5%	30.4%	40.4%	13.1%	2.3%	0.4%	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%					
AM Peak	06:00	10:00	07:00	07:00	08:00	09:00	07:00	07:00	04:00	05:00	00:00																07:00			
Vol.	6	4	19	47	108	130	50	8	3	2	1																324			
PM Peak	14:00	13:00	13:00	16:00	17:00	18:00	17:00	19:00	19:00																			17:00		
Vol.	6	5	15	52	146	189	56	14	4																		414			

Stats

15th Percentile : 29 MPH
50th Percentile : 34 MPH
85th Percentile : 39 MPH
95th Percentile : 43 MPH

Mean Speed(Average) : 35 MPH
10 MPH Pace Speed : 30-39 MPH
Number in Pace : 3781
Percent in Pace : 70.8%

Number of Vehicles > 35 MPH : 2575
Percent of Vehicles > 35 MPH : 48.2%

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2016 Existing Condition AM Peak Hour



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	5	5	25	470	285	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932				0.991	
Flt Protected	0.976			0.997		
Satd. Flow (prot)	1571	0	0	1959	1933	0
Flt Permitted	0.976			0.997		
Satd. Flow (perm)	1571	0	0	1959	1933	0
Link Speed (mph)	30			35	30	
Link Distance (ft)	490			413	824	
Travel Time (s)	11.1			8.0	18.7	
Peak Hour Factor	0.63	0.63	0.93	0.93	0.92	0.92
Heavy Vehicles (%)	2%	40%	2%	10%	11%	2%
Adj. Flow (vph)	8	8	27	505	310	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	532	332	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	0.88	0.85	0.85	0.85	0.85
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	55.1%
Analysis Period (min)	15
	ICU Level of Service B

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2016 Existing Condition AM Peak Hour



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	5	5	25	470	285	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.63	0.63	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	8	8	27	505	310	22
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	880	321	332			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	880	321	332			
tC, single (s)	6.4	6.6	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.7	2.2			
p0 queue free %	97	99	98			
cM capacity (veh/h)	311	640	1228			
Direction, Lane #	SE 1	NE 1	SW 1			
Volume Total	16	532	332			
Volume Left	8	27	0			
Volume Right	8	0	22			
cSH	418	1228	1700			
Volume to Capacity	0.04	0.02	0.20			
Queue Length 95th (ft)	3	2	0			
Control Delay (s)	13.9	0.6	0.0			
Lane LOS	B	A				
Approach Delay (s)	13.9	0.6	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			55.1%	ICU Level of Service		B
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2016 Existing Condition AM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	5	0	0	15	0	5	10	455	10	10	290	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	12	12	12	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.965			0.997			0.984	
Fl _t Protected		0.950			0.964			0.999			0.999	
Satd. Flow (prot)	0	2046	0	0	1077	0	0	1756	0	0	1960	0
Fl _t Permitted		0.950			0.964			0.999			0.999	
Satd. Flow (perm)	0	2046	0	0	1077	0	0	1756	0	0	1960	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		338			265			824			1173	
Travel Time (s)		7.7			6.0			16.1			22.9	
Peak Hour Factor	0.75	0.75	0.75	0.66	0.66	0.66	0.83	0.83	0.83	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	86%	2%	86%	2%	8%	2%	2%	9%	2%
Adj. Flow (vph)	7	0	0	23	0	8	12	548	12	11	330	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	31	0	0	572	0	0	386	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.85	0.85	0.85	1.00	1.00	1.00	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	38.9%
Analysis Period (min)	15
	ICU Level of Service A

Sprague Street Redevelopment Project
2: Sprague Street & Horne Street/Sprague Place

2016 Existing Condition AM Peak Hour



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	5	0	0	15	0	5	10	455	10	10	290	40
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.66	0.66	0.66	0.83	0.83	0.83	0.88	0.88	0.88
Hourly flow rate (vph)	7	0	0	23	0	8	12	548	12	11	330	45
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	961	959	352	953	976	554	375			560		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	961	959	352	953	976	554	375			560		
tC, single (s)	7.1	6.5	6.2	8.0	6.5	7.1	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	4.3	4.0	4.1	2.2			2.2		
p0 queue free %	97	100	100	86	100	98	99			99		
cM capacity (veh/h)	230	253	696	168	246	401	1183			1011		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	7	30	572	386
Volume Left	7	23	12	11
Volume Right	0	8	12	45
cSH	230	197	1183	1011
Volume to Capacity	0.03	0.15	0.01	0.01
Queue Length 95th (ft)	2	13	1	1
Control Delay (s)	21.1	26.6	0.3	0.4
Lane LOS	C	D	A	A
Approach Delay (s)	21.1	26.6	0.3	0.4
Approach LOS	C	D		

Intersection Summary			
Average Delay		1.3	
Intersection Capacity Utilization	38.9%		ICU Level of Service A
Analysis Period (min)		15	

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2016 Existing Condition AM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	275	45	70	395	295	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	13	13	12	12
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.981					0.850
Flt Protected	0.959			0.993		
Satd. Flow (prot)	1696	0	0	1806	1667	1417
Flt Permitted	0.959			0.993		
Satd. Flow (perm)	1696	0	0	1806	1667	1417
Link Speed (mph)	30			35	30	
Link Distance (ft)	686			1173	333	
Travel Time (s)	15.6			22.9	7.6	
Peak Hour Factor	0.89	0.89	0.90	0.90	0.98	0.98
Heavy Vehicles (%)	7%	2%	2%	9%	14%	14%
Parking (#/hr)	2					
Adj. Flow (vph)	309	51	78	439	301	209
Shared Lane Traffic (%)						
Lane Group Flow (vph)	360	0	0	517	301	209
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.85	0.96	0.96	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	68.2%
ICU Level of Service	C
Analysis Period (min)	15

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2016 Existing Condition AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	275	45	70	395	295	205
Peak Hour Factor	0.89	0.89	0.90	0.90	0.98	0.98
Hourly flow rate (vph)	309	51	78	439	301	209
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total (vph)	360	517	301	209		
Volume Left (vph)	309	78	0	0		
Volume Right (vph)	51	0	0	209		
Hadj (s)	0.19	0.17	0.24	-0.46		
Departure Headway (s)	6.8	6.3	7.0	6.3		
Degree Utilization, x	0.68	0.91	0.59	0.37		
Capacity (veh/h)	516	554	491	551		
Control Delay (s)	23.1	44.2	18.3	11.7		
Approach Delay (s)	23.1	44.2	15.6			
Approach LOS	C	E	C			
Intersection Summary						
Delay			28.2			
Level of Service			D			
Intersection Capacity Utilization			68.2%	ICU Level of Service	C	
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2016 Existing Condition AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	435	410	85	555	250	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.934		0.883			
Flt Protected	0.975					0.962
Satd. Flow (prot)	1857	0	1759	0	0	1868
Flt Permitted	0.975					0.962
Satd. Flow (perm)	1857	0	1759	0	0	1868
Link Speed (mph)	30		30			30
Link Distance (ft)	466		390			437
Travel Time (s)	10.6		8.9			9.9
Peak Hour Factor	0.89	0.89	0.98	0.98	0.96	0.96
Heavy Vehicles (%)	9%	2%	2%	9%	5%	2%
Adj. Flow (vph)	489	461	87	566	260	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	950	0	653	0	0	328
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.85	0.85	0.92	0.92
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	115.2%
Analysis Period (min)	15
	ICU Level of Service H

Sprague Street Redevelopment Project
4: Milton Street & Neponset Valley Parkway

2016 Existing Condition AM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	435	410	85	555	250	65
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.98	0.98	0.96	0.96
Hourly flow rate (vph)	489	461	87	566	260	68
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	958	370			653	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	958	370			653	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	0	32			72	
cM capacity (veh/h)	199	676			920	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	949	653	328
Volume Left	489	0	260
Volume Right	461	566	0
cSH	302	1700	920
Volume to Capacity	3.14	0.38	0.28
Queue Length 95th (ft)	Err	0	29
Control Delay (s)	Err	0.0	8.9
Lane LOS	F		A
Approach Delay (s)	Err	0.0	8.9
Approach LOS	F		

Intersection Summary			
Average Delay		4918.8	
Intersection Capacity Utilization		115.2%	ICU Level of Service H
Analysis Period (min)		15	

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2016 Existing Condition AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	235	10	560	5	5	5	610	175	10	0	130	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	14	14	16	16	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.906			0.955			0.998			0.914	
Flt Protected		0.986			0.984			0.963				
Satd. Flow (prot)	0	1766	0	0	1758	0	0	1953	0	0	1682	0
Flt Permitted		0.986			0.984			0.963				
Satd. Flow (perm)	0	1766	0	0	1758	0	0	1953	0	0	1682	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		466			184			798			433	
Travel Time (s)		10.6			4.2			18.1			9.8	
Peak Hour Factor	0.91	0.91	0.91	0.70	0.70	0.70	0.90	0.90	0.90	0.83	0.83	0.83
Heavy Vehicles (%)	9%	2%	9%	2%	2%	21%	6%	6%	2%	2%	17%	17%
Adj. Flow (vph)	258	11	615	7	7	7	678	194	11	0	157	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	884	0	0	21	0	0	883	0	0	434	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	129.2%
ICU Level of Service	H
Analysis Period (min)	15

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2016 Existing Condition AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	235	10	560	5	5	5	610	175	10	0	130	230
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.70	0.70	0.70	0.90	0.90	0.90	0.83	0.83	0.83
Hourly flow rate (vph)	258	11	615	7	7	7	678	194	11	0	157	277
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								798				
pX, platoon unblocked												
vC, conflicting volume	1861	1856	295	2472	1989	200	434			206		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1861	1856	295	2472	1989	200	434			206		
tC, single (s)	7.2	6.5	6.3	7.1	6.5	6.4	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.5	2.3			2.2		
p0 queue free %	0	61	15	0	70	99	39			100		
cM capacity (veh/h)	21	28	728	1	24	795	1105			1366		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	885	21	883	434								
Volume Left	258	7	678	0								
Volume Right	615	7	11	277								
cSH	67	3	1105	1366								
Volume to Capacity	13.26	6.37	0.61	0.00								
Queue Length 95th (ft)	Err	Err	110	0								
Control Delay (s)	Err	Err	12.3	0.0								
Lane LOS	F	F	B									
Approach Delay (s)	Err	Err	12.3	0.0								
Approach LOS	F	F										
Intersection Summary												
Average Delay			4080.1									
Intersection Capacity Utilization			129.2%		ICU Level of Service					H		
Analysis Period (min)			15									

Sprague Street Redevelopment Project

2016 Existing Condition AM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations			↔	↔				↔			↔	
Volume (vph)	10	5	10	0	645	120	50	15	5	65	5	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	16	16	16	14	14	14	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.865				0.990			0.951	
Fl _t Protected			0.971					0.966			0.971	
Satd. Flow (prot)	0	0	1379	1768	0	0	0	1900	0	0	1832	0
Fl _t Permitted			0.842					0.753			0.811	
Satd. Flow (perm)	0	0	1195	1768	0	0	0	1481	0	0	1530	0
Right Turn on Red							Yes		Yes			Yes
Satd. Flow (RTOR)				126				3			138	
Link Speed (mph)			30	30				30			30	
Link Distance (ft)			245	329				316			590	
Travel Time (s)			5.6	7.5				7.2			13.4	
Peak Hour Factor	0.69	0.69	0.69	0.91	0.91	0.91	0.84	0.84	0.84	0.81	0.81	0.81
Heavy Vehicles (%)	2%	28%	2%	2%	6%	2%	2%	2%	2%	2%	2%	20%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			2									
Adj. Flow (vph)	14	7	14	0	709	132	60	18	6	80	6	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	35	841	0	0	0	84	0	0	135	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)			0	0				0			0	
Link Offset(ft)			0	0				0			0	
Crosswalk Width(ft)			16	16				16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.32	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85
Turning Speed (mph)	15	15			9	9	15		9	15		9
Number of Detectors	1	1	2	2			1	2		1	2	
Detector Template	Left	Left	Thru	Thru			Left	Thru		Left	Thru	
Leading Detector (ft)	20	20	100	100			20	100		20	100	
Trailing Detector (ft)	0	0	0	0			0	0		0	0	
Detector 1 Position(ft)	0	0	0	0			0	0		0	0	
Detector 1 Size(ft)	20	20	6	6			20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 2 Position(ft)			94	94				94			94	
Detector 2 Size(ft)			6	6				6			6	
Detector 2 Type			Cl+Ex	Cl+Ex				Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)			0.0	0.0				0.0			0.0	
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA	
Protected Phases			4									
Permitted Phases	4	4		1			3	3		3	3	



Lane Group	SEL2	SEL	SER	ø2
Lane Configurations				
Volume (vph)	90	590	15	
Ideal Flow (vphpl)	1900	1900	1900	
Lane Width (ft)	16	16	16	
Lane Util. Factor	1.00	1.00	1.00	
Flt		0.997		
Flt Protected		0.953		
Satd. Flow (prot)	0	1926	0	
Flt Permitted		0.953		
Satd. Flow (perm)	0	1926	0	
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)		30		
Link Distance (ft)		798		
Travel Time (s)		18.1		
Peak Hour Factor	0.93	0.93	0.93	
Heavy Vehicles (%)	2%	7%	2%	
Bus Blockages (#/hr)	0	0	10	
Parking (#/hr)				
Adj. Flow (vph)	97	634	16	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	747	0	
Enter Blocked Intersection	No	No	No	
Lane Alignment	Left	Left	Right	
Median Width(ft)		16		
Link Offset(ft)		0		
Crosswalk Width(ft)		16		
Two way Left Turn Lane				
Headway Factor	0.85	0.85	0.85	
Turning Speed (mph)	15	15	9	
Number of Detectors	1	1		
Detector Template	Left	Left		
Leading Detector (ft)	20	20		
Trailing Detector (ft)	0	0		
Detector 1 Position(ft)	0	0		
Detector 1 Size(ft)	20	20		
Detector 1 Type	Cl+Ex	Cl+Ex		
Detector 1 Channel				
Detector 1 Extend (s)	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type	Perm	Perm		
Protected Phases				2
Permitted Phases	1	1		

Sprague Street Redevelopment Project

2016 Existing Condition AM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Detector Phase	4	4	4	1			3	3		3	3	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	30.0			8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	36.0			13.0	13.0		13.0	13.0	
Total Split (s)	17.0	17.0	17.0	36.0			17.0	17.0		17.0	17.0	
Total Split (%)	17.9%	17.9%	17.9%	37.9%			17.9%	17.9%		17.9%	17.9%	
Maximum Green (s)	12.0	12.0	12.0	30.0			12.0	12.0		12.0	12.0	
Yellow Time (s)	4.0	4.0	4.0	5.0			4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0		1.0	1.0	
Lost Time Adjust (s)			0.0	0.0				0.0			0.0	
Total Lost Time (s)			5.0	6.0				5.0			5.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	Max			None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)			9.4	32.3			9.6			9.6		9.6
Actuated g/C Ratio			0.16	0.55			0.16			0.16		0.16
v/c Ratio			0.18	0.82			0.34			0.37		0.37
Control Delay			26.0	21.6			26.9			8.5		8.5
Queue Delay			0.0	0.0			0.0			0.0		0.0
Total Delay			26.0	21.6			26.9			8.5		8.5
LOS			C	C			C			A		A
Approach Delay			26.0	21.6			26.9			8.5		8.5
Approach LOS			C	C			C			A		A

Intersection Summary

Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	58.6
Natural Cycle:	90
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	19.6
Intersection LOS:	B
Intersection Capacity Utilization:	106.9%
ICU Level of Service:	G
Analysis Period (min):	15

Splits and Phases: 6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court





Lane Group	SEL2	SEL	SER	ø2
Detector Phase	1	1		
Switch Phase				
Minimum Initial (s)	30.0	30.0		7.0
Minimum Split (s)	36.0	36.0		25.0
Total Split (s)	36.0	36.0		25.0
Total Split (%)	37.9%	37.9%		26%
Maximum Green (s)	30.0	30.0		21.0
Yellow Time (s)	5.0	5.0		3.0
All-Red Time (s)	1.0	1.0		1.0
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0
Recall Mode	Max	Max		None
Walk Time (s)				7.0
Flash Dont Walk (s)				14.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)		32.3		
Actuated g/C Ratio		0.55		
v/c Ratio		0.70		
Control Delay		18.2		
Queue Delay		0.0		
Total Delay		18.2		
LOS		B		
Approach Delay		18.2		
Approach LOS		B		
Intersection Summary				

Sprague Street Redevelopment Project

2016 Existing Condition AM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Movement	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2	
Lane Configurations			↔	↔				↔			↔		
Volume (vph)	10	5	10	0	645	120	50	15	5	65	5	40	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	9	9	9	16	16	16	14	14	14	16	16	16	
Total Lost time (s)			5.0	6.0				5.0			5.0		
Lane Util. Factor			1.00	1.00				1.00			1.00		
Frt			1.00	0.86				0.99			0.95		
Flt Protected			0.97	1.00				0.97			0.97		
Satd. Flow (prot)			1378	1768				1900			1833		
Flt Permitted			0.84	1.00				0.75			0.81		
Satd. Flow (perm)			1196	1768				1481			1530		
Peak-hour factor, PHF	0.69	0.69	0.69	0.91	0.91	0.91	0.84	0.84	0.84	0.81	0.81	0.81	
Adj. Flow (vph)	14	7	14	0	709	132	60	18	6	80	6	49	
RTOR Reduction (vph)	0	0	0	60	0	0	0	3	0	0	114	0	
Lane Group Flow (vph)	0	0	35	781	0	0	0	81	0	0	21	0	
Heavy Vehicles (%)	2%	28%	2%	2%	6%	2%	2%	2%	2%	2%	2%	20%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)			2										
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA		
Protected Phases			4										
Permitted Phases	4	4		1			3	3		3	3		
Actuated Green, G (s)			3.8	32.3				9.6			9.6		
Effective Green, g (s)			3.8	32.3				9.6			9.6		
Actuated g/C Ratio			0.06	0.52				0.16			0.16		
Clearance Time (s)			5.0	6.0				5.0			5.0		
Vehicle Extension (s)			3.0	3.0				3.0			3.0		
Lane Grp Cap (vph)			73	925				230			238		
v/s Ratio Prot													
v/s Ratio Perm			c0.03	c0.44				c0.06			0.01		
v/c Ratio			0.48	0.84				0.35			0.09		
Uniform Delay, d1			28.0	12.6				23.3			22.3		
Progression Factor			1.00	1.00				1.00			1.00		
Incremental Delay, d2			4.9	9.3				0.9			0.2		
Delay (s)			32.9	21.9				24.2			22.5		
Level of Service			C	C				C			C		
Approach Delay (s)			32.9	21.9				24.2			22.5		
Approach LOS			C	C				C			C		
Intersection Summary													
HCM 2000 Control Delay			20.0		HCM 2000 Level of Service						B		
HCM 2000 Volume to Capacity ratio			0.78										
Actuated Cycle Length (s)			61.7		Sum of lost time (s)						20.0		
Intersection Capacity Utilization			106.9%		ICU Level of Service						G		
Analysis Period (min)			15										
c Critical Lane Group													



Movement	SEL2	SEL	SER
Lane Configurations			
Volume (vph)	90	590	15
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	16	16	16
Total Lost time (s)		6.0	
Lane Util. Factor		1.00	
Frt		1.00	
Flt Protected		0.95	
Satd. Flow (prot)		1927	
Flt Permitted		0.95	
Satd. Flow (perm)		1927	
Peak-hour factor, PHF	0.93	0.93	0.93
Adj. Flow (vph)	97	634	16
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	0	747	0
Heavy Vehicles (%)	2%	7%	2%
Bus Blockages (#/hr)	0	0	10
Parking (#/hr)			
Turn Type	Perm	Perm	
Protected Phases			
Permitted Phases	1	1	
Actuated Green, G (s)		32.3	
Effective Green, g (s)		32.3	
Actuated g/C Ratio		0.52	
Clearance Time (s)		6.0	
Vehicle Extension (s)		3.0	
Lane Grp Cap (vph)		1008	
v/s Ratio Prot			
v/s Ratio Perm		0.39	
v/c Ratio		0.74	
Uniform Delay, d1		11.4	
Progression Factor		1.00	
Incremental Delay, d2		4.9	
Delay (s)		16.3	
Level of Service		B	
Approach Delay (s)		16.3	
Approach LOS		B	
Intersection Summary			

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2016 Existing Condition AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	50	55	585	85	30	465
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.929		0.983			
Flt Protected	0.977					0.997
Satd. Flow (prot)	1385	0	1714	0	0	1745
Flt Permitted	0.977					0.997
Satd. Flow (perm)	1385	0	1714	0	0	1745
Link Speed (mph)	30		30			30
Link Distance (ft)	264		333			390
Travel Time (s)	6.0		7.6			8.9
Peak Hour Factor	0.61	0.61	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	45%	10%	2%	2%	9%
Adj. Flow (vph)	82	90	636	92	33	505
Shared Lane Traffic (%)						
Lane Group Flow (vph)	172	0	728	0	0	538
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	61.9%
Analysis Period (min)	15
	ICU Level of Service B

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2016 Existing Condition AM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	50	55	585	85	30	465
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.61	0.61	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	82	90	636	92	33	505
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	1253	682			728	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1253	682			728	
tC, single (s)	6.4	6.7			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.7			2.2	
p0 queue free %	55	76			96	
cM capacity (veh/h)	183	384			875	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	172	728	538			
Volume Left	82	0	33			
Volume Right	90	92	0			
cSH	252	1700	875			
Volume to Capacity	0.68	0.43	0.04			
Queue Length 95th (ft)	112	0	3			
Control Delay (s)	45.3	0.0	1.0			
Lane LOS	E		A			
Approach Delay (s)	45.3	0.0	1.0			
Approach LOS	E					
Intersection Summary						
Average Delay			5.8			
Intersection Capacity Utilization			61.9%		ICU Level of Service	B
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2016 Existing Condition PM Peak Hour



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	35	45	15	340	405	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924			0.997		
Flt Protected	0.979			0.998		
Satd. Flow (prot)	1784	0	0	2049	2085	0
Flt Permitted	0.979			0.998		
Satd. Flow (perm)	1784	0	0	2049	2085	0
Link Speed (mph)	30			35	30	
Link Distance (ft)	490			413	824	
Travel Time (s)	11.1			8.0	18.7	
Peak Hour Factor	0.74	0.74	0.82	0.85	0.97	0.97
Heavy Vehicles (%)	6%	6%	2%	5%	3%	2%
Adj. Flow (vph)	47	61	18	400	418	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	418	428	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	0.88	0.85	0.85	0.85	0.85
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	41.4%
Analysis Period (min)	15
	ICU Level of Service A

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2016 Existing Condition PM Peak Hour



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	35	45	15	340	405	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.74	0.74	0.82	0.85	0.97	0.97
Hourly flow rate (vph)	47	61	18	400	418	10
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	859	423	428			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	859	423	428			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	85	90	98			
cM capacity (veh/h)	316	623	1132			
Direction, Lane #						
	SE 1	NE 1	SW 1			
Volume Total	108	418	428			
Volume Left	47	18	0			
Volume Right	61	0	10			
cSH	437	1132	1700			
Volume to Capacity	0.25	0.02	0.25			
Queue Length 95th (ft)	24	1	0			
Control Delay (s)	15.9	0.5	0.0			
Lane LOS	C	A				
Approach Delay (s)	15.9	0.5	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			2.0			
Intersection Capacity Utilization			41.4%	ICU Level of Service		A
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2016 Existing Condition PM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	115	0	25	20	0	10	25	340	10	5	370	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	12	12	12	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.976			0.954			0.996			0.984	
Fl _t Protected		0.961			0.968			0.997			0.999	
Satd. Flow (prot)	0	1980	0	0	1918	0	0	1784	0	0	2023	0
Fl _t Permitted		0.961			0.968			0.997			0.999	
Satd. Flow (perm)	0	1980	0	0	1918	0	0	1784	0	0	2023	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		338			265			824			1173	
Travel Time (s)		7.7			6.0			16.1			22.9	
Peak Hour Factor	0.57	0.57	0.57	0.60	0.60	0.60	0.93	0.93	0.93	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	2%	2%	2%	7%	2%	6%	6%	2%	5%	2%
Adj. Flow (vph)	202	0	44	33	0	17	27	366	11	6	416	56
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	246	0	0	50	0	0	404	0	0	478	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.85	0.85	0.85	1.00	1.00	1.00	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	50.6%
ICU Level of Service	A
Analysis Period (min)	15

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2016 Existing Condition PM Peak Hour

													
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR	
Lane Configurations													
Volume (veh/h)	115	0	25	20	0	10	25	340	10	5	370	50	
Sign Control		Stop			Stop			Free			Free		
Grade		0%			0%			0%			0%		
Peak Hour Factor	0.57	0.57	0.57	0.60	0.60	0.60	0.93	0.93	0.93	0.89	0.89	0.89	
Hourly flow rate (vph)	202	0	44	33	0	17	27	366	11	6	416	56	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type							None						
Median storage (veh)													
Upstream signal (ft)													
pX, platoon unblocked													
vC, conflicting volume	896	885	444	924	908	371	472					376	
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	896	885	444	924	908	371	472					376	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.1					4.1	
tC, 2 stage (s)													
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2					2.2	
p0 queue free %	19	100	93	85	100	97	98					100	
cM capacity (veh/h)	249	276	614	227	267	664	1090					1182	
Direction, Lane #	SE 1	NW 1	NE 1	SW 1									
Volume Total	246	50	403	478									
Volume Left	202	33	27	6									
Volume Right	44	17	11	56									
cSH	278	291	1090	1182									
Volume to Capacity	0.88	0.17	0.02	0.00									
Queue Length 95th (ft)	194	15	2	0									
Control Delay (s)	68.0	19.9	0.8	0.1									
Lane LOS	F	C	A	A									
Approach Delay (s)	68.0	19.9	0.8	0.1									
Approach LOS	F	C											
Intersection Summary													
Average Delay				15.4									
Intersection Capacity Utilization				50.6%	ICU Level of Service							A	
Analysis Period (min)				15									

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2016 Existing Condition PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	255	95	60	405	330	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	13	13	12	12
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.964					0.850
Flt Protected	0.965			0.994		
Satd. Flow (prot)	1682	0	0	1897	1827	1583
Flt Permitted	0.965			0.994		
Satd. Flow (perm)	1682	0	0	1897	1827	1583
Link Speed (mph)	30			35	30	
Link Distance (ft)	686			1173	336	
Travel Time (s)	15.6			22.9	7.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.91	0.91
Heavy Vehicles (%)	6%	6%	2%	3%	4%	2%
Parking (#/hr)	2					
Adj. Flow (vph)	297	110	70	471	363	209
Shared Lane Traffic (%)						
Lane Group Flow (vph)	407	0	0	541	363	209
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.85	0.96	0.96	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	71.9%
ICU Level of Service	C
Analysis Period (min)	15

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2016 Existing Condition PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	255	95	60	405	330	190
Peak Hour Factor	0.86	0.86	0.86	0.86	0.91	0.91
Hourly flow rate (vph)	297	110	70	471	363	209
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total (vph)	407	541	363	209		
Volume Left (vph)	297	70	0	0		
Volume Right (vph)	110	0	0	209		
Hadj (s)	0.08	0.07	0.07	-0.67		
Departure Headway (s)	6.9	6.6	7.2	6.5		
Degree Utilization, x	0.78	0.99	0.73	0.37		
Capacity (veh/h)	514	541	495	556		
Control Delay (s)	30.7	62.0	25.9	12.1		
Approach Delay (s)	30.7	62.0	20.8			
Approach LOS	D	F	C			
Intersection Summary						
Delay			38.1			
Level of Service			E			
Intersection Capacity Utilization			71.9%	ICU Level of Service	C	
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2016 Existing Condition PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	440	270	80	620	250	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.949		0.880			
Flt Protected	0.970					0.967
Satd. Flow (prot)	1875	0	1858	0	0	1845
Flt Permitted	0.970					0.967
Satd. Flow (perm)	1875	0	1858	0	0	1845
Link Speed (mph)	30		30			30
Link Distance (ft)	466		386			437
Travel Time (s)	10.6		8.8			9.9
Peak Hour Factor	0.96	0.96	0.95	0.95	0.91	0.91
Heavy Vehicles (%)	8%	2%	2%	2%	2%	15%
Adj. Flow (vph)	458	281	84	653	275	132
Shared Lane Traffic (%)						
Lane Group Flow (vph)	739	0	737	0	0	407
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.85	0.85	0.92	0.92
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	113.5%
Analysis Period (min)	15
	ICU Level of Service H

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2016 Existing Condition PM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	440	270	80	620	250	120
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.95	0.95	0.91	0.91
Hourly flow rate (vph)	458	281	84	653	275	132
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	1092	411			737	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1092	411			737	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	0	56			68	
cM capacity (veh/h)	158	641			869	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	740	737	407
Volume Left	458	0	275
Volume Right	281	653	0
cSH	222	1700	869
Volume to Capacity	3.34	0.43	0.32
Queue Length 95th (ft)	Err	0	34
Control Delay (s)	Err	0.0	8.7
Lane LOS	F		A
Approach Delay (s)	Err	0.0	8.7
Approach LOS	F		

Intersection Summary			
Average Delay		3929.1	
Intersection Capacity Utilization		113.5%	ICU Level of Service H
Analysis Period (min)		15	

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2016 Existing Condition PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	220	0	650	5	5	5	490	130	0	0	160	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	14	14	16	16	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.899			0.955							0.923
Fl _t Protected		0.988			0.984			0.962				
Satd. Flow (prot)	0	1875	0	0	1904	0	0	1970	0	0	1845	0
Fl _t Permitted		0.988			0.984			0.962				
Satd. Flow (perm)	0	1875	0	0	1904	0	0	1970	0	0	1845	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		466			184			822				433
Travel Time (s)		10.6			4.2			18.7				9.8
Peak Hour Factor	0.92	0.92	0.92	0.45	0.45	0.45	0.97	0.97	0.97	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	6%	2%	2%	2%	2%	12%
Adj. Flow (vph)	239	0	707	11	11	11	505	134	0	0	178	239
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	946	0	0	33	0	0	639	0	0	417	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free				Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	124.5%
ICU Level of Service	H
Analysis Period (min)	15

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2016 Existing Condition PM Peak Hour

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (veh/h)	220	0	650	5	5	5	490	130	0	0	160	215	
Sign Control		Stop			Stop			Free			Free		
Grade		0%			0%			0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.45	0.45	0.45	0.97	0.97	0.97	0.90	0.90	0.90	
Hourly flow rate (vph)	239	0	707	11	11	11	505	134	0	0	178	239	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type							None						
Median storage (veh)													
Upstream signal (ft)							822						
pX, platoon unblocked													
vC, conflicting volume	1458	1442	297	2148	1561	134	417					134	
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	1458	1442	297	2148	1561	134	417					134	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.2					4.1	
tC, 2 stage (s)													
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3					2.2	
p0 queue free %	0	100	5	0	82	99	55					100	
cM capacity (veh/h)	60	73	742	1	62	920	1121					1451	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total	946	33	639	417									
Volume Left	239	11	505	0									
Volume Right	707	11	0	239									
cSH	191	3	1121	1451									
Volume to Capacity	4.94	10.26	0.45	0.00									
Queue Length 95th (ft)	Err	Err	60	0									
Control Delay (s)	Err	Err	9.7	0.0									
Lane LOS	F	F	A										
Approach Delay (s)	Err	Err	9.7	0.0									
Approach LOS	F	F											
Intersection Summary													
Average Delay			4813.7										
Intersection Capacity Utilization			124.5%	ICU Level of Service	H								
Analysis Period (min)			15										

Sprague Street Redevelopment Project

2016 Existing Condition PM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations			↔	↔				↔			↔	
Volume (vph)	10	5	30	0	525	45	40	10	10	60	5	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	16	16	16	14	14	14	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.865				0.978			0.968	
Fl _t Protected			0.984					0.968			0.966	
Satd. Flow (prot)	0	0	1468	1762	0	0	0	1863	0	0	1956	0
Fl _t Permitted			0.656					0.773			0.798	
Satd. Flow (perm)	0	0	979	1762	0	0	0	1488	0	0	1616	0
Right Turn on Red							Yes		Yes			Yes
Satd. Flow (RTOR)				126				9			138	
Link Speed (mph)			30	30				30			30	
Link Distance (ft)			245	329				316			590	
Travel Time (s)			5.6	7.5				7.2			13.4	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.66	0.66	0.66	0.65	0.65	0.65
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	3%	3%	3%	2%	2%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			2									
Adj. Flow (vph)	11	5	33	0	577	49	61	15	15	92	8	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	49	626	0	0	0	91	0	0	131	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)			0	0				0			0	
Link Offset(ft)			0	0				0			0	
Crosswalk Width(ft)			16	16				16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.32	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85
Turning Speed (mph)	15	15			9	9	15		9	15		9
Number of Detectors	1	1	2	2			1	2		1	2	
Detector Template	Left	Left	Thru	Thru			Left	Thru		Left	Thru	
Leading Detector (ft)	20	20	100	100			20	100		20	100	
Trailing Detector (ft)	0	0	0	0			0	0		0	0	
Detector 1 Position(ft)	0	0	0	0			0	0		0	0	
Detector 1 Size(ft)	20	20	6	6			20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 2 Position(ft)			94	94				94			94	
Detector 2 Size(ft)			6	6				6			6	
Detector 2 Type			Cl+Ex	Cl+Ex				Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)			0.0	0.0				0.0			0.0	
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA	
Protected Phases			4									
Permitted Phases	4	4		1			3	3		3	3	



Lane Group	SEL2	SEL	SER	ø2
Lane Configurations				
Volume (vph)	35	675	15	
Ideal Flow (vphpl)	1900	1900	1900	
Lane Width (ft)	16	16	16	
Lane Util. Factor	1.00	1.00	1.00	
Flt		0.997		
Flt Protected		0.953		
Satd. Flow (prot)	0	1987	0	
Flt Permitted		0.953		
Satd. Flow (perm)	0	1987	0	
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)		30		
Link Distance (ft)		822		
Travel Time (s)		18.7		
Peak Hour Factor	0.89	0.89	0.89	
Heavy Vehicles (%)	3%	3%	2%	
Bus Blockages (#/hr)	0	0	10	
Parking (#/hr)				
Adj. Flow (vph)	39	758	17	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	814	0	
Enter Blocked Intersection	No	No	No	
Lane Alignment	Left	Left	Right	
Median Width(ft)		16		
Link Offset(ft)		0		
Crosswalk Width(ft)		16		
Two way Left Turn Lane				
Headway Factor	0.85	0.85	0.85	
Turning Speed (mph)	15	15	9	
Number of Detectors	1	1		
Detector Template	Left	Left		
Leading Detector (ft)	20	20		
Trailing Detector (ft)	0	0		
Detector 1 Position(ft)	0	0		
Detector 1 Size(ft)	20	20		
Detector 1 Type	Cl+Ex	Cl+Ex		
Detector 1 Channel				
Detector 1 Extend (s)	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type	Perm	Perm		
Protected Phases				2
Permitted Phases	1	1		

Sprague Street Redevelopment Project

2016 Existing Condition PM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Detector Phase	4	4	4	1			3	3		3	3	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	30.0			8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	36.0			13.0	13.0		13.0	13.0	
Total Split (s)	17.0	17.0	17.0	36.0			17.0	17.0		17.0	17.0	
Total Split (%)	17.9%	17.9%	17.9%	37.9%			17.9%	17.9%		17.9%	17.9%	
Maximum Green (s)	12.0	12.0	12.0	30.0			12.0	12.0		12.0	12.0	
Yellow Time (s)	4.0	4.0	4.0	5.0			4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0		1.0	1.0	
Lost Time Adjust (s)			0.0	0.0				0.0			0.0	
Total Lost Time (s)			5.0	6.0				5.0			5.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	Max			None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)			9.2	31.9			9.5			9.5		
Actuated g/C Ratio			0.15	0.53			0.16			0.16		
v/c Ratio			0.33	0.64			0.38			0.36		
Control Delay			31.7	14.2			27.8			8.0		
Queue Delay			0.0	0.0			0.0			0.0		
Total Delay			31.7	14.2			27.8			8.0		
LOS			C	B			C			A		
Approach Delay			31.7	14.2			27.8			8.0		
Approach LOS			C	B			C			A		

Intersection Summary

Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	60.7
Natural Cycle:	90
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	18.8
Intersection LOS:	B
Intersection Capacity Utilization:	96.4%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court





Lane Group	SEL2	SEL	SER	ø2
Detector Phase	1	1		
Switch Phase				
Minimum Initial (s)	30.0	30.0		7.0
Minimum Split (s)	36.0	36.0		25.0
Total Split (s)	36.0	36.0		25.0
Total Split (%)	37.9%	37.9%		26%
Maximum Green (s)	30.0	30.0		21.0
Yellow Time (s)	5.0	5.0		3.0
All-Red Time (s)	1.0	1.0		1.0
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0
Recall Mode	Max	Max		None
Walk Time (s)				7.0
Flash Dont Walk (s)				14.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)		31.9		
Actuated g/C Ratio		0.53		
v/c Ratio		0.78		
Control Delay		22.3		
Queue Delay		0.0		
Total Delay		22.3		
LOS		C		
Approach Delay		22.3		
Approach LOS		C		
Intersection Summary				

Sprague Street Redevelopment Project

2016 Existing Condition PM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Movement	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2	
Lane Configurations			↔	↔				↔			↔		
Volume (vph)	10	5	30	0	525	45	40	10	10	60	5	20	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	9	9	9	16	16	16	14	14	14	16	16	16	
Total Lost time (s)			5.0	6.0				5.0			5.0		
Lane Util. Factor			1.00	1.00				1.00			1.00		
Frt			1.00	0.86				0.98			0.97		
Flt Protected			0.98	1.00				0.97			0.97		
Satd. Flow (prot)			1468	1762				1861			1956		
Flt Permitted			0.66	1.00				0.77			0.80		
Satd. Flow (perm)			980	1762				1488			1616		
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.66	0.66	0.66	0.65	0.65	0.65	
Adj. Flow (vph)	11	5	33	0	577	49	61	15	15	92	8	31	
RTOR Reduction (vph)	0	0	0	62	0	0	0	8	0	0	111	0	
Lane Group Flow (vph)	0	0	49	564	0	0	0	83	0	0	20	0	
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	3%	3%	3%	2%	2%	6%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)			2										
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA		
Protected Phases			4										
Permitted Phases	4	4		1			3	3		3	3		
Actuated Green, G (s)			5.5	31.9				9.5			9.5		
Effective Green, g (s)			5.5	31.9				9.5			9.5		
Actuated g/C Ratio			0.09	0.51				0.15			0.15		
Clearance Time (s)			5.0	6.0				5.0			5.0		
Vehicle Extension (s)			3.0	3.0				3.0			3.0		
Lane Grp Cap (vph)			85	893				224			244		
v/s Ratio Prot													
v/s Ratio Perm			c0.05	0.32				c0.06			0.01		
v/c Ratio			0.58	0.63				0.37			0.08		
Uniform Delay, d1			27.6	11.2				24.0			22.9		
Progression Factor			1.00	1.00				1.00			1.00		
Incremental Delay, d2			9.1	3.4				1.0			0.1		
Delay (s)			36.7	14.6				25.1			23.1		
Level of Service			D	B				C			C		
Approach Delay (s)			36.7	14.6				25.1			23.1		
Approach LOS			D	B				C			C		
Intersection Summary													
HCM 2000 Control Delay			19.0		HCM 2000 Level of Service						B		
HCM 2000 Volume to Capacity ratio			0.76										
Actuated Cycle Length (s)			62.9		Sum of lost time (s)						20.0		
Intersection Capacity Utilization			96.4%		ICU Level of Service						F		
Analysis Period (min)			15										
c Critical Lane Group													



Movement	SEL2	SEL	SER
Lane Configurations			
Volume (vph)	35	675	15
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	16	16	16
Total Lost time (s)		6.0	
Lane Util. Factor		1.00	
Frt		1.00	
Flt Protected		0.95	
Satd. Flow (prot)		1988	
Flt Permitted		0.95	
Satd. Flow (perm)		1988	
Peak-hour factor, PHF	0.89	0.89	0.89
Adj. Flow (vph)	39	758	17
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	0	814	0
Heavy Vehicles (%)	3%	3%	2%
Bus Blockages (#/hr)	0	0	10
Parking (#/hr)			
Turn Type	Perm	Perm	
Protected Phases			
Permitted Phases	1	1	
Actuated Green, G (s)		31.9	
Effective Green, g (s)		31.9	
Actuated g/C Ratio		0.51	
Clearance Time (s)		6.0	
Vehicle Extension (s)		3.0	
Lane Grp Cap (vph)		1008	
v/s Ratio Prot			
v/s Ratio Perm		c0.41	
v/c Ratio		0.81	
Uniform Delay, d1		12.9	
Progression Factor		1.00	
Incremental Delay, d2		6.9	
Delay (s)		19.9	
Level of Service		B	
Approach Delay (s)		19.9	
Approach LOS		B	
Intersection Summary			

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2016 Existing Condition PM Peak Hour

	↑	↖	↙	↓	↘	↗
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↗			↖	↘	↗
Volume (vph)	660	10	45	490	50	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.932	
Flt Protected				0.996	0.976	
Satd. Flow (prot)	1824	0	0	1848	1670	0
Flt Permitted				0.996	0.976	
Satd. Flow (perm)	1824	0	0	1848	1670	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	336			386	167	
Travel Time (s)	7.6			8.8	3.8	
Peak Hour Factor	0.87	0.87	0.94	0.94	0.79	0.79
Heavy Vehicles (%)	4%	2%	7%	2%	5%	2%
Adj. Flow (vph)	759	11	48	521	63	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	770	0	0	569	126	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	75.6%			ICU Level of Service D		
Analysis Period (min)	15					

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2016 Existing Condition PM Peak Hour

	↑	↖	↙	↓	↘	↗
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↖			↗	↘	
Volume (veh/h)	660	10	45	490	50	50
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.94	0.94	0.79	0.79
Hourly flow rate (vph)	759	11	48	521	63	63
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			770		1381	764
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			770		1381	764
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			94		57	84
cM capacity (veh/h)			822		147	404
Direction, Lane #	NB 1	SB 1	NW 1			
Volume Total	770	569	127			
Volume Left	0	48	63			
Volume Right	11	0	63			
cSH	1700	822	216			
Volume to Capacity	0.45	0.06	0.59			
Queue Length 95th (ft)	0	5	82			
Control Delay (s)	0.0	1.6	42.9			
Lane LOS		A	E			
Approach Delay (s)	0.0	1.6	42.9			
Approach LOS			E			
Intersection Summary						
Average Delay			4.3			
Intersection Capacity Utilization			75.6%		ICU Level of Service	D
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2021 No Build AM Peak Hour



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	5	5	26	529	306	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932				0.991	
Flt Protected	0.976			0.998		
Satd. Flow (prot)	1571	0	0	1960	1933	0
Flt Permitted	0.976			0.998		
Satd. Flow (perm)	1571	0	0	1960	1933	0
Link Speed (mph)	30			35	30	
Link Distance (ft)	490			413	824	
Travel Time (s)	11.1			8.0	18.7	
Peak Hour Factor	0.63	0.63	0.93	0.93	0.92	0.92
Heavy Vehicles (%)	2%	40%	2%	10%	11%	2%
Adj. Flow (vph)	8	8	28	569	333	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	597	356	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	0.88	0.85	0.85	0.85	0.85
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	59.0%
Analysis Period (min)	15
	ICU Level of Service B

Sprague Street Redevelopment Project
1: Sprague Street & Industrial Driveway

2021 No Build AM Peak Hour



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	5	5	26	529	306	21
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.63	0.63	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	8	8	28	569	333	23
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	969	344	355			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	969	344	355			
tC, single (s)	6.4	6.6	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.7	2.2			
p0 queue free %	97	99	98			
cM capacity (veh/h)	275	620	1203			
Direction, Lane #	SE 1	NE 1	SW 1			
Volume Total	16	597	355			
Volume Left	8	28	0			
Volume Right	8	0	23			
cSH	381	1203	1700			
Volume to Capacity	0.04	0.02	0.21			
Queue Length 95th (ft)	3	2	0			
Control Delay (s)	14.9	0.6	0.0			
Lane LOS	B	A				
Approach Delay (s)	14.9	0.6	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization		59.0%		ICU Level of Service		B
Analysis Period (min)		15				

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2021 No Build AM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	5	0	0	16	0	5	11	513	11	11	311	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	12	12	12	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.966			0.997			0.984	
Fl _t Protected		0.950			0.964			0.999			0.999	
Satd. Flow (prot)	0	2046	0	0	1078	0	0	1756	0	0	1960	0
Fl _t Permitted		0.950			0.964			0.999			0.999	
Satd. Flow (perm)	0	2046	0	0	1078	0	0	1756	0	0	1960	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		338			265			824			1173	
Travel Time (s)		7.7			6.0			16.1			22.9	
Peak Hour Factor	0.75	0.75	0.75	0.66	0.66	0.66	0.83	0.83	0.83	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	86%	2%	86%	2%	8%	2%	2%	9%	2%
Adj. Flow (vph)	7	0	0	24	0	8	13	618	13	13	353	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	32	0	0	644	0	0	413	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.85	0.85	0.85	1.00	1.00	1.00	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.4%
Analysis Period (min)	15
	ICU Level of Service A

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2021 No Build AM Peak Hour



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	5	0	0	16	0	5	11	513	11	11	311	42
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.66	0.66	0.66	0.83	0.83	0.83	0.88	0.88	0.88
Hourly flow rate (vph)	7	0	0	24	0	8	13	618	13	12	353	48
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	1061	1060	377	1053	1077	625	401			631		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1061	1060	377	1053	1077	625	401			631		
tC, single (s)	7.1	6.5	6.2	8.0	6.5	7.1	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	4.3	4.0	4.1	2.2			2.2		
p0 queue free %	97	100	100	83	100	98	99			99		
cM capacity (veh/h)	195	220	674	141	214	362	1158			951		
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	7	32	645	414								
Volume Left	7	24	13	12								
Volume Right	0	8	13	48								
cSH	195	165	1158	951								
Volume to Capacity	0.03	0.19	0.01	0.01								
Queue Length 95th (ft)	3	17	1	1								
Control Delay (s)	24.1	32.0	0.3	0.4								
Lane LOS	C	D	A	A								
Approach Delay (s)	24.1	32.0	0.3	0.4								
Approach LOS	C	D										
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			42.4%		ICU Level of Service				A			
Analysis Period (min)			15									

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 No Build AM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	358	47	74	450	316	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	13	13	12	12
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984					0.850
Flt Protected	0.958			0.993		
Satd. Flow (prot)	1698	0	0	1805	1667	1417
Flt Permitted	0.958			0.993		
Satd. Flow (perm)	1698	0	0	1805	1667	1417
Link Speed (mph)	30			35	30	
Link Distance (ft)	686			1173	333	
Travel Time (s)	15.6			22.9	7.6	
Peak Hour Factor	0.89	0.89	0.90	0.90	0.98	0.98
Heavy Vehicles (%)	7%	2%	2%	9%	14%	14%
Parking (#/hr)	2					
Adj. Flow (vph)	402	53	82	500	322	232
Shared Lane Traffic (%)						
Lane Group Flow (vph)	455	0	0	582	322	232
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.85	0.96	0.96	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	77.1% ICU Level of Service D
Analysis Period (min)	15

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 No Build AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	358	47	74	450	316	227
Peak Hour Factor	0.89	0.89	0.90	0.90	0.98	0.98
Hourly flow rate (vph)	402	53	82	500	322	232
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total (vph)	455	582	322	232		
Volume Left (vph)	402	82	0	0		
Volume Right (vph)	53	0	0	232		
Hadj (s)	0.22	0.16	0.24	-0.46		
Departure Headway (s)	7.0	6.9	7.5	6.8		
Degree Utilization, x	0.88	1.0	0.67	0.44		
Capacity (veh/h)	510	524	465	518		
Control Delay (s)	41.8	101.0	23.5	13.9		
Approach Delay (s)	41.8	101.0	19.5			
Approach LOS	E	F	C			
Intersection Summary						
Delay			55.7			
Level of Service			F			
Intersection Capacity Utilization			77.1%	ICU Level of Service	D	
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2021 No Build AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	584	431	86	606	263	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.943		0.882			
Flt Protected	0.972					0.962
Satd. Flow (prot)	1862	0	1756	0	0	1868
Flt Permitted	0.972					0.962
Satd. Flow (perm)	1862	0	1756	0	0	1868
Link Speed (mph)	30		30			30
Link Distance (ft)	466		390			437
Travel Time (s)	10.6		8.9			9.9
Peak Hour Factor	0.89	0.89	0.98	0.98	0.96	0.96
Heavy Vehicles (%)	9%	2%	2%	9%	5%	2%
Adj. Flow (vph)	656	484	88	618	274	71
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1140	0	706	0	0	345
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.85	0.85	0.92	0.92
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	128.8%
Analysis Period (min)	15
	ICU Level of Service H

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2021 No Build AM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	584	431	86	606	263	68
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.98	0.98	0.96	0.96
Hourly flow rate (vph)	656	484	88	618	274	71
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	1016	397			706	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1016	397			706	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	0	26			69	
cM capacity (veh/h)	176	653			878	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	1140	706	345
Volume Left	656	0	274
Volume Right	484	618	0
cSH	255	1700	878
Volume to Capacity	4.47	0.42	0.31
Queue Length 95th (ft)	Err	0	33
Control Delay (s)	Err	0.0	9.4
Lane LOS	F		A
Approach Delay (s)	Err	0.0	9.4
Approach LOS	F		

Intersection Summary			
Average Delay		5205.3	
Intersection Capacity Utilization		128.8%	ICU Level of Service H
Analysis Period (min)		15	

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 No Build AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	255	11	604	5	5	5	722	184	11	0	137	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	14	14	16	16	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.906			0.955			0.998			0.909	
Flt Protected		0.986			0.984			0.962				
Satd. Flow (prot)	0	1766	0	0	1758	0	0	1951	0	0	1673	0
Flt Permitted		0.986			0.984			0.962				
Satd. Flow (perm)	0	1766	0	0	1758	0	0	1951	0	0	1673	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		466			184			798			433	
Travel Time (s)		10.6			4.2			18.1			9.8	
Peak Hour Factor	0.91	0.91	0.91	0.70	0.70	0.70	0.90	0.90	0.90	0.83	0.83	0.83
Heavy Vehicles (%)	9%	2%	9%	2%	2%	21%	6%	6%	2%	2%	17%	17%
Adj. Flow (vph)	280	12	664	7	7	7	802	204	12	0	165	347
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	956	0	0	21	0	0	1018	0	0	512	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 143.8% ICU Level of Service H

Analysis Period (min) 15

Sprague Street Redevelopment Project
 5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 No Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	255	11	604	5	5	5	722	184	11	0	137	288
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.70	0.70	0.70	0.90	0.90	0.90	0.83	0.83	0.83
Hourly flow rate (vph)	280	12	664	7	7	7	802	204	12	0	165	347
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								798				
pX, platoon unblocked												
vC, conflicting volume	2164	2160	339	2823	2327	211	512			217		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2164	2160	339	2823	2327	211	512			217		
tC, single (s)	7.2	6.5	6.3	7.1	6.5	6.4	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.5	2.3			2.2		
p0 queue free %	0	0	4	0	14	99	22			100		
cM capacity (veh/h)	4	11	688	0	8	784	1033			1353		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	956	21	1019	512								
Volume Left	280	7	802	0								
Volume Right	664	7	12	347								
cSH	12	0	1033	1353								
Volume to Capacity	77.11	Err	0.78	0.00								
Queue Length 95th (ft)	Err	Err	203	0								
Control Delay (s)	Err	Err	19.0	0.0								
Lane LOS	F	F	C									
Approach Delay (s)	Err	Err	19.0	0.0								
Approach LOS	F	F										
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			143.8%		ICU Level of Service					H		
Analysis Period (min)			15									

Sprague Street Redevelopment Project

2021 No Build AM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations			↔	↔				↔			↔	
Volume (vph)	11	5	11	0	759	126	53	16	5	68	5	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	16	16	16	14	14	14	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.865				0.991			0.951	
Fl _t Protected			0.971					0.965			0.971	
Satd. Flow (prot)	0	0	1385	1767	0	0	0	1900	0	0	1831	0
Fl _t Permitted			0.815					0.745			0.812	
Satd. Flow (perm)	0	0	1163	1767	0	0	0	1467	0	0	1531	0
Right Turn on Red							Yes		Yes			Yes
Satd. Flow (RTOR)				126				3			138	
Link Speed (mph)			30	30				30			30	
Link Distance (ft)			245	329				316			590	
Travel Time (s)			5.6	7.5				7.2			13.4	
Peak Hour Factor	0.69	0.69	0.69	0.91	0.91	0.91	0.84	0.84	0.84	0.81	0.81	0.81
Heavy Vehicles (%)	2%	28%	2%	2%	6%	2%	2%	2%	2%	2%	2%	20%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			2									
Adj. Flow (vph)	16	7	16	0	834	138	63	19	6	84	6	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	39	972	0	0	0	88	0	0	142	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)			0	0				0			0	
Link Offset(ft)			0	0				0			0	
Crosswalk Width(ft)			16	16				16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.32	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85
Turning Speed (mph)	15	15			9	9	15		9	15		9
Number of Detectors	1	1	2	2			1	2		1	2	
Detector Template	Left	Left	Thru	Thru			Left	Thru		Left	Thru	
Leading Detector (ft)	20	20	100	100			20	100		20	100	
Trailing Detector (ft)	0	0	0	0			0	0		0	0	
Detector 1 Position(ft)	0	0	0	0			0	0		0	0	
Detector 1 Size(ft)	20	20	6	6			20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 2 Position(ft)			94	94				94			94	
Detector 2 Size(ft)			6	6				6			6	
Detector 2 Type			Cl+Ex	Cl+Ex				Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)			0.0	0.0				0.0			0.0	
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA	
Protected Phases			4									
Permitted Phases	4	4		1			3	3		3	3	



Lane Group	SEL2	SEL	SER	ø2
Lane Configurations				
Volume (vph)	95	635	16	
Ideal Flow (vphpl)	1900	1900	1900	
Lane Width (ft)	16	16	16	
Lane Util. Factor	1.00	1.00	1.00	
Flt		0.997		
Flt Protected		0.953		
Satd. Flow (prot)	0	1925	0	
Flt Permitted		0.953		
Satd. Flow (perm)	0	1925	0	
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)		30		
Link Distance (ft)		798		
Travel Time (s)		18.1		
Peak Hour Factor	0.93	0.93	0.93	
Heavy Vehicles (%)	2%	7%	2%	
Bus Blockages (#/hr)	0	0	10	
Parking (#/hr)				
Adj. Flow (vph)	102	683	17	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	802	0	
Enter Blocked Intersection	No	No	No	
Lane Alignment	Left	Left	Right	
Median Width(ft)		16		
Link Offset(ft)		0		
Crosswalk Width(ft)		16		
Two way Left Turn Lane				
Headway Factor	0.85	0.85	0.85	
Turning Speed (mph)	15	15	9	
Number of Detectors	1	1		
Detector Template	Left	Left		
Leading Detector (ft)	20	20		
Trailing Detector (ft)	0	0		
Detector 1 Position(ft)	0	0		
Detector 1 Size(ft)	20	20		
Detector 1 Type	Cl+Ex	Cl+Ex		
Detector 1 Channel				
Detector 1 Extend (s)	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type	Perm	Perm		
Protected Phases				2
Permitted Phases	1	1		

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Detector Phase	4	4	4	1			3	3		3	3	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	30.0			8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	36.0			13.0	13.0		13.0	13.0	
Total Split (s)	17.0	17.0	17.0	36.0			17.0	17.0		17.0	17.0	
Total Split (%)	17.9%	17.9%	17.9%	37.9%			17.9%	17.9%		17.9%	17.9%	
Maximum Green (s)	12.0	12.0	12.0	30.0			12.0	12.0		12.0	12.0	
Yellow Time (s)	4.0	4.0	4.0	5.0			4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0		1.0	1.0	
Lost Time Adjust (s)			0.0	0.0				0.0			0.0	
Total Lost Time (s)			5.0	6.0				5.0			5.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	Max			None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)			9.8	31.3			9.7			9.7		9.7
Actuated g/C Ratio			0.17	0.54			0.17			0.17		0.17
v/c Ratio			0.20	0.96			0.36			0.38		0.38
Control Delay			26.0	37.3			27.3			9.2		9.2
Queue Delay			0.0	0.0			0.0			0.0		0.0
Total Delay			26.0	37.3			27.3			9.2		9.2
LOS			C	D			C			A		A
Approach Delay			26.0	37.3			27.3			9.2		9.2
Approach LOS			C	D			C			A		A

Intersection Summary

Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	57.9
Natural Cycle:	110
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.96
Intersection Signal Delay:	28.5
Intersection LOS:	C
Intersection Capacity Utilization:	117.5%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court





Lane Group	SEL2	SEL	SER	ø2
Detector Phase	1	1		
Switch Phase				
Minimum Initial (s)	30.0	30.0		7.0
Minimum Split (s)	36.0	36.0		25.0
Total Split (s)	36.0	36.0		25.0
Total Split (%)	37.9%	37.9%		26%
Maximum Green (s)	30.0	30.0		21.0
Yellow Time (s)	5.0	5.0		3.0
All-Red Time (s)	1.0	1.0		1.0
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0
Recall Mode	Max	Max		None
Walk Time (s)				7.0
Flash Dont Walk (s)				14.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)		31.3		
Actuated g/C Ratio		0.54		
v/c Ratio		0.77		
Control Delay		21.4		
Queue Delay		0.0		
Total Delay		21.4		
LOS		C		
Approach Delay		21.4		
Approach LOS		C		
Intersection Summary				

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Movement	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2	
Lane Configurations			↔	↔				↔			↔		
Volume (vph)	11	5	11	0	759	126	53	16	5	68	5	42	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	9	9	9	16	16	16	14	14	14	16	16	16	
Total Lost time (s)			5.0	6.0				5.0			5.0		
Lane Util. Factor			1.00	1.00				1.00			1.00		
Frt			1.00	0.86				0.99			0.95		
Flt Protected			0.97	1.00				0.97			0.97		
Satd. Flow (prot)			1386	1767				1901			1831		
Flt Permitted			0.82	1.00				0.75			0.81		
Satd. Flow (perm)			1163	1767				1467			1531		
Peak-hour factor, PHF	0.69	0.69	0.69	0.91	0.91	0.91	0.84	0.84	0.84	0.81	0.81	0.81	
Adj. Flow (vph)	16	7	16	0	834	138	63	19	6	84	6	52	
RTOR Reduction (vph)	0	0	0	61	0	0	0	3	0	0	116	0	
Lane Group Flow (vph)	0	0	39	911	0	0	0	85	0	0	26	0	
Heavy Vehicles (%)	2%	28%	2%	2%	6%	2%	2%	2%	2%	2%	2%	20%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)			2										
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA		
Protected Phases			4										
Permitted Phases	4	4		1			3	3		3	3		
Actuated Green, G (s)			3.9	31.4				9.7			9.7		
Effective Green, g (s)			3.9	31.4				9.7			9.7		
Actuated g/C Ratio			0.06	0.51				0.16			0.16		
Clearance Time (s)			5.0	6.0				5.0			5.0		
Vehicle Extension (s)			3.0	3.0				3.0			3.0		
Lane Grp Cap (vph)			74	909				233			243		
v/s Ratio Prot													
v/s Ratio Perm			c0.03	c0.52				c0.06			0.02		
v/c Ratio			0.53	1.00				0.37			0.11		
Uniform Delay, d1			27.7	14.8				22.9			21.9		
Progression Factor			1.00	1.00				1.00			1.00		
Incremental Delay, d2			6.6	30.3				1.0			0.2		
Delay (s)			34.3	45.1				23.9			22.1		
Level of Service			C	D				C			C		
Approach Delay (s)			34.3	45.1				23.9			22.1		
Approach LOS			C	D				C			C		
Intersection Summary													
HCM 2000 Control Delay			32.3		HCM 2000 Level of Service						C		
HCM 2000 Volume to Capacity ratio			0.90										
Actuated Cycle Length (s)			61.0		Sum of lost time (s)						20.0		
Intersection Capacity Utilization			117.5%		ICU Level of Service						H		
Analysis Period (min)			15										
c Critical Lane Group													



Movement	SEL2	SEL	SER
Lane Configurations			
Volume (vph)	95	635	16
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	16	16	16
Total Lost time (s)		6.0	
Lane Util. Factor		1.00	
Frt		1.00	
Flt Protected		0.95	
Satd. Flow (prot)		1926	
Flt Permitted		0.95	
Satd. Flow (perm)		1926	
Peak-hour factor, PHF	0.93	0.93	0.93
Adj. Flow (vph)	102	683	17
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	0	802	0
Heavy Vehicles (%)	2%	7%	2%
Bus Blockages (#/hr)	0	0	10
Parking (#/hr)			
Turn Type	Perm	Perm	
Protected Phases			
Permitted Phases	1	1	
Actuated Green, G (s)		31.4	
Effective Green, g (s)		31.4	
Actuated g/C Ratio		0.51	
Clearance Time (s)		6.0	
Vehicle Extension (s)		3.0	
Lane Grp Cap (vph)		991	
v/s Ratio Prot			
v/s Ratio Perm		0.42	
v/c Ratio		0.81	
Uniform Delay, d1		12.3	
Progression Factor		1.00	
Incremental Delay, d2		7.1	
Delay (s)		19.4	
Level of Service		B	
Approach Delay (s)		19.4	
Approach LOS		B	
Intersection Summary			

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2021 No Build AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	71	81	615	193	159	489
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928		0.968			
Flt Protected	0.977					0.988
Satd. Flow (prot)	1378	0	1702	0	0	1750
Flt Permitted	0.977					0.988
Satd. Flow (perm)	1378	0	1702	0	0	1750
Link Speed (mph)	30		30			30
Link Distance (ft)	264		333			390
Travel Time (s)	6.0		7.6			8.9
Peak Hour Factor	0.61	0.61	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	45%	10%	2%	2%	9%
Adj. Flow (vph)	116	133	668	210	173	532
Shared Lane Traffic (%)						
Lane Group Flow (vph)	249	0	878	0	0	705
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	97.5%
Analysis Period (min)	15
	ICU Level of Service F

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2021 No Build AM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	71	81	615	193	159	489
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.61	0.61	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	116	133	668	210	173	532
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	1651	773			878	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1651	773			878	
tC, single (s)	6.4	6.7			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.7			2.2	
p0 queue free %	0	61			78	
cM capacity (veh/h)	84	338			769	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	249	878	704
Volume Left	116	0	173
Volume Right	133	210	0
cSH	140	1700	769
Volume to Capacity	1.78	0.52	0.22
Queue Length 95th (ft)	466	0	21
Control Delay (s)	430.9	0.0	5.4
Lane LOS	F		A
Approach Delay (s)	430.9	0.0	5.4
Approach LOS	F		

Intersection Summary			
Average Delay		60.7	
Intersection Capacity Utilization		97.5%	ICU Level of Service
Analysis Period (min)		15	F

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2021 No Build PM Peak Hour



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	37	47	15	365	460	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924			0.997		
Flt Protected	0.979			0.998		
Satd. Flow (prot)	1784	0	0	2049	2085	0
Flt Permitted	0.979			0.998		
Satd. Flow (perm)	1784	0	0	2049	2085	0
Link Speed (mph)	30			35	30	
Link Distance (ft)	490			413	824	
Travel Time (s)	11.1			8.0	18.7	
Peak Hour Factor	0.74	0.74	0.82	0.85	0.97	0.97
Heavy Vehicles (%)	6%	6%	2%	5%	3%	2%
Adj. Flow (vph)	50	64	18	429	474	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	114	0	0	447	485	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	0.88	0.85	0.85	0.85	0.85
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.0% ICU Level of Service A
Analysis Period (min)	15

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2021 No Build PM Peak Hour



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	37	47	15	365	460	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.74	0.74	0.82	0.85	0.97	0.97
Hourly flow rate (vph)	50	64	18	429	474	11
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	946	480	486			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	946	480	486			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	82	89	98			
cM capacity (veh/h)	281	578	1077			
Direction, Lane #	SE 1	NE 1	SW 1			
Volume Total	114	448	486			
Volume Left	50	18	0			
Volume Right	64	0	11			
cSH	394	1077	1700			
Volume to Capacity	0.29	0.02	0.29			
Queue Length 95th (ft)	29	1	0			
Control Delay (s)	17.8	0.5	0.0			
Lane LOS	C	A				
Approach Delay (s)	17.8	0.5	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utilization			43.0%	ICU Level of Service		A
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2021 No Build PM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	121	0	26	21	0	11	26	365	11	5	423	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	12	12	12	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.976			0.954			0.996			0.985	
Fl _t Protected		0.961			0.968			0.997			0.999	
Satd. Flow (prot)	0	1980	0	0	1918	0	0	1784	0	0	2025	0
Fl _t Permitted		0.961			0.968			0.997			0.999	
Satd. Flow (perm)	0	1980	0	0	1918	0	0	1784	0	0	2025	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		338			265			824			1173	
Travel Time (s)		7.7			6.0			16.1			22.9	
Peak Hour Factor	0.57	0.57	0.57	0.60	0.60	0.60	0.93	0.93	0.93	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	2%	2%	2%	7%	2%	6%	6%	2%	5%	2%
Adj. Flow (vph)	212	0	46	35	0	18	28	392	12	6	475	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	258	0	0	53	0	0	432	0	0	541	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.85	0.85	0.85	1.00	1.00	1.00	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.7%
ICU Level of Service	A
Analysis Period (min)	15

Sprague Street Redevelopment Project
2: Sprague Street & Horne Street/Sprague Place

2021 No Build PM Peak Hour



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR	
Lane Configurations		↕			↕			↕			↕		
Volume (veh/h)	121	0	26	21	0	11	26	365	11	5	423	53	
Sign Control		Stop			Stop			Free			Free		
Grade		0%			0%			0%			0%		
Peak Hour Factor	0.57	0.57	0.57	0.60	0.60	0.60	0.93	0.93	0.93	0.89	0.89	0.89	
Hourly flow rate (vph)	212	0	46	35	0	18	28	392	12	6	475	60	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type							None						
Median storage (veh)													
Upstream signal (ft)													
pX, platoon unblocked													
vC, conflicting volume	989	977	505	1016	1000	398	535					404	
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	989	977	505	1016	1000	398	535					404	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.1					4.1	
tC, 2 stage (s)													
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2					2.2	
p0 queue free %	1	100	92	82	100	97	97					100	
cM capacity (veh/h)	214	243	567	194	235	641	1033					1154	
Direction, Lane #	SE 1	NW 1	NE 1	SW 1									
Volume Total	258	53	432	540									
Volume Left	212	35	28	6									
Volume Right	46	18	12	60									
cSH	240	255	1033	1154									
Volume to Capacity	1.07	0.21	0.03	0.00									
Queue Length 95th (ft)	275	19	2	0									
Control Delay (s)	122.8	22.8	0.8	0.1									
Lane LOS	F	C	A	A									
Approach Delay (s)	122.8	22.8	0.8	0.1									
Approach LOS	F	C											
Intersection Summary													
Average Delay			26.0										
Intersection Capacity Utilization			53.7%					ICU Level of Service			A		
Analysis Period (min)			15										

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 No Build PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	283	100	63	434	381	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	13	13	12	12
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.965					0.850
Flt Protected	0.964			0.994		
Satd. Flow (prot)	1682	0	0	1897	1827	1583
Flt Permitted	0.964			0.994		
Satd. Flow (perm)	1682	0	0	1897	1827	1583
Link Speed (mph)	30			35	30	
Link Distance (ft)	686			1173	336	
Travel Time (s)	15.6			22.9	7.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.91	0.91
Heavy Vehicles (%)	6%	6%	2%	3%	4%	2%
Parking (#/hr)	2					
Adj. Flow (vph)	329	116	73	505	419	296
Shared Lane Traffic (%)						
Lane Group Flow (vph)	445	0	0	578	419	296
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.85	0.96	0.96	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	78.2%
ICU Level of Service	D
Analysis Period (min)	15

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 No Build PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	283	100	63	434	381	269
Peak Hour Factor	0.86	0.86	0.86	0.86	0.91	0.91
Hourly flow rate (vph)	329	116	73	505	419	296
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total (vph)	445	578	419	296		
Volume Left (vph)	329	73	0	0		
Volume Right (vph)	116	0	0	296		
Hadj (s)	0.09	0.07	0.07	-0.67		
Departure Headway (s)	7.0	6.9	7.3	6.6		
Degree Utilization, x	0.86	1.0	0.85	0.54		
Capacity (veh/h)	510	523	486	541		
Control Delay (s)	39.5	98.5	38.2	15.8		
Approach Delay (s)	39.5	98.5	28.9			
Approach LOS	E	F	D			
Intersection Summary						
Delay			54.8			
Level of Service			F			
Intersection Capacity Utilization			78.2%	ICU Level of Service	D	
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2021 No Build PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	490	284	84	777	263	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.950		0.878			
Flt Protected	0.969					0.967
Satd. Flow (prot)	1874	0	1854	0	0	1845
Flt Permitted	0.969					0.967
Satd. Flow (perm)	1874	0	1854	0	0	1845
Link Speed (mph)	30		30			30
Link Distance (ft)	466		386			437
Travel Time (s)	10.6		8.8			9.9
Peak Hour Factor	0.96	0.96	0.95	0.95	0.91	0.91
Heavy Vehicles (%)	8%	2%	2%	2%	2%	15%
Adj. Flow (vph)	510	296	88	818	289	138
Shared Lane Traffic (%)						
Lane Group Flow (vph)	806	0	906	0	0	427
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.85	0.85	0.92	0.92
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	128.1%
Analysis Period (min)	15
	ICU Level of Service H

Sprague Street Redevelopment Project
4: Milton Street & Neponset Valley Parkway

2021 No Build PM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	490	284	84	777	263	126
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.95	0.95	0.91	0.91
Hourly flow rate (vph)	510	296	88	818	289	138
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	1214	497			906	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1214	497			906	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	0	48			62	
cM capacity (veh/h)	120	573			751	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	806	906	427
Volume Left	510	0	289
Volume Right	296	818	0
cSH	169	1700	751
Volume to Capacity	4.77	0.53	0.38
Queue Length 95th (ft)	Err	0	46
Control Delay (s)	Err	0.0	10.4
Lane LOS	F		B
Approach Delay (s)	Err	0.0	10.4
Approach LOS	F		

Intersection Summary			
Average Delay		3769.1	
Intersection Capacity Utilization		128.1%	ICU Level of Service H
Analysis Period (min)		15	

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 No Build PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	276	0	763	5	5	5	533	137	0	0	168	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	14	14	16	16	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.901			0.955							0.921
Flt Protected		0.987			0.984			0.962				
Satd. Flow (prot)	0	1877	0	0	1904	0	0	1969	0	0	1839	0
Flt Permitted		0.987			0.984			0.962				
Satd. Flow (perm)	0	1877	0	0	1904	0	0	1969	0	0	1839	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		466			184			822				433
Travel Time (s)		10.6			4.2			18.7				9.8
Peak Hour Factor	0.92	0.92	0.92	0.45	0.45	0.45	0.97	0.97	0.97	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	6%	2%	2%	2%	2%	12%
Adj. Flow (vph)	300	0	829	11	11	11	549	141	0	0	187	262
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1129	0	0	33	0	0	690	0	0	449	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free				Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	139.0%
ICU Level of Service	H
Analysis Period (min)	15

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 No Build PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	276	0	763	5	5	5	533	137	0	0	168	236
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.45	0.45	0.45	0.97	0.97	0.97	0.90	0.90	0.90
Hourly flow rate (vph)	300	0	829	11	11	11	549	141	0	0	187	262
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								822				
pX, platoon unblocked												
vC, conflicting volume	1575	1558	318	2387	1689	141	449			141		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1575	1558	318	2387	1689	141	449			141		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	0	100	0	0	76	99	50			100		
cM capacity (veh/h)	44	56	723	0	47	912	1091			1442		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	1129	33	691	449
Volume Left	300	11	549	0
Volume Right	829	11	0	262
cSH	142	0	1091	1442
Volume to Capacity	7.93	Err	0.50	0.00
Queue Length 95th (ft)	Err	Err	73	0
Control Delay (s)	Err	Err	10.5	0.0
Lane LOS	F	F	B	
Approach Delay (s)	Err	Err	10.5	0.0
Approach LOS	F	F		

Intersection Summary			
Average Delay		Err	
Intersection Capacity Utilization		139.0%	ICU Level of Service
Analysis Period (min)		15	H

Sprague Street Redevelopment Project

2021 No Build PM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations			↔	↔				↔			↔	
Volume (vph)	11	5	32	0	570	47	42	11	11	63	5	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	16	16	16	14	14	14	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.865				0.977			0.968	
Fl _t Protected			0.984					0.968			0.966	
Satd. Flow (prot)	0	0	1468	1762	0	0	0	1861	0	0	1956	0
Fl _t Permitted			0.638					0.774			0.793	
Satd. Flow (perm)	0	0	952	1762	0	0	0	1488	0	0	1606	0
Right Turn on Red							Yes		Yes			Yes
Satd. Flow (RTOR)				126				9			138	
Link Speed (mph)			30	30				30			30	
Link Distance (ft)			245	329				316			590	
Travel Time (s)			5.6	7.5				7.2			13.4	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.66	0.66	0.66	0.65	0.65	0.65
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	3%	3%	3%	2%	2%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			2									
Adj. Flow (vph)	12	5	35	0	626	52	64	17	17	97	8	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	52	678	0	0	0	98	0	0	137	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)			0	0				0			0	
Link Offset(ft)			0	0				0			0	
Crosswalk Width(ft)			16	16				16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.32	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85
Turning Speed (mph)	15	15			9	9	15		9	15		9
Number of Detectors	1	1	2	2			1	2		1	2	
Detector Template	Left	Left	Thru	Thru			Left	Thru		Left	Thru	
Leading Detector (ft)	20	20	100	100			20	100		20	100	
Trailing Detector (ft)	0	0	0	0			0	0		0	0	
Detector 1 Position(ft)	0	0	0	0			0	0		0	0	
Detector 1 Size(ft)	20	20	6	6			20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 2 Position(ft)			94	94				94			94	
Detector 2 Size(ft)			6	6				6			6	
Detector 2 Type			Cl+Ex	Cl+Ex				Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)			0.0	0.0				0.0			0.0	
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA	
Protected Phases			4									
Permitted Phases	4	4		1			3	3		3	3	



Lane Group	SEL2	SEL	SER	ø2
Lane Configurations				
Volume (vph)	37	789	16	
Ideal Flow (vphpl)	1900	1900	1900	
Lane Width (ft)	16	16	16	
Lane Util. Factor	1.00	1.00	1.00	
Fr _t		0.997		
Fl _t Protected		0.953		
Satd. Flow (prot)	0	1987	0	
Fl _t Permitted		0.953		
Satd. Flow (perm)	0	1987	0	
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)		30		
Link Distance (ft)		822		
Travel Time (s)		18.7		
Peak Hour Factor	0.89	0.89	0.89	
Heavy Vehicles (%)	3%	3%	2%	
Bus Blockages (#/hr)	0	0	10	
Parking (#/hr)				
Adj. Flow (vph)	42	887	18	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	947	0	
Enter Blocked Intersection	No	No	No	
Lane Alignment	Left	Left	Right	
Median Width(ft)		16		
Link Offset(ft)		0		
Crosswalk Width(ft)		16		
Two way Left Turn Lane				
Headway Factor	0.85	0.85	0.85	
Turning Speed (mph)	15	15	9	
Number of Detectors	1	1		
Detector Template	Left	Left		
Leading Detector (ft)	20	20		
Trailing Detector (ft)	0	0		
Detector 1 Position(ft)	0	0		
Detector 1 Size(ft)	20	20		
Detector 1 Type	Cl+Ex	Cl+Ex		
Detector 1 Channel				
Detector 1 Extend (s)	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type	Perm	Perm		
Protected Phases				2
Permitted Phases	1	1		

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Detector Phase	4	4	4	1			3	3		3	3	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	30.0			8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	36.0			13.0	13.0		13.0	13.0	
Total Split (s)	17.0	17.0	17.0	36.0			17.0	17.0		17.0	17.0	
Total Split (%)	17.9%	17.9%	17.9%	37.9%			17.9%	17.9%		17.9%	17.9%	
Maximum Green (s)	12.0	12.0	12.0	30.0			12.0	12.0		12.0	12.0	
Yellow Time (s)	4.0	4.0	4.0	5.0			4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0		1.0	1.0	
Lost Time Adjust (s)			0.0	0.0				0.0			0.0	
Total Lost Time (s)			5.0	6.0				5.0			5.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	Max			None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)			9.4	30.9			9.6			9.6		9.6
Actuated g/C Ratio			0.16	0.52			0.16			0.16		0.16
v/c Ratio			0.35	0.70			0.40			0.37		0.37
Control Delay			32.4	16.6			28.2			8.6		8.6
Queue Delay			0.0	0.0			0.0			0.0		0.0
Total Delay			32.4	16.6			28.2			8.6		8.6
LOS			C	B			C			A		A
Approach Delay			32.4	16.6			28.2			8.6		8.6
Approach LOS			C	B			C			A		A

Intersection Summary

Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	59.9
Natural Cycle:	100
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	26.0
Intersection LOS:	C
Intersection Capacity Utilization:	105.8%
ICU Level of Service:	G
Analysis Period (min):	15

Splits and Phases: 6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court





Lane Group	SEL2	SEL	SER	ø2
Detector Phase	1	1		
Switch Phase				
Minimum Initial (s)	30.0	30.0		7.0
Minimum Split (s)	36.0	36.0		25.0
Total Split (s)	36.0	36.0		25.0
Total Split (%)	37.9%	37.9%		26%
Maximum Green (s)	30.0	30.0		21.0
Yellow Time (s)	5.0	5.0		3.0
All-Red Time (s)	1.0	1.0		1.0
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0
Recall Mode	Max	Max		None
Walk Time (s)				7.0
Flash Dont Walk (s)				14.0
Pedestrian Calls (#/hr)				0
Act Effect Green (s)		30.9		
Actuated g/C Ratio		0.52		
v/c Ratio		0.92		
Control Delay		34.6		
Queue Delay		0.0		
Total Delay		34.6		
LOS		C		
Approach Delay		34.6		
Approach LOS		C		
Intersection Summary				

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Movement	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2	
Lane Configurations			↕	↕				↕			↕		
Volume (vph)	11	5	32	0	570	47	42	11	11	63	5	21	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	9	9	9	16	16	16	14	14	14	16	16	16	
Total Lost time (s)			5.0	6.0				5.0			5.0		
Lane Util. Factor			1.00	1.00				1.00			1.00		
Frt			1.00	0.86				0.98			0.97		
Flt Protected			0.98	1.00				0.97			0.97		
Satd. Flow (prot)			1468	1762				1861			1957		
Flt Permitted			0.64	1.00				0.77			0.79		
Satd. Flow (perm)			951	1762				1488			1608		
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.66	0.66	0.66	0.65	0.65	0.65	
Adj. Flow (vph)	12	5	35	0	626	52	64	17	17	97	8	32	
RTOR Reduction (vph)	0	0	0	63	0	0	0	8	0	0	116	0	
Lane Group Flow (vph)	0	0	52	615	0	0	0	90	0	0	21	0	
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	3%	3%	3%	2%	2%	6%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)			2										
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA		
Protected Phases			4										
Permitted Phases	4	4		1			3	3		3	3		
Actuated Green, G (s)			5.5	30.9				9.6			9.6		
Effective Green, g (s)			5.5	30.9				9.6			9.6		
Actuated g/C Ratio			0.09	0.50				0.15			0.15		
Clearance Time (s)			5.0	6.0				5.0			5.0		
Vehicle Extension (s)			3.0	3.0				3.0			3.0		
Lane Grp Cap (vph)			84	878				230			248		
v/s Ratio Prot													
v/s Ratio Perm			c0.05	0.35				c0.06			0.01		
v/c Ratio			0.62	0.70				0.39			0.09		
Uniform Delay, d1			27.2	12.0				23.6			22.4		
Progression Factor			1.00	1.00				1.00			1.00		
Incremental Delay, d2			12.8	4.6				1.1			0.1		
Delay (s)			40.1	16.6				24.7			22.6		
Level of Service			D	B				C			C		
Approach Delay (s)			40.1	16.6				24.7			22.6		
Approach LOS			D	B				C			C		
Intersection Summary													
HCM 2000 Control Delay			27.1		HCM 2000 Level of Service						C		
HCM 2000 Volume to Capacity ratio			0.87										
Actuated Cycle Length (s)			62.0		Sum of lost time (s)						20.0		
Intersection Capacity Utilization			105.8%		ICU Level of Service						G		
Analysis Period (min)			15										
c Critical Lane Group													



Movement	SEL2	SEL	SER
Lane Configurations			
Volume (vph)	37	789	16
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	16	16	16
Total Lost time (s)		6.0	
Lane Util. Factor		1.00	
Frt		1.00	
Flt Protected		0.95	
Satd. Flow (prot)		1988	
Flt Permitted		0.95	
Satd. Flow (perm)		1988	
Peak-hour factor, PHF	0.89	0.89	0.89
Adj. Flow (vph)	42	887	18
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	0	947	0
Heavy Vehicles (%)	3%	3%	2%
Bus Blockages (#/hr)	0	0	10
Parking (#/hr)			
Turn Type	Perm	Perm	
Protected Phases			
Permitted Phases	1	1	
Actuated Green, G (s)		30.9	
Effective Green, g (s)		30.9	
Actuated g/C Ratio		0.50	
Clearance Time (s)		6.0	
Vehicle Extension (s)		3.0	
Lane Grp Cap (vph)		990	
v/s Ratio Prot			
v/s Ratio Perm		c0.48	
v/c Ratio		0.96	
Uniform Delay, d1		14.9	
Progression Factor		1.00	
Incremental Delay, d2		19.9	
Delay (s)		34.8	
Level of Service		C	
Approach Delay (s)		34.8	
Approach LOS		C	
Intersection Summary			

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2021 No Build PM Peak Hour



Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (vph)	694	34	75	515	156	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.928	
Flt Protected				0.994	0.977	
Satd. Flow (prot)	1818	0	0	1840	1666	0
Flt Permitted				0.994	0.977	
Satd. Flow (perm)	1818	0	0	1840	1666	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	336			386	167	
Travel Time (s)	7.6			8.8	3.8	
Peak Hour Factor	0.87	0.87	0.94	0.94	0.79	0.79
Heavy Vehicles (%)	4%	2%	7%	2%	5%	2%
Adj. Flow (vph)	798	39	80	548	197	225
Shared Lane Traffic (%)						
Lane Group Flow (vph)	837	0	0	628	422	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	99.4%
Analysis Period (min)	15
	ICU Level of Service F

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2021 No Build PM Peak Hour

	↑	↖	↙	↓	↘	↗
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↖			↗	↘	
Volume (veh/h)	694	34	75	515	156	178
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.94	0.94	0.79	0.79
Hourly flow rate (vph)	798	39	80	548	197	225
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			837		1525	817
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			837		1525	817
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			90		0	40
cM capacity (veh/h)			776		115	376
Direction, Lane #	NB 1	SB 1	NW 1			
Volume Total	837	628	423			
Volume Left	0	80	197			
Volume Right	39	0	225			
cSH	1700	776	182			
Volume to Capacity	0.49	0.10	2.32			
Queue Length 95th (ft)	0	9	867			
Control Delay (s)	0.0	2.6	652.6			
Lane LOS		A	F			
Approach Delay (s)	0.0	2.6	652.6			
Approach LOS			F			
Intersection Summary						
Average Delay			147.1			
Intersection Capacity Utilization			99.4%		ICU Level of Service	F
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2021 Build AM Peak Hour



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	5	5	26	540	347	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932			0.992		
Flt Protected	0.976			0.998		
Satd. Flow (prot)	1571	0	0	1960	1933	0
Flt Permitted	0.976			0.998		
Satd. Flow (perm)	1571	0	0	1960	1933	0
Link Speed (mph)	30			35	30	
Link Distance (ft)	490			413	824	
Travel Time (s)	11.1			8.0	18.7	
Peak Hour Factor	0.63	0.63	0.93	0.93	0.92	0.92
Heavy Vehicles (%)	2%	40%	2%	10%	11%	2%
Adj. Flow (vph)	8	8	28	581	377	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	609	400	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	0.88	0.85	0.85	0.85	0.85
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	59.6%
Analysis Period (min)	15
	ICU Level of Service B

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2021 Build AM Peak Hour



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	5	5	26	540	347	21
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.63	0.63	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	8	8	28	581	377	23
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	1025	389	400			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1025	389	400			
tC, single (s)	6.4	6.6	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.7	2.2			
p0 queue free %	97	99	98			
cM capacity (veh/h)	254	584	1159			
Direction, Lane #	SE 1	NE 1	SW 1			
Volume Total	16	609	400			
Volume Left	8	28	0			
Volume Right	8	0	23			
cSH	354	1159	1700			
Volume to Capacity	0.04	0.02	0.24			
Queue Length 95th (ft)	4	2	0			
Control Delay (s)	15.6	0.7	0.0			
Lane LOS	C	A				
Approach Delay (s)	15.6	0.7	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			59.6%	ICU Level of Service		B
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2021 Build AM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	5	0	0	57	0	127	11	513	22	42	311	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	12	12	12	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.907			0.994			0.986	
Fl _t Protected		0.950			0.985			0.999			0.995	
Satd. Flow (prot)	0	2046	0	0	1034	0	0	1753	0	0	1965	0
Fl _t Permitted		0.950			0.985			0.999			0.995	
Satd. Flow (perm)	0	2046	0	0	1034	0	0	1753	0	0	1965	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		338			265			824			1173	
Travel Time (s)		7.7			6.0			16.1			22.9	
Peak Hour Factor	0.75	0.75	0.75	0.66	0.66	0.66	0.83	0.83	0.83	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	86%	2%	86%	2%	8%	2%	2%	9%	2%
Adj. Flow (vph)	7	0	0	86	0	192	13	618	27	48	353	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	278	0	0	658	0	0	449	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.85	0.85	0.85	1.00	1.00	1.00	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	58.6%
ICU Level of Service	B
Analysis Period (min)	15

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2021 Build AM Peak Hour

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	5	0	0	57	0	127	11	513	22	42	311	42
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.66	0.66	0.66	0.83	0.83	0.83	0.88	0.88	0.88
Hourly flow rate (vph)	7	0	0	86	0	192	13	618	27	48	353	48
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	1323	1144	377	1131	1154	631	401			645		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1323	1144	377	1131	1154	631	401			645		
tC, single (s)	7.1	6.5	6.2	8.0	6.5	7.1	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	4.3	4.0	4.1	2.2			2.2		
p0 queue free %	89	100	100	28	100	46	99			95		
cM capacity (veh/h)	59	189	674	120	185	359	1158			940		
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	7	279	658	449								
Volume Left	7	86	13	48								
Volume Right	0	192	27	48								
cSH	59	222	1158	940								
Volume to Capacity	0.11	1.26	0.01	0.05								
Queue Length 95th (ft)	9	360	1	4								
Control Delay (s)	73.1	191.4	0.3	1.5								
Lane LOS	F	F	A	A								
Approach Delay (s)	73.1	191.4	0.3	1.5								
Approach LOS	F	F										
Intersection Summary												
Average Delay			39.3									
Intersection Capacity Utilization			58.6%		ICU Level of Service					B		
Analysis Period (min)			15									

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 Build AM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	358	53	98	548	341	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	13	13	12	12
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.982					0.850
Flt Protected	0.958			0.992		
Satd. Flow (prot)	1695	0	0	1804	1667	1417
Flt Permitted	0.958			0.992		
Satd. Flow (perm)	1695	0	0	1804	1667	1417
Link Speed (mph)	30			35	30	
Link Distance (ft)	686			1173	333	
Travel Time (s)	15.6			22.9	7.6	
Peak Hour Factor	0.89	0.89	0.90	0.90	0.98	0.98
Heavy Vehicles (%)	7%	2%	2%	9%	14%	14%
Parking (#/hr)	2					
Adj. Flow (vph)	402	60	109	609	348	232
Shared Lane Traffic (%)						
Lane Group Flow (vph)	462	0	0	718	348	232
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.85	0.96	0.96	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	85.3%
ICU Level of Service	E
Analysis Period (min)	15

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 Build AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	358	53	98	548	341	227
Peak Hour Factor	0.89	0.89	0.90	0.90	0.98	0.98
Hourly flow rate (vph)	402	60	109	609	348	232
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total (vph)	462	718	348	232		
Volume Left (vph)	402	109	0	0		
Volume Right (vph)	60	0	0	232		
Hadj (s)	0.20	0.17	0.24	-0.46		
Departure Headway (s)	7.0	7.0	7.6	6.9		
Degree Utilization, x	0.90	1.0	0.73	0.44		
Capacity (veh/h)	509	527	465	515		
Control Delay (s)	44.6	209.7	27.4	14.0		
Approach Delay (s)	44.6	209.7	22.0			
Approach LOS	E	F	C			
Intersection Summary						
Delay			104.5			
Level of Service			F			
Intersection Capacity Utilization			85.3%	ICU Level of Service	E	
Analysis Period (min)			15			

Sprague Street Redevelopment Project
4: Milton Street & Neponset Valley Parkway

2021 Build AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	601	431	122	671	263	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.944		0.886			
Flt Protected	0.972					0.963
Satd. Flow (prot)	1863	0	1768	0	0	1871
Flt Permitted	0.972					0.963
Satd. Flow (perm)	1863	0	1768	0	0	1871
Link Speed (mph)	30		30			30
Link Distance (ft)	466		390			437
Travel Time (s)	10.6		8.9			9.9
Peak Hour Factor	0.89	0.89	0.98	0.98	0.96	0.96
Heavy Vehicles (%)	9%	2%	2%	9%	5%	2%
Adj. Flow (vph)	675	484	124	685	274	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1159	0	809	0	0	353
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.85	0.85	0.92	0.92
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	136.1%
Analysis Period (min)	15
	ICU Level of Service H

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2021 Build AM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	601	431	122	671	263	76
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.98	0.98	0.96	0.96
Hourly flow rate (vph)	675	484	124	685	274	79
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	1094	467			809	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1094	467			809	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	0	19			66	
cM capacity (veh/h)	151	596			803	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	1160	809	353
Volume Left	675	0	274
Volume Right	484	685	0
cSH	220	1700	803
Volume to Capacity	5.28	0.48	0.34
Queue Length 95th (ft)	Err	0	38
Control Delay (s)	Err	0.0	10.1
Lane LOS	F		B
Approach Delay (s)	Err	0.0	10.1
Approach LOS	F		

Intersection Summary			
Average Delay		4995.1	
Intersection Capacity Utilization		136.1%	ICU Level of Service H
Analysis Period (min)		15	

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 Build AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	287	11	637	5	5	5	730	184	11	0	137	297
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	14	14	16	16	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.908			0.955			0.998			0.908	
Flt Protected		0.985			0.984			0.962				
Satd. Flow (prot)	0	1768	0	0	1758	0	0	1951	0	0	1671	0
Flt Permitted		0.985			0.984			0.962				
Satd. Flow (perm)	0	1768	0	0	1758	0	0	1951	0	0	1671	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		466			184			798			433	
Travel Time (s)		10.6			4.2			18.1			9.8	
Peak Hour Factor	0.91	0.91	0.91	0.70	0.70	0.70	0.90	0.90	0.90	0.83	0.83	0.83
Heavy Vehicles (%)	9%	2%	9%	2%	2%	21%	6%	6%	2%	2%	17%	17%
Adj. Flow (vph)	315	12	700	7	7	7	811	204	12	0	165	358
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1027	0	0	21	0	0	1027	0	0	523	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	148.6%
ICU Level of Service	H
Analysis Period (min)	15

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 Build AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	287	11	637	5	5	5	730	184	11	0	137	297
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.70	0.70	0.70	0.90	0.90	0.90	0.83	0.83	0.83
Hourly flow rate (vph)	315	12	700	7	7	7	811	204	12	0	165	358
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								798				
pX, platoon unblocked												
vC, conflicting volume	2187	2183	344	2883	2356	211	523			217		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2187	2183	344	2883	2356	211	523			217		
tC, single (s)	7.2	6.5	6.3	7.1	6.5	6.4	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.5	2.3			2.2		
p0 queue free %	0	0	0	0	3	99	21			100		
cM capacity (veh/h)	2	10	683	0	7	784	1024			1353		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	1027	21	1028	523
Volume Left	315	7	811	0
Volume Right	700	7	12	358
cSH	5	0	1024	1353
Volume to Capacity	196.32	Err	0.79	0.00
Queue Length 95th (ft)	Err	Err	216	0
Control Delay (s)	Err	Err	20.0	0.0
Lane LOS	F	F	C	
Approach Delay (s)	Err	Err	20.0	0.0
Approach LOS	F	F		

Intersection Summary			
Average Delay		Err	
Intersection Capacity Utilization		148.6%	ICU Level of Service
Analysis Period (min)		15	H

Sprague Street Redevelopment Project

2021 Build AM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations			↔	↔				↔			↔	
Volume (vph)	11	5	11	0	767	126	53	16	5	68	5	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	16	16	16	14	14	14	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt				0.865				0.991			0.951	
Flt Protected			0.971					0.965			0.971	
Satd. Flow (prot)	0	0	1385	1767	0	0	0	1900	0	0	1831	0
Flt Permitted			0.795					0.745			0.813	
Satd. Flow (perm)	0	0	1134	1767	0	0	0	1467	0	0	1533	0
Right Turn on Red							Yes		Yes			Yes
Satd. Flow (RTOR)				126				3			138	
Link Speed (mph)			30	30				30			30	
Link Distance (ft)			245	329				316			590	
Travel Time (s)			5.6	7.5				7.2			13.4	
Peak Hour Factor	0.69	0.69	0.69	0.91	0.91	0.91	0.84	0.84	0.84	0.81	0.81	0.81
Heavy Vehicles (%)	2%	28%	2%	2%	6%	2%	2%	2%	2%	2%	2%	20%
Parking (#/hr)			2									
Adj. Flow (vph)	16	7	16	0	843	138	63	19	6	84	6	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	39	981	0	0	0	88	0	0	142	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)			0	0				0			0	
Link Offset(ft)			0	0				0			0	
Crosswalk Width(ft)			16	16				16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.32	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85
Turning Speed (mph)	15	15			9	9	15		9	15		9
Number of Detectors	1	1	2	2			1	2		1	2	
Detector Template	Left	Left	Thru	Thru			Left	Thru		Left	Thru	
Leading Detector (ft)	20	20	100	100			20	100		20	100	
Trailing Detector (ft)	0	0	0	0			0	0		0	0	
Detector 1 Position(ft)	0	0	0	0			0	0		0	0	
Detector 1 Size(ft)	20	20	6	6			20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 2 Position(ft)			94	94				94			94	
Detector 2 Size(ft)			6	6				6			6	
Detector 2 Type			Cl+Ex	Cl+Ex				Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)			0.0	0.0				0.0			0.0	
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA	
Protected Phases			4									
Permitted Phases	4	4		1			3	3		3	3	
Detector Phase	4	4	4	1			3	3		3	3	



Lane Group	SEL2	SEL	SER	ø2
Lane Configurations				
Volume (vph)	95	668	16	
Ideal Flow (vphpl)	1900	1900	1900	
Lane Width (ft)	16	16	16	
Lane Util. Factor	1.00	1.00	1.00	
Flt		0.997		
Flt Protected		0.953		
Satd. Flow (prot)	0	1925	0	
Flt Permitted		0.953		
Satd. Flow (perm)	0	1925	0	
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)		30		
Link Distance (ft)		798		
Travel Time (s)		18.1		
Peak Hour Factor	0.93	0.93	0.93	
Heavy Vehicles (%)	2%	7%	2%	
Parking (#/hr)				
Adj. Flow (vph)	102	718	17	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	837	0	
Enter Blocked Intersection	No	No	No	
Lane Alignment	Left	Left	Right	
Median Width(ft)		16		
Link Offset(ft)		0		
Crosswalk Width(ft)		16		
Two way Left Turn Lane				
Headway Factor	0.85	0.85	0.85	
Turning Speed (mph)	15	15	9	
Number of Detectors	1	1		
Detector Template	Left	Left		
Leading Detector (ft)	20	20		
Trailing Detector (ft)	0	0		
Detector 1 Position(ft)	0	0		
Detector 1 Size(ft)	20	20		
Detector 1 Type	Cl+Ex	Cl+Ex		
Detector 1 Channel				
Detector 1 Extend (s)	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type	Perm	Perm		
Protected Phases				2
Permitted Phases	1	1		
Detector Phase	1	1		

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	30.0			8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	36.0			13.0	13.0		13.0	13.0	
Total Split (s)	17.0	17.0	17.0	36.0			17.0	17.0		17.0	17.0	
Total Split (%)	17.9%	17.9%	17.9%	37.9%			17.9%	17.9%		17.9%	17.9%	
Maximum Green (s)	12.0	12.0	12.0	30.0			12.0	12.0		12.0	12.0	
Yellow Time (s)	4.0	4.0	4.0	5.0			4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0		1.0	1.0	
Lost Time Adjust (s)			0.0	0.0				0.0			0.0	
Total Lost Time (s)			5.0	6.0				5.0			5.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	Max			None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)			9.8	31.4				9.7			9.7	
Actuated g/C Ratio			0.17	0.54				0.17			0.17	
v/c Ratio			0.20	0.97				0.36			0.38	
Control Delay			26.1	39.0				27.3			9.2	
Queue Delay			0.0	0.0				0.0			0.0	
Total Delay			26.1	39.0				27.3			9.2	
LOS			C	D				C			A	
Approach Delay			26.1	39.0				27.3			9.2	
Approach LOS			C	D				C			A	

Intersection Summary

Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	58
Natural Cycle:	110
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.97
Intersection Signal Delay:	29.9
Intersection LOS:	C
Intersection Capacity Utilization:	119.8%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court





Lane Group	SEL2	SEL	SER	ø2
Switch Phase				
Minimum Initial (s)	30.0	30.0		7.0
Minimum Split (s)	36.0	36.0		25.0
Total Split (s)	36.0	36.0		25.0
Total Split (%)	37.9%	37.9%		26%
Maximum Green (s)	30.0	30.0		21.0
Yellow Time (s)	5.0	5.0		3.0
All-Red Time (s)	1.0	1.0		1.0
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0
Recall Mode	Max	Max		None
Walk Time (s)				7.0
Flash Dont Walk (s)				14.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)		31.4		
Actuated g/C Ratio		0.54		
v/c Ratio		0.80		
Control Delay		23.2		
Queue Delay		0.0		
Total Delay		23.2		
LOS		C		
Approach Delay		23.2		
Approach LOS		C		
Intersection Summary				

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Movement	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations			↕	↕				↕			↕	
Volume (vph)	11	5	11	0	767	126	53	16	5	68	5	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	9	9	9	16	16	16	14	14	14	16	16	16
Total Lost time (s)			5.0	6.0				5.0			5.0	
Lane Util. Factor			1.00	1.00				1.00			1.00	
Frt			1.00	0.86				0.99			0.95	
Flt Protected			0.97	1.00				0.97			0.97	
Satd. Flow (prot)			1386	1767				1901			1831	
Flt Permitted			0.79	1.00				0.75			0.81	
Satd. Flow (perm)			1134	1767				1467			1532	
Peak-hour factor, PHF	0.69	0.69	0.69	0.91	0.91	0.91	0.84	0.84	0.84	0.81	0.81	0.81
Adj. Flow (vph)	16	7	16	0	843	138	63	19	6	84	6	52
RTOR Reduction (vph)	0	0	0	61	0	0	0	3	0	0	116	0
Lane Group Flow (vph)	0	0	39	920	0	0	0	85	0	0	26	0
Heavy Vehicles (%)	2%	28%	2%	2%	6%	2%	2%	2%	2%	2%	2%	20%
Parking (#/hr)			2									
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA	
Protected Phases			4									
Permitted Phases	4	4		1			3	3		3	3	
Actuated Green, G (s)			4.0	31.4				9.7			9.7	
Effective Green, g (s)			4.0	31.4				9.7			9.7	
Actuated g/C Ratio			0.07	0.51				0.16			0.16	
Clearance Time (s)			5.0	6.0				5.0			5.0	
Vehicle Extension (s)			3.0	3.0				3.0			3.0	
Lane Grp Cap (vph)			74	908				232			243	
v/s Ratio Prot												
v/s Ratio Perm			c0.03	c0.52				c0.06			0.02	
v/c Ratio			0.53	1.01				0.37			0.11	
Uniform Delay, d1			27.6	14.9				23.0			22.0	
Progression Factor			1.00	1.00				1.00			1.00	
Incremental Delay, d2			6.6	33.1				1.0			0.2	
Delay (s)			34.3	48.0				24.0			22.2	
Level of Service			C	D				C			C	
Approach Delay (s)			34.3	48.0				24.0			22.2	
Approach LOS			C	D				C			C	

Intersection Summary

HCM 2000 Control Delay	34.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	61.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	119.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	SEL2	SEL	SER
Lane Configurations			
Volume (vph)	95	668	16
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	16	16	16
Total Lost time (s)		6.0	
Lane Util. Factor		1.00	
Frt		1.00	
Flt Protected		0.95	
Satd. Flow (prot)		1926	
Flt Permitted		0.95	
Satd. Flow (perm)		1926	
Peak-hour factor, PHF	0.93	0.93	0.93
Adj. Flow (vph)	102	718	17
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	0	837	0
Heavy Vehicles (%)	2%	7%	2%
Parking (#/hr)			
Turn Type	Perm	Perm	
Protected Phases			
Permitted Phases	1	1	
Actuated Green, G (s)		31.4	
Effective Green, g (s)		31.4	
Actuated g/C Ratio		0.51	
Clearance Time (s)		6.0	
Vehicle Extension (s)		3.0	
Lane Grp Cap (vph)		989	
v/s Ratio Prot			
v/s Ratio Perm		0.43	
v/c Ratio		0.85	
Uniform Delay, d1		12.8	
Progression Factor		1.00	
Incremental Delay, d2		8.9	
Delay (s)		21.7	
Level of Service		C	
Approach Delay (s)		21.7	
Approach LOS		C	
Intersection Summary			

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2021 Build AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	71	81	713	193	159	514
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928		0.971			
Flt Protected	0.977					0.988
Satd. Flow (prot)	1378	0	1704	0	0	1749
Flt Permitted	0.977					0.988
Satd. Flow (perm)	1378	0	1704	0	0	1749
Link Speed (mph)	30		30			30
Link Distance (ft)	264		333			390
Travel Time (s)	6.0		7.6			8.9
Peak Hour Factor	0.61	0.61	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	45%	10%	2%	2%	9%
Adj. Flow (vph)	116	133	775	210	173	559
Shared Lane Traffic (%)						
Lane Group Flow (vph)	249	0	985	0	0	732
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	104.0%
Analysis Period (min)	15
	ICU Level of Service G

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2021 Build AM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	71	81	713	193	159	514
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.61	0.61	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	116	133	775	210	173	559
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	1784	880			985	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1784	880			985	
tC, single (s)	6.4	6.7			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.7			2.2	
p0 queue free %	0	54			75	
cM capacity (veh/h)	68	291			701	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	249	985	732
Volume Left	116	0	173
Volume Right	133	210	0
cSH	114	1700	701
Volume to Capacity	2.18	0.58	0.25
Queue Length 95th (ft)	531	0	24
Control Delay (s)	619.2	0.0	6.1
Lane LOS	F		A
Approach Delay (s)	619.2	0.0	6.1
Approach LOS	F		

Intersection Summary			
Average Delay		80.8	
Intersection Capacity Utilization		104.0%	ICU Level of Service
Analysis Period (min)		15	G

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2021 Build PM Peak Hour



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	37	47	15	411	484	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.997	
Flt Protected	0.979			0.998		
Satd. Flow (prot)	1784	0	0	2049	2085	0
Flt Permitted	0.979			0.998		
Satd. Flow (perm)	1784	0	0	2049	2085	0
Link Speed (mph)	30			35	30	
Link Distance (ft)	490			413	824	
Travel Time (s)	11.1			8.0	18.7	
Peak Hour Factor	0.74	0.74	0.82	0.85	0.97	0.97
Heavy Vehicles (%)	6%	6%	2%	5%	3%	2%
Adj. Flow (vph)	50	64	18	484	499	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	114	0	0	502	510	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	0.88	0.85	0.85	0.85	0.85
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	45.4%
Analysis Period (min)	15
	ICU Level of Service A

Sprague Street Redevelopment Project
1: Sprague Street & Industrial Driveway

2021 Build PM Peak Hour



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	37	47	15	411	484	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.74	0.74	0.82	0.85	0.97	0.97
Hourly flow rate (vph)	50	64	18	484	499	11
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	1025	505	510			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1025	505	510			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	80	89	98			
cM capacity (veh/h)	252	559	1055			
Direction, Lane #	SE 1	NE 1	SW 1			
Volume Total	114	502	510			
Volume Left	50	18	0			
Volume Right	64	0	11			
cSH	364	1055	1700			
Volume to Capacity	0.31	0.02	0.30			
Queue Length 95th (ft)	33	1	0			
Control Delay (s)	19.3	0.5	0.0			
Lane LOS	C	A				
Approach Delay (s)	19.3	0.5	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utilization		45.4%		ICU Level of Service		A
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2021 Build PM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	121	0	26	45	0	84	26	365	57	141	423	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	12	12	12	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.976			0.912			0.983			0.988	
Fl _t Protected		0.961			0.983			0.997			0.989	
Satd. Flow (prot)	0	1980	0	0	1834	0	0	1761	0	0	2022	0
Fl _t Permitted		0.961			0.983			0.997			0.989	
Satd. Flow (perm)	0	1980	0	0	1834	0	0	1761	0	0	2022	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		338			265			824			1173	
Travel Time (s)		7.7			6.0			16.1			22.9	
Peak Hour Factor	0.57	0.57	0.57	0.60	0.60	0.60	0.93	0.93	0.93	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	2%	2%	2%	7%	2%	6%	6%	2%	5%	2%
Adj. Flow (vph)	212	0	46	75	0	140	28	392	61	158	475	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	258	0	0	215	0	0	481	0	0	693	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.85	0.85	0.85	1.00	1.00	1.00	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	82.3%
ICU Level of Service	E
Analysis Period (min)	15

Sprague Street Redevelopment Project
2: Sprague Street & Horne Street/Sprague Place

2021 Build PM Peak Hour



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	121	0	26	45	0	84	26	365	57	141	423	53
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.57	0.57	0.57	0.60	0.60	0.60	0.93	0.93	0.93	0.89	0.89	0.89
Hourly flow rate (vph)	212	0	46	75	0	140	28	392	61	158	475	60
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	1441	1332	505	1347	1331	423	535			454		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1441	1332	505	1347	1331	423	535			454		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	0	100	92	27	100	77	97			86		
cM capacity (veh/h)	75	129	567	103	129	620	1033			1107		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	258	215	482	693
Volume Left	212	75	28	158
Volume Right	46	140	61	60
cSH	88	225	1033	1107
Volume to Capacity	2.93	0.95	0.03	0.14
Queue Length 95th (ft)	627	209	2	12
Control Delay (s)	972.0	94.2	0.8	3.4
Lane LOS	F	F	A	A
Approach Delay (s)	972.0	94.2	0.8	3.4
Approach LOS	F	F		

Intersection Summary			
Average Delay		166.1	
Intersection Capacity Utilization		82.3%	ICU Level of Service E
Analysis Period (min)		15	

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 Build PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	283	126	78	492	491	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	13	13	12	12
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.958					0.850
Flt Protected	0.967			0.993		
Satd. Flow (prot)	1675	0	0	1895	1827	1583
Flt Permitted	0.967			0.993		
Satd. Flow (perm)	1675	0	0	1895	1827	1583
Link Speed (mph)	30			35	30	
Link Distance (ft)	686			1173	336	
Travel Time (s)	15.6			22.9	7.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.91	0.91
Heavy Vehicles (%)	6%	6%	2%	3%	4%	2%
Parking (#/hr)	2					
Adj. Flow (vph)	329	147	91	572	540	296
Shared Lane Traffic (%)						
Lane Group Flow (vph)	476	0	0	663	540	296
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.85	0.96	0.96	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	89.4%
ICU Level of Service	E
Analysis Period (min)	15

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 Build PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	283	126	78	492	491	269
Peak Hour Factor	0.86	0.86	0.86	0.86	0.91	0.91
Hourly flow rate (vph)	329	147	91	572	540	296
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total (vph)	476	663	540	296		
Volume Left (vph)	329	91	0	0		
Volume Right (vph)	147	0	0	296		
Hadj (s)	0.06	0.08	0.07	-0.67		
Departure Headway (s)	7.0	7.0	7.5	6.8		
Degree Utilization, x	0.93	1.0	1.0	0.55		
Capacity (veh/h)	503	521	484	529		
Control Delay (s)	50.3	169.0	104.6	16.7		
Approach Delay (s)	50.3	169.0	73.4			
Approach LOS	F	F	F			
Intersection Summary						
Delay			100.0			
Level of Service			F			
Intersection Capacity Utilization			89.4%	ICU Level of Service	E	
Analysis Period (min)			15			

Sprague Street Redevelopment Project
4: Milton Street & Neponset Valley Parkway

2021 Build PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	563	284	103	816	263	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.955		0.880			
Flt Protected	0.968					0.970
Satd. Flow (prot)	1878	0	1858	0	0	1838
Flt Permitted	0.968					0.970
Satd. Flow (perm)	1878	0	1858	0	0	1838
Link Speed (mph)	30		30			30
Link Distance (ft)	466		386			437
Travel Time (s)	10.6		8.8			9.9
Peak Hour Factor	0.96	0.96	0.95	0.95	0.91	0.91
Heavy Vehicles (%)	8%	2%	2%	2%	2%	15%
Adj. Flow (vph)	586	296	108	859	289	179
Shared Lane Traffic (%)						
Lane Group Flow (vph)	882	0	967	0	0	468
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	0.85	0.85	0.85	0.92	0.92
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	137.5%
Analysis Period (min)	15
	ICU Level of Service H

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2021 Build PM Peak Hour



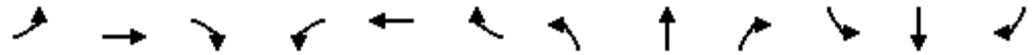
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	563	284	103	816	263	163
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.95	0.95	0.91	0.91
Hourly flow rate (vph)	586	296	108	859	289	179
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1295	538			967	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1295	538			967	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	0	46			59	
cM capacity (veh/h)	103	543			712	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	882	967	468
Volume Left	586	0	289
Volume Right	296	859	0
cSH	142	1700	712
Volume to Capacity	6.22	0.57	0.41
Queue Length 95th (ft)	Err	0	49
Control Delay (s)	Err	0.0	10.7
Lane LOS	F		B
Approach Delay (s)	Err	0.0	10.7
Approach LOS	F		

Intersection Summary			
Average Delay		3808.4	
Intersection Capacity Utilization		137.5%	ICU Level of Service H
Analysis Period (min)		15	

Sprague Street Redevelopment Project
 5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 Build PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	296	0	782	5	5	5	570	137	0	0	168	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	14	14	16	16	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.902			0.955							0.917
Flt Protected		0.986			0.984			0.961				
Satd. Flow (prot)	0	1878	0	0	1904	0	0	1967	0	0	1825	0
Flt Permitted		0.986			0.984			0.961				
Satd. Flow (perm)	0	1878	0	0	1904	0	0	1967	0	0	1825	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		466			184			822				433
Travel Time (s)		10.6			4.2			18.7				9.8
Peak Hour Factor	0.92	0.92	0.92	0.45	0.45	0.45	0.97	0.97	0.97	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	6%	2%	2%	2%	2%	12%
Adj. Flow (vph)	322	0	850	11	11	11	588	141	0	0	187	302
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1172	0	0	33	0	0	729	0	0	489	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free				Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	145.5%
ICU Level of Service	H
Analysis Period (min)	15

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	296	0	782	5	5	5	570	137	0	0	168	272
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.45	0.45	0.45	0.97	0.97	0.97	0.90	0.90	0.90
Hourly flow rate (vph)	322	0	850	11	11	11	588	141	0	0	187	302
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								822				
pX, platoon unblocked												
vC, conflicting volume	1671	1654	338	2504	1805	141	489			141		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1671	1654	338	2504	1805	141	489			141		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	0	100	0	0	69	99	44			100		
cM capacity (veh/h)	33	43	704	0	35	912	1054			1442		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	1172	33	729	489								
Volume Left	322	11	588	0								
Volume Right	850	11	0	302								
cSH	106	0	1054	1442								
Volume to Capacity	11.00	Err	0.56	0.00								
Queue Length 95th (ft)	Err	Err	89	0								
Control Delay (s)	Err	Err	11.7	0.0								
Lane LOS	F	F	B									
Approach Delay (s)	Err	Err	11.7	0.0								
Approach LOS	F	F										
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			145.5%		ICU Level of Service					H		
Analysis Period (min)			15									

Sprague Street Redevelopment Project

2021 Build PM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations			↔	↔				↔			↔	
Volume (vph)	11	5	32	0	607	47	42	11	11	63	5	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	16	16	16	14	14	14	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.865				0.977			0.968	
Fl _t Protected			0.984					0.968			0.966	
Satd. Flow (prot)	0	0	1468	1762	0	0	0	1861	0	0	1956	0
Fl _t Permitted			0.623					0.774			0.793	
Satd. Flow (perm)	0	0	930	1762	0	0	0	1488	0	0	1606	0
Right Turn on Red							Yes		Yes			Yes
Satd. Flow (RTOR)				126				9			138	
Link Speed (mph)			30	30				30			30	
Link Distance (ft)			245	329				316			590	
Travel Time (s)			5.6	7.5				7.2			13.4	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.66	0.66	0.66	0.65	0.65	0.65
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	3%	3%	3%	2%	2%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			2									
Adj. Flow (vph)	12	5	35	0	667	52	64	17	17	97	8	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	52	719	0	0	0	98	0	0	137	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)			0	0				0			0	
Link Offset(ft)			0	0				0			0	
Crosswalk Width(ft)			16	16				16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.32	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85
Turning Speed (mph)	15	15			9	9	15		9	15		9
Number of Detectors	1	1	2	2			1	2		1	2	
Detector Template	Left	Left	Thru	Thru			Left	Thru		Left	Thru	
Leading Detector (ft)	20	20	100	100			20	100		20	100	
Trailing Detector (ft)	0	0	0	0			0	0		0	0	
Detector 1 Position(ft)	0	0	0	0			0	0		0	0	
Detector 1 Size(ft)	20	20	6	6			20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 2 Position(ft)			94	94				94			94	
Detector 2 Size(ft)			6	6				6			6	
Detector 2 Type			Cl+Ex	Cl+Ex				Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)			0.0	0.0				0.0			0.0	
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA	
Protected Phases			4									
Permitted Phases	4	4		1			3	3		3	3	



Lane Group	SEL2	SEL	SER	ø2
Lane Configurations				
Volume (vph)	37	808	16	
Ideal Flow (vphpl)	1900	1900	1900	
Lane Width (ft)	16	16	16	
Lane Util. Factor	1.00	1.00	1.00	
Frt		0.997		
Flt Protected		0.953		
Satd. Flow (prot)	0	1987	0	
Flt Permitted		0.953		
Satd. Flow (perm)	0	1987	0	
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)		30		
Link Distance (ft)		822		
Travel Time (s)		18.7		
Peak Hour Factor	0.89	0.89	0.89	
Heavy Vehicles (%)	3%	3%	2%	
Bus Blockages (#/hr)	0	0	10	
Parking (#/hr)				
Adj. Flow (vph)	42	908	18	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	968	0	
Enter Blocked Intersection	No	No	No	
Lane Alignment	Left	Left	Right	
Median Width(ft)		16		
Link Offset(ft)		0		
Crosswalk Width(ft)		16		
Two way Left Turn Lane				
Headway Factor	0.85	0.85	0.85	
Turning Speed (mph)	15	15	9	
Number of Detectors	1	1		
Detector Template	Left	Left		
Leading Detector (ft)	20	20		
Trailing Detector (ft)	0	0		
Detector 1 Position(ft)	0	0		
Detector 1 Size(ft)	20	20		
Detector 1 Type	Cl+Ex	Cl+Ex		
Detector 1 Channel				
Detector 1 Extend (s)	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type	Perm	Perm		
Protected Phases				2
Permitted Phases	1	1		

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Detector Phase	4	4	4	1			3	3		3	3	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	30.0			8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	36.0			13.0	13.0		13.0	13.0	
Total Split (s)	17.0	17.0	17.0	36.0			17.0	17.0		17.0	17.0	
Total Split (%)	17.9%	17.9%	17.9%	37.9%			17.9%	17.9%		17.9%	17.9%	
Maximum Green (s)	12.0	12.0	12.0	30.0			12.0	12.0		12.0	12.0	
Yellow Time (s)	4.0	4.0	4.0	5.0			4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0		1.0	1.0	
Lost Time Adjust (s)			0.0	0.0				0.0			0.0	
Total Lost Time (s)			5.0	6.0				5.0			5.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	Max			None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)			9.4	30.9			9.6			9.6		9.6
Actuated g/C Ratio			0.16	0.52			0.16			0.16		0.16
v/c Ratio			0.36	0.74			0.40			0.37		0.37
Control Delay			32.8	18.4			28.2			8.6		8.6
Queue Delay			0.0	0.0			0.0			0.0		0.0
Total Delay			32.8	18.4			28.2			8.6		8.6
LOS			C	B			C			A		A
Approach Delay			32.8	18.4			28.2			8.6		8.6
Approach LOS			C	B			C			A		A

Intersection Summary

Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	60
Natural Cycle:	100
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.95
Intersection Signal Delay:	28.2
Intersection LOS:	C
Intersection Capacity Utilization:	109.1%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court





Lane Group	SEL2	SEL	SER	ø2
Detector Phase	1	1		
Switch Phase				
Minimum Initial (s)	30.0	30.0		7.0
Minimum Split (s)	36.0	36.0		25.0
Total Split (s)	36.0	36.0		25.0
Total Split (%)	37.9%	37.9%		26%
Maximum Green (s)	30.0	30.0		21.0
Yellow Time (s)	5.0	5.0		3.0
All-Red Time (s)	1.0	1.0		1.0
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0
Recall Mode	Max	Max		None
Walk Time (s)				7.0
Flash Dont Walk (s)				14.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)		30.9		
Actuated g/C Ratio		0.52		
v/c Ratio		0.95		
Control Delay		37.9		
Queue Delay		0.0		
Total Delay		37.9		
LOS		D		
Approach Delay		37.9		
Approach LOS		D		
Intersection Summary				

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Movement	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2	
Lane Configurations			↕	↕				↕			↕		
Volume (vph)	11	5	32	0	607	47	42	11	11	63	5	21	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	9	9	9	16	16	16	14	14	14	16	16	16	
Total Lost time (s)			5.0	6.0				5.0			5.0		
Lane Util. Factor			1.00	1.00				1.00			1.00		
Frt			1.00	0.86				0.98			0.97		
Flt Protected			0.98	1.00				0.97			0.97		
Satd. Flow (prot)			1468	1762				1861			1957		
Flt Permitted			0.62	1.00				0.77			0.79		
Satd. Flow (perm)			930	1762				1488			1608		
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.66	0.66	0.66	0.65	0.65	0.65	
Adj. Flow (vph)	12	5	35	0	667	52	64	17	17	97	8	32	
RTOR Reduction (vph)	0	0	0	63	0	0	0	8	0	0	116	0	
Lane Group Flow (vph)	0	0	52	656	0	0	0	90	0	0	21	0	
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	3%	3%	3%	2%	2%	6%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)			2										
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA		
Protected Phases			4										
Permitted Phases	4	4		1			3	3		3	3		
Actuated Green, G (s)			5.5	30.9				9.6			9.6		
Effective Green, g (s)			5.5	30.9				9.6			9.6		
Actuated g/C Ratio			0.09	0.50				0.15			0.15		
Clearance Time (s)			5.0	6.0				5.0			5.0		
Vehicle Extension (s)			3.0	3.0				3.0			3.0		
Lane Grp Cap (vph)			82	878				230			248		
v/s Ratio Prot													
v/s Ratio Perm			c0.06	0.37				c0.06			0.01		
v/c Ratio			0.63	0.75				0.39			0.09		
Uniform Delay, d1			27.3	12.4				23.6			22.4		
Progression Factor			1.00	1.00				1.00			1.00		
Incremental Delay, d2			14.9	5.8				1.1			0.1		
Delay (s)			42.2	18.2				24.7			22.6		
Level of Service			D	B				C			C		
Approach Delay (s)			42.2	18.2				24.7			22.6		
Approach LOS			D	B				C			C		
Intersection Summary													
HCM 2000 Control Delay			29.6		HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.89										
Actuated Cycle Length (s)			62.0		Sum of lost time (s)				20.0				
Intersection Capacity Utilization			109.1%		ICU Level of Service				H				
Analysis Period (min)			15										
c Critical Lane Group													



Movement	SEL2	SEL	SER
Lane Configurations			
Volume (vph)	37	808	16
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	16	16	16
Total Lost time (s)		6.0	
Lane Util. Factor		1.00	
Frt		1.00	
Flt Protected		0.95	
Satd. Flow (prot)		1988	
Flt Permitted		0.95	
Satd. Flow (perm)		1988	
Peak-hour factor, PHF	0.89	0.89	0.89
Adj. Flow (vph)	42	908	18
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	0	968	0
Heavy Vehicles (%)	3%	3%	2%
Bus Blockages (#/hr)	0	0	10
Parking (#/hr)			
Turn Type	Perm	Perm	
Protected Phases			
Permitted Phases	1	1	
Actuated Green, G (s)		30.9	
Effective Green, g (s)		30.9	
Actuated g/C Ratio		0.50	
Clearance Time (s)		6.0	
Vehicle Extension (s)		3.0	
Lane Grp Cap (vph)		990	
v/s Ratio Prot			
v/s Ratio Perm		c0.49	
v/c Ratio		0.98	
Uniform Delay, d1		15.2	
Progression Factor		1.00	
Incremental Delay, d2		23.7	
Delay (s)		38.9	
Level of Service		D	
Approach Delay (s)		38.9	
Approach LOS		D	
Intersection Summary			

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2021 Build PM Peak Hour

	↑	↖	↙	↓	↘	↗
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑			↓	↘	↗
Volume (vph)	752	34	75	625	156	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.928	
Flt Protected				0.995	0.977	
Satd. Flow (prot)	1817	0	0	1844	1666	0
Flt Permitted				0.995	0.977	
Satd. Flow (perm)	1817	0	0	1844	1666	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	336			386	167	
Travel Time (s)	7.6			8.8	3.8	
Peak Hour Factor	0.87	0.87	0.94	0.94	0.79	0.79
Heavy Vehicles (%)	4%	2%	7%	2%	5%	2%
Adj. Flow (vph)	864	39	80	665	197	225
Shared Lane Traffic (%)						
Lane Group Flow (vph)	903	0	0	745	422	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	108.2%			ICU Level of Service G		
Analysis Period (min)	15					

	↑	↖	↙	↓	↘	↗
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↖			↗	↘	
Volume (veh/h)	752	34	75	625	156	178
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.94	0.94	0.79	0.79
Hourly flow rate (vph)	864	39	80	665	197	225
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			903		1708	884
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			903		1708	884
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			89		0	35
cM capacity (veh/h)			732		88	344
Direction, Lane #	NB 1	SB 1	NW 1			
Volume Total	903	745	423			
Volume Left	0	80	197			
Volume Right	39	0	225			
cSH	1700	732	145			
Volume to Capacity	0.53	0.11	2.91			
Queue Length 95th (ft)	0	9	969			
Control Delay (s)	0.0	2.8	924.7			
Lane LOS		A	F			
Approach Delay (s)	0.0	2.8	924.7			
Approach LOS			F			
Intersection Summary						
Average Delay			189.8			
Intersection Capacity Utilization			108.2%		ICU Level of Service	G
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2021 Build Mitigated AM Peak Hour



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	5	5	26	540	347	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932				0.992	
Flt Protected	0.976			0.998		
Satd. Flow (prot)	1571	0	0	1960	1933	0
Flt Permitted	0.976			0.998		
Satd. Flow (perm)	1571	0	0	1960	1933	0
Link Speed (mph)	30			35	30	
Link Distance (ft)	490			413	824	
Travel Time (s)	11.1			8.0	18.7	
Peak Hour Factor	0.63	0.63	0.93	0.93	0.92	0.92
Heavy Vehicles (%)	2%	40%	2%	10%	11%	2%
Adj. Flow (vph)	8	8	28	581	377	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	609	400	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	0.88	0.85	0.85	0.85	0.85
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	59.6%
ICU Level of Service	B
Analysis Period (min)	15

Sprague Street Redevelopment Project
1: Sprague Street & Industrial Driveway

2021 Build Mitigated AM Peak Hour



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	5	5	26	540	347	21
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.63	0.63	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	8	8	28	581	377	23
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	1025	389	400			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1025	389	400			
tC, single (s)	6.4	6.6	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.7	2.2			
p0 queue free %	97	99	98			
cM capacity (veh/h)	254	584	1159			
Direction, Lane #	SE 1	NE 1	SW 1			
Volume Total	16	609	400			
Volume Left	8	28	0			
Volume Right	8	0	23			
cSH	354	1159	1700			
Volume to Capacity	0.04	0.02	0.24			
Queue Length 95th (ft)	4	2	0			
Control Delay (s)	15.6	0.7	0.0			
Lane LOS	C	A				
Approach Delay (s)	15.6	0.7	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			59.6%	ICU Level of Service		B
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2021 Build Mitigated AM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕	↕		↕		↕	↕	
Volume (vph)	5	0	0	57	0	127	11	513	22	42	311	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	11	11	11	10	11	11
Storage Length (ft)	0		0	0		0	0		0	75		0
Storage Lanes	0		0	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850		0.994			0.982	
Flt Protected		0.950			0.950			0.999		0.950		
Satd. Flow (prot)	0	2046	0	0	1100	984	0	1694	0	1652	1668	0
Flt Permitted		0.950			0.950			0.999		0.950		
Satd. Flow (perm)	0	2046	0	0	1100	984	0	1694	0	1652	1668	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		338			265			824			1173	
Travel Time (s)		7.7			6.0			16.1			22.9	
Peak Hour Factor	0.75	0.75	0.75	0.66	0.66	0.66	0.83	0.83	0.83	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	86%	2%	86%	2%	8%	2%	2%	9%	2%
Adj. Flow (vph)	7	0	0	86	0	192	13	618	27	48	353	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	86	192	0	658	0	48	401	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.85	0.85	0.85	1.04	1.04	1.04	1.09	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	50.1%
Analysis Period (min)	15
	ICU Level of Service A

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2021 Build Mitigated AM Peak Hour

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	5	0	0	57	0	127	11	513	22	42	311	42
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.66	0.66	0.66	0.83	0.83	0.83	0.88	0.88	0.88
Hourly flow rate (vph)	7	0	0	86	0	192	13	618	27	48	353	48
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	1323	1144	377	1107	1154	631	401			645		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1323	1144	377	1107	1154	631	401			645		
tC, single (s)	7.1	6.5	6.2	8.0	6.5	7.1	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	4.3	4.0	4.1	2.2			2.2		
p0 queue free %	89	100	100	31	100	46	99			95		
cM capacity (veh/h)	59	189	674	125	185	359	1158			940		
Direction, Lane #	SE 1	NW 1	NW 2	NE 1	SW 1	SW 2						
Volume Total	7	86	192	658	48	401						
Volume Left	7	86	0	13	48	0						
Volume Right	0	0	192	27	0	48						
cSH	59	125	359	1158	940	1700						
Volume to Capacity	0.11	0.69	0.54	0.01	0.05	0.24						
Queue Length 95th (ft)	9	94	76	1	4	0						
Control Delay (s)	73.1	81.9	26.1	0.3	9.0	0.0						
Lane LOS	F	F	D	A	A							
Approach Delay (s)	73.1	43.4		0.3	1.0							
Approach LOS	F	E										
Intersection Summary												
Average Delay			9.5									
Intersection Capacity Utilization			50.1%	ICU Level of Service	A							
Analysis Period (min)			15									

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 Build Mitigated AM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	358	53	98	548	341	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	13	13	12	12
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.982					0.850
Flt Protected	0.958			0.992		
Satd. Flow (prot)	1695	0	0	1804	1667	1417
Flt Permitted	0.958			0.992		
Satd. Flow (perm)	1695	0	0	1804	1667	1417
Link Speed (mph)	30			35	30	
Link Distance (ft)	686			1173	334	
Travel Time (s)	15.6			22.9	7.6	
Peak Hour Factor	0.89	0.89	0.90	0.90	0.98	0.98
Heavy Vehicles (%)	7%	2%	2%	9%	14%	14%
Parking (#/hr)	2					
Adj. Flow (vph)	402	60	109	609	348	232
Shared Lane Traffic (%)						
Lane Group Flow (vph)	462	0	0	718	348	232
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.85	0.96	0.96	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	85.3%
Analysis Period (min)	15
	ICU Level of Service E

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 Build Mitigated AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	358	53	98	548	341	227
Peak Hour Factor	0.89	0.89	0.90	0.90	0.98	0.98
Hourly flow rate (vph)	402	60	109	609	348	232
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total (vph)	462	718	348	232		
Volume Left (vph)	402	109	0	0		
Volume Right (vph)	60	0	0	232		
Hadj (s)	0.20	0.17	0.24	-0.46		
Departure Headway (s)	7.0	7.0	7.6	6.9		
Degree Utilization, x	0.90	1.0	0.73	0.44		
Capacity (veh/h)	509	527	465	515		
Control Delay (s)	44.6	209.7	27.4	14.0		
Approach Delay (s)	44.6	209.7	22.0			
Approach LOS	E	F	C			
Intersection Summary						
Delay			104.5			
Level of Service			F			
Intersection Capacity Utilization			85.3%	ICU Level of Service	E	
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2021 Build Mitigated AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø9
Lane Configurations							
Volume (vph)	601	431	122	671	263	76	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	12	12	14	14	
Storage Length (ft)	175	0		150	0		
Storage Lanes	1	1		1	0		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950					0.963	
Satd. Flow (prot)	1601	1531	1863	1482	0	1871	
Flt Permitted	0.950					0.963	
Satd. Flow (perm)	1601	1531	1863	1482	0	1871	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		484		447			
Link Speed (mph)	30		30			30	
Link Distance (ft)	466		390			437	
Travel Time (s)	10.6		8.9			9.9	
Peak Hour Factor	0.89	0.89	0.98	0.98	0.96	0.96	
Heavy Vehicles (%)	9%	2%	2%	9%	5%	2%	
Adj. Flow (vph)	675	484	124	685	274	79	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	675	484	124	685	0	353	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	11		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.04	1.04	1.00	1.00	0.92	0.92	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	2	1	1	2	
Detector Template	Left	Right	Thru	Right	Left	Thru	
Leading Detector (ft)	20	20	100	20	20	100	
Trailing Detector (ft)	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	
Detector 1 Size(ft)	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)			94			94	
Detector 2 Size(ft)			6			6	
Detector 2 Type			Cl+Ex			Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)			0.0			0.0	
Turn Type	Prot	Perm	NA	Perm	Split	NA	
Protected Phases	8!		4!		6	6	9

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2021 Build Mitigated AM Peak Hour

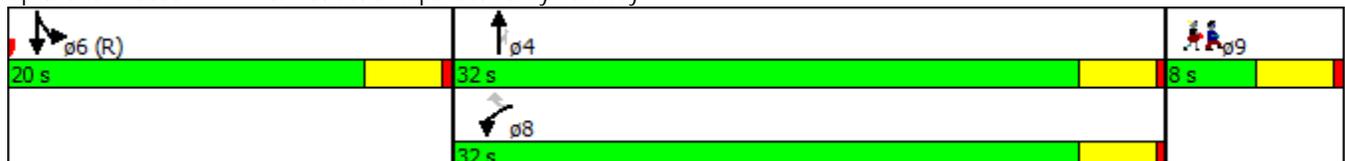


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø9
Permitted Phases		8		4			
Detector Phase	8	8	4	4	6	6	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	32.0	32.0	32.0	32.0	20.0	20.0	8.0
Total Split (%)	53.3%	53.3%	53.3%	53.3%	33.3%	33.3%	13%
Maximum Green (s)	28.0	28.0	28.0	28.0	16.0	16.0	4.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0		4.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	C-Max	C-Max	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	
Act Effect Green (s)	27.1	27.1	27.1	27.1		24.9	
Actuated g/C Ratio	0.45	0.45	0.45	0.45		0.42	
v/c Ratio	0.93	0.51	0.15	0.75		0.46	
Control Delay	38.5	3.2	9.8	10.5		15.5	
Queue Delay	0.0	0.0	0.0	0.0		0.0	
Total Delay	38.5	3.2	9.8	10.5		15.5	
LOS	D	A	A	B		B	
Approach Delay	23.8		10.4			15.5	
Approach LOS	C		B			B	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 17.8
 Intersection LOS: B
 Intersection Capacity Utilization 68.3%
 ICU Level of Service C
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Splits and Phases: 4: Milton Street & Neponset Valley Parkway



Sprague Street Redevelopment Project
4: Milton Street & Neponset Valley Parkway

2021 Build Mitigated AM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	601	431	122	671	263	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	12	14	14
Total Lost time (s)	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	1.00	1.00	1.00		1.00
Frt	1.00	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		0.96
Satd. Flow (prot)	1601	1531	1863	1482		1870
Flt Permitted	0.95	1.00	1.00	1.00		0.96
Satd. Flow (perm)	1601	1531	1863	1482		1870
Peak-hour factor, PHF	0.89	0.89	0.98	0.98	0.96	0.96
Adj. Flow (vph)	675	484	124	685	274	79
RTOR Reduction (vph)	0	265	0	245	0	0
Lane Group Flow (vph)	675	219	124	440	0	353
Heavy Vehicles (%)	9%	2%	2%	9%	5%	2%
Turn Type	Prot	Perm	NA	Perm	Split	NA
Protected Phases	8!		4!		6	6
Permitted Phases		8		4		
Actuated Green, G (s)	27.1	27.1	27.1	27.1		24.9
Effective Green, g (s)	27.1	27.1	27.1	27.1		24.9
Actuated g/C Ratio	0.45	0.45	0.45	0.45		0.41
Clearance Time (s)	4.0	4.0	4.0	4.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	723	691	841	669		776
v/s Ratio Prot	c0.42		0.07			c0.19
v/s Ratio Perm		0.14		0.30		
v/c Ratio	0.93	0.32	0.15	0.66		0.45
Uniform Delay, d1	15.6	10.5	9.7	12.8		12.7
Progression Factor	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	19.0	0.3	0.1	2.3		1.9
Delay (s)	34.6	10.8	9.7	15.2		14.6
Level of Service	C	B	A	B		B
Approach Delay (s)	24.7		14.3			14.6
Approach LOS	C		B			B

Intersection Summary

HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 Build Mitigated AM Peak Hour



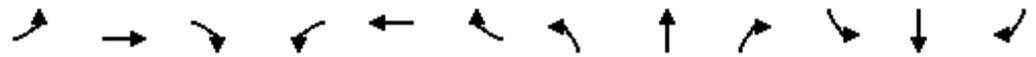
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↔			↕	
Volume (vph)	287	11	637	5	5	5	730	184	11	0	137	297
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	14	14	14	16	16	16	16	16	16
Storage Length (ft)	175		0	0		0	200		0	0		0
Storage Lanes	1		1	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.955			0.992			0.908	
Flt Protected		0.954			0.984		0.950					
Satd. Flow (prot)	0	1611	1432	0	1758	0	1930	2019	0	0	1671	0
Flt Permitted		0.954			0.650		0.125					
Satd. Flow (perm)	0	1611	1432	0	1161	0	254	2019	0	0	1671	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			700		7			4			83	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		466			184			825			433	
Travel Time (s)		10.6			4.2			18.8			9.8	
Peak Hour Factor	0.91	0.91	0.91	0.70	0.70	0.70	0.90	0.90	0.90	0.83	0.83	0.83
Heavy Vehicles (%)	9%	2%	9%	2%	2%	21%	6%	6%	2%	2%	17%	17%
Adj. Flow (vph)	315	12	700	7	7	7	811	204	12	0	165	358
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	327	700	0	21	0	811	216	0	0	523	0
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			16			16	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	0.92	0.92	0.92	0.85	0.85	0.85	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA	Perm	Perm	NA		pm+pt	NA			NA	
Protected Phases	4	4			2!		5!	2!			6!	

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	7

Lane Group	ø7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	16%
Maximum Green (s)	16.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Ped
Walk Time (s)	5.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	25
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 Build Mitigated AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕		↕	↕			↕	
Volume (vph)	287	11	637	5	5	5	730	184	11	0	137	297
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	14	14	14	16	16	16	16	16	16
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.95		1.00	0.99			0.91	
Flt Protected		0.95	1.00		0.98		0.95	1.00			1.00	
Satd. Flow (prot)		1611	1432		1757		1930	2019			1670	
Flt Permitted		0.95	1.00		0.65		0.12	1.00			1.00	
Satd. Flow (perm)		1611	1432		1161		254	2019			1670	
Peak-hour factor, PHF	0.91	0.91	0.91	0.70	0.70	0.70	0.90	0.90	0.90	0.83	0.83	0.83
Adj. Flow (vph)	315	12	700	7	7	7	811	204	12	0	165	358
RTOR Reduction (vph)	0	0	568	0	3	0	0	2	0	0	64	0
Lane Group Flow (vph)	0	327	132	0	18	0	811	214	0	0	459	0
Heavy Vehicles (%)	9%	2%	9%	2%	2%	21%	6%	6%	2%	2%	17%	17%
Turn Type	Split	NA	Perm	Perm	NA		pm+pt	NA			NA	
Protected Phases	4	4			2!		5!	2!			6!	
Permitted Phases			4	2!			2!			6!		
Actuated Green, G (s)		23.0	23.0		71.0		71.0	71.0			28.0	
Effective Green, g (s)		23.0	23.0		71.0		71.0	71.0			28.0	
Actuated g/C Ratio		0.19	0.19		0.58		0.58	0.58			0.23	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		303	269		675		683	1174			383	
v/s Ratio Prot		c0.20					c0.38	0.11			0.27	
v/s Ratio Perm			0.09		0.02		c0.31					
v/c Ratio		1.08	0.49		0.03		1.19	0.18			1.20	
Uniform Delay, d1		49.5	44.3		10.8		34.4	11.9			47.0	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		74.4	1.4		0.1		98.6	0.3			112.0	
Delay (s)		123.9	45.7		10.9		133.0	12.3			159.0	
Level of Service		F	D		B		F	B			F	
Approach Delay (s)		70.6			10.9			107.6			159.0	
Approach LOS		E			B			F			F	

Intersection Summary

HCM 2000 Control Delay	102.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	122.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Sprague Street Redevelopment Project

2021 Build Mitigated AM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations			↔	↔				↔			↔	
Volume (vph)	11	5	11	0	767	126	53	16	5	68	5	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	16	16	16	14	14	14	16	16	16
Storage Length (ft)		0			0		0		0	0		
Storage Lanes		0			0		0		0	0		
Taper Length (ft)		25					25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.865				0.991			0.951	
Flt Protected			0.971					0.965			0.971	
Satd. Flow (prot)	0	0	1385	1767	0	0	0	1900	0	0	1831	0
Flt Permitted			0.513					0.732			0.829	
Satd. Flow (perm)	0	0	732	1767	0	0	0	1441	0	0	1563	0
Right Turn on Red							Yes		Yes			Yes
Satd. Flow (RTOR)				126				3			138	
Link Speed (mph)			30	30				30			30	
Link Distance (ft)			245	329				316			590	
Travel Time (s)			5.6	7.5				7.2			13.4	
Peak Hour Factor	0.69	0.69	0.69	0.91	0.91	0.91	0.84	0.84	0.84	0.81	0.81	0.81
Heavy Vehicles (%)	2%	28%	2%	2%	6%	2%	2%	2%	2%	2%	2%	20%
Parking (#/hr)			2									
Adj. Flow (vph)	16	7	16	0	843	138	63	19	6	84	6	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	39	981	0	0	0	88	0	0	142	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)			0	0				0			0	
Link Offset(ft)			0	0				0			0	
Crosswalk Width(ft)			16	16				16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.32	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85
Turning Speed (mph)	15	15			9	9	15		9	15		9
Number of Detectors	1	1	2	2			1	2		1	2	
Detector Template	Left	Left	Thru	Thru			Left	Thru		Left	Thru	
Leading Detector (ft)	20	20	100	100			20	100		20	100	
Trailing Detector (ft)	0	0	0	0			0	0		0	0	
Detector 1 Position(ft)	0	0	0	0			0	0		0	0	
Detector 1 Size(ft)	20	20	6	6			20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 2 Position(ft)			94	94				94			94	
Detector 2 Size(ft)			6	6				6			6	
Detector 2 Type			Cl+Ex	Cl+Ex				Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)			0.0	0.0				0.0			0.0	
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA	



Lane Group	SEL2	SEL	SER	ø2
Lane Configurations		BY		
Volume (vph)	95	668	16	
Ideal Flow (vphpl)	1900	1900	1900	
Lane Width (ft)	16	15	16	
Storage Length (ft)		0	160	
Storage Lanes		2	1	
Taper Length (ft)		25		
Lane Util. Factor	0.95	0.97	0.95	
Frt		0.997		
Flt Protected		0.953		
Satd. Flow (prot)	0	3624	0	
Flt Permitted		0.953		
Satd. Flow (perm)	0	3624	0	
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)		30		
Link Distance (ft)		825		
Travel Time (s)		18.8		
Peak Hour Factor	0.93	0.93	0.93	
Heavy Vehicles (%)	2%	7%	2%	
Parking (#/hr)				
Adj. Flow (vph)	102	718	17	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	837	0	
Enter Blocked Intersection	No	No	No	
Lane Alignment	Left	Left	Right	
Median Width(ft)		46		
Link Offset(ft)		0		
Crosswalk Width(ft)		16		
Two way Left Turn Lane				
Headway Factor	0.85	0.88	0.85	
Turning Speed (mph)	15	15	9	
Number of Detectors	1	1		
Detector Template	Left	Left		
Leading Detector (ft)	20	20		
Trailing Detector (ft)	0	0		
Detector 1 Position(ft)	0	0		
Detector 1 Size(ft)	20	20		
Detector 1 Type	Cl+Ex	Cl+Ex		
Detector 1 Channel				
Detector 1 Extend (s)	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type	Perm	Perm		

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court

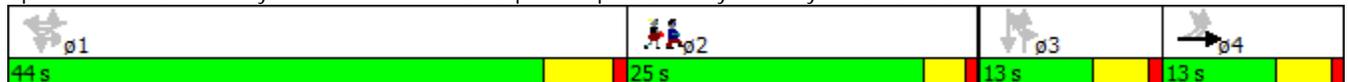


Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Protected Phases			4									
Permitted Phases	4	4		1			3	3		3	3	
Detector Phase	4	4	4	1			3	3		3	3	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	30.0			8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	36.0			13.0	13.0		13.0	13.0	
Total Split (s)	13.0	13.0	13.0	44.0			13.0	13.0		13.0	13.0	
Total Split (%)	13.7%	13.7%	13.7%	46.3%			13.7%	13.7%		13.7%	13.7%	
Maximum Green (s)	8.0	8.0	8.0	38.0			8.0	8.0		8.0	8.0	
Yellow Time (s)	4.0	4.0	4.0	5.0			4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0		1.0	1.0	
Lost Time Adjust (s)			0.0	0.0				0.0			0.0	
Total Lost Time (s)			5.0	6.0				5.0			5.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	Max			None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)			8.1	38.3			8.1			8.1	8.1	
Actuated g/C Ratio			0.12	0.57			0.12			0.12	0.12	
v/c Ratio			0.45	0.93			0.51			0.46	0.46	
Control Delay			47.8	30.2			39.7			11.9	11.9	
Queue Delay			0.0	0.0			0.0			0.0	0.0	
Total Delay			47.8	30.2			39.7			11.9	11.9	
LOS			D	C			D			B	B	
Approach Delay			47.8	30.2			39.7			11.9	11.9	
Approach LOS			D	C			D			B	B	

Intersection Summary

Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	67.4
Natural Cycle:	120
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.93
Intersection Signal Delay:	21.4
Intersection LOS:	C
Intersection Capacity Utilization:	101.6%
ICU Level of Service:	G
Analysis Period (min):	15

Splits and Phases: 6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court





Lane Group	SEL2	SEL	SER	ø2
Protected Phases				2
Permitted Phases	1	1		
Detector Phase	1	1		
Switch Phase				
Minimum Initial (s)	30.0	30.0		7.0
Minimum Split (s)	36.0	36.0		25.0
Total Split (s)	44.0	44.0		25.0
Total Split (%)	46.3%	46.3%		26%
Maximum Green (s)	38.0	38.0		21.0
Yellow Time (s)	5.0	5.0		3.0
All-Red Time (s)	1.0	1.0		1.0
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0
Recall Mode	Max	Max		None
Walk Time (s)				7.0
Flash Dont Walk (s)				14.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)		38.3		
Actuated g/C Ratio		0.57		
v/c Ratio		0.41		
Control Delay		9.6		
Queue Delay		0.0		
Total Delay		9.6		
LOS		A		
Approach Delay		9.6		
Approach LOS		A		
Intersection Summary				

Sprague Street Redevelopment Project

2021 Build Mitigated AM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Movement	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations			↕	↕				↕			↕	
Volume (vph)	11	5	11	0	767	126	53	16	5	68	5	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	9	9	9	16	16	16	14	14	14	16	16	16
Total Lost time (s)			5.0	6.0				5.0			5.0	
Lane Util. Factor			1.00	1.00				1.00			1.00	
Frt			1.00	0.86				0.99			0.95	
Flt Protected			0.97	1.00				0.97			0.97	
Satd. Flow (prot)			1386	1767				1901			1831	
Flt Permitted			0.51	1.00				0.73			0.83	
Satd. Flow (perm)			732	1767				1442			1562	
Peak-hour factor, PHF	0.69	0.69	0.69	0.91	0.91	0.91	0.84	0.84	0.84	0.81	0.81	0.81
Adj. Flow (vph)	16	7	16	0	843	138	63	19	6	84	6	52
RTOR Reduction (vph)	0	0	0	56	0	0	0	3	0	0	122	0
Lane Group Flow (vph)	0	0	39	925	0	0	0	85	0	0	20	0
Heavy Vehicles (%)	2%	28%	2%	2%	6%	2%	2%	2%	2%	2%	2%	20%
Parking (#/hr)			2									
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA	
Protected Phases			4									
Permitted Phases	4	4		1			3	3		3	3	
Actuated Green, G (s)			6.2	38.3				8.1			8.1	
Effective Green, g (s)			6.2	38.3				8.1			8.1	
Actuated g/C Ratio			0.09	0.56				0.12			0.12	
Clearance Time (s)			5.0	6.0				5.0			5.0	
Vehicle Extension (s)			3.0	3.0				3.0			3.0	
Lane Grp Cap (vph)			66	986				170			184	
v/s Ratio Prot												
v/s Ratio Perm			c0.05	c0.52				c0.06			0.01	
v/c Ratio			0.59	0.94				0.50			0.11	
Uniform Delay, d1			30.0	14.1				28.4			27.0	
Progression Factor			1.00	1.00				1.00			1.00	
Incremental Delay, d2			13.4	17.2				2.3			0.3	
Delay (s)			43.3	31.2				30.7			27.3	
Level of Service			D	C				C			C	
Approach Delay (s)			43.3	31.2				30.7			27.3	
Approach LOS			D	C				C			C	

Intersection Summary

HCM 2000 Control Delay	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	68.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	101.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	SEL2	SEL	SER
Lane Configurations		3W	
Volume (vph)	95	668	16
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	16	15	16
Total Lost time (s)		6.0	
Lane Util. Factor		0.97	
Frt		1.00	
Flt Protected		0.95	
Satd. Flow (prot)		3625	
Flt Permitted		0.95	
Satd. Flow (perm)		3625	
Peak-hour factor, PHF	0.93	0.93	0.93
Adj. Flow (vph)	102	718	17
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	0	837	0
Heavy Vehicles (%)	2%	7%	2%
Parking (#/hr)			
Turn Type	Perm	Perm	
Protected Phases			
Permitted Phases	1	1	
Actuated Green, G (s)		38.3	
Effective Green, g (s)		38.3	
Actuated g/C Ratio		0.56	
Clearance Time (s)		6.0	
Vehicle Extension (s)		3.0	
Lane Grp Cap (vph)		2023	
v/s Ratio Prot			
v/s Ratio Perm		0.23	
v/c Ratio		0.41	
Uniform Delay, d1		8.7	
Progression Factor		1.00	
Incremental Delay, d2		0.6	
Delay (s)		9.3	
Level of Service		A	
Approach Delay (s)		9.3	
Approach LOS		A	
Intersection Summary			

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2021 Build Mitigated AM Peak Hour



Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	71	81	713	193	159	514
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928		0.971			
Flt Protected	0.977				0.950	
Satd. Flow (prot)	1378	0	1704	0	1770	1743
Flt Permitted	0.977				0.950	
Satd. Flow (perm)	1378	0	1704	0	1770	1743
Link Speed (mph)	30		30			30
Link Distance (ft)	264		334			390
Travel Time (s)	6.0		7.6			8.9
Peak Hour Factor	0.61	0.61	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	45%	10%	2%	2%	9%
Adj. Flow (vph)	116	133	775	210	173	559
Shared Lane Traffic (%)						
Lane Group Flow (vph)	249	0	985	0	173	559
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	77.0%
ICU Level of Service	D
Analysis Period (min)	15

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2021 Build Mitigated AM Peak Hour



Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	71	81	713	193	159	514
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.61	0.61	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	116	133	775	210	173	559
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						390
pX, platoon unblocked						
vC, conflicting volume	1784	880			985	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1784	880			985	
tC, single (s)	6.4	6.7			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.7			2.2	
p0 queue free %	0	54			75	
cM capacity (veh/h)	68	291			701	

Direction, Lane #	WB 1	NE 1	SW 1	SW 2
Volume Total	249	985	173	559
Volume Left	116	0	173	0
Volume Right	133	210	0	0
cSH	114	1700	701	1700
Volume to Capacity	2.18	0.58	0.25	0.33
Queue Length 95th (ft)	531	0	24	0
Control Delay (s)	619.2	0.0	11.8	0.0
Lane LOS	F		B	
Approach Delay (s)	619.2	0.0	2.8	
Approach LOS	F			

Intersection Summary			
Average Delay		79.5	
Intersection Capacity Utilization		77.0%	ICU Level of Service D
Analysis Period (min)		15	

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2021 Build Mitigated PM Peak Hour



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	37	47	15	411	484	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	16	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924			0.997		
Flt Protected	0.979			0.998		
Satd. Flow (prot)	1784	0	0	2049	2085	0
Flt Permitted	0.979			0.998		
Satd. Flow (perm)	1784	0	0	2049	2085	0
Link Speed (mph)	30			35	30	
Link Distance (ft)	490			413	824	
Travel Time (s)	11.1			8.0	18.7	
Peak Hour Factor	0.74	0.74	0.82	0.85	0.97	0.97
Heavy Vehicles (%)	6%	6%	2%	5%	3%	2%
Adj. Flow (vph)	50	64	18	484	499	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	114	0	0	502	510	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	0.88	0.85	0.85	0.85	0.85
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	45.4% ICU Level of Service A
Analysis Period (min)	15

Sprague Street Redevelopment Project
 1: Sprague Street & Industrial Driveway

2021 Build Mitigated PM Peak Hour



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	37	47	15	411	484	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.74	0.74	0.82	0.85	0.97	0.97
Hourly flow rate (vph)	50	64	18	484	499	11
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	1025	505	510			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1025	505	510			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	80	89	98			
cM capacity (veh/h)	252	559	1055			
Direction, Lane #						
	SE 1	NE 1	SW 1			
Volume Total	114	502	510			
Volume Left	50	18	0			
Volume Right	64	0	11			
cSH	364	1055	1700			
Volume to Capacity	0.31	0.02	0.30			
Queue Length 95th (ft)	33	1	0			
Control Delay (s)	19.3	0.5	0.0			
Lane LOS	C	A				
Approach Delay (s)	19.3	0.5	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utilization		45.4%		ICU Level of Service		A
Analysis Period (min)		15				

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2021 Build Mitigated PM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	121	0	26	45	0	84	26	365	57	141	423	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	12	12	12	16	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976				0.850		0.983			0.988	
Flt Protected		0.961			0.950			0.997			0.989	
Satd. Flow (prot)	0	1980	0	0	2006	1711	0	1761	0	0	2022	0
Flt Permitted		0.961			0.950			0.997			0.989	
Satd. Flow (perm)	0	1980	0	0	2006	1711	0	1761	0	0	2022	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		338			265			824			1173	
Travel Time (s)		7.7			6.0			16.1			22.9	
Peak Hour Factor	0.57	0.57	0.57	0.60	0.60	0.60	0.93	0.93	0.93	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	2%	2%	2%	7%	2%	6%	6%	2%	5%	2%
Adj. Flow (vph)	212	0	46	75	0	140	28	392	61	158	475	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	258	0	0	75	140	0	481	0	0	693	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.85	0.85	0.85	1.00	1.00	1.00	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	82.3%
ICU Level of Service	E
Analysis Period (min)	15

Sprague Street Redevelopment Project
 2: Sprague Street & Horne Street/Sprague Place

2021 Build Mitigated PM Peak Hour



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕	↕		↕			↕	
Volume (veh/h)	121	0	26	45	0	84	26	365	57	141	423	53
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.57	0.57	0.57	0.60	0.60	0.60	0.93	0.93	0.93	0.89	0.89	0.89
Hourly flow rate (vph)	212	0	46	75	0	140	28	392	61	158	475	60
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	1441	1332	505	1347	1331	423	535			454		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1441	1332	505	1347	1331	423	535			454		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	0	100	92	27	100	77	97			86		
cM capacity (veh/h)	75	129	567	103	129	620	1033			1107		
Direction, Lane #	SE 1	NW 1	NW 2	NE 1	SW 1							
Volume Total	258	75	140	482	693							
Volume Left	212	75	0	28	158							
Volume Right	46	0	140	61	60							
cSH	88	103	620	1033	1107							
Volume to Capacity	2.93	0.73	0.23	0.03	0.14							
Queue Length 95th (ft)	627	96	22	2	12							
Control Delay (s)	972.0	102.2	12.5	0.8	3.4							
Lane LOS	F	F	B	A	A							
Approach Delay (s)	972.0	43.8		0.8	3.4							
Approach LOS	F	E										
Intersection Summary												
Average Delay			159.5									
Intersection Capacity Utilization			82.3%		ICU Level of Service				E			
Analysis Period (min)			15									

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 Build Mitigated PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	283	126	78	492	491	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	13	13	12	12
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.958					0.850
Flt Protected	0.967			0.993		
Satd. Flow (prot)	1675	0	0	1895	1827	1583
Flt Permitted	0.967			0.993		
Satd. Flow (perm)	1675	0	0	1895	1827	1583
Link Speed (mph)	30			35	30	
Link Distance (ft)	686			1173	336	
Travel Time (s)	15.6			22.9	7.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.91	0.91
Heavy Vehicles (%)	6%	6%	2%	3%	4%	2%
Parking (#/hr)	2					
Adj. Flow (vph)	329	147	91	572	540	296
Shared Lane Traffic (%)						
Lane Group Flow (vph)	476	0	0	663	540	296
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.99	0.85	0.96	0.96	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	89.4%
ICU Level of Service	E
Analysis Period (min)	15

Sprague Street Redevelopment Project
 3: Sprague Street/Milton Street & W Milton Street

2021 Build Mitigated PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	283	126	78	492	491	269
Peak Hour Factor	0.86	0.86	0.86	0.86	0.91	0.91
Hourly flow rate (vph)	329	147	91	572	540	296
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total (vph)	476	663	540	296		
Volume Left (vph)	329	91	0	0		
Volume Right (vph)	147	0	0	296		
Hadj (s)	0.06	0.08	0.07	-0.67		
Departure Headway (s)	7.0	7.0	7.5	6.8		
Degree Utilization, x	0.93	1.0	1.0	0.55		
Capacity (veh/h)	503	521	484	529		
Control Delay (s)	50.3	169.0	104.6	16.7		
Approach Delay (s)	50.3	169.0	73.4			
Approach LOS	F	F	F			
Intersection Summary						
Delay			100.0			
Level of Service			F			
Intersection Capacity Utilization			89.4%	ICU Level of Service	E	
Analysis Period (min)			15			

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2021 Build Mitigated PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø9
Lane Configurations							
Volume (vph)	563	284	103	816	263	163	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	16	16	16	14	14	
Storage Length (ft)	175	0		150	0		
Storage Lanes	1	1		1	0		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950					0.970	
Satd. Flow (prot)	1894	1794	2111	1794	0	1838	
Flt Permitted	0.950					0.970	
Satd. Flow (perm)	1894	1794	2111	1794	0	1838	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		296		477			
Link Speed (mph)	30		30			30	
Link Distance (ft)	455		386			437	
Travel Time (s)	10.3		8.8			9.9	
Peak Hour Factor	0.96	0.96	0.95	0.95	0.91	0.91	
Heavy Vehicles (%)	8%	2%	2%	2%	2%	15%	
Adj. Flow (vph)	586	296	108	859	289	179	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	586	296	108	859	0	468	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	16		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	0.85	0.85	0.85	0.85	0.92	0.92	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1	1	2	1	1	2	
Detector Template	Left	Right	Thru	Right	Left	Thru	
Leading Detector (ft)	20	20	100	20	20	100	
Trailing Detector (ft)	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	
Detector 1 Size(ft)	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)			94			94	
Detector 2 Size(ft)			6			6	
Detector 2 Type			Cl+Ex			Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)			0.0			0.0	
Turn Type	Prot	Perm	NA	Perm	Split	NA	
Protected Phases	8!		4!		6	6	9

Sprague Street Redevelopment Project
 4: Milton Street & Neponset Valley Parkway

2021 Build Mitigated PM Peak Hour

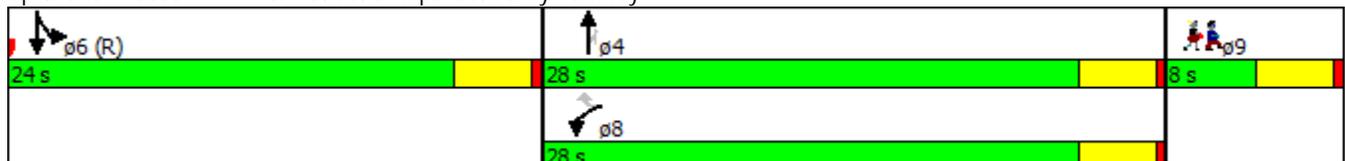


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø9
Permitted Phases		8		4			
Detector Phase	8	8	4	4	6	6	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	28.0	28.0	28.0	28.0	24.0	24.0	8.0
Total Split (%)	46.7%	46.7%	46.7%	46.7%	40.0%	40.0%	13%
Maximum Green (s)	24.0	24.0	24.0	24.0	20.0	20.0	4.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0		4.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	C-Max	C-Max	None
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	
Act Effct Green (s)	22.1	22.1	22.1	22.1		29.9	
Actuated g/C Ratio	0.37	0.37	0.37	0.37		0.50	
v/c Ratio	0.84	0.35	0.14	0.89		0.51	
Control Delay	29.7	3.1	12.2	21.4		13.3	
Queue Delay	0.0	0.0	0.0	0.0		0.0	
Total Delay	29.7	3.1	12.2	21.4		13.3	
LOS	C	A	B	C		B	
Approach Delay	20.8		20.3			13.3	
Approach LOS	C		C			B	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 19.1
 Intersection LOS: B
 Intersection Capacity Utilization 80.3%
 ICU Level of Service D
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Splits and Phases: 4: Milton Street & Neponset Valley Parkway



Sprague Street Redevelopment Project
4: Milton Street & Neponset Valley Parkway

2021 Build Mitigated PM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	563	284	103	816	263	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	14	14
Total Lost time (s)	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	1.00	1.00	1.00		1.00
Frt	1.00	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		0.97
Satd. Flow (prot)	1894	1794	2111	1794		1838
Flt Permitted	0.95	1.00	1.00	1.00		0.97
Satd. Flow (perm)	1894	1794	2111	1794		1838
Peak-hour factor, PHF	0.96	0.96	0.95	0.95	0.91	0.91
Adj. Flow (vph)	586	296	108	859	289	179
RTOR Reduction (vph)	0	187	0	301	0	0
Lane Group Flow (vph)	586	109	108	558	0	468
Heavy Vehicles (%)	8%	2%	2%	2%	2%	15%
Turn Type	Prot	Perm	NA	Perm	Split	NA
Protected Phases	8!		4!		6	6
Permitted Phases		8		4		
Actuated Green, G (s)	22.1	22.1	22.1	22.1		29.9
Effective Green, g (s)	22.1	22.1	22.1	22.1		29.9
Actuated g/C Ratio	0.37	0.37	0.37	0.37		0.50
Clearance Time (s)	4.0	4.0	4.0	4.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	697	660	777	660		915
v/s Ratio Prot	0.31		0.05			c0.25
v/s Ratio Perm		0.06		c0.31		
v/c Ratio	0.84	0.17	0.14	0.84		0.51
Uniform Delay, d1	17.3	12.7	12.6	17.4		10.1
Progression Factor	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	9.0	0.1	0.1	9.7		2.0
Delay (s)	26.4	12.9	12.7	27.1		12.2
Level of Service	C	B	B	C		B
Approach Delay (s)	21.8		25.5			12.2
Approach LOS	C		C			B

Intersection Summary

HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 Build Mitigated PM Peak Hour

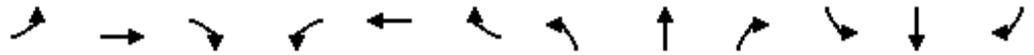


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↖			↕	
Volume (vph)	296	0	782	5	5	5	570	137	0	0	168	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	14	14	16	16	16	16	16	16
Storage Length (ft)	175		0	0		0	200		0	0		0
Storage Lanes	1		1	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.955							0.917
Flt Protected		0.950			0.984		0.950					
Satd. Flow (prot)	0	2006	1794	0	1904	0	1930	2111	0	0	1825	0
Flt Permitted		0.950			0.629		0.153					
Satd. Flow (perm)	0	2006	1794	0	1217	0	311	2111	0	0	1825	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			776		11							100
Link Speed (mph)		30			30			30				30
Link Distance (ft)		455			184			826				433
Travel Time (s)		10.3			4.2			18.8				9.8
Peak Hour Factor	0.92	0.92	0.92	0.45	0.45	0.45	0.97	0.97	0.97	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	6%	2%	2%	2%	2%	12%
Adj. Flow (vph)	322	0	850	11	11	11	588	141	0	0	187	302
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	322	850	0	33	0	588	141	0	0	489	0
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			16				16
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85	0.85	0.85	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Split	NA	Perm	Perm	NA		pm+pt	NA				NA
Protected Phases	4	4			2!		5!	2!				6!

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	7

Sprague Street Redevelopment Project
 5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 Build Mitigated PM Peak Hour

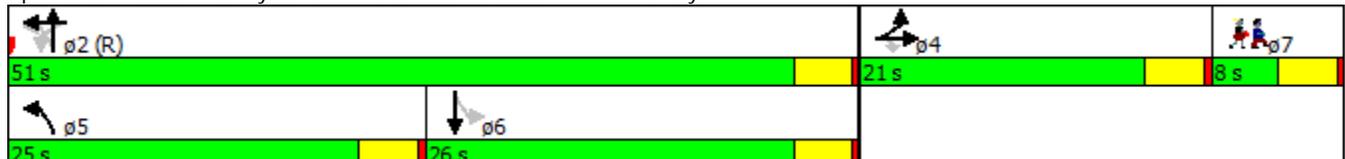


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			4	2!			2!			6!		
Detector Phase	4	4	4	2	2		5	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0		8.0	20.0		20.0	20.0	
Total Split (s)	21.0	21.0	21.0	51.0	51.0		25.0	51.0		26.0	26.0	
Total Split (%)	26.3%	26.3%	26.3%	63.8%	63.8%		31.3%	63.8%		32.5%	32.5%	
Maximum Green (s)	17.0	17.0	17.0	47.0	47.0		21.0	47.0		22.0	22.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0			0.0	
Total Lost Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	C-Max	C-Max		None	C-Max		Max	Max	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0			5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0		0	0	
Act Effct Green (s)		16.5	16.5		55.5		55.5	55.5			25.6	
Actuated g/C Ratio		0.21	0.21		0.69		0.69	0.69			0.32	
v/c Ratio		0.78	0.86		0.04		0.79	0.10			0.75	
Control Delay		44.7	14.8		3.2		23.3	4.3			29.6	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		44.7	14.8		3.2		23.3	4.3			29.6	
LOS		D	B		A		C	A			C	
Approach Delay		23.0			3.2			19.6			29.6	
Approach LOS		C			A			B			C	

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:NBWB, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 23.0
 Intersection LOS: C
 Intersection Capacity Utilization 90.2%
 ICU Level of Service E
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

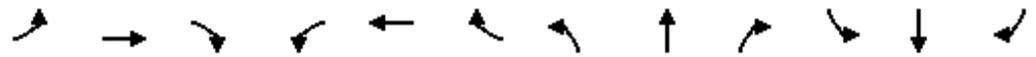
Splits and Phases: 5: Hyde Park Ave & Milton Street/MBTA Driveway



Lane Group	ø7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	8.0
Total Split (%)	10%
Maximum Green (s)	4.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Sprague Street Redevelopment Project
5: Hyde Park Ave & Milton Street/MBTA Driveway

2021 Build Mitigated PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↖			↕	
Volume (vph)	296	0	782	5	5	5	570	137	0	0	168	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	14	14	14	16	16	16	16	16	16
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.95		1.00	1.00			0.92	
Flt Protected		0.95	1.00		0.98		0.95	1.00			1.00	
Satd. Flow (prot)		2006	1794		1904		1930	2111			1825	
Flt Permitted		0.95	1.00		0.63		0.15	1.00			1.00	
Satd. Flow (perm)		2006	1794		1218		310	2111			1825	
Peak-hour factor, PHF	0.92	0.92	0.92	0.45	0.45	0.45	0.97	0.97	0.97	0.90	0.90	0.90
Adj. Flow (vph)	322	0	850	11	11	11	588	141	0	0	187	302
RTOR Reduction (vph)	0	0	616	0	3	0	0	0	0	0	68	0
Lane Group Flow (vph)	0	322	234	0	30	0	588	141	0	0	421	0
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	6%	2%	2%	2%	2%	12%
Turn Type	Split	NA	Perm	Perm	NA		pm+pt	NA			NA	
Protected Phases	4	4			2!		5!	2!			6!	
Permitted Phases			4	2!			2!			6!		
Actuated Green, G (s)		16.5	16.5		55.5		55.5	55.5			25.6	
Effective Green, g (s)		16.5	16.5		55.5		55.5	55.5			25.6	
Actuated g/C Ratio		0.21	0.21		0.69		0.69	0.69			0.32	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		413	370		844		739	1464			584	
v/s Ratio Prot		c0.16					c0.26	0.07			0.23	
v/s Ratio Perm			0.13		0.02		c0.29					
v/c Ratio		0.78	0.63		0.04		0.80	0.10			0.72	
Uniform Delay, d1		30.0	29.0		3.8		16.7	4.0			24.0	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		9.0	3.5		0.1		5.9	0.1			7.5	
Delay (s)		39.0	32.5		3.9		22.6	4.2			31.6	
Level of Service		D	C		A		C	A			C	
Approach Delay (s)		34.3			3.9			19.0			31.6	
Approach LOS		C			A			B			C	

Intersection Summary

HCM 2000 Control Delay	28.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	90.2%	ICU Level of Service	E
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Sprague Street Redevelopment Project

2021 Build Mitigated PM Peak Hour

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations			↔	↔				↔			↔	
Volume (vph)	11	5	32	0	607	47	42	11	11	63	5	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	16	16	16	14	14	14	16	16	16
Storage Length (ft)		0			0		0		0	0		
Storage Lanes		0			0		0		0	0		
Taper Length (ft)		25					25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.865				0.977			0.968	
Flt Protected			0.984					0.968			0.966	
Satd. Flow (prot)	0	0	1468	1762	0	0	0	1861	0	0	1956	0
Flt Permitted			0.623					0.780			0.796	
Satd. Flow (perm)	0	0	930	1762	0	0	0	1499	0	0	1612	0
Right Turn on Red							Yes		Yes			Yes
Satd. Flow (RTOR)				126				9			138	
Link Speed (mph)			30	30				30			30	
Link Distance (ft)			245	329				316			590	
Travel Time (s)			5.6	7.5				7.2			13.4	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.66	0.66	0.66	0.65	0.65	0.65
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	3%	3%	3%	2%	2%	6%
Parking (#/hr)			2									
Adj. Flow (vph)	12	5	35	0	667	52	64	17	17	97	8	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	52	719	0	0	0	98	0	0	137	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)			0	0				0			0	
Link Offset(ft)			0	0				0			0	
Crosswalk Width(ft)			16	16				16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.32	0.85	0.85	0.85	0.92	0.92	0.92	0.85	0.85	0.85
Turning Speed (mph)	15	15			9	9	15		9	15		9
Number of Detectors	1	1	2	2			1	2		1	2	
Detector Template	Left	Left	Thru	Thru			Left	Thru		Left	Thru	
Leading Detector (ft)	20	20	100	100			20	100		20	100	
Trailing Detector (ft)	0	0	0	0			0	0		0	0	
Detector 1 Position(ft)	0	0	0	0			0	0		0	0	
Detector 1 Size(ft)	20	20	6	6			20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Detector 2 Position(ft)			94	94				94			94	
Detector 2 Size(ft)			6	6				6			6	
Detector 2 Type			Cl+Ex	Cl+Ex				Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)			0.0	0.0				0.0			0.0	
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA	



Lane Group	SEL2	SEL	SER	ø2
Lane Configurations		BY		
Volume (vph)	37	808	16	
Ideal Flow (vphpl)	1900	1900	1900	
Lane Width (ft)	16	15	16	
Storage Length (ft)		0	160	
Storage Lanes		2	1	
Taper Length (ft)		25		
Lane Util. Factor	0.95	0.97	0.95	
Frt		0.997		
Flt Protected		0.953		
Satd. Flow (prot)	0	3741	0	
Flt Permitted		0.953		
Satd. Flow (perm)	0	3741	0	
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)		30		
Link Distance (ft)		826		
Travel Time (s)		18.8		
Peak Hour Factor	0.89	0.89	0.89	
Heavy Vehicles (%)	3%	3%	2%	
Parking (#/hr)				
Adj. Flow (vph)	42	908	18	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	968	0	
Enter Blocked Intersection	No	No	No	
Lane Alignment	Left	Left	Right	
Median Width(ft)		46		
Link Offset(ft)		0		
Crosswalk Width(ft)		16		
Two way Left Turn Lane				
Headway Factor	0.85	0.88	0.85	
Turning Speed (mph)	15	15	9	
Number of Detectors	1	1		
Detector Template	Left	Left		
Leading Detector (ft)	20	20		
Trailing Detector (ft)	0	0		
Detector 1 Position(ft)	0	0		
Detector 1 Size(ft)	20	20		
Detector 1 Type	Cl+Ex	Cl+Ex		
Detector 1 Channel				
Detector 1 Extend (s)	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type	Perm	Perm		

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court

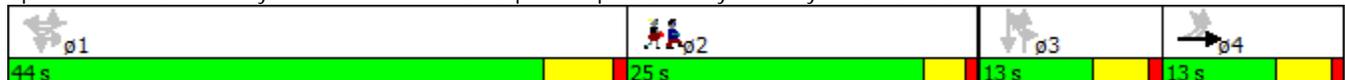


Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Protected Phases			4									
Permitted Phases	4	4		1			3	3		3	3	
Detector Phase	4	4	4	1			3	3		3	3	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	30.0			8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	36.0			13.0	13.0		13.0	13.0	
Total Split (s)	13.0	13.0	13.0	44.0			13.0	13.0		13.0	13.0	
Total Split (%)	13.7%	13.7%	13.7%	46.3%			13.7%	13.7%		13.7%	13.7%	
Maximum Green (s)	8.0	8.0	8.0	38.0			8.0	8.0		8.0	8.0	
Yellow Time (s)	4.0	4.0	4.0	5.0			4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0			1.0	1.0		1.0	1.0	
Lost Time Adjust (s)			0.0	0.0				0.0			0.0	
Total Lost Time (s)			5.0	6.0				5.0			5.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	Max			None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)			8.1	38.3			8.1			8.1	8.1	
Actuated g/C Ratio			0.12	0.57			0.12			0.12	0.12	
v/c Ratio			0.47	0.68			0.52			0.44	0.44	
Control Delay			44.9	13.3			38.6			10.9	10.9	
Queue Delay			0.0	0.0			0.0			0.0	0.0	
Total Delay			44.9	13.3			38.6			10.9	10.9	
LOS			D	B			D			B	B	
Approach Delay			44.9	13.3			38.6			10.9	10.9	
Approach LOS			D	B			D			B	B	

Intersection Summary

Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	67.4
Natural Cycle:	90
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	13.6
Intersection LOS:	B
Intersection Capacity Utilization:	86.3%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court





Lane Group	SEL2	SEL	SER	ø2
Protected Phases				2
Permitted Phases	1	1		
Detector Phase	1	1		
Switch Phase				
Minimum Initial (s)	30.0	30.0		7.0
Minimum Split (s)	36.0	36.0		25.0
Total Split (s)	44.0	44.0		25.0
Total Split (%)	46.3%	46.3%		26%
Maximum Green (s)	38.0	38.0		21.0
Yellow Time (s)	5.0	5.0		3.0
All-Red Time (s)	1.0	1.0		1.0
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0
Recall Mode	Max	Max		None
Walk Time (s)				7.0
Flash Dont Walk (s)				14.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)		38.3		
Actuated g/C Ratio		0.57		
v/c Ratio		0.46		
Control Delay		10.1		
Queue Delay		0.0		
Total Delay		10.1		
LOS		B		
Approach Delay		10.1		
Approach LOS		B		
Intersection Summary				

6: Hyde Park Ave & Wolcott Square/Neponset Valley Parkway & Wolcott Court



Movement	EBL2	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations			↕	↕				↕			↕	
Volume (vph)	11	5	32	0	607	47	42	11	11	63	5	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	9	9	9	16	16	16	14	14	14	16	16	16
Total Lost time (s)			5.0	6.0				5.0			5.0	
Lane Util. Factor			1.00	1.00				1.00			1.00	
Frt			1.00	0.86				0.98			0.97	
Flt Protected			0.98	1.00				0.97			0.97	
Satd. Flow (prot)			1468	1762				1861			1957	
Flt Permitted			0.62	1.00				0.78			0.80	
Satd. Flow (perm)			930	1762				1499			1613	
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.66	0.66	0.66	0.65	0.65	0.65
Adj. Flow (vph)	12	5	35	0	667	52	64	17	17	97	8	32
RTOR Reduction (vph)	0	0	0	56	0	0	0	8	0	0	121	0
Lane Group Flow (vph)	0	0	52	663	0	0	0	90	0	0	16	0
Heavy Vehicles (%)	2%	2%	2%	2%	6%	2%	3%	3%	3%	2%	2%	6%
Parking (#/hr)			2									
Turn Type	Perm	Perm	NA	NA			custom	NA		custom	NA	
Protected Phases			4									
Permitted Phases	4	4		1			3	3		3	3	
Actuated Green, G (s)			6.2	38.3				8.1			8.1	
Effective Green, g (s)			6.2	38.3				8.1			8.1	
Actuated g/C Ratio			0.09	0.56				0.12			0.12	
Clearance Time (s)			5.0	6.0				5.0			5.0	
Vehicle Extension (s)			3.0	3.0				3.0			3.0	
Lane Grp Cap (vph)			84	983				176			190	
v/s Ratio Prot												
v/s Ratio Perm			c0.06	c0.38				c0.06			0.01	
v/c Ratio			0.62	0.67				0.51			0.09	
Uniform Delay, d1			30.1	10.7				28.4			26.9	
Progression Factor			1.00	1.00				1.00			1.00	
Incremental Delay, d2			12.8	3.7				2.5			0.2	
Delay (s)			42.9	14.4				30.9			27.1	
Level of Service			D	B				C			C	
Approach Delay (s)			42.9	14.4				30.9			27.1	
Approach LOS			D	B				C			C	

Intersection Summary

HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	68.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	SEL2	SEL	SER
Lane Configurations		3W	
Volume (vph)	37	808	16
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	16	15	16
Total Lost time (s)		6.0	
Lane Util. Factor		0.97	
Frt		1.00	
Flt Protected		0.95	
Satd. Flow (prot)		3743	
Flt Permitted		0.95	
Satd. Flow (perm)		3743	
Peak-hour factor, PHF	0.89	0.89	0.89
Adj. Flow (vph)	42	908	18
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	0	968	0
Heavy Vehicles (%)	3%	3%	2%
Parking (#/hr)			
Turn Type	Perm	Perm	
Protected Phases			
Permitted Phases	1	1	
Actuated Green, G (s)		38.3	
Effective Green, g (s)		38.3	
Actuated g/C Ratio		0.56	
Clearance Time (s)		6.0	
Vehicle Extension (s)		3.0	
Lane Grp Cap (vph)		2089	
v/s Ratio Prot			
v/s Ratio Perm		0.26	
v/c Ratio		0.46	
Uniform Delay, d1		9.0	
Progression Factor		1.00	
Incremental Delay, d2		0.7	
Delay (s)		9.8	
Level of Service		A	
Approach Delay (s)		9.8	
Approach LOS		A	
Intersection Summary			

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2021 Build Mitigated PM Peak Hour

	↑	↖	↙	↓	↘	↗
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↗		↖	↗	↘	
Volume (vph)	752	34	75	625	156	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	150		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.928	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1817	0	1687	1863	1666	0
Flt Permitted			0.950		0.977	
Satd. Flow (perm)	1817	0	1687	1863	1666	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	336			386	167	
Travel Time (s)	7.6			8.8	3.8	
Peak Hour Factor	0.87	0.87	0.94	0.94	0.79	0.79
Heavy Vehicles (%)	4%	2%	7%	2%	5%	2%
Adj. Flow (vph)	864	39	80	665	197	225
Shared Lane Traffic (%)						
Lane Group Flow (vph)	903	0	80	665	422	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	75.4%			ICU Level of Service D		
Analysis Period (min)	15					

Sprague Street Redevelopment Project
7: Milton Street & Industrial Drive

2021 Build Mitigated PM Peak Hour

	↑	↖	↙	↓	↘	↗
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↖		↙	↑	↘	
Volume (veh/h)	752	34	75	625	156	178
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.94	0.94	0.79	0.79
Hourly flow rate (vph)	864	39	80	665	197	225
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				386		
pX, platoon unblocked						
vC, conflicting volume			903		1708	884
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			903		1708	884
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			89		0	35
cM capacity (veh/h)			732		88	344
Direction, Lane #	NB 1	SB 1	SB 2	NW 1		
Volume Total	903	80	665	423		
Volume Left	0	80	0	197		
Volume Right	39	0	0	225		
cSH	1700	732	1700	145		
Volume to Capacity	0.53	0.11	0.39	2.91		
Queue Length 95th (ft)	0	9	0	969		
Control Delay (s)	0.0	10.5	0.0	924.7		
Lane LOS		B		F		
Approach Delay (s)	0.0	1.1		924.7		
Approach LOS				F		
Intersection Summary						
Average Delay			189.2			
Intersection Capacity Utilization			75.4%		ICU Level of Service	D
Analysis Period (min)			15			

Appendix B

Energy Model Reports

MEMORANDUM

Date:	June 29 th , 2018		
To:	Joel Bargmann	Company:	BH+A Architects
From:	Casey Archacki	Phone #:	(617) – 350 – 0450
Project Name:	36-70 Sprague Street (Building 1)	Project #:	18117
cc:	Zbigniew Wozny		

Joel,

The following report and supporting documentation is for Building 1.

As requested, we have assessed the new building site known as 36-70 Sprague Street. The site consists of 4 individual residential building structures, with a single garage located below all of the buildings. The garage is split into two pieces, the north side and the south side. The city of Boston, MA adopted the latest Climate Resiliency Checklist in October of 2017. Per Article 37 as issued by the Boston Planning & Development, the City of Boston requires all structures larger than 50,000 SF to have an analysis done in accordance with the Climate Resiliency Checklist. To comply with a portion of the checklist, an energy model has been completed based on the code minimums in the 9th Edition of the Massachusetts Building Code (International Energy Conservation 2015). The building code minimums are also in line with ASHRE 90.1-2013. The efficiency of the mechanical equipment and lighting have been estimated in the proposed design.

This residential structure is estimated to be 139,900 SF. It contains 5-stories of residential floors with mixed use on first floor.

The proposed systems for the multi-family building include fan-coil units with roof-mounted air-cooled condensing units serving the apartments. The domestic hot water is generated by tank-less water heaters, which serve both the domestic water requirements for the space as well as the space heating. All of the common corridor spaces as well as the clubhouse spaces are served by condensing gas-fired air-handling units with split DX cooling coils.

Since the floor plans were not fully developed at the time of this report, the spaces descriptions are limited in the supporting documents.

The following assumptions were used to estimate the annual energy savings of the proposed building:

1. Night setback is included. Included in the program the hours of operation for week days and weekends.
2. Apartment Appliances were included in the annual energy assumptions
3. The utility rates were provided by the U.S. Energy Information Administration and are the following:

1. The electrical rate (no customer charge) of \$0.1892/KWhr (Residential Rate)
2. The natural gas rate (no customer charge) of \$1.375/Therm (Residential Rate)
4. A lighting load was included. The apartments were assumed to have the code maximum of 0.30 W/Sq. Ft.
5. Window shading devices were not used.
6. Equipment maintenance cost was not included.
7. Common area energy costs were not included.
8. Cost of water was not included
9. The cost of heating the domestic hot water was included. The efficiency of the water heater was assumed as 95%.
10. The cooling efficiency for the apartment fan-coil units was assumed to SEER = 14. Since the efficiency of the domestic water heater serves the space heating, the efficiency is the same at 95%
11. It was assumed there would be 2 people per bedroom in every apartment.
12. Since the elevations of the building were not fully developed, it was assumed the exterior walls had an estimated window to wall ratio of 40%.
13. It is assumed there are no skylights on the roof of the building.
14. The U-values from the building construction for the walls, windows, and floor, based on IECC 2015 include the following:
 1. The U-value for the walls = 0.055
 2. The U-value for the roof = 0.033
 3. The U-value for the windows = 0.032
 4. The SHGC for the windows = 0.40
 5. The Shading Coefficient for the windows = 0.46
 6. The U-Value for the floor = 0.1
15. 2-Speed exhaust fans were assumed to be in all the bathrooms.
16. It is assumed the apartments were provided with re-circulation style kitchen hoods.
17. The dryer was assumed to exhaust 200 CFM.
18. The thermostat set point shall be 75 °F in the cooling season and 70 °F in the heating season.
19. In all the non-residential spaces it is assumed they were served with gas-fired air-handlers. These air-handlers have an efficiency of SEER 14.0 in the cooling mode and 88% efficient in the heating mode.

The final energy savings for Building 1 was 12%.

The minimum energy savings listed Appendix AA of the Massachusetts building code is 10% when compared to a model generated by Appendix G of ASHRAE 90.1-2013.

The baseline model includes all the components listed in ASHRAE 90.1-2013 with an exceptional calculation performed for the lighting within the dwelling units. The exceptional calculation comes from the New York State Energy Research and Development Authority (NYSERDA). In this exceptional calculation it is assumed the baseline lighting and proposed lighting is energized for 2.34 hours per day. The baseline lighting is 2.0 Watts/Sq. Ft.

The schedules for all of the components in both the baseline model and proposed model are modeled identically.

Due to the limits of the TRACE 700 program, which was used for modeling the building, the gas consumed by the domestic hot water units is lumped into the value highlighted as Space Heating – Gas on all supporting documents.

The supporting documentation includes the general project information which contains a list of the spaces and their associated areas, the modeling input data which includes all of the data in the baseline models and the proposed model, and a summarization of the output sheets.

If you require any additional information, please contact me.

Regards,

Casey Archacki, PE
HVAC Engineer

Wozny/Barbar & Associates, Inc.



Building 1
29,603 sf

Building 2
23,387 sf

WorkShare
2,291 sf

Building 4
17,387 sf

Building 3
15,230 sf

Sprague Street

Sprague Pond

potential (30) parking spaces

gate for fire lane access

dog run

Sprague Street

Site Plan

April 14, 2018



Energy Cost Budget / PRM Summary

By WBA

Project Name:	Date: June 26, 2018
City:	Weather Data: Boston, Massachusetts

Note: The percentage displayed for the "Proposed/ Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

		* Alt-2 ASHRAE Baseline 901-13			Alt-1 Building 1 Proposed		
		Energy 10 ⁶ Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10 ⁶ Btu/yr	Proposed / Base %	Peak kBtuh
Lighting - Conditioned	Electricity	615.9	8	234	302.4	49	128
Space Heating	Electricity	21.2	0	3	50.6	239	9
	Gas	5,614.0	77	1,931	4,944.4	88	1,738
Space Cooling	Electricity	791.9	11	633	619.0	78	584
Pumps	Electricity	10.7	0	1	56.3	525	11
Heat Rejection	Electricity	53.6	1	43	33.9	63	43
Fans - Conditioned	Electricity	206.9	3	97	116.6	56	59
Total Building Consumption		7,314.1			6,123.2		

		* Alt-2 ASHRAE Baseline 901-13	Alt-1 Building 1 Proposed
Total	Number of hours heating load not met	0	0
	Number of hours cooling load not met	0	0

		* Alt-2 ASHRAE Baseline 901-13		Alt-1 Building 1 Proposed	
		Energy 10 ⁶ Btu/yr	Cost/yr \$/yr	Energy 10 ⁶ Btu/yr	Cost/yr \$/yr
Electricity		1,700.2	0	1,178.9	0
Gas		5,614.0	77,192	4,944.4	67,985
Total		7,314	77,192	6,123	67,985

LEED Energy Performance Summary Report

By WBA

Section 1.1 - General Information

Simulation Program:	TRACE™ 700 v6.3.4
Principle Heating Source:	Electric
Energy Code Used:	ASHRAE 90.1-2013
Weather File:	Boston, Massachusetts (Reduced Year)
Climate Zone:	5A
New Construction Percent:	100 %
Existing Renovation Percent:	0 %
Quantity of Floors:	1
Proposed:	Alternative 1 - Building 1 Proposed
Baseline:	Alternative 2 - ASHRAE Baseline 901-13 Climate Zone 5A

Section 1.2 - Space Summary

Building Use (Occupancy Type)	Space Area (ft²)	Regularly Occupied Area (ft²)	Unconditioned Area (ft²)
Restaurant	6,887.00	6,887.00	0.00
Multi-Family	127,358.00	127,358.00	0.00
lounge	3,300.00	3,300.00	0.00
Office	1,000.00	1,000.00	0.00
Lobby	1,350.00	1,350.00	0.00
Total	139,895.00	139,895.00	0.00

Section 1.3 - Advisory Messages

Advisory Messages	Baseline Building (0 deg rotation)	Proposed Building
Number of hours heating load not met:	0	0
Number of hours cooling load not met:	0	0
Total	0	0

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
Exterior Wall Construction	90.1-13 Min Wall Nonres Zone 5 U-factor: 0.055 Btu/h·ft ² ·°F	90.1-13 Min Wall Nonres Zone 5 U-factor: 0.055 Btu/h·ft ² ·°F
Roof Construction	90.1-13 Min Roof Nonres Zone 4-6 U-factor: 0.033 Btu/h·ft ² ·°F Reflectivity: 0.30	90.1-13 Min Roof Nonres Zone 4-6 U-factor: 0.032 Btu/h·ft ² ·°F Reflectivity: 0.30
Window-to-gross wall ratio	40.0 %	40.0 %
Fenestration Type	90.1-2013 Window Zone 5-6 Nonmetal Fr U-factor: 0.320 Btu/h·ft ² ·°F SHGC: 0.40 Visible Transmissivity: 0.440	90.1-2013 Window Zone 5-6 Nonmetal Fr U-factor: 0.320 Btu/h·ft ² ·°F SHGC: 0.40 Visible Transmissivity: 0.440
Interior Light Power Density	Lighting Compliance: Space-By-Space Method Daylighting Controls: No Building: 0.30 W/ft ²	Lighting Compliance: Space-By-Space Method Daylighting Controls: No Building: 0.55 W/ft ²
Interior Light Power Density	Room Type: Restaurant - 0.30 W/ft ² Multi-Family - 0.30 W/ft ² lounge - 0.30 W/ft ² Office - 0.30 W/ft ² Lobby - 0.30 W/ft ²	Room Type: Restaurant - 0.95 W/ft ² Multi-Family - 0.51 W/ft ² lounge - 1.01 W/ft ² Office - 0.81 W/ft ² Lobby - 0.90 W/ft ²
HVAC System Type	F1 Restaurant Fan Coil Supply vol: 4167 cfm Fan power: 0.90 kW	PTAC System 1 - 2007/2010 - Packaged Terminal Air Conditioner Supply vol: 103405 cfm Fan power: 31.02 kW
HVAC System Type	F3-4 MF South Fan Coil Supply vol: 13553 cfm Fan power: 2.27 kW	
HVAC System Type	F2 MF South Fan Coil Supply vol: 6685 cfm Fan power: 1.12 kW	
HVAC System Type	F1 MF South Fan Coil Supply vol: 864 cfm Fan power: 0.14 kW	

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
HVAC System Type	F5 MF Center Fan Coil Supply vol: 7426 cfm Fan power: 1.24 kW	
HVAC System Type	F2 Restaurant Fan Coil Supply vol: 1305 cfm Fan power: 0.27 kW	
HVAC System Type	F1 Lounge Fan Coil Supply vol: 3721 cfm Fan power: 0.66 kW	
HVAC System Type	F2-4 MF Center Fan Coil Supply vol: 21145 cfm Fan power: 3.54 kW	
HVAC System Type	F5 MF South Fan Coil Supply vol: 8473 cfm Fan power: 1.42 kW	
HVAC System Type	F1 Leasing Fan Coil Supply vol: 3361 cfm Fan power: 0.60 kW	
HVAC System Type	F1 Lobby Fan Coil Supply vol: 2441 cfm Fan power: 0.44 kW	
HVAC System Type	F1 MF Center Fan Coil Supply vol: 7403 cfm Fan power: 1.24 kW	
HVAC System Type	F5 MF North Fan Coil Supply vol: 4213 cfm Fan power: 0.70 kW	
HVAC System Type	F2-4 MF North Fan Coil Supply vol: 12339 cfm Fan power: 2.06 kW	

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
HVAC System Type	F1 MF North Fan Coil Supply vol: 4419 cfm Fan power: 0.74 kW	
Cooling Equipment	Plant: Aquatherm Type: Condensing Unit Air Cooled - Recip Category: Air-cooled unitary Clg Cap: Design Engy Rate: 11.5 EER (compressor only)	Plant: PTAC Type: 90.1-13 Min Room AC w-o louvers <8 MBh Category: Air-cooled unitary Clg Cap: Design Engy Rate: 9 Packaged EER
Cooling Equipment	Plant: GF DX Type: Default air-cooled unitary Category: Air-cooled unitary Clg Cap: Design Engy Rate: 11.5 Packaged EER	
Heat Rejection Parameters	Type: 90.1 Min Air Cooled Condenser HR Type: Air-cooled condenser Energy Consumption: 0.055290 kW/ton Quantity: 2	Type: 90.1 Min Air Cooled Condenser HR Type: Air-cooled condenser Energy Consumption: 0.055290 kW/ton
Heating Equipment	Plant: Proposed DHW Type: Gas Fired Hot Water Boiler Category: Boiler Capacity: Design Energy Rate: 95 Percent efficient	Plant: Baseline DHW Type: 90.1-13 Min Boiler, HW, Gas >2500 MBh Category: Boiler Capacity: Design Energy Rate: 80 Percent efficient
Heating Equipment	Plant: FCU Heat Type: Gas Fired Hot Water Boiler Category: Boiler Capacity: Design Energy Rate: 94 Percent efficient	Plant: HEAT COIL Type: 90.1-13 Min Boiler, HW, Gas <300 MBh Category: Boiler Capacity: Design Energy Rate: 80 Percent efficient
Heating Equipment	Plant: GF Type: Default gas-fired heat exchanger Category: Gas-fired heat exchanger Capacity: Design Energy Rate: 88 Percent efficient	
Hot Water Pump	Type: Heating water circ pump Full load consumption: 19 Watt/gpm Quantity: 2	Type: Heating water circ pump Full load consumption: 19 Watt/gpm
Hot Water Pump		Type: Heating water circ pump Full load consumption: 0 ft water
Thermal Energy Storage	No	No

LEED Energy Performance Summary Report

By WBA

Section 1.5 - Energy Type Summary (Proposed)

Energy Type	Utility Rate Description	Units
Electric Consumption	AIE US Commercial Q2 2017	kWh
Electric Demand	AIE US Commercial Q2 2017	kW
Gas	Mass Gas	therms

LEED Energy Performance Summary Report

By WBA

Section 1.6 Baseline Performance - Performance Rating Method Compliance

End Use	Process	Baseline Design Energy Type	Units of Annual Energy & Peak Demand	Baseline (0 deg rotation)	Baseline (90 deg rotation)	Baseline (180 deg rotation)	Baseline (270 deg rotation)	Baseline Design
Space Heating	No	Electricity	Energy Use (kWh)	6,268	6,215	6,173	6,220	6,219
			Demand (kW)	1.0	1.0	1.0	1.0	1.0
Space Cooling	No	Electricity	Energy Use (kWh)	232,880	231,031	231,176	233,029	232,029
			Demand (kW)	183.8	185.3	181.2	191.1	185.4
Pumps	No	Electricity	Energy Use (kWh)	3,147	3,147	3,147	3,147	3,147
			Demand (kW)	0.4	0.4	0.4	0.4	0.4
Heat Rejection	No	Electricity	Energy Use (kWh)	15,747	15,646	15,645	15,755	15,698
			Demand (kW)	12.5	12.6	12.4	13.0	12.6
Fans - Interior	No	Electricity	Energy Use (kWh)	59,182	60,288	62,689	60,305	60,616
			Demand (kW)	28.1	28.9	29.2	27.4	28.4
Interior Lighting	No	Electricity	Energy Use (kWh)	180,449	180,449	180,449	180,449	180,449
			Demand (kW)	68.6	68.6	68.6	68.6	68.6
Space Heating	No	Gas	Energy Use (therms)	56,280	56,113	55,888	56,277	56,139
			Demand (therms)	19.5	19.5	18.6	19.5	19.3
Baseline Energy Totals:			Energy Use (MMBtu/yr)	7,326.6	7,306.8	7,292.8	7,330.4	7,314.1
			Process (MMBtu/yr)	0.0	0.0	0.0	0.0	0.0

Section 1.6 Proposed Performance - Performance Rating Method Compliance

End Use	Process	Proposed Design Energy Type	Units of Annual Energy & Peak Demand	Proposed Design
Space Heating	No	Electricity	Energy Use (kWh)	14,837
			Demand (kW)	2.8
Space Cooling	No	Electricity	Energy Use (kWh)	181,356
			Demand (kW)	171.1
Pumps	No	Electricity	Energy Use (kWh)	16,510
			Demand (kW)	3.3
Heat Rejection	No	Electricity	Energy Use (kWh)	9,919
			Demand (kW)	12.6
Fans - Interior	No	Electricity	Energy Use (kWh)	34,175
			Demand (kW)	17.3

LEED Energy Performance Summary Report

By WBA

Section 1.6 Proposed Performance - Performance Rating Method Compliance

End Use	Process	Proposed Design Energy Type	Units of Annual Energy & Peak Demand	Proposed Design
Interior Lighting	No	Electricity	Energy Use (kWh)	88,608
			Demand (kW)	37.5
Space Heating	No	Gas	Energy Use (therms)	49,444
			Demand (therm)	17.4
Proposed Energy Totals:			Energy Use (MMBtu/yr)	6,123.22
			Process (MMBtu/yr)	0.00

LEED Energy Performance Summary Report

By WBA

Table 1.6 Table EAp2-9 Energy Cost Summary (Manual Cost Input) - Baseline Case

Energy Type	Baseline Cost (0° rotation)	Baseline Cost (90° rotation)	Baseline Cost (180° rotation)	Baseline Cost (270° rotation)	Average
Gas	\$77,385	\$77,155	\$76,846	\$77,381	\$77,192

Table 1.6 Table EAp2-9 Energy Cost Summary (Manual Cost Input) - Proposed Case

Energy Type	Proposed Cost
Gas	\$67,985

Proposed building economic cost improvement over baseline building: 11.92 %

MEMORANDUM

Date:	June 29 th , 2018		
To:	Joel Bargmann	Company:	BH+A Architects
From:	Casey Archacki	Phone #:	(617) – 350 – 0450
Project Name:	36-70 Sprague Street (Building 2)	Project #:	18117
cc:	Zbigniew Wozny		

Joel,

The following report and supporting documentation is for Building 2.

As requested, we have assessed the new building site known as 36-70 Sprague Street. The site consists of 4 individual residential building structures, with a single garage located below all of the buildings. The garage is split into two pieces, the north side and the south side. The city of Boston, MA adopted the latest Climate Resiliency Checklist in October of 2017. Per Article 37 as issued by the Boston Planning & Development, the City of Boston requires all structures larger than 50,000 SF to have an analysis done in accordance with the Climate Resiliency Checklist. To comply with a portion of the checklist, an energy model has been completed based on the code minimums in the 9th Edition of the Massachusetts Building Code (International Energy Conservation 2015). The building code minimums are also in line with ASHRE 90.1-2013. The efficiency of the mechanical equipment and lighting have been estimated in the proposed design.

This residential structure is estimated to be 108,700 SF. It contains 5-stories of residential floors with mixed use on first floor including a clubhouse

The proposed systems for the multi-family building include fan-coil units with roof-mounted air-cooled condensing units serving the apartments. The domestic hot water is generated by tank-less water heaters, which serve both the domestic water requirements for the space as well as the space heating. All of the common corridor spaces as well as the clubhouse spaces are served by condensing gas-fired air-handling units with split DX cooling coils served by air-cooled condensing units.

Since the floor plans were not fully developed at the time of this report, the spaces descriptions are limited in the supporting documents.

The following assumptions were used to estimate the annual energy savings of the proposed building:

1. Night setback is included. Included in the program the hours of operation for week days and weekends.
2. Apartment Appliances were included in the annual energy assumptions
3. The utility rates were provided by the U.S. Energy Information Administration and are the following:

1. The electrical rate (no customer charge) of \$0.1892/KWhr (Residential Rate)
2. The natural gas rate (no customer charge) of \$1.375/Therm (Residential Rate)
4. A lighting load was included. The apartments were assumed to have the code maximum of 0.30 W/Sq. Ft.
5. Window shading devices were not used.
6. Equipment maintenance cost was not included.
7. Common area energy costs were not included.
8. Cost of water was not included
9. The cost of heating the domestic hot water was included. The efficiency of the water heater was assumed as 95%.
10. The cooling efficiency for the apartment fan-coil units was assumed to SEER = 14. Since the efficiency of the domestic water heater serves the space heating, the efficiency is the same at 95%
11. It was assumed there would be 2 people per bedroom in every apartment.
12. Since the elevations of the building were not fully developed, it was assumed the exterior walls had an estimated window to wall ratio of 40%.
13. It is assumed there are no skylights on the roof of the building.
14. The U-values from the building construction for the walls, windows, and floor, based on IECC 2015 include the following:
 1. The U-value for the walls = 0.055
 2. The U-value for the roof = 0.033
 3. The U-value for the windows = 0.032
 4. The SHGC for the windows = 0.40
 5. The Shading Coefficient for the windows = 0.46
 6. The U-Value for the floor = 0.1
15. 2-Speed exhaust fans were assumed to be in all the bathrooms.
16. It is assumed the apartments were provided with re-circulation style kitchen hoods.
17. The dryer was assumed to exhaust 200 CFM.
18. The thermostat set point shall be 75 °F in the cooling season and 70 °F in the heating season.
19. In all the non-residential spaces it is assumed they were served with gas-fired air-handlers. These air-handlers have an efficiency of SEER 14.0 in the cooling mode and 88% efficient in the heating mode.

The final energy savings for Building 2 was 16.8%.

The minimum energy savings listed Appendix AA of the Massachusetts building code is 10% when compared to a model generated by Appendix G of ASHRAE 90.1-2013.

The baseline model includes all the components listed in ASHRAE 90.1-2013 with an exceptional calculation performed for the lighting within the dwelling units. The exceptional calculation comes from the New York State Energy Research and Development Authority

(NYSERDA). In this exceptional calculation it is assumed the baseline lighting and proposed lighting is energized for 2.34 hours per day. The baseline lighting is 2.0 Watts/Sq. Ft. The schedules for all of the components in both the baseline model and proposed model are modeled identically.

Due to the limits of the TRACE 700 program, which was used for modeling the building, the gas consumed by the domestic hot water units is lumped into the value highlighted as Space Heating – Gas on all supporting documents.

The supporting documentation includes the general project information which contains a list of the spaces and their associated areas, the modeling input data which includes all of the data in the baseline models and the proposed model, and a summarization of the output sheets.

If you require any additional information, please contact me.

Regards,

Casey Archacki, PE
HVAC Engineer

Wozny/Barbar & Associates, Inc.



Building 1
29,603 sf

Building 2
23,387 sf

WorkShare
2,291 sf

Building 4
17,387 sf

Building 3
15,230 sf

Sprague Pond

Sprague Street

potential (30) parking spaces

gate for fire lane access

dog run

Sprague Street

Site Plan

April 14, 2018



Energy Cost Budget / PRM Summary

By WBA

Project Name:	Date: June 26, 2018
City:	Weather Data: Boston, Massachusetts

Note: The percentage displayed for the "Proposed/ Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

		* Alt-2 ASHRAE Baseline 901-13			Alt-1 Building 1 Proposed		
		Energy 10 ⁶ Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10 ⁶ Btu/yr	Proposed / Base %	Peak kBtuh
Lighting - Conditioned	Electricity	540.5	8	179	297.0	55	103
Space Heating	Electricity	36.8	1	8	32.7	89	5
	Gas	5,268.0	73	1,516	4,382.1	83	1,293
Space Cooling	Electricity	635.3	9	547	453.4	71	351
Pumps	Electricity	8.6	0	1	31.0	361	5
Heat Rejection	Electricity	89.2	1	71	35.6	40	29
Fans - Conditioned	Electricity	622.0	9	72	94.7	15	47
Total Building Consumption		7,200.4			5,326.6		

		* Alt-2 ASHRAE Baseline 901-13	Alt-1 Building 1 Proposed
Total	Number of hours heating load not met	0	0
	Number of hours cooling load not met	0	0

		* Alt-2 ASHRAE Baseline 901-13		Alt-1 Building 1 Proposed	
		Energy 10 ⁶ Btu/yr	Cost/yr \$/yr	Energy 10 ⁶ Btu/yr	Cost/yr \$/yr
Electricity		1,932.4	0	944.5	0
Gas		5,268.0	72,435	4,382.1	60,254
Total		7,200	72,435	5,327	60,254

LEED Energy Performance Summary Report

By WBA

Section 1.1 - General Information

Simulation Program:	TRACE™ 700 v6.3.4
Principle Heating Source:	Fossil/Electric Hybrid
Energy Code Used:	ASHRAE 90.1-2013
Weather File:	Boston, Massachusetts (Reduced Year)
Climate Zone:	5A
New Construction Percent:	100 %
Existing Renovation Percent:	0 %
Quantity of Floors:	1
Proposed:	Alternative 1 - Building 1 Proposed
Baseline:	Alternative 2 - ASHRAE Baseline 901-13 Climate Zone 5A

Section 1.2 - Space Summary

Building Use (Occupancy Type)	Space Area (ft²)	Regularly Occupied Area (ft²)	Unconditioned Area (ft²)
Multi-Family	97,241.00	97,241.00	0.00
Gym	7,712.00	7,712.00	0.00
Parking	2,730.00	2,730.00	0.00
Lobby	1,000.00	1,000.00	0.00
Total	108,683.00	108,683.00	0.00

Section 1.3 - Advisory Messages

Advisory Messages	Baseline Building (0 deg rotation)	Proposed Building
Number of hours heating load not met:	0	0
Number of hours cooling load not met:	0	0
Total	0	0

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
Exterior Wall Construction	90.1-13 Min Wall Nonres Zone 5 U-factor: 0.055 Btu/h-ft ² ·°F	90.1-13 Min Wall Nonres Zone 5 U-factor: 0.055 Btu/h-ft ² ·°F
Roof Construction	90.1-13 Min Roof Nonres Zone 4-6 U-factor: 0.033 Btu/h-ft ² ·°F Reflectivity: 0.30	90.1-13 Min Roof Nonres Zone 4-6 U-factor: 0.032 Btu/h-ft ² ·°F Reflectivity: 0.30
Window-to-gross wall ratio	40.0 %	40.0 %
Fenestration Type	90.1-2013 Window Zone 5-6 Nonmetal Fr U-factor: 0.320 Btu/h-ft ² ·°F SHGC: 0.40 Visible Transmissivity: 0.440	90.1-2013 Window Zone 5-6 Nonmetal Fr U-factor: 0.320 Btu/h-ft ² ·°F SHGC: 0.40 Visible Transmissivity: 0.440
Interior Light Power Density	Lighting Compliance: Space-By-Space Method Daylighting Controls: No Building: 0.31 W/ft ²	Lighting Compliance: Space-By-Space Method Daylighting Controls: No Building: 0.53 W/ft ²
Interior Light Power Density	Room Type: Multi-Family - 0.30 W/ft ² Gym - 0.30 W/ft ² Parking - 0.50 W/ft ² Lobby - 0.30 W/ft ²	Room Type: Multi-Family - 0.51 W/ft ² Gym - 0.84 W/ft ² Parking - 0.21 W/ft ² Lobby - 0.90 W/ft ²
HVAC System Type	F5 MF Center Fan Coil Supply vol: 5826 cfm Fan power: 1.04 kW	PTAC System 1 - 2007/2010 - Packaged Terminal Air Conditioner Supply vol: 74498 cfm Fan power: 22.35 kW
HVAC System Type	F1 Gym Fan Coil Supply vol: 4336 cfm Fan power: 0.80 kW	
HVAC System Type	F5 MF South Fan Coil Supply vol: 6469 cfm Fan power: 1.73 kW	
HVAC System Type	F1 MF North Fan Coil Supply vol: 4506 cfm Fan power: 0.90 kW	

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
HVAC System Type	F2 Gym Fan Coil Supply vol: 930 cfm Fan power: 0.17 kW	
HVAC System Type	F5 MF North Fan Coil Supply vol: 4731 cfm Fan power: 0.84 kW	
HVAC System Type	F1 Lobby Fan Coil Supply vol: 1677 cfm Fan power: 0.32 kW	
HVAC System Type	F2 MF South Fan Coil Supply vol: 4524 cfm Fan power: 0.81 kW	
HVAC System Type	F2 Storage Fan Coil Supply vol: 477 cfm Fan power: 0.08 kW	
HVAC System Type	F4 MF Center Fan Coil Supply vol: 4860 cfm Fan power: 1.00 kW	
HVAC System Type	F3 MF Center Fan Coil Supply vol: 4544 cfm Fan power: 0.81 kW	
HVAC System Type	F2-4 MF North Fan Coil Supply vol: 13915 cfm Fan power: 2.48 kW	
HVAC System Type	F3-4 MF South Fan Coil Supply vol: 10616 cfm Fan power: 1.89 kW	
HVAC System Type	F1 MF South Fan Coil Supply vol: 4941 cfm Fan power: 0.88 kW	

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
Cooling Equipment	Plant: Aquatherm Type: 90.1-13 Min AC SS AllHeat <65 MBh Category: Air-cooled unitary Clg Cap: Design Engy Rate: 11.5 Packaged EER	Plant: PTAC DX Type: Default air-cooled unitary Category: Air-cooled unitary Clg Cap: Design Engy Rate: 1.38 kW/ton
Cooling Equipment	Plant: GF DX Type: 90.1-13 Min AC SS/SP Elec 240-760 MBh Category: Air-cooled unitary Clg Cap: Design Engy Rate: 11.5 Packaged EER	
Heat Rejection Parameters	Type: 90.1 Min Air Cooled Condenser HR Type: Air-cooled condenser Energy Consumption: 0.055290 kW/ton Quantity: 2	Type: Condenser fan for Heat Pump HR Type: Air-cooled condenser Energy Consumption: 0.120000 kW/ton
Heating Equipment	Plant: Proposed DHW Type: Gas Fired Hot Water Boiler Category: Boiler Capacity: Design Energy Rate: 95 Percent efficient	Plant: PTAC HEAT Type: Default boiler Category: Boiler Capacity: Design Energy Rate: 83.3 Percent efficient
Heating Equipment	Plant: GF Type: 90.1-13 Min Gas Furnace <225 MBh Category: Gas-fired heat exchanger Capacity: Design Energy Rate: 80 Percent efficient	Plant: Baseline DHW Type: 90.1-13 Min Boiler, HW, Gas >2500 MBh Category: Boiler Capacity: Design Energy Rate: 80 Percent efficient
Heating Equipment	Plant: FCU Heat Type: 90.1-13 Min Boiler NatD Gas 300-2500 MBh Category: Boiler Capacity: Design Energy Rate: 94 Percent efficient	
Hot Water Pump	Type: Heating water circ pump Full load consumption: 19 Watt/gpm Quantity: 2	Type: Heating water circ pump Full load consumption: 0 kW
Hot Water Pump		Type: Heating water circ pump Full load consumption: 19 Watt/gpm
Thermal Energy Storage	No	No

LEED Energy Performance Summary Report

By WBA

Section 1.5 - Energy Type Summary (Proposed)

Energy Type	Utility Rate Description	Units
Electric Consumption	AIE US Commercial Q2 2017	kWh
Electric Demand	AIE US Commercial Q2 2017	kW
Gas	Mass Gas	therms

LEED Energy Performance Summary Report

By WBA

Section 1.6 Baseline Performance - Performance Rating Method Compliance

End Use	Process	Baseline Design Energy Type	Units of Annual Energy & Peak Demand	Baseline (0 deg rotation)	Baseline (90 deg rotation)	Baseline (180 deg rotation)	Baseline (270 deg rotation)	Baseline Design
Space Heating	No	Electricity	Energy Use (kWh)	11,084	10,866	10,533	10,681	10,791
			Demand (kW)	2.4	2.4	2.4	2.4	2.4
Space Cooling	No	Electricity	Energy Use (kWh)	186,926	183,085	188,122	186,453	186,146
			Demand (kW)	163.5	155.2	160.7	161.3	160.2
Pumps	No	Electricity	Energy Use (kWh)	2,510	2,510	2,510	2,510	2,510
			Demand (kW)	0.3	0.3	0.3	0.3	0.3
Heat Rejection	No	Electricity	Energy Use (kWh)	26,257	25,714	26,430	26,185	26,147
			Demand (kW)	20.8	20.6	21.4	20.5	20.8
Fans - Interior	No	Electricity	Energy Use (kWh)	192,162	173,992	190,191	172,685	182,257
			Demand (kW)	22.3	20.2	22.1	20.0	21.2
Interior Lighting	No	Electricity	Energy Use (kWh)	158,352	158,352	158,352	158,352	158,352
			Demand (kW)	52.6	52.6	52.6	52.6	52.6
Space Heating	No	Gas	Energy Use (therms)	52,854	52,840	52,509	52,516	52,680
			Demand (therms)	15.1	15.2	15.1	15.2	15.2
Baseline Energy Totals:			Energy Use (MMBtu/yr)	7,255.7	7,176.6	7,217.3	7,152.2	7,200.4
			Process (MMBtu/yr)	0.0	0.0	0.0	0.0	0.0

Section 1.6 Proposed Performance - Performance Rating Method Compliance

End Use	Process	Proposed Design Energy Type	Units of Annual Energy & Peak Demand	Proposed Design
Space Heating	No	Electricity	Energy Use (kWh)	9,592
			Demand (kW)	1.4
Space Cooling	No	Electricity	Energy Use (kWh)	132,857
			Demand (kW)	103.0
Pumps	No	Electricity	Energy Use (kWh)	9,074
			Demand (kW)	1.5
Heat Rejection	No	Electricity	Energy Use (kWh)	10,426
			Demand (kW)	8.6
Fans - Interior	No	Electricity	Energy Use (kWh)	27,754
			Demand (kW)	13.8

LEED Energy Performance Summary Report

By WBA

Section 1.6 Proposed Performance - Performance Rating Method Compliance

End Use	Process	Proposed Design Energy Type	Units of Annual Energy & Peak Demand	Proposed Design
Interior Lighting	No	Electricity	Energy Use (kWh)	87,028
			Demand (kW)	30.2
Space Heating	No	Gas	Energy Use (therms)	43,821
			Demand (therm)	12.9
Proposed Energy Totals:			Energy Use (MMBtu/yr)	5,326.57
			Process (MMBtu/yr)	0.00

LEED Energy Performance Summary Report

By WBA

Table 1.6 Table EAp2-9 Energy Cost Summary (Manual Cost Input) - Baseline Case

Energy Type	Baseline Cost (0° rotation)	Baseline Cost (90° rotation)	Baseline Cost (180° rotation)	Baseline Cost (270° rotation)	Average
Gas	\$72,675	\$72,655	\$72,201	\$72,210	\$72,435

Table 1.6 Table EAp2-9 Energy Cost Summary (Manual Cost Input) - Proposed Case

Energy Type	Proposed Cost
Gas	\$60,254

Proposed building economic cost improvement over baseline building: 16.81 %

MEMORANDUM

Date:	June 29 th , 2018		
To:	Joel Bargmann	Company:	BH+A Architects
From:	Casey Archacki	Phone #:	(617) – 350 – 0450
Project Name:	36-70 Sprague Street (Building 3)	Project #:	18117
cc:	Zbigniew Wozny		

Joel,

The following report and supporting documentation is for Building 3.

As requested, we have assessed the new building site known as 36-70 Sprague Street. The site consists of 4 individual residential building structures, with a single garage located below all of the buildings. The garage is split into two pieces, the north side and the south side. The city of Boston, MA adopted the latest Climate Resiliency Checklist in October of 2017. Per Article 37 as issued by the Boston Planning & Development, the City of Boston requires all structures larger than 50,000 SF to have an analysis done in accordance with the Climate Resiliency Checklist. To comply with a portion of the checklist, an energy model has been completed based on the code minimums in the 9th Edition of the Massachusetts Building Code (International Energy Conservation 2015). The building code minimums are also in line with ASHRE 90.1-2013. The efficiency of the mechanical equipment and lighting have been estimated in the proposed design.

This residential structure is estimated to be 130,077 SF. It contains 8-stories of residential floors with clubhouse spaces on the first floor and second floor.

The proposed system for the both the apartment spaces and the common spaces is a water-source heat pump system with a complete hydronic piping system served from a main mechanical room. This main mechanical room includes building system pumps and cooling tower pumps. The supplemental heating for the building is provided by condensing gas-fired boilers. The supplemental cooling is provided by an open-cell cooling tower. The domestic hot water is generated by a central domestic hot water system. This system includes hot water boilers, in-direct storage tanks, and circulation pumps. It is assumed the ventilation air is ducted directly to each space with no energy recovery factors applied.

Since the floor plans were not fully developed at the time of this report, the spaces descriptions are limited in the supporting documents.

The following assumptions were used to estimate the annual energy savings of the proposed building:

1. Night setback is included. Included in the program the hours of operation for week days and weekends.
2. Apartment Appliances were included in the annual energy assumptions

3. The utility rates were provided by the U.S. Energy Information Administration and are the following:
 1. The electrical rate (no customer charge) of \$0.1892/KWhr (Residential Rate)
 2. The natural gas rate (no customer charge) of \$1.375/Therm (Residential Rate)
4. A lighting load was included. The apartments were assumed to have the code maximum of 0.30 W/Sq. Ft.
5. Window shading devices were not used.
6. Equipment maintenance cost was not included.
7. Common area energy costs were not included.
8. Cost of water was not included
9. The cost of heating the domestic hot water was included. The efficiency of the water heater was assumed as 95%.
10. The cooling efficiency for the water-source heat pump units is assumed to be an EER of 13. The heating efficiency of the units is assumed to be a COP of 4.3. These values are applicable to both the apartment spaces and the common area spaces.
11. It was assumed there would be 2 people per bedroom in every apartment.
12. Since the elevations of the building were not fully developed, it was assumed the exterior walls had an estimated window to wall ratio of 40%.
13. It is assumed there are no skylights on the roof of the building.
14. The U-values from the building construction for the walls, windows, and floor, based on IECC 2015 include the following:
 1. The U-value for the walls = 0.055
 2. The U-value for the roof = 0.033
 3. The U-value for the windows = 0.032
 4. The SHGC for the windows = 0.40
 5. The Shading Coefficient for the windows = 0.46
 6. The U-Value for the floor = 0.1
15. 2-Speed exhaust fans were assumed to be in all the bathrooms.
16. It is assumed the apartments were provided with re-circulation style kitchen hoods.
17. The dryer was assumed to exhaust 200 CFM.
18. The thermostat set point shall be 75 °F in the cooling season and 70 °F in the heating season.

The final energy savings for Building 3 was 24.1%.

The minimum energy savings listed Appendix AA of the Massachusetts building code is 10% when compared to a model generated by Appendix G of ASHRAE 90.1-2013.

The baseline model includes all the components listed in ASHRAE 90.1-2013 with an exceptional calculation performed for the lighting within the dwelling units. The exceptional calculation comes from the New York State Energy Research and Development Authority (NYSERDA). In this exceptional calculation it is assumed the baseline lighting and proposed lighting is energized for 2.34 hours per day. The baseline lighting is 2.0 Watts/Sq. Ft.

The schedules for all of the components in both the baseline model and proposed model are modeled identically.

Due to the limits of the TRACE 700 program, which was used for modeling the building, the gas consumed by the domestic hot water units is lumped into the value highlighted as Space Heating – Gas on all supporting documents.

The supporting documentation includes the general project information which contains a list of the spaces and their associated areas, the modeling input data which includes all of the data in the baseline models and the proposed model, and a summarization of the output sheets.

If you require any additional information, please contact me.

Regards,

Casey Archacki, PE
HVAC Engineer

Wozny/Barbar & Associates, Inc.



Building 1
29,603 sf

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2,291 sf

Building 4
17,387 sf

Building 3
15,230 sf

Sprague Street

Sprague Pond

potential (30) parking spaces

gate for fire lane access

dog run

Sprague Street

Site Plan

April 14, 2018



Energy Cost Budget / PRM Summary

By WBA

Project Name:	Date: June 26, 2018
City:	Weather Data: Boston, Massachusetts

Note: The percentage displayed for the "Proposed/ Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

		* Alt-2 ASHRAE Baseline 901-13			Alt-1 Building 3 Proposed		
		Energy 10 ⁶ Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10 ⁶ Btu/yr	Proposed / Base %	Peak kBtuh
Lighting - Conditioned	Electricity	655.5	8	286	354.6	54	165
Space Heating	Electricity	19.6	0	3	172.2	877	258
	Gas	5,954.9	70	2,137	4,519.3	76	1,467
Space Cooling	Electricity	769.6	9	674	727.7	95	563
Pumps	Electricity	26.5	0	7	79.8	301	67
Heat Rejection	Electricity	56.2	1	50	8.6	15	18
Fans - Conditioned	Electricity	1,050.6	12	128	152.8	15	78
Total Building Consumption		8,533.0			6,015.0		

		* Alt-2 ASHRAE Baseline 901-13	Alt-1 Building 3 Proposed
Total	Number of hours heating load not met	0	0
	Number of hours cooling load not met	0	0

		* Alt-2 ASHRAE Baseline 901-13		Alt-1 Building 3 Proposed	
		Energy 10 ⁶ Btu/yr	Cost/yr \$/yr	Energy 10 ⁶ Btu/yr	Cost/yr \$/yr
Electricity		2,578.0	0	1,495.7	0
Gas		5,954.9	81,880	4,519.3	62,140
Total		8,533	81,880	6,015	62,140

LEED Energy Performance Summary Report

By WBA

Section 1.1 - General Information

Simulation Program:	TRACE™ 700 v6.3.4
Principle Heating Source:	Fossil Fuel
Energy Code Used:	ASHRAE 90.1-2013
Weather File:	Boston, Massachusetts (Reduced Year)
Climate Zone:	5A
New Construction Percent:	100 %
Existing Renovation Percent:	0 %
Quantity of Floors:	1
Proposed:	Alternative 1 - Building 3 Proposed
Baseline:	Alternative 2 - ASHRAE Baseline 901-13 Climate Zone 5A

Section 1.2 - Space Summary

Building Use (Occupancy Type)	Space Area (ft²)	Regularly Occupied Area (ft²)	Unconditioned Area (ft²)
Multi-Family	174,597.00	174,597.00	0.00
lounge	3,620.00	3,620.00	0.00
Office	4,570.00	4,570.00	0.00
Lobby	380.00	380.00	0.00
Total	183,167.00	183,167.00	0.00

Section 1.3 - Advisory Messages

Advisory Messages	Baseline Building (0 deg rotation)	Proposed Building
Number of hours heating load not met:	0	0
Number of hours cooling load not met:	0	0
Total	0	0

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
Exterior Wall Construction	90.1-13 Min Wall Nonres Zone 5 U-factor: 0.055 Btu/h-ft ² ·°F	90.1-13 Min Wall Nonres Zone 5 U-factor: 0.055 Btu/h-ft ² ·°F
Exterior Wall Construction		90.1-10 Min Wall Nonres Zone 4-8 U-factor: 0.065 Btu/h-ft ² ·°F
Roof Construction	90.1-13 Min Roof Nonres Zone 4-6 U-factor: 0.032 Btu/h-ft ² ·°F Reflectivity: 0.30	90.1-13 Min Roof Nonres Zone 4-6 U-factor: 0.032 Btu/h-ft ² ·°F Reflectivity: 0.30
Window-to-gross wall ratio	40.0 %	40.0 %
Fenestration Type	90.1-2013 Window Zone 5-6 Nonmetal Fr U-factor: 0.320 Btu/h-ft ² ·°F SHGC: 0.40 Visible Transmissivity: 0.440	90.1-2013 Window Zone 5-6 Nonmetal Fr U-factor: 0.320 Btu/h-ft ² ·°F SHGC: 0.40 Visible Transmissivity: 0.440
Fenestration Type		90.1 Window Zone 5-6 Nonmetal Frame U-factor: 0.350 Btu/h-ft ² ·°F SHGC: 0.40 Visible Transmissivity: 0.900
Interior Light Power Density	Lighting Compliance: Space-By-Space Method Daylighting Controls: No Building: 0.30 W/ft ²	Lighting Compliance: Space-By-Space Method Daylighting Controls: No Building: 0.53 W/ft ²
Interior Light Power Density	Room Type: Multi-Family - 0.30 W/ft ² lounge - 0.30 W/ft ² Office - 0.30 W/ft ² Lobby - 0.30 W/ft ²	Room Type: Multi-Family - 0.51 W/ft ² lounge - 1.01 W/ft ² Office - 0.91 W/ft ² Lobby - 0.90 W/ft ²
HVAC System Type	F3-7 MF North Water Source Heat Pump Supply vol: 11953 cfm Fan power: 2.43 kW	PTAC System 1 - 2007/2010 - Packaged Terminal Air Conditioner Supply vol: 124778 cfm Fan power: 37.43 kW
HVAC System Type	F1 MF North Water Source Heat Pump Supply vol: 1895 cfm Fan power: 0.38 kW	

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
HVAC System Type	F1 Lounge Water Source Heat Pump Supply vol: 2963 cfm Fan power: 0.53 kW	
HVAC System Type	F5 MF North Water Source Heat Pump Supply vol: 3687 cfm Fan power: 0.66 kW	
HVAC System Type	F2 MF South Water Source Heat Pump Supply vol: 21738 cfm Fan power: 3.88 kW	
HVAC System Type	F1 Coffee Water Source Heat Pump Supply vol: 2333 cfm Fan power: 0.42 kW	
HVAC System Type	F1 MF Center Water Source Heat Pump Supply vol: 33655 cfm Fan power: 6.61 kW	
HVAC System Type	F1 MF South Water Source Heat Pump Supply vol: 1526 cfm Fan power: 0.27 kW	
HVAC System Type	F1 Lobby Water Source Heat Pump Supply vol: 1130 cfm Fan power: 0.21 kW	
HVAC System Type	F2 Workshare Water Source Heat Pump Supply vol: 1589 cfm Fan power: 0.28 kW	
HVAC System Type	F2-7 MF North Water Source Heat Pump Supply vol: 11835 cfm Fan power: 2.37 kW	
HVAC System Type	F5 MF Center Water Source Heat Pump Supply vol: 16940 cfm Fan power: 3.02 kW	

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
HVAC System Type	F1 Workshare Water Source Heat Pump Supply vol: 3462 cfm Fan power: 0.62 kW	
HVAC System Type	F5 MF South Water Source Heat Pump Supply vol: 7174 cfm Fan power: 1.28 kW	
Cooling Equipment	Plant: Water Source HP Type: 90.1-13 Min WSHP 17-65 MBh Category: Water source heat pump Clg Cap: Design Engy Rate: 13 Packaged EER HR Cap: Design Engy Rate: 4.3 Packaged COP	Plant: PTAC DX Type: 90.1-13 Min PTAC Standard Size 15 MBh Category: Air-cooled unitary Clg Cap: Design Engy Rate: 9.5 Packaged EER
Condenser Water Pump	Type: Var vol cnd water pump Full load consumption: 19 Watt/gpm	
Secondary Distribution Pump	Type: Var vol cnd water pump Full load consumption: 19 Watt/gpm	
Heat Rejection Parameters	Type: Cooling Tower w/ VFD HR Type: Cooling tower (Marley) Energy Consumption: 0.066000 kW/ton	Type: 90.1 Min Air Cooled Condenser HR Type: Air-cooled condenser Energy Consumption: 0.055290 kW/ton
Heating Equipment	Plant: Proposed DHW Type: Gas Fired Hot Water Boiler Category: Boiler Capacity: Design Energy Rate: 95 Percent efficient	Plant: PTAC HEAT Type: 90.1-13 Min Boiler, HW, Gas >2500 MBh Category: Boiler Capacity: Design Energy Rate: 80 Percent efficient
Heating Equipment	Plant: HP Heat Type: Default Boiler Category: Boiler Capacity: Design Energy Rate: 95 Percent efficient	Plant: Baseline DHW Type: 90.1-13 Min Boiler, HW, Gas >2500 MBh Category: Boiler Capacity: Design Energy Rate: 80 Percent efficient
Hot Water Pump	Type: Heating water circ pump Full load consumption: 19 Watt/gpm Quantity: 2	Type: Heating water circ pump Full load consumption: 19 Watt/gpm Quantity: 2
Thermal Energy Storage	No	No

LEED Energy Performance Summary Report

By WBA

Section 1.5 - Energy Type Summary (Proposed)

Energy Type	Utility Rate Description	Units
Electric Consumption	AIE US Commercial Q2 2017	kWh
Electric Demand	AIE US Commercial Q2 2017	kW
Gas	Mass Gas	therms

LEED Energy Performance Summary Report

By WBA

Section 1.6 Baseline Performance - Performance Rating Method Compliance

End Use	Process	Baseline Design Energy Type	Units of Annual Energy & Peak Demand	Baseline (0 deg rotation)	Baseline (90 deg rotation)	Baseline (180 deg rotation)	Baseline (270 deg rotation)	Baseline Design
Space Heating	No	Electricity	Energy Use (kWh)	5,765	5,789	5,711	5,735	5,750
			Demand (kW)	1.0	1.0	1.0	1.0	1.0
Space Cooling	No	Electricity	Energy Use (kWh)	222,782	225,212	222,703	231,275	225,493
			Demand (kW)	194.0	203.2	185.2	207.3	197.4
Pumps	No	Electricity	Energy Use (kWh)	7,821	7,906	7,632	7,717	7,769
			Demand (kW)	2.1	2.1	2.1	2.1	2.1
Heat Rejection	No	Electricity	Energy Use (kWh)	16,269	16,495	16,239	16,851	16,463
			Demand (kW)	13.9	14.9	14.3	14.9	14.5
Fans - Interior	No	Electricity	Energy Use (kWh)	307,508	309,512	299,346	314,916	307,820
			Demand (kW)	37.4	37.4	36.5	38.5	37.5
Interior Lighting	No	Electricity	Energy Use (kWh)	192,069	192,069	192,069	192,069	192,069
			Demand (kW)	83.8	83.8	83.8	83.8	83.8
Space Heating	No	Gas	Energy Use (therms)	59,481	59,773	59,376	59,567	59,549
			Demand (therms)	21.4	21.4	21.4	21.4	21.4
Baseline Energy Totals:			Energy Use (MMBtu/yr)	8,515.4	8,560.8	8,475.9	8,579.8	8,533.0
			Process (MMBtu/yr)	0.0	0.0	0.0	0.0	0.0

Section 1.6 Proposed Performance - Performance Rating Method Compliance

End Use	Process	Proposed Design Energy Type	Units of Annual Energy & Peak Demand	Proposed Design
Space Heating	No	Electricity	Energy Use (kWh)	50,449
			Demand (kW)	75.6
Space Cooling	No	Electricity	Energy Use (kWh)	213,219
			Demand (kW)	165.0
Pumps	No	Electricity	Energy Use (kWh)	23,394
			Demand (kW)	19.6
Heat Rejection	No	Electricity	Energy Use (kWh)	2,524
			Demand (kW)	5.1
Fans - Interior	No	Electricity	Energy Use (kWh)	44,775
			Demand (kW)	23.0

LEED Energy Performance Summary Report

By WBA

Section 1.6 Proposed Performance - Performance Rating Method Compliance

End Use	Process	Proposed Design Energy Type	Units of Annual Energy & Peak Demand	Proposed Design
Interior Lighting	No	Electricity	Energy Use (kWh)	103,886
			Demand (kW)	48.2
Space Heating	No	Gas	Energy Use (therms)	45,193
			Demand (therm)	14.7
Proposed Energy Totals:			Energy Use (MMBtu/yr)	6,015.02
			Process (MMBtu/yr)	0.00

LEED Energy Performance Summary Report

By WBA

Table 1.6 Table EAp2-9 Energy Cost Summary (Manual Cost Input) - Baseline Case

Energy Type	Baseline Cost (0° rotation)	Baseline Cost (90° rotation)	Baseline Cost (180° rotation)	Baseline Cost (270° rotation)	Average
Gas	\$81,787	\$82,188	\$81,643	\$81,905	\$81,881

Table 1.6 Table EAp2-9 Energy Cost Summary (Manual Cost Input) - Proposed Case

Energy Type	Proposed Cost
Gas	\$62,140

Proposed building economic cost improvement over baseline building: 24.10 %

MEMORANDUM

Date:	June 29 th , 2018		
To:	Joel Bargmann	Company:	BH+A Architects
From:	Casey Archacki	Phone #:	(617) – 350 – 0450
Project Name:	36-70 Sprague Street (Building 3)	Project #:	18117
cc:	Zbigniew Wozny		

Joel,

The following report and supporting documentation is for Building 4.

As requested, we have assessed the new building site known as 36-70 Sprague Street. The site consists of 4 individual residential building structures, with a single garage located below all of the buildings. The garage is split into two pieces, the north side and the south side. The city of Boston, MA adopted the latest Climate Resiliency Checklist in October of 2017. Per Article 37 as issued by the Boston Planning & Development, the City of Boston requires all structures larger than 50,000 SF to have an analysis done in accordance with the Climate Resiliency Checklist. To comply with a portion of the checklist, an energy model has been completed based on the code minimums in the 9th Edition of the Massachusetts Building Code (International Energy Conservation 2015). The building code minimums are also in line with ASHRE 90.1-2013. The efficiency of the mechanical equipment and lighting have been estimated in the proposed design.

This residential structure is estimated to be 121,710 SF. It contains 7-stories of residential floors with clubhouse spaces and a day-care center on the first floor.

The proposed system for the both the apartment spaces and the common spaces is an air-to-air heat pump system. The heat pump system will be designed so each indoor unit has its own outdoor unit. The final design of the heat pumps will be subject to the actual layout of the building. Therefore, all the heat pumps are assumed to operate without electric heat, even though the final design will contain a small number of heat pumps with backup electric heat. The domestic hot water is generated by a central domestic hot water system. This system includes hot water boilers, in-direct storage tanks, and circulation pumps. It is assumed the ventilation air is ducted directly to each space with no energy recovery factors applied.

Since the floor plans were not fully developed at the time of this report, the spaces descriptions are limited in the supporting documents.

The following assumptions were used to estimate the annual energy savings of the proposed building:

1. Night setback is included. Included in the program the hours of operation for week days and weekends.
2. Apartment Appliances were included in the annual energy assumptions

MEMORANDUM

Date:	June 29 th , 2018		
To:	Joel Bargmann	Company:	BH+A Architects
From:	Casey Archacki	Phone #:	(617) – 350 – 0450
Project Name:	36-70 Sprague Street (Building 3)	Project #:	18117
cc:	Zbigniew Wozny		

Joel,

The following report and supporting documentation is for the Garage.

As requested, we have assessed the new building site known as 36-70 Sprague Street. The site consists of 4 individual residential building structures, with a single garage located below all of the buildings. The garage is split into two pieces, the north side and the south side. The city of Boston, MA adopted the latest Climate Resiliency Checklist in October of 2017. Per Article 37 as issued by the Boston Planning & Development, the City of Boston requires all structures larger than 50,000 SF to have an analysis done in accordance with the Climate Resiliency Checklist. To comply with a portion of the checklist, an energy model has been completed based on the code minimums in the 9th Edition of the Massachusetts Building Code (International Energy Conservation 2015). The building code minimums are also in line with ASHRE 90.1-2013. The efficiency of the mechanical equipment and lighting have been estimated in the proposed design.

The single story garage structure is estimated to be 127,450 SF.

Since the floor plans were not fully developed at the time of this report, it is assumed there are no spaces in the garage required to be conditioned with heating for occupancy purposes. There are no hot water requirements. It is also assumed the garage is enclosed. Therefore, a continuous ventilation system has been provided. The system will operate at a minimum continuous airflow.

The following assumptions were used to estimate the annual energy savings of the proposed building:

1. A lighting load was included. The garage was assumed to have a lighting power density of 0.20 W/Sq. Ft.
2. The continuous ventilation load was applied to the fan energy and was estimated to be 0.000321 KW/CFM in both the baseline model and proposed model. The garage was estimated to a continuous rate of 0.10 CFM/Sq.Ft. Therefore, the continuous airflow is 12,700 CFM in the garage with a load of 4.0767 KW. The total annual energy consumption of these fans is 35,711.9 Kw·hr.

Due to the limits of the TRACE 700 program, which was used for modeling the building, the program wasn't able to generate an energy savings. However, it is assumed the energy consumption of the entire garage will be added to the four individual buildings.

The supporting documentation includes the general project information which contains a list of the spaces and their associated areas, the modeling input data which includes all of the data in the baseline models and the proposed model, and a summarization of the output sheets.

If you require any additional information, please contact me.

Regards,

Casey Archacki, PE
HVAC Engineer

Wozny/Barbar & Associates, Inc.



Building 1
29,603 sf

**SOUTH
GARAGE**

Building 2
23,387 sf

**NORTH
GARAGE**

WorkShare
2,291 sf

Building 4
17,387 sf

Building 3
15,230 sf

Sprague Street

Sprague Pond

potential (30) parking spaces

gate for fire
lane access

dog run

Sprague Street

Site Plan

April 14, 2018



Energy Cost Budget / PRM Summary

By WBA

Project Name:	Date: June 26, 2018
City:	Weather Data: Boston, Massachusetts

Note: The percentage displayed for the "Proposed/ Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

		* Alt-2 ASHRAE Baseline 901-13			Alt-1 Garage Proposed		
		Energy 10 ⁶ Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10 ⁶ Btu/yr	Proposed / Base %	Peak kBtuh
Lighting - Unconditioned	Electricity	800.2	100	91	762.1	95	87
Space Heating	Electricity	0.0	0	0	0.0	0	0
	Gas	0.0	0	0	0.0	0	0
Total Building Consumption		800.2			762.1		

		* Alt-2 ASHRAE Baseline 901-13		Alt-1 Garage Proposed	
		Number of hours heating load not met	Number of hours cooling load not met	Number of hours heating load not met	Number of hours cooling load not met
Total		0	0	0	0

		* Alt-2 ASHRAE Baseline 901-13		Alt-1 Garage Proposed	
		Energy 10 ⁶ Btu/yr	Cost/yr \$/yr	Energy 10 ⁶ Btu/yr	Cost/yr \$/yr
Electricity		800.2	0	762.1	0
Total		800	0	762	0

LEED Energy Performance Summary Report

By WBA

Section 1.1 - General Information

Simulation Program:	TRACE™ 700 v6.3.4
Principle Heating Source:	Electric
Energy Code Used:	ASHRAE 90.1-2013
Weather File:	Boston, Massachusetts (Reduced Year)
Climate Zone:	5A
New Construction Percent:	100 %
Existing Renovation Percent:	0 %
Quantity of Floors:	1
Proposed:	Alternative 1 - Garage Proposed
Baseline:	Alternative 2 - ASHRAE Baseline 901-13 Climate Zone 5A

Section 1.2 - Space Summary

Building Use (Occupancy Type)	Space Area (ft²)	Regularly Occupied Area (ft²)	Unconditioned Area (ft²)
Parking	127,450.00	0.00	127,450.00
Total	127,450.00	0.00	127,450.00

Section 1.3 - Advisory Messages

Advisory Messages	Baseline Building (0 deg rotation)	Proposed Building
Number of hours heating load not met:	0	0
Number of hours cooling load not met:	0	0
Total	0	0

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
Window-to-gross wall ratio	0.0 %	0.0 %
Interior Light Power Density	Lighting Compliance: Space-By-Space Method Daylighting Controls: No Building: 0.20 W/ft²	Lighting Compliance: Space-By-Space Method Daylighting Controls: No Building: 0.21 W/ft²
Interior Light Power Density	Room Type: Parking - 0.20 W/ft²	Room Type: Parking - 0.21 W/ft²
HVAC System Type	Garage Ventilation Fan Coil Supply vol: 0 cfm Fan power: 0.00 kW	Garage Ventilation System 1 - 2007/2010 - Packaged Terminal Air Conditioner Supply vol: 0 cfm Fan power: 0.00 kW
Cooling Equipment	Plant: VENTILATION Type: Default air-cooled unitary Category: Air-cooled unitary Clg Cap: Design Engy Rate: 9999.99 kW/ton	Plant: VENTILATION Type: Default air-cooled unitary Category: Air-cooled unitary Clg Cap: Design Engy Rate: 9999.99 kW/ton
Heat Rejection Parameters		Type: Condenser fan for Heat Pump HR Type: Air-cooled condenser Energy Consumption: 0.120000 kW/ton
Heating Equipment	Plant: NO HEAT Type: Default electric resistance Category: Electric resistance Capacity: Design Energy Rate: 100 Percent efficient	Plant: NO HEAT Type: Default electric resistance Category: Electric resistance Capacity: Design Energy Rate: 100 Percent efficient
Thermal Energy Storage	No	No

Section 1.5 - Energy Type Summary (Proposed)

Energy Type	Utility Rate Description	Units
Electric Consumption	AIE US Commercial Q2 2017	kWh
Electric Demand	AIE US Commercial Q2 2017	kW
Gas		therms

LEED Energy Performance Summary Report

By WBA

Section 1.6 Baseline Performance - Performance Rating Method Compliance

End Use	Process	Baseline Design Energy Type	Units of Annual Energy & Peak Demand	Baseline (0 deg rotation)	Baseline (90 deg rotation)	Baseline (180 deg rotation)	Baseline (270 deg rotation)	Baseline Design
Space Heating	No	Electricity	Energy Use (kWh)	0	0	0	0	0
			Demand (kW)	0.0	0.0	0.0	0.0	0.0
Interior Lighting	No	Electricity	Energy Use (kWh)	234,459	234,459	234,459	234,459	234,459
			Demand (kW)	26.8	26.8	26.8	26.8	26.8
Space Heating	No	Gas	Energy Use (therms)	0	0	0	0	0
			Demand (therms)	0.0	0.0	0.0	0.0	0.0
Baseline Energy Totals:			Energy Use (MMBtu/yr)	800.2	800.2	800.2	800.2	800.2
			Process (MMBtu/yr)	0.0	0.0	0.0	0.0	0.0

Section 1.6 Proposed Performance - Performance Rating Method Compliance

End Use	Process	Proposed Design Energy Type	Units of Annual Energy & Peak Demand	Proposed Design
Space Heating	No	Electricity	Energy Use (kWh)	0
			Demand (kW)	0.0
Interior Lighting	No	Electricity	Energy Use (kWh)	223,295
			Demand (kW)	25.5
Space Heating	No	Gas	Energy Use (therms)	0
			Demand (therm)	0.0
Proposed Energy Totals:			Energy Use (MMBtu/yr)	762.10
			Process (MMBtu/yr)	0.00

LEED Energy Performance Summary Report

By WBA

Table 1.6 Table EAp2-9 Energy Cost Summary (Manual Cost Input) - Baseline Case

Energy Type	Baseline Cost (0° rotation)	Baseline Cost (90° rotation)	Baseline Cost (180° rotation)	Baseline Cost (270° rotation)	Average

Table 1.6 Table EAp2-9 Energy Cost Summary (Manual Cost Input) - Proposed Case

Energy Type	Proposed Cost

3. The utility rates were provided by the U.S. Energy Information Administration and are the following:
 1. The electrical rate (no customer charge) of \$0.1892/KWhr (Residential Rate)
 2. The natural gas rate (no customer charge) of \$1.375/Therm (Residential Rate)
4. A lighting load was included. The apartments were assumed to have the code maximum of 0.30 W/Sq. Ft.
5. Window shading devices were not used.
6. Equipment maintenance cost was not included.
7. Common area energy costs were not included.
8. Cost of water was not included
9. The cost of heating the domestic hot water was included. The efficiency of the water heater was assumed as 95%.
10. The cooling efficiency for the air to air heat pumps is assumed to be an COP of 3.42. The heating efficiency of the units is assumed to be a COP of 3.93. These values are applicable to both the apartment spaces and the common area spaces.
11. It was assumed there would be 2 people per bedroom in every apartment.
12. Since the elevations of the building were not fully developed, it was assumed the exterior walls had an estimated window to wall ratio of 40%.
13. It is assumed there are no skylights on the roof of the building.
14. The U-values from the building construction for the walls, windows, and floor, based on IECC 2015 include the following:
 1. The U-value for the walls = 0.055
 2. The U-value for the roof = 0.033
 3. The U-value for the windows = 0.032
 4. The SHGC for the windows = 0.40
 5. The Shading Coefficient for the windows = 0.46
 6. The U-Value for the floor = 0.1
15. 2-Speed exhaust fans were assumed to be in all the bathrooms.
16. It is assumed the apartments were provided with re-circulation style kitchen hoods.
17. The dryer was assumed to exhaust 200 CFM.
18. The thermostat set point shall be 75 °F in the cooling season and 70 °F in the heating season.

The final energy savings for Building 4 was 29.12%.

The minimum energy savings listed Appendix AA of the Massachusetts building code is 10% when compared to a model generated by Appendix G of ASHRAE 90.1-2013.

The baseline model includes all the components listed in ASHRAE 90.1-2013 with an exceptional calculation performed for the lighting within the dwelling units. The exceptional calculation comes from the New York State Energy Research and Development Authority (NYSERDA). In this exceptional calculation it is assumed the baseline lighting and proposed lighting is energized for 2.34 hours per day. The baseline lighting is 2.0 Watts/Sq. Ft. The schedules for all of the components in both the baseline model and proposed model are modeled identically.

Due to the limits of the TRACE 700 program, which was used for modeling the building, the gas consumed by the domestic hot water units is lumped into the value highlighted as Space Heating – Gas on all supporting documents.

The supporting documentation includes the general project information which contains a list of the spaces and their associated areas, the modeling input data which includes all of the data in the baseline models and the proposed model, and a summarization of the output sheets.

If you require any additional information, please contact me.

Regards,

Casey Archacki, PE
HVAC Engineer

Wozny/Barbar & Associates, Inc.



Sprague Street

Site Plan

April 14, 2018



Energy Cost Budget / PRM Summary

By WBA

Project Name:	Date: June 26, 2018
City:	Weather Data: Boston, Massachusetts

Note: The percentage displayed for the "Proposed/ Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

		* Alt-2 ASHRAE Baseline 90.1-1			Alt-1 Building 4 Proposed		
		Energy 10 ⁶ Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10 ⁶ Btu/yr	Proposed / Base %	Peak kBtuh
Lighting - Conditioned	Electricity	644.5	8	299	644.5	100	299
Space Heating	Electricity	36.5	0	10	160.3	439	217
	Gas	5,908.5	71	1,728	4,187.6	71	484
Space Cooling	Electricity	742.3	9	615	809.1	109	562
Pumps	Electricity	10.4	0	1	10.4	100	1
Heat Rejection	Electricity	52.8	1	46	0.0	0	0
Fans - Conditioned	Electricity	919.4	11	105	124.1	13	60
Total Building Consumption		8,314.5			5,936.0		

		* Alt-2 ASHRAE Baseline 90.1-1	Alt-1 Building 4 Proposed
Total	Number of hours heating load not met	0	0
	Number of hours cooling load not met	0	0

		* Alt-2 ASHRAE Baseline 90.1-1		Alt-1 Building 4 Proposed	
		Energy 10 ⁶ Btu/yr	Cost/yr \$/yr	Energy 10 ⁶ Btu/yr	Cost/yr \$/yr
Electricity		2,405.9	0	1,748.4	0
Gas		5,908.5	81,243	4,187.6	57,580
Total		8,314	81,243	5,936	57,580

LEED Energy Performance Summary Report

By WBA

Section 1.1 - General Information

Simulation Program: TRACETM 700 v6.3.4
Principle Heating Source: Fossil Fuel
Energy Code Used: ASHRAE 90.1-2010
Weather File: Boston, Massachusetts (Reduced Year)
Climate Zone: 5A
New Construction Percent: 100 %
Existing Renovation Percent: 0 %
Quantity of Floors: 1
Proposed: Alternative 1 - Building 4 Proposed
Baseline: Alternative 2 - ASHRAE Baseline 90.1-10 Climate Zone 5A

Section 1.2 - Space Summary

Building Use (Occupancy Type)	Space Area (ft ²)	Regularly Occupied Area (ft ²)	Unconditioned Area (ft ²)
Multi-Family	185,874.00	185,874.00	0.00
Gym	1,700.00	1,700.00	0.00
Lobby	860.00	860.00	0.00
Total	188,434.00	188,434.00	0.00

Section 1.3 - Advisory Messages

Advisory Messages	Baseline Building (0 deg rotation)	Proposed Building
Number of hours heating load not met:	0	0
Number of hours cooling load not met:	0	0
Total	0	0

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
Exterior Wall Construction	90.1-13 Min Wall Nonres Zone 5 U-factor: 0.055 Btu/h-ft ² ·°F	90.1-13 Min Wall Nonres Zone 5 U-factor: 0.055 Btu/h-ft ² ·°F
Roof Construction	90.1-13 Min Roof Nonres Zone 4-6 U-factor: 0.032 Btu/h-ft ² ·°F Reflectivity: 0.30	90.1-13 Min Roof Nonres Zone 4-6 U-factor: 0.032 Btu/h-ft ² ·°F Reflectivity: 0.30
Window-to-gross wall ratio	40.0 %	40.0 %
Fenestration Type	90.1-2013 Window Zone 5-6 Nonmetal Fr U-factor: 0.320 Btu/h-ft ² ·°F SHGC: 0.40 Visible Transmissivity: 0.440	90.1-2013 Window Zone 5-6 Nonmetal Fr U-factor: 0.320 Btu/h-ft ² ·°F SHGC: 0.40 Visible Transmissivity: 0.440
Interior Light Power Density	Lighting Compliance: Space-By-Space Method Daylighting Controls: No Building: 0.51 W/ft ²	Lighting Compliance: Space-By-Space Method Daylighting Controls: No Building: 0.51 W/ft ²
Interior Light Power Density	Room Type: Multi-Family - 0.51 W/ft ² Gym - 0.84 W/ft ² Lobby - 0.90 W/ft ²	Room Type: Multi-Family - 0.51 W/ft ² Gym - 0.84 W/ft ² Lobby - 0.90 W/ft ²
HVAC System Type	F7 MF North Fan Coil Supply vol: 6543 cfm Fan power: 1.17 kW	PTAC System 1 - 2007/2010 - Packaged Terminal Air Conditioner Supply vol: 100613 cfm Fan power: 30.18 kW
HVAC System Type	F1 Daycare Incremental Heat Pump Supply vol: 1953 cfm Fan power: 0.35 kW	
HVAC System Type	F1 MF North Fan Coil Supply vol: 6025 cfm Fan power: 1.07 kW	
HVAC System Type	F1 MF South Fan Coil Supply vol: 22256 cfm Fan power: 3.97 kW	

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
HVAC System Type	F2-6 MF North Fan Coil Supply vol: 31119 cfm Fan power: 5.55 kW	
HVAC System Type	F1 Lobby Incremental Heat Pump Supply vol: 727 cfm Fan power: 0.15 kW	
HVAC System Type	F2-6 MF South Fan Coil Supply vol: 24298 cfm Fan power: 4.33 kW	
HVAC System Type	F7 MF South Fan Coil Supply vol: 5817 cfm Fan power: 1.04 kW	
Cooling Equipment	Plant: Air to Air Heat Pump (No Backup Heat) Type: Trane VRF Heat Pump Category: Air-cooled unitary Clg Cap: Design Engy Rate: 3.42 Packaged COP HR Cap: Design Engy Rate: 3.93 Packaged COP	Plant: PTAC DX Type: 90.1-10 Min PTAC Standard Size 15 MBh Category: Air-cooled unitary Clg Cap: Design Engy Rate: 9.3 Packaged EER
Heat Rejection Parameters	Type: Included In Compressor Power HR Type: Air-cooled condenser Energy Consumption: 0.000000 kW/ton	Type: 90.1 Min Air Cooled Condenser HR Type: Air-cooled condenser Energy Consumption: 0.055290 kW/ton
Heating Equipment	Plant: Proposed DHW Type: 90.1-13 Min Boiler, HW, Gas >2500 MBh Category: Boiler Capacity: Design Energy Rate: 95 Percent efficient	Plant: PTAC HEAT Type: Default boiler Category: Boiler Capacity: Design Energy Rate: 83.3 Percent efficient
Heating Equipment	Plant: Electric Coil Type: Default electric resistance Category: Electric resistance Capacity: Design Energy Rate: 100 Percent efficient	Plant: Baseline DHW Type: 90.1-13 Min Boiler, HW, Gas >2500 MBh Category: Boiler Capacity: Design Energy Rate: 80 Percent efficient
Hot Water Pump	Type: Heating water circ pump Full load consumption: 19 Watt/gpm	Type: Heating water circ pump Full load consumption: 0 kW
Hot Water Pump		Type: Heating water circ pump Full load consumption: 19 Watt/gpm

LEED Energy Performance Summary Report

By WBA

Section 1.4 - Comparison of Proposed Design Versus Baseline Design

Input Parameter	Proposed Design Input	Baseline Design Input
Thermal Energy Storage	No	No

Section 1.5 - Energy Type Summary (Proposed)

Energy Type	Utility Rate Description	Units
Electric Consumption	AIE US Commercial Q2 2017	kWh
Electric Demand	AIE US Commercial Q2 2017	kW
Gas	Mass Gas	therms

LEED Energy Performance Summary Report

By WBA

Section 1.6 Baseline Performance - Performance Rating Method Compliance

End Use	Process	Baseline Design Energy Type	Units of Annual Energy & Peak Demand	Baseline (0 deg rotation)	Baseline (90 deg rotation)	Baseline (180 deg rotation)	Baseline (270 deg rotation)	Baseline Design
Space Heating	No	Electricity	Energy Use (kWh)	10,609	10,783	10,643	10,714	10,687
			Demand (kW)	3.1	3.1	3.1	3.1	3.1
Space Cooling	No	Electricity	Energy Use (kWh)	220,022	217,073	214,036	218,888	217,505
			Demand (kW)	177.7	183.3	180.8	178.8	180.2
Pumps	No	Electricity	Energy Use (kWh)	3,058	3,058	3,058	3,058	3,058
			Demand (kW)	0.3	0.3	0.3	0.3	0.3
Heat Rejection	No	Electricity	Energy Use (kWh)	15,625	15,390	15,278	15,617	15,478
			Demand (kW)	13.4	12.9	13.7	13.5	13.3
Fans - Interior	No	Electricity	Energy Use (kWh)	264,412	256,938	280,970	275,185	269,376
			Demand (kW)	30.2	29.3	32.1	31.4	30.8
Interior Lighting	No	Electricity	Energy Use (kWh)	188,833	188,833	188,833	188,833	188,833
			Demand (kW)	87.5	87.5	87.5	87.5	87.5
Space Heating	No	Gas	Energy Use (therms)	58,900	59,296	59,336	58,809	59,085
			Demand (therms)	17.3	17.3	17.3	17.3	17.3
Baseline Energy Totals:			Energy Use (MMBtu/yr)	8,287.9	8,291.6	8,366.4	8,312.0	8,314.5
			Process (MMBtu/yr)	0.0	0.0	0.0	0.0	0.0

Section 1.6 Proposed Performance - Performance Rating Method Compliance

End Use	Process	Proposed Design Energy Type	Units of Annual Energy & Peak Demand	Proposed Design
Space Heating	No	Electricity	Energy Use (kWh)	46,957
			Demand (kW)	63.5
Space Cooling	No	Electricity	Energy Use (kWh)	237,069
			Demand (kW)	164.6
Pumps	No	Electricity	Energy Use (kWh)	3,058
			Demand (kW)	0.3
Heat Rejection	No	Electricity	Energy Use (kWh)	0
			Demand (kW)	0.0
Fans - Interior	No	Electricity	Energy Use (kWh)	36,356
			Demand (kW)	17.6

LEED Energy Performance Summary Report

By WBA

Section 1.6 Proposed Performance - Performance Rating Method Compliance

End Use	Process	Proposed Design Energy Type	Units of Annual Energy & Peak Demand	Proposed Design
Interior Lighting	No	Electricity	Energy Use (kWh)	188,833
			Demand (kW)	87.5
Space Heating	No	Gas	Energy Use (therms)	41,876
			Demand (therm)	4.8
Proposed Energy Totals:			Energy Use (MMBtu/yr)	5,936.01
			Process (MMBtu/yr)	0.00

LEED Energy Performance Summary Report

By WBA

Table 1.6 Table EAp2-9 Energy Cost Summary (Manual Cost Input) - Baseline Case

Energy Type	Baseline Cost (0° rotation)	Baseline Cost (90° rotation)	Baseline Cost (180° rotation)	Baseline Cost (270° rotation)	Average
Gas	\$80,988	\$81,532	\$81,587	\$80,863	\$81,243

Table 1.6 Table EAp2-9 Energy Cost Summary (Manual Cost Input) - Proposed Case

Energy Type	Proposed Cost
Gas	\$57,580

Proposed building economic cost improvement over baseline building: 29.12 %

Appendix C

Climate Change Checklist

Boston Planning & Development Agency Climate Resiliency Report Summary



Submitted: 07/31/2018 11:52:27

A.1 - Project Information

Project Name:	36-70 Sprague Street		
Project Address:	36-40 and 50-70 Sprague Street, Readville MA		
Filing Type:	Initial (PNF, EPNF, NPC or other substantial filing)		
Filing Contact:	Fiona Vardy	Epsilon Associates, inc.	fvardy@epsilonassociates.com 978-461-6243
Is MEPA approval required?	Yes	MEPA date:	

A.2 - Project Team

Owner / Developer:	OMB Sprague LLC
Architect:	Bargmann Hendrie + Archetype
Engineer:	Wozny Barbar & Associates
Sustainability / LEED:	Sustainable Energy Analytics
Permitting:	Epsilon Associates Inc.
Construction Management:	Lee Kennedy Company

A.3 - Project Description and Design Conditions

List the principal Building Uses:	Multi-family residential
List the First Floor Uses:	residential, restaurant, common areas
List any Critical Site Infrastructure and or Building Uses:	none

Site and Building:

Site Area (SF):	288282	Building Area (SF):	500364
Building Height (Ft):	108	Building Height (Stories):	9
Existing Site Elevation – Low (Ft BCB):	66	Existing Site Elevation – High (Ft BCB):	66
Proposed Site Elevation – Low (Ft BCB):	66	Proposed Site Elevation – High (Ft BCB):	66
Proposed First Floor Elevation (Ft BCB):	82	Below grade spaces/levels (#):	1

Article 37 Green Building:

LEED Version - Rating System:	Homes v4 Midrise	LEED Certification:	No
Proposed LEED rating:	Gold	Proposed LEED point score (Pts.):	67

Boston Planning & Development Agency Climate Resiliency Report Summary



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:	31.25	Exposed Floor :	20
Foundation Wall:	20	Slab Edge (at or below grade):	7
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:	
Area of Framed & Insulated / Standard Wall:	63	Wall Value:	0.055
Area of Vision Window:	35	Window Glazing Assembly Value:	0.320
		Window Glazing SHGC:	0.40
Area of Doors:	2	Door Assembly Value :	0

Energy Loads and Performance

For this filing – describe how energy loads & performance were determined

The loads were determined based on code minimum values and estimated efficiencies of various components of the building. There are 4 buildings on this site along with a garage under the entire site. The values below represent all the structures.

Annual Electric (kWh):	1579550	Peak Electric (kW):	1071
Annual Heating (MMbtu/hr):	14062	Peak Heating (MMbtu):	4.971
Annual Cooling (Tons/hr):	214700	Peak Cooling (Tons):	172
Energy Use - Below ASHRAE 90.1 - 2013 (%):	29	Have the local utilities reviewed the building energy performance?:	No
Energy Use - Below Mass. Code (%):	29	Energy Use Intensity (kBtu/SF):	71.2

Back-up / Emergency Power System

Electrical Generation Output (kW):	350	Number of Power Units:	2
System Type (kW):	Combustion Engine	Fuel Source:	Diesel

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

Electric (kW):	400	Heating (MMbtu/hr):	
		Cooling (Tons/hr):	

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

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

B.1 – GHG Emissions - Design Conditions

For this filing - Annual Building GHG Emissions (Tons): 1360.3

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

The estimated energy levels come from efficiencies of proposed equipment and preliminary ASHRAE 90.1 energy modeling using comparable residential projects. These estimates will be refined as part of general and energy-focused design charrettes that will be conducted as part of the LEED green building design process.

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

The building has high efficiency condensing units, water-source heat pumps, air-to-air heat pumps, & green roofs. Additionally, the Proponent is proposing solar panels on buildings 1, 2 & 4.

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

The building has high efficiency condensing units, water-source heat pumps, air-to-air heat pumps, LED lighting, condensing boilers, tank-less water heaters, ECM motors, VFD’s, condensing gas-fired furnaces.

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

The Proponent is proposing solar panels being installed on buildings 1, 2 & 4.

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

The team will analyze and leverage all cost-effective strategies to reduce emissions through the team’s energy efficiency improvement/green building efforts.

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

The team will utilize the utility resources available through the MASS Save programs and the Massachusetts Clean Energy Center.

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):

The project owners will be evaluating if it is feasible to include metrics and targets within on-going property management agreement to track and lower emissions over time.

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 (Deg.):	8	Temperature Range - High (Deg.):	91
Annual Heating Degree Days:	5596	Annual Cooling Degree Days	750

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

Days - Above 90° (#):	60	Days - Above 100° (#):	30
Number of Heatwaves / Year (#):	6	Average Duration of Heatwave (Days):	5

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

The Project will include significant new landscaping and trees to minimize the heat island effect, as well as a landscaped covered garage.

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:

All systems are designed with a small safety factor to handle days outside the normal operating range and to handle the increased average temperatures.

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:

The Project buildings will include natural ventilation and a high efficiency envelope.

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

What is the project design precipitation level? (In. / 24 Hours)

6

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

The Project will include a closed stormwater management system designed to meet the MassDEP Stormwater Management Policy and BWSC requirements to the greatest extent practicable. The Project will meet or reduce the existing peak rates of stormwater discharge and volumes of stormwater runoff from the site, and promote runoff recharge to the greatest extent possible. Landscaped areas above the parking complex will serve as semi-pervious areas and have been considered impervious areas to be conservative.

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):

The Project includes a significant amount of new green space that will absorb stormwater.

E – Sea Level Rise and Storms

Under any plausible greenhouse gas emissions scenario, the sea level 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 Special Flood Hazard Area?

What Zone:

What is the current FEMA SFHA Zone Base Flood Elevation for the site (Ft BCB)?

Is any portion of the site in the BPDA Sea Level Rise Flood Hazard Area (see [SLR-FHA online map](#))?

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 by the Sea Level Rise Flood Hazard Area (SLR-FHA), which includes 3.2’ of sea level rise above 2013 tide levels, an additional 2.5” to account for subsidence, and the 1% Annual Chance Flood. After using the SLR-FHA to identify a project’s Sea Level Rise Base Flood Elevation, proponents should calculate the Sea Level Rise Design Flood Elevation by adding 12” of freeboard for buildings, and 24” of freeboard for critical facilities and infrastructure and any ground floor residential units.

What is the Sea Level Rise - Base Flood Elevation for the site (Ft BCB)?

What is the Sea Level Rise - Design Flood Elevation for the site (Ft BCB)?

First Floor Elevation (Ft BCB):

What are the Site Elevations at Building (Ft BCB)?

What is the 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:

Boston Planning & Development Agency
Climate Resiliency Report Summary



Thank you for completing the Boston Climate Change Checklist!

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

Appendix D

Accessibility Checklist

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 BPDA 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.

Article 80 | ACCESSIBILITY CHECKLIST

1. Project Information: <i>If this is a multi-phased or multi-building project, fill out a separate Checklist for each phase/building.</i>			
Project Name:	36-70 Sprague Street		
Primary Project Address:	36-70 Sprague Street, Readville, MA		
Total Number of Phases/Buildings:			
Primary Contact (Name / Title / Company / Email / Phone):	Jordan D. Warshaw, The Noannet Group jwarshaw@noannet.com / (617) 851- 9995		
Owner / Developer:	The Noannet Group		
Architect:	Bargmann, Hendrie + Archetype		
Civil Engineer:	Nitsch Engineering		
Landscape Architect:			
Permitting:	Epsilon Associates, Inc.		
Construction Management:	Lee Kennedy Company		
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)? <i>If yes</i> , identify and explain.	No		
2. Building Classification and Description: <i>This section identifies preliminary construction information about the project including size and uses.</i>			
What are the dimensions of the project?			
Site Area:	255,262 SF	Building Area:	500,400 GSF
Building Height:	69'-4" - 128'-8"	Number of Stories:	5, 7 & 8 Flrs.
First Floor Elevation:	82'-0"	Is there below grade space:	Yes

Article 80 | ACCESSIBILITY CHECKLIST

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		
List street-level uses of the building:	<i>Residential, restaurant</i>			
<p>3. Assessment of Existing Infrastructure for Accessibility: <i>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.</i></p>				
Provide a description of the neighborhood where this development is located and its identifying topographical characteristics:	The area surrounding the Project site includes a mix of industrial, commercial and residential uses. Boston Dedham Commerce Park is located to the west of the site. This area includes one to two-story industrial and commercial buildings surrounded by paved areas used for parking. Residential neighborhoods are located to the northwest separated by the MBTA Franklin Line and Readville Station to the north, and to the east separated by the MBTA Providence/ Stoughton Line. Sprague Pond and residential neighborhoods are located to the south.			
List the surrounding accessible MBTA transit lines and their proximity to development site: commuter rail / subway stations, bus stops:	MBTA Commuter Rail – Franklin Line, Readville Station			
List the surrounding institutions: hospitals, public housing, elderly and disabled housing developments, educational facilities, others:	Franklin D. Roosevelt School, Parkside Christian Academy & Cross Factor Academy, Pond View Montessori School, Academy of the Pacific Rim Charter School, Curry College			
List the surrounding government buildings: libraries, community centers, recreational facilities, and other related facilities:	None			
<p>4. Surrounding Site Conditions – Existing: <i>This section identifies current condition of the sidewalks and pedestrian ramps at the development site.</i></p>				

Article 80 | ACCESSIBILITY CHECKLIST

<p>Is the development site within a historic district? If yes, identify which district:</p>	<p>No.</p>
<p>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:</p>	<p>Yes, there is a sidewalk along Sprague Street but it is not accessible due to existing grades. There are no sidewalks along Horne Street within the development site. Existing sidewalk along Sprague Street is concrete.</p>
<p>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:</p>	<p>Sidewalks along Sprague Street that are non-compliant in width will likely be replaced and will be designed to be 5'-0" wide.</p>
<p>5. Surrounding Site Conditions – Proposed <i>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.</i></p>	
<p>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.</p>	<p>No.</p>
<p>What are the total dimensions and slopes of the proposed sidewalks? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone:</p>	<p>5'-0"</p>
<p>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</p>	<p>N/A</p>

Article 80 | ACCESSIBILTY CHECKLIST

Boston pedestrian right-of-way?	
Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way? If yes , what are the proposed dimensions of the sidewalk café or furnishings and what will the remaining right-of-way clearance be?	No.
If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the Public Improvement Commission (PIC)?	N/A
Will any portion of the Project be going through the PIC? If yes , identify PIC actions and provide details.	N/A
<p>6. Accessible Parking: <i>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.</i></p>	
What is the total number of parking spaces provided at the development site? Will these be in a parking lot or garage?	511 parking spaces with a potential additional 30 parking spaces at City of Boston Parcel for a total potential 548 spaces. 458 of the spaces will be in a garage.
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?	Retail parking (34 spaces) = 2 accessible spaces Residential parking (471) = 10 accessible spaces (2% of total)
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.
Where is the accessible visitor parking located?	At the retail parking lot and in the garage.
Has a drop-off area been identified? If yes , will it be accessible?	Yes, drop off will be accessible.

Article 80 | ACCESSIBILTY CHECKLIST

<p>7. Circulation and Accessible Routes: <i>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.</i></p>	
Describe accessibility at each entryway: Example: Flush Condition, Stairs, Ramp, Lift or Elevator:	Building #1: Flush condition. Building #2: Stairs, Ramp, Elevator. Building #3: Flush condition. Building #4: Flush condition.
Are the accessible entrances and standard entrance integrated? If yes , describe. If no , what is the reason?	Yes.
If project is subject to Large Project Review/Institutional Master Plan , describe the accessible routes way-finding / signage package.	N/A.
<p>8. Accessible Units (Group 2) and Guestrooms: (If applicable) <i>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.</i></p>	
What is the total number of proposed housing units or hotel rooms for the development?	492
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?	128 for sale 364 rental 13% will be IDP units
If a residential development , how many accessible Group 2 units are being proposed?	All units shall be Group 1 and there will be approximately 18 accessible Group 2 units.
If a residential development , how many accessible Group 2 units will also be IDP units? If none , describe reason.	Approximately 3.
If a hospitality development , how many accessible units will feature a wheel-in shower? Will accessible	N/A.

Article 80 | ACCESSIBILTY CHECKLIST

<p>equipment be provided as well? If yes, provide amount and location of equipment.</p>	
<p>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.</p>	<p>No.</p>
<p>Are there interior elevators, ramps or lifts located in the development for access around architectural barriers and/or to separate floors? If yes, describe:</p>	<p>No.</p>
<p>9. Community Impact: <i>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.</i></p>	
<p>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?</p>	<p>TBD</p>
<p>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?</p>	<p>Common amenity spaces and courtyard patios with barbeque grills are being proposed. All spaces will provide accessibility.</p>
<p>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,</p>	<p>Yes, accessible restrooms will be provided as required.</p>

Article 80 | ACCESSIBILTY CHECKLIST

<p>explain why not.</p>	
<p>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?</p>	<p>Not at this time.</p>
<p>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?</p>	<p>Not at this time.</p>
<p>10. Attachments <i>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.</i></p>	
<p>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. See Figures 1 through 9.</p>	
<p>Provide a diagram of the accessible route connections through the site, including distances. See Figures 1 through 9.</p>	
<p>Provide a diagram the accessible route to any roof decks or outdoor courtyard space? (if applicable) See Figures 1 through 9.</p>	
<p>Provide a plan and diagram of the accessible Group 2 units, including locations and route from accessible entry. See Figures 1 through 9.</p>	
<p>Provide any additional drawings, diagrams, photos, or any other material that describes the inclusive and accessible elements of this project.</p> <ul style="list-style-type: none"> • • • • 	

Article 80 | ACCESSIBILITY CHECKLIST

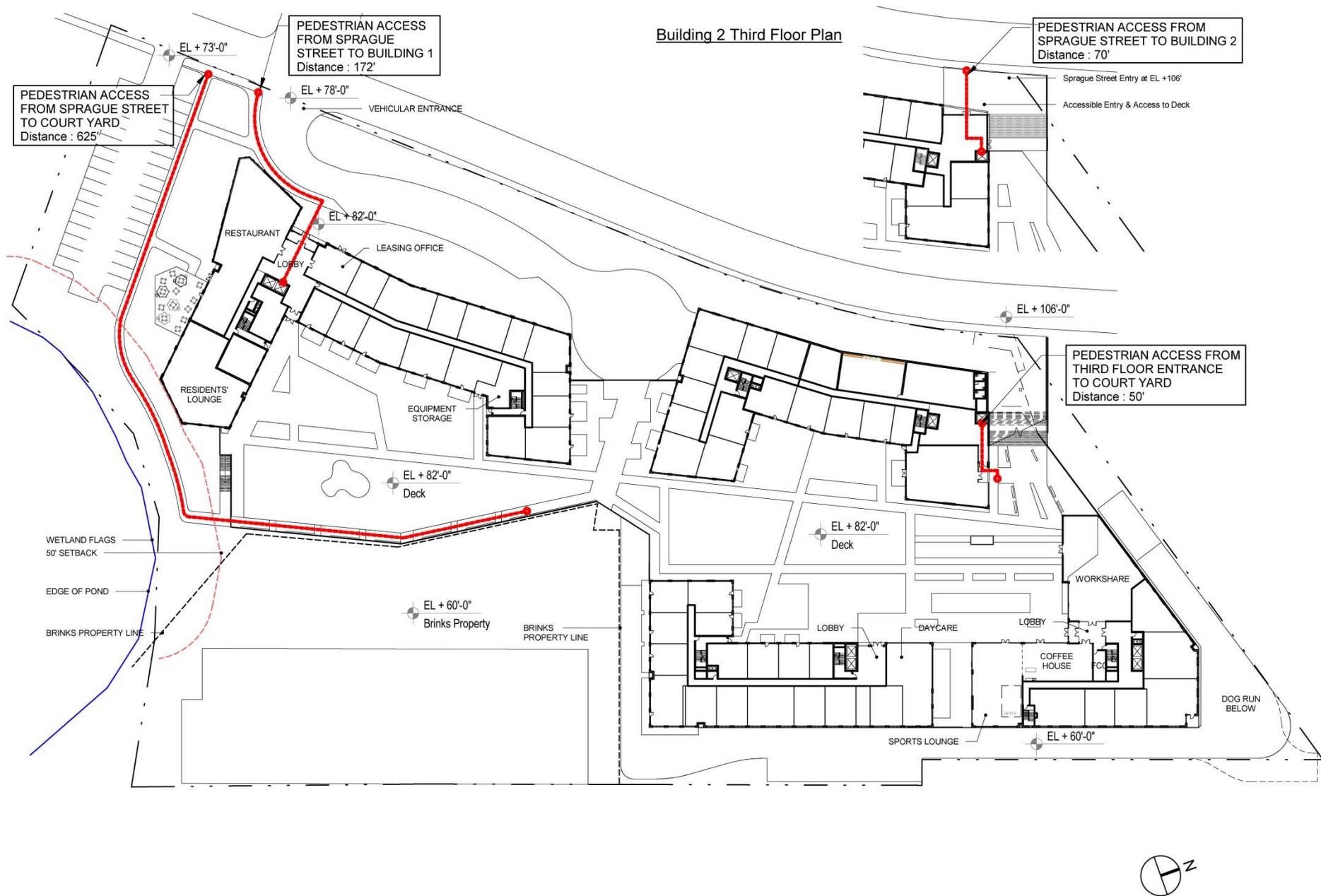
This completes the Article 80 Accessibility Checklist required for your project. Prior to and during the review process, Commission staff are able to provide technical assistance and design review, in order to help achieve ideal accessibility and to ensure that all buildings, sidewalks, parks, and open 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:

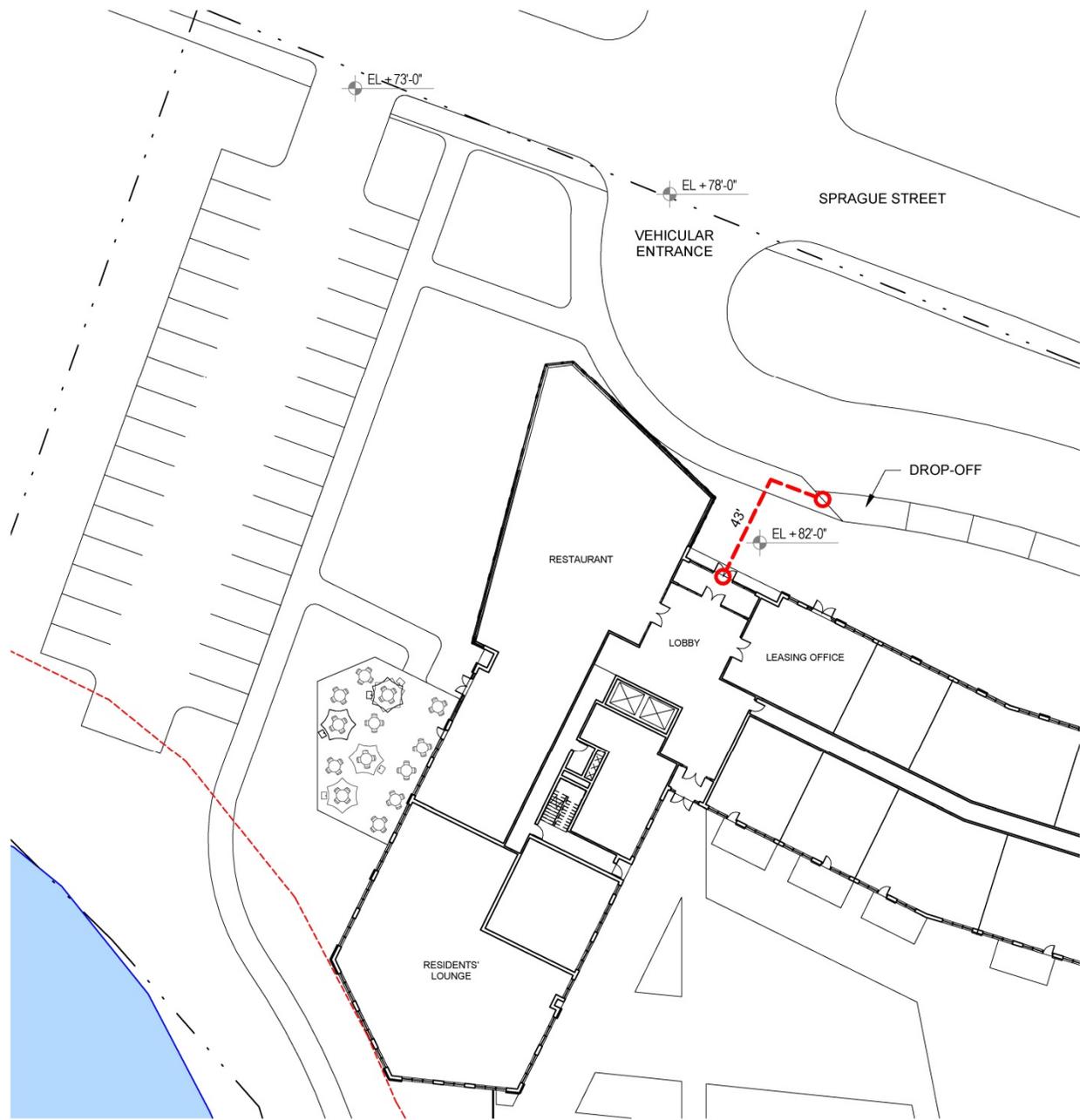
accessibility@boston.gov | patricia.mendez@boston.gov | sarah.leung@boston.gov | 617-635-3682



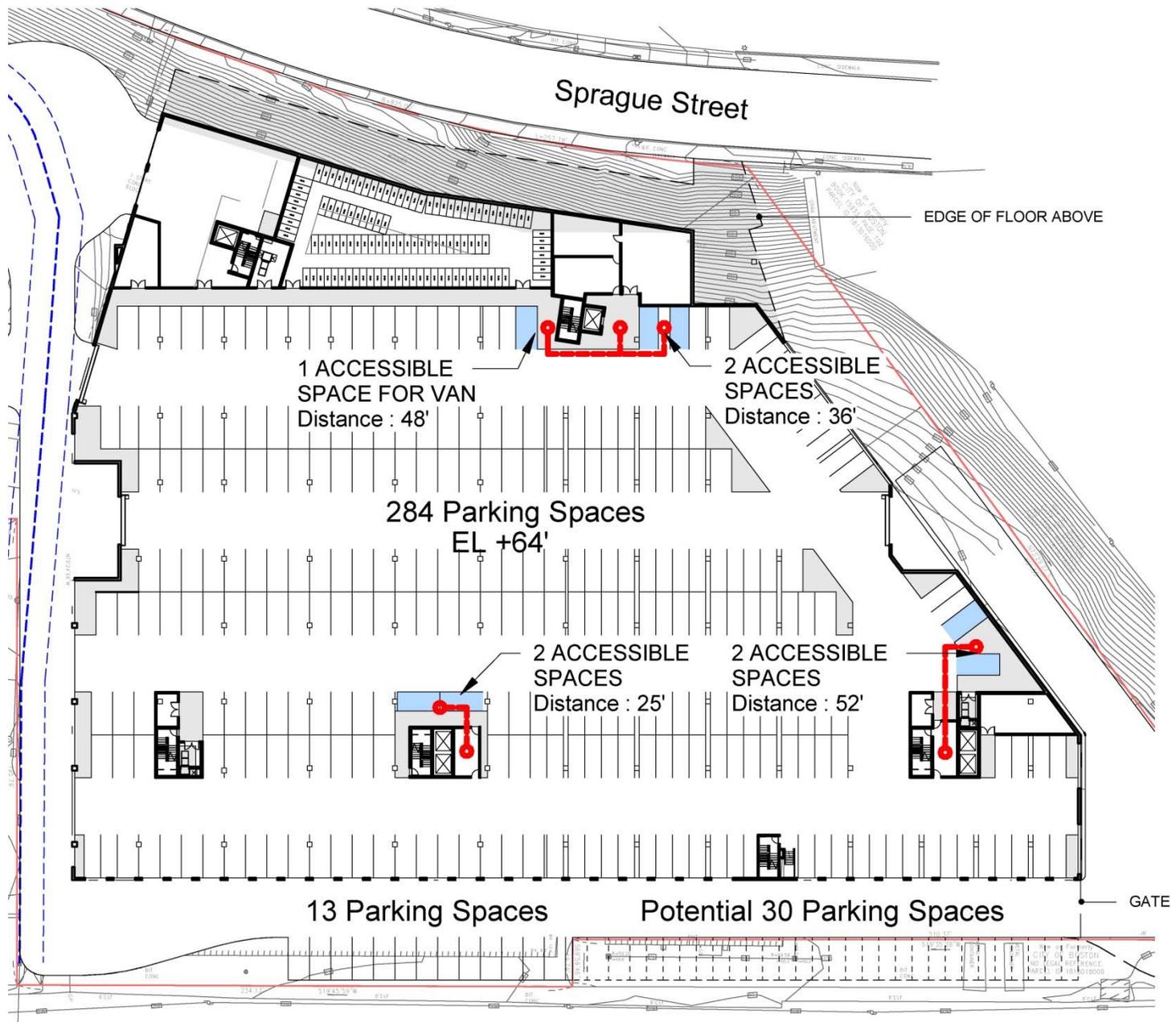
36-70 Sprague Street Readville, Massachusetts



Figure 1
Accessible Routes Through the Site



36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts

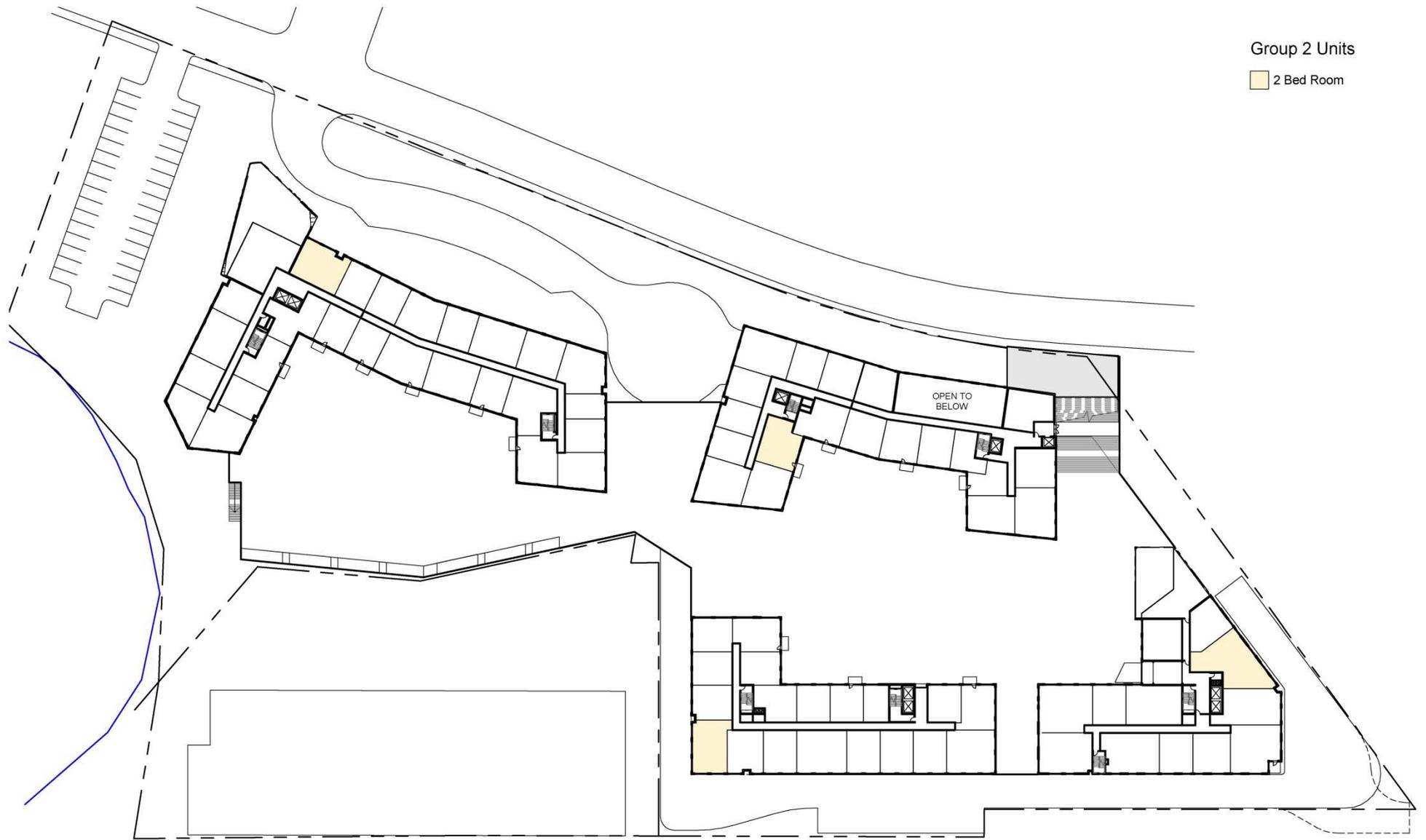


Group 2 Units

1 Bed Room

3 Bed Room

36-70 Sprague Street Readville, Massachusetts



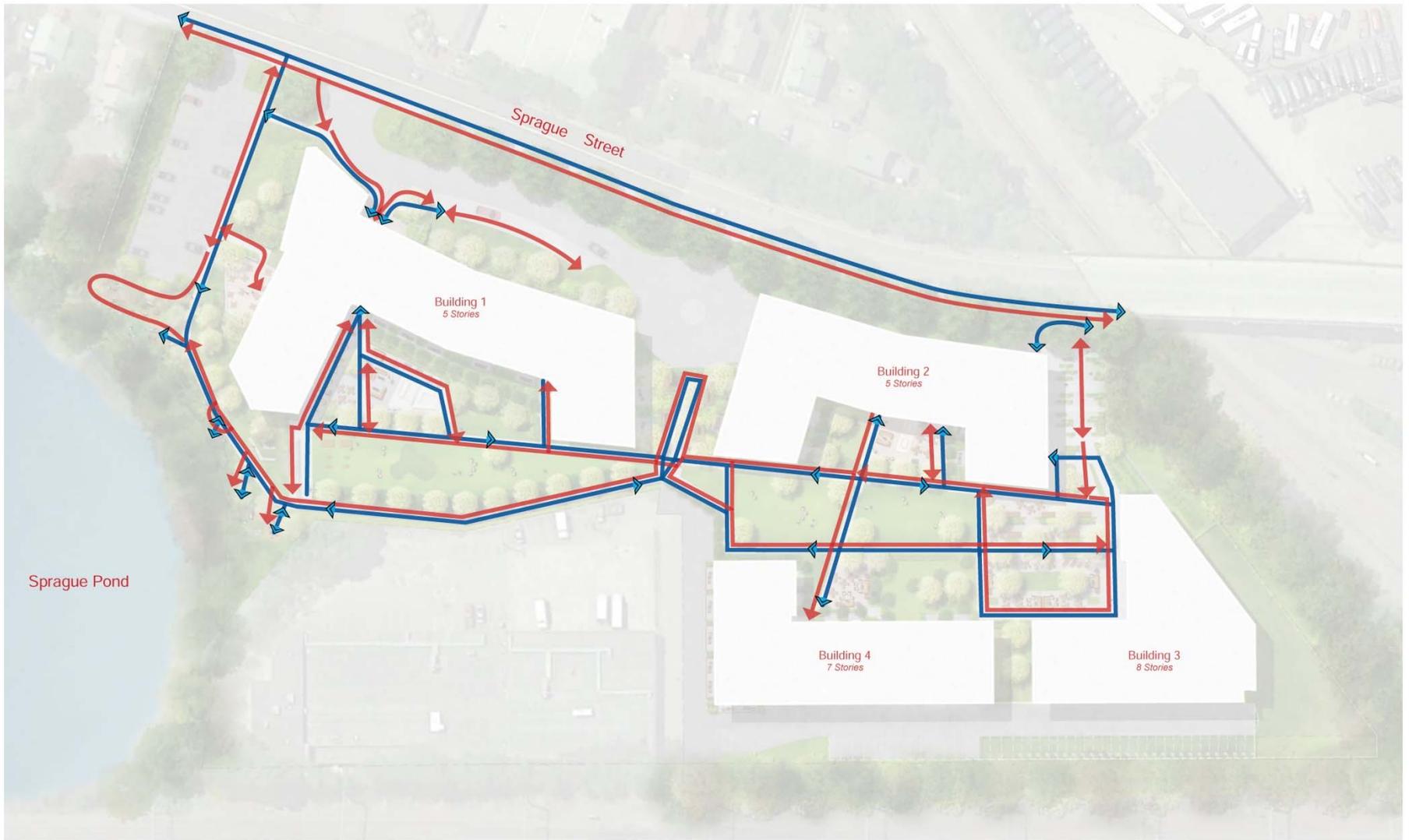
36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts



36-70 Sprague Street Readville, Massachusetts

Appendix E

Group 2 Units by Apartment Type

Sprague Readville
June 14, 2018

GROUP 2 ACCESSIBLE UNIT BREAKDOWN

Buildings 2, 3 & 4
apartments units **364**

Beds/Baths	% of Total	size	# of apts	group 2 units
Urban flat 1 BA	5%	425	18	1
Studio 1 BA	12%	530	44	2
Junior 1 BR/1BA	20%	584	73	3
1 BR/1BA	15%	710	55	3
1+Den/1BA	15%	757	55	3
2BR/1.5BA Duplex	0%	0	0	0
2 BR/2BA	20%	1,050	73	3
2+Den/2BA	10%	1,100	36	2
3BR/2 BA	3%	1,350	11	1
			100%	364
				18

all apartments not group 2 are group 1 units

Building 1
condominium units **128**

Beds/Baths	% of Total	size	# of apts	group 2 units
Urban flat 1 BA	5%	425	6	0
Studio 1 BA	10%	530	13	0
Junior 1 BR/1BA	10%	584	13	0
1 BR/1BA	15%	710	19	0
1+Den/1BA	20%	757	26	0
2BR/1.5BA Duplex	5%	1,140	6	0
2 BR/2BA	15%	1,050	19	0
2+Den/2BA	15%	1,100	19	0
3BR/2 BA	5%	1,500	6	0
			100%	128
				0

group 2 units not required in condominiums
all condominium units are group 1