CITY OF SOMERVILLE, MASSACHUSETTS
MAYOR'S OFFICE OF STRATEGIC PLANNING & COMMUNITY DEVELOPMENT
JOSEPH A. CURTATONE
MAYOR

GEORGE J. PROAKIS
EXECUTIVE DIRECTOR

November 5th, 2021

Robert Dickey
Boynton Yards LandCo LLC
10 Post Office Square #1300
Boston, MA 02109

Dear Mr. Dickey,

This letter is the Final Decision of the Director of Mobility for the Mobility Management Plan ('MMP') submitted by Boynton Yards Land Co LLC, a joint venture between DLJ Real Estate Capital Partners and Leggat McCall Properties LLC, (the 'Applicant') as required by §11.4 Mobility Management of the Somerville Zoning Ordinance for a Master Planned Development (MPD) project on approximately 6.8 acres of land in the Boynton Yards neighborhood. The decision is an **Approval with Conditions**. This letter details the conditions necessary for the successful implementation of your plan and sets the City's expectations for the forthcoming MMPs for individual buildings.

Background & Applicability

The Boynton Yards Master Planned Development (MPD) project proposes the construction of a four phase mixed-use development that includes six buildings. Based on the Supplemental Transportation Memorandum provided by project team, the development program will consist of approximately 1,862,000 GFA, with approximately 1,363,000 SF of office, research and development, and lab enabled uses, 440,000 SF of residential space (440 units), and 59,000 SF of retail and/or restaurant space. The development proposes no more than 1,320 structured below-grade vehicle parking spaces, 888 long term bicycle parking spaces, and 203 short term bicycle parking spaces (the "Proposed MPD").

The Project is located in the Boynton Yards (BY) overlay district sub-area in the High-Rise (HR) zoning district. The BY sub-area is subject to a 1,500 space off-street parking maximum that may only be exceeded by Special Permit. The BY sub-area is also subject to commercial floor area minimums that requires at least 75% of floor space to be dedicated to non-residential uses and at least 10% of the total commercial floor area to be dedicated to Arts & Creative Enterprise uses.

As proposed, the Proposed MPD is an amendment to the existing approved MPD and represents an increase of 481,500 GFA consisting of 363,000 sf of commercial space, 16,500 sf of retail space, 102,000 (110 units) of residential space, and 318 off-street vehicle parking spaces.

Mobility Management Plans are required by the Somerville Zoning Ordinance for Master Planned Development. The purpose of a MMP for master planned development is to ensure that master developers are fully aware of the mobility management responsibilities of future property owners and tenants and that advanced notice is provided to future property owners, tenants, parking facility operators, and property management firms of the operational expectations necessary for successful plan implementation. **This Master Plan MMP and Final Decision Letter supersede the original Master Plan MMP and Final Approval Letter dated 8/14/2020 and shall apply to the entire MPD to be approved by the Planning Board (the "Board") in an Amendment to the Master Plan Special Permit (MPSP2020-002) dated February 4, 2021 (the "Approved MPD").**

Each of the proposed commercial buildings will meet the fifty thousand (50,000) square feet commercial space threshold to trigger MMP requirements of the property owner. In addition, the residential building will meet the twenty (20) or more total dwelling units threshold to trigger MMP requirements of the property owner. **The Applicant is required to submit a MMP approval letter as a part of the site plan approval for each building.**

Due to the size of the buildings, one or more future tenants may trigger the requirements of individual employers with more than 50 employees. **The property owner shall require qualifying future tenants to provide required mobility management programs and services through lease agreements.** Due to the size of the ground floor retail/restaurant spaces, the future tenants of these spaces may not meet the fifty (50) employee threshold to trigger individual MMP requirements – making the property owner primarily responsible for implementation of the required mobility management programs and services. Annual reporting will be necessary to verify the cumulative employee count each year and implementation of programs & services required of the property owner and/or retail/restaurant tenants should this threshold be exceeded.

Plan Commitments

Programs and Services Required by SZO

The Applicant has made the following commitments in relation to the mode share requirements for all mobility management plans:

- To making reasonable efforts to control the percentage of trips made by automobile at fifty percent (50%) or less and to implement additional mobility management programs and services if annual monitoring and reporting identifies a shortfall in meeting this goal.

The Applicant has made the following commitments in relation to the programs and services *required for buildings with fifty thousand (50,000) square feet or more of commercial space and for multi-tenant buildings where the tenants, in combination, have fifty (50) or more employees:*

- To provide an on-site transportation coordinator and to identify the work space location or office and contact information for the on-site transportation coordinator prior to occupancy of the building.
- To post and distribute mobility management information, including information pertaining to pedestrian, cycling and transit access to the Project Site.
- To host an annual mobility management education meeting for tenants and their employees.
- To un-bundle the rental or lease of parking spaces from the rental or lease of floor space.

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- To offer preferential carpool and vanpool parking within the parking garage and spaces near office building entrances within the parking garage as a convenience to commuters and to promote ride-sharing.

The Applicant has committed to require in all commercial lease agreements for all future tenants:

- To provide their employees with Qualified Transportation Fringe benefits per current U.S. Internal Revenue Code.
- To become a participating MassRIDES employer partner worksite that is registered for the MassRIDES Emergency Ride Home (ERH) program or to provide a similar guaranteed ride home service.

The Applicant has committed to require in all commercial lease agreements for all future tenants with 50 or more employees:

- To submit their own Mobility Management Plan and provide for their employees all programs and services required by the Somerville Zoning Ordinance of employers with 50 or more employees.

The Applicant has made the following commitments in relation to the programs and services required for property owners of commercial parking facilities:

- To offer preferential carpool and vanpool parking within the parking garage and spaces near office building entrances within the parking garage as a convenience to commuters and to promote ride-sharing.
- To post mobility management information, including information pertaining to pedestrian, cycling and transit access to the Project Site.

The Applicant has made the following commitments in relation to the programs and services required for the property owner of a residential building with 20 or more dwelling units:

- To post and distribute mobility management information, including information pertaining to pedestrian, cycling and transit access to the Project Site.
- To un-bundle the rental or lease of parking spaces from the rental or lease of floor space.

Additional Commitments

In addition to the above, the Applicant has committed to the following additional programs & services:

- To be provided by the Property Owner:
  - To provide two new BlueBikes bike-share stations located within the Development Site.
  - To work with the MBTA to identify appropriate locations for new or relocated bus stops near the Development Site and other possible amenities, including bus shelters and real-time transit information.
  - To provide a central commuter information center within the site.
  - To implement a shuttle service to Kendall Square and Sullivan Square for the period before the Union Square GLX station opens, and to evaluate the shuttle for continued operations after the Union Square GLX station begins service.
  - To becoming an active member of any TMA formed in the vicinity of the Project.
- To be provided by all tenants with 50 employees or more:
  - To provide an on-site transportation coordinator
  - To charge employees market rate for on-site parking spaces
  - To implement short-term parking lease agreements for employees

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- To be provided by the Property Management Firm:
  - Charge market rate for parking spaces through tenant lease agreements;
  - Implement short-term parking lease agreements;
  - Require tenants to offer short-term parking lease options to employees;
  - Require tenants to charge employees market rate for on-site employee parking;
  - Provide preferential carpool/vanpool parking spaces;

Mobility Division Comments & Approval Conditions

The Applicant details a number of additional programs and services that may or may not be offered by the Applicant or by future tenants. While we commend the Applicant for detailing programs and services that could potentially reduce vehicle travel to the site, these measures cannot be evaluated as constructive elements of the Mobility Management plan without firm and specific commitments by the Applicant to implement them or require them of future tenants.

The Somerville Zoning Ordinance limits the number of off-street vehicle parking spaces in the Boynton Yards sub-area to a maximum of 1,500 spaces, which may only be exceeded by Special Permit. While the parking maximum has not yet been reached, it is expected that the addition of this Project as proposed would exceed the space limit.

While the Mobility Division is studying the parking demand and supply in Boynton Yards to determine if – and under what circumstances – it would be appropriate to recommend a special permit to allow a future development to exceed the parking maximum for the district, at this time, the Mobility Division cannot support a proposal that would exceed the parking maximum. Therefore, the overall parking for the MPD must not exceed 1,125 parking spaces so as to remain under the parking maximum for the district, and to limit the negative impacts of increased vehicle travel and to avoid incentivizing driving over sustainable transportation options.

- **CONDITION #1:** *The approval of this MMP is conditioned on a reduction in the parking program provided in the Proposed MPD. The number of off-street parking spaces in the Approved MPD may not exceed 1,125 total parking spaces and shall be calculated as the overall parking ratio of 0.6 parking spaces per 1000 sf in the Approved MPD. For Clarity, if the Board approves 1,862,000 sf in the Approved MPD, a total of 1,117 parking spaces would be approved. Any Revision to the Approved MPD will require a revision to this Master Plan MMP. This parking space limit shall be inclusive of all off-street parking spaces that serve the Approved MPD and may be allocated within proposed buildings at the Applicant's discretion.*

The Somerville Zoning ordinance requires all site parking garages to be operated as Commercial Parking Facilities, meaning that these parking resources will not be exclusive to building tenants and their employees and will be open to the public. The Mobility Division cannot support accessory parking on this site and is committed to ensuring that new parking creation in the Boynton Yards district is a shared resource available to the public, inclusive of tenant employees. In addition, parking spaces must be priced at local market rates and will be unbundled for tenant employees and residents. Finally, strong Transportation Demand Management (TDM) measures, transit amenities and connections, and additional supportive infrastructure to encourage the use of non-vehicle transportation modes are integral components of Mobility Management planning for this site.

- **CONDITION #2:** *The Applicant (or their designated parking facility operator) will operate the parking garages as Commercial Parking Facilities and will offer, at minimum, hourly, daily*

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(weekday and weekend), overnight, and monthly parking rental options at local market rates to general public, inclusive of tenant employees and site residents, 24 hours per day, 7 days per week, and 365 days per year. Tenant employees and residents must pay market rate directly for parking and must be made aware of different parking pass options at the point of sale and through the distribution of mobility management information. Tenants may not lease parking spaces or passes on behalf of their employees, but tenant leases may include the allocation of a set number of unreserved monthly parking passes which may be purchased by tenant employees directly from the Applicant (or their designated parking facility operator) on a first come first serve basis. The property owner must provide either a copy of executed lease agreements or an affidavit signed by the property owner and tenant(s) verifying that this language was included and agreed to in the lease or other agreement.

- ***CONDITION #3:** The Applicant (or their designated parking facility operator) must manage the Commercial Parking Facilities so that the various required parking pass options remain generally available to the public, inclusive of tenant employees. Any reserved parking spaces are subject to a 200% market rate price premium as well as the overall reserved space limits set forth in Condition #4. Applicant will submit details on all parking rates offered in the commercial parking facility as well as detailed historical parking occupancy and passholder sales data with annual reporting so that the utilization of the garage may be evaluated. Applicant may adopt operational measures to meet existing passholder obligations but shall always seek to maximize utilization of parking spaces and shall ensure that an allocation of spaces remains for daily and hourly parking.*

- ***CONDITION #4:** In any lease agreement with all future tenants of any number of employees, the Applicant shall require the tenant to unbundle, and charge the market rate for, any employee parking spaces by charging their employees the full market rate of such spaces. Standard lease agreement language for unbundled and market rate parking must be approved by the Director prior to the issuance of any Certificate of Occupancy. To verify ongoing conformance, the property owner must provide either a copy of executed lease agreements or an affidavit signed by the property owner and tenant(s) verifying that this language was included and agreed to in the lease or other agreement.*

- ***CONDITION #5:** The number of reserved vehicle parking spaces in each Commercial Parking Facility is restricted to no more than 5%, rounded to the nearest whole number.*

- **CONDITION #6:** Posted and distributed mobility management information must be reviewed and approved by the Director of Mobility prior to the issuance of any Certificate of Occupancy for the building.

- **CONDITION #7:** At least two (2) parking spaces must be made available in EACH parking garage (10 spaces total) for car share vehicles at no cost to a car share service provider. Spaces may be brought online at the discretion of the car share service provider. Notification of available spaces to car share service providers must be documented prior to the issuance of any Certificate of Occupancy and in annual reporting.

- **CONDITION #8:** At least 2.5% of the total parking spaces provided in each commercial service vehicular parking facility, *rounded to the nearest whole number, must be signed, designated, and reserved for carpools and/or vanpools and be located in preferential*

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locations close to building entrances. Additional spaces must be provided as demand warrants.

- ***CONDITION #9:*** *A least one (1) bicycle repair facility must be provided for tenant employees in a convenient location such as the bike storage room in EACH of the six buildings. Locker rooms with shower facilities must be provided in EACH of the six buildings for tenant employees and can be provided in a single space for all building users, in spaces for each tenant, or in multiple spaces shared amongst tenants. Locker room and shower capacity must meet expected employee demand, and must be expanded as necessary to meet actual employee demand.*

- ***CONDITION #10:*** *On-site real time transit information is required in each building and in significant exterior public facing locations. Locations of on-site transit information will be determined in building level Mobility Management Plans. Details on the locations of all real time transit information screens will be submitted to the Director for approval prior to the issuance of a building permit for any portion of the Project.*

- **CONDITION #11:** *The Applicant will sponsor, and identify an off-street location for, three city owned 19-dock BlueBikes bike share station to be located either on the Applicant's property or a city approved location on a public sidewalk in the vicinity of the Project site. Locations must be approved prior to the issuance of any building permit for the site and identified on building plans as applicable. One station must be installed prior to issuance of any Certificate of Occupancy for Phase 2, a second station must be installed prior to issuance of any Certificate of Occupancy for Phase 3, and a third station must be installed prior to issuance of any Certificate of Occupancy for Phase 4.*

- ***CONDITION #12:*** *At least 15% of the total parking spaces provided in each commercial service vehicular parking facility, rounded to the nearest whole number, must be equipped with Level 2 Chargers (or then current technology) when the garage opens for occupancy. The remaining 85% of the garage vehicle parking spaces must be EV Ready spaces. EV Ready spaces must be equipped with Level 2 chargers (or then current technology) as demand warrants. Documentation of EV readiness must be submitted to the Mobility Division prior to the issuance of any building permit for the site, including identification of future conduit paths to each parking space, future charging station locations, adequate space in the electrical panel, and adequate transformer capacity and/or space for additional transformer capacity to accommodate future installations.*

- ***CONDITION #13:*** *In any lease agreement with all future tenants of any number of employees, the Applicant shall require tenant(s) to subsidize MBTA transit passes for employees by at least 90% of the pass cost, up to the federal maximum Qualified Transportation Fringe benefits per current U.S. Internal Revenue Code ($270 per month in 2021), subject to annual increases. Standard lease agreement language for subsidized MBTA transit passes must be approved by the Director prior to their execution in lease agreements. To verify ongoing conformance, the property owner or property manager must provide either a copy of executed lease agreements or an affidavit signed by the property owner and tenant(s) verifying that this language was included and agreed to in the lease or other agreement. The Applicant may choose to provide this subsidy themselves directly to site employees and is ultimately responsible for ensuring that all site employees are offered this subsidy.*

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- ***CONDITION #14:*** *In any lease agreement with all future tenants of any number of employees, the Applicant shall require tenant(s) to enroll in the BlueBikes Bike Share Corporate Partner Program and subsidize annual BlueBikes memberships for employees at the Gold subsidy level or higher (100% subsidy), subject to rate increases. Standard lease agreement language for subsidized BlueBikes annual passes must be approved by the Director prior to their execution in lease agreements. To verify ongoing conformance, the property owner or property manager must provide either a copy of executed lease agreements or an affidavit signed by the property owner and tenant(s) verifying that this language was included and agreed to in the lease or other agreement. The Applicant may choose to provide this subsidy themselves directly to site employees and is ultimately responsible for ensuring that all site employees are offered this subsidy.*
- ***CONDITION #15:*** *The property owner must have a signed contractual agreement become a dues paying member of any Transportation Management Agency (TMA) established to serve the Boynton Yards neighborhood. Proof of membership must be submitted to the Director prior to the issuance of the any Certificate of Occupancy for the site or within six months of the start of TMA operations, whichever occurs later.*
- **CONDITION #16:** *For the purpose of reducing daily peak-hour vehicle trips, the Applicant shall, to the extent practicable, work with tenants, the City of Somerville's Economic Development Division, and the community to develop strategies to advertise employment opportunities and seek qualified candidates that live within Somerville. The Applicant shall provide annual reports of data on the compliance with this condition, including but not limited to employee's daily trip place of origin data (i.e. home city/town), and other relevant information as required by the Director of Mobility.*
- **CONDITION #17:** *In addition to the initial mode share commitment of 50% or less trips made by automobile, the Applicant shall make reasonable efforts to control the percentage of trips made by automobile at 37.5% or less by 2030 and at 25% or less by 2040 in order to meet the city's SomerVision 2040 goals. The Applicant will implement additional mobility management programs and services if annual monitoring and reporting identifies a shortfall in meeting this goal.*

Monitoring and Reporting

The property owner has committed to Annual Reporting to track, assess, and report on the implementation of the Mobility Management program as required by the Director's submittal requirements, which include:

- Annual travel surveys of employees of participating non-residential tenants.
- Annual reporting of parking utilization and operations for any Commercial Service Vehicular Parking facility
- Biennial (every other year) counts of automobile trips entering & exiting any parking facilities.
- Status update of Mobility Management program & service implementation.

All monitoring must be conducted at the same time each year, as determined by the Certificate of Occupancy for each building. If the Certificate of Occupancy for a building is issued between September 1 and February 29, the monitoring shall take place during the months of September or October and be reported to the Mobility Division no later than November 30. If the Certificate of Occupancy for a building is issued between March 1 and August 31, monitoring shall take place during the months of

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April or May and be reported to the Mobility Division no later than June 30. This will ensure that the monitoring captures a realistic assessment of the performance of the project, while giving time to compile the results and report them to the City.

It is important to note that while approved Mobility Management Plans are transferable by and among private parties, this transfer is contingent upon the new owner agreeing to continue to operate in accordance with the previously approved Mobility Management plan, as conditioned. Should the property owner elect to transfer some portion or all of the development subject to this Mobility Management Plan, commitment to the previously approved Mobility Management Plan is required by the new property owner.

I look forward to working with you in the future as you implement this plan. If you have any questions, please feel free to contact me at (617) 625-6600 or brawson@somervillema.gov.

Sincerely,

Brad Rawson
Director of Mobility
Mayor's Office of Strategic Planning & Community Development
City of Somerville, Massachusetts

I certify that I have read and agree to implement the Mobility Management Plan in the form approved by the Director of Mobility. I understand that failure to implement the approved plan may result in enforcement actions taken by the City of Somerville.

Agreed and accepted,

Robert Dickey
Boynton Yards LandCo LLC

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Boynton Yards Master Plan

Somerville, Massachusetts

PREPARED FOR

Boynton Yards LandCo LLC

Contact:
(A joint venture between DLJ Real Estate Capital Partners and Leggat McCall Properties LLC)
C/O 10 Post Office Square, #1300
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JULY 2021

REVISED AUGUST 4, 2021

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Project Information

Contact Information

The Project development site address and contact information is as follows:

153 South Street

Contact:
Boynton Yards LandCo LLC
(A joint venture between DLJ Real Estate Capital Partners and Leggat McCall Properties LLC)
10 Post Office Square, #1300
Boston, MA 02109

Project Description

Boynton Yards LandCo LLC (a joint venture between DLJ Real Estate Capital Partners and Leggat McCall Properties LLC) (collectively the "Proponent") has previously filed a Mobility Management Plan (MMP) in July 2020[1] and a supplemental update on August 13, 2020[2] for the Boynton Yards Master Plan proposal. The MMP and supplemental update were approved by the City of Somerville Mobility Division on August 14, 2020. Since the previously approved Boynton Yards Master Plan proposal, the Proponent has assembled additional parcels adjacent to the Master Plan area and is proposing to incorporate the redevelopment of these parcels into the overall Boynton Yards Master Plan.

1 Boynton Yards: 153 South Street, *Mobility Management Plan*, VHB, July 2020
2 *Mobility Management Plan – updated, Boynton Yards, 153 South Street, Somerville, Massachusetts*, VHB, August 13, 2020

The previously approved Master Plan included a pedestrian and transit oriented, mixed-use development consisting of four buildings containing a mixture of residential units, commercial (research & development and office), and supporting retail/restaurant space (the "Project").

The currently proposed development will be constructed across six buildings (one existing building to remain and five new buildings) to be generally located north of and adjacent to South Street, to the west of Harding Street, and extending to the parcel just east of Windsor Street in Somerville, Massachusetts (the "Site"). Directly north of the Project Site is the MBTA train tracks for the Green Line Extension ("GLX") project. Windsor Place Extension, which is an existing privately-owned street, travels in an east-west direction through the Site. The Proponent intends to transfer the ownership of the Windsor Place Extension to the City. For the purposes of the MMP, this new roadway is referred to as "Thoroughfare 1". In the future, the proposed buildings will host a mixture of office, research and development (R&D) and lab enabled uses (office/R&D/lab), ground floor retail/restaurant uses, residential, and associated parking facilities and infrastructure improvements.

Build Out/Program Estimates

The Proponent proposes the construction of a pedestrian- and transit-oriented, mixed-use development that includes six buildings consisting of approximately 440 residential units, 1,347,500 SF of commercial space (to be evenly split between lab/research & development and office space), 59,000 SF of retail/restaurant space, and 1,320 primarily structured below-grade parking spaces (the "Project," also known as Boynton Yards). Consistent with Article 8.3.11(f)(iii) of the City's zoning code, approximately 10 percent of the total commercial floor area in the proposed Project will be dedicated to Arts & Creative Enterprise principal uses. Table 1 below summarizes the previously approved and current Boynton Yards Master Plan development programs.

Table 1 Program Use Table

	Previously Approved Program [1]	Currently Proposed Program [2]	Difference
Commercial	984,500 SF	1,347,500 SF	+363,000
Retail	42,500 SF	59,000 SF	+16,500
Residential	338,000 SF (330 units)	440,000 SF (440 units)	+102,000 SF (110 units)
Total	**1,365,000 SF**	**1,846,500 SF**	**+481,500**
Off-Street Parking	1,002 spaces	1,320 spaces	+318 spaces

1 Previously approved development program as presented in the August 2020 TIAS as part of the Boynton Yards Master Plan.

2 Currently proposed development program as of August 2021.

An initial component of the Project – approximately 257,500 SF of the proposed commercial space and 12,500 SF of the proposed retail/restaurant space – is already under construction at 101 South Street (known as "101 South"). The Mobility Management Plan (MMP) for this portion of the Project was completed and approved under the 1 Earle Street property (now known as 101 South).

Additionally, Building 2 (One Boynton) – approximately 357,000 SF of the proposed commercial space and 9,000 SF of the proposed retail/restaurant space – has been approved by the City of Somerville, though construction has not yet started. The Mobility Management Plan (MMP) for this portion of the Project was submitted in May 2021 and received final approval on July 6, 2021.

The development program by building is shown in Table 2.

Table 2 Development Program

Building	Office / Lab / Research & Development [a]	Retail/ Restaurant	Residential	Total	Parking spaces [b]
Building 1 (101 South)	257,500 SF	12,500 SF	0 units	**270,00 SF**	250
Building 2 (One Boynton)	357,000 SF	9,000 SF	0 units	**366,000 SF**	242
Building 3 (A&B)	370,000 SF	11,000 SF	0 units	**381,000 SF**	240-270
Building 4	0 SF	10,000 SF	440 units (440,000 SF)	**450,000 SF**	280-310
Building 5	288,000 SF	12,000 SF	0 units	**300,000 SF**	240-270
Building 6 (Taza) – Existing	75,000 SF	4,500 SF	0 units	**79,500 SF**	5
Total Build-out	**1,347,500 SF**	**59,000 SF**	**440 units (440,000 SF)**	**1,846,500 SF**	**1,320**

a A total of approximately 1,347,500 SF of building space will be devoted to office, lab, or research and development space. The exact breakdown for between these uses is based on current development plans but may change over time based on market conditions and tenant needs.

b Parking count for Buildings 3-5 to be determined as the architecture is refined. The total off-street parking count for the Master Plan area will not exceed 1,320 spaces.

Project Schedule / Phasing

The Project will be developed as one master-planned development project, to be constructed in four phases, with construction anticipated to be undertaken over six to eight years. This timeframe may be extended depending on market conditions and the scope of each phase of construction. This following section provides a general summary of the anticipated Project schedule and phasing.

Existing Uses

Building 6 (the Taza Building) currently exists and is operational on Site today. It is expected to remain as such, with minor updates to the façade and curb area.

Phase 1

Phase 1 of the Project involves the currently active construction of Building 1 (101 South) and the construction of an interim open space to the west. The interim open space will provide a passive space for short-term activation opportunities. Phase 1 will also include the installation of new pavement, sidewalk and drainage inlets associated with the extension of Thoroughfare 1 that will be completed in later phases.

Phase 2

Phase 2 of the Project consists of the construction of Building 2 and the construction of Civic Space 1, the signature open space that was initiated during Phase 1. Along the east side of

Building 2, Phase 2 includes the construction of the open and landscaped improvements that will serve as a gateway to the neighborhood. Additionally, during Phase 2, the intersection at Ward Street will be reconstructed and connected to Harding Street and extended north to Thoroughfare 1.

Buildings 3 and 4 will not be developed until Phases 3 and 4, but the proposed building lots will be used in the interim for temporary construction storage and staging.

Phase 3

Phase 3 of the Project consists of the construction of Buildings 3A and 3B. Thoroughfare 1 will be extended to connect to Building 3B, and the intersection at Ward Street will be reconstructed and connected to Harding Street and extended north to Thoroughfare 1.

Phase 4

Phase 4 of the Project consists of the construction of Buildings 4A, 4B, 4C, and 5. During Phase 4, the Project will construct Civic Space 2 to the west of Building 4, and Civic Space 3 to the east of Building 4. Additionally, all streetscape and public realm improvements along the north side of Thoroughfare 1 will be completed.

Parking

The following section details the proposed Project parking supply, which is summarized in Table 3.

Table 3 Parking Summary

Area	Vehicular Parking [a]	Bicycle Parking	
		Long-Term	Short-Term
Off-Street Parking			
Building 1 (101 South)	250	118	48
Building 2 (One Boynton)	242	102	42
Building 3 [b]	240-270	73	23
Building 4 [b]	280-310	440	37
Building 5 [b]	240-270	105	35
Building 6 (Taza Building)	5	50	18
Total Off-Street Parking	**1,320**	**888**	**203**
On-Street Parking			
Thoroughfare 1	33	n/a	n/a
Harding Street	15	n/a	n/a
Total On-Street Parking	**48**	**n/a**	**n/a**
Total Parking	**1,368**	**888**	**203**

a Structured parking for Buildings 1-5, and surface parking for Building 6.

b Parking count for Buildings 3-5 to be determined as the architecture is refined. The total off-street parking count for the Master Plan area will not exceed 1,320 spaces.

Off-Street Vehicular Parking

The parking needs for the Project will be accommodated by the proposed 1,320-space total parking supply, which will appropriately satisfy the anticipated demand for this development. The parking supply will be primarily below-grade structured parking, replacing the existing expanse of surface parking that exists on the Development Site. Building 1 (101 South) currently is under construction and has a final design including four levels of below-grade parking with approximately 250 total parking spaces. Building 2 will include the construction of up to 242 structured below-grade parking spaces. The parking count for Buildings 3, 4, and 5 will be determined as the architecture is refined, and ranges are presented in Table 3. Building 6 will have five surface level parking spaces. The resulting parking ratio for the commercial and residential uses will be lower than that found at other large-scale mixed-use development projects in the area. The Transportation Impact Study (TIS) for the Master Plan update will include a comprehensive parking analysis documenting this finding.

The Project will be providing a lower than typical parking ratio for residential and office/R&D/lab tenants. The Development Site is positioned within a quarter mile walking distance of the planned MBTA Union Square Green Line Station to the west, which is scheduled to open in December 2021, as well as existing MBTA bus routes that serve the Project. Through this deliberate design mindset, workers, residents, and visitors to the Development Site will be strongly encouraged to utilize alternative modes of transportation, including existing and enhanced MBTA services, to avoid using single-occupant vehicles (SOVs) to travel to and from the Development Site.

On-Street Vehicular Parking

The Project will provide approximately 48 short-term, on-street parallel public parking spaces to support the ground level retail space along Thoroughfare 1 and the west side of Harding Street (which is the same as the existing condition). It should be noted that there will be no on-street parking provided along Earle Street or South Street. Approximately 10 percent of on-street vehicular parking (five spaces) will be accessible.

Of the 48 on-street parallel public parking spaces, 6 spaces are currently under construction as part of 101 South construction and will be located along the proposed Thoroughfare 1. As part of construction for Building 2, 17 spaces will be constructed along Thoroughfare 1. The remaining 25 parallel parking spaces will be constructed throughout Phases 3 & 4, with 10 and 15 spaces to be constructed along Thoroughfare 1 and Harding Street, respectively.

In addition to providing on-street parallel public parking spaces, there will be an approximately 60-foot pickup/drop-off zone constructed along the north side of South Street. This pick-up/drop-off zone is currently under construction in conjunction with 101 South.

Bicycle Parking

A total of 888 indoor secured and 203 outdoor short-term bicycle parking spaces are expected to be constructed as part of four phases. Building 1 (101 South Street), which is already under construction as part of Phase 1, will provide approximately 118 indoor secured and 48 outdoor short-term bicycle parking spaces. Building 2, which has been approved by the City of Somerville, will provide approximately 102 indoor secured and 42 outdoor short-term bicycle parking spaces. The remaining bicycle parking spaces are expected to be constructed as outlined in Table 3 above.

Transit Services

Ample public transportation services by the Massachusetts Bay Transportation Authority (MBTA) currently are provided in the study area, with significant enhancements also planned and under construction. A summary of existing public transportation amenities in the area is provided below, followed by a discussion of the future transit improvement projects and planning studies.

Existing Conditions

The Development Site is currently served by eight MBTA bus routes within a half mile of the Development Site. While no routes currently provide direct service to the Development Site, there are multiple MBTA bus stops in close proximity. These include the nearest bus stops located west of the Development Site on Webster Avenue at Columbia Street (Bus Route 85), and south of the Development Site on Cambridge Street at Windsor Street (Bus Route 69). Furthermore, MBTA Routes 80, 86, 87, 88, 91, and CT2 provide nearby access to the Development Site. The nearest bus stop on Route 86 is located on Somerville Avenue at Prospect Street, and the nearest stop on Route 91 is located on Prospect Street at Webster Avenue. The closest MBTA bus stops for Routes 80, 87, and 88 are located at the McGrath Highway/Somerville Avenue/Medford Street interchange. Route CT2 is one of three cross-town routes operated by the MBTA. By design, these cross-town routes have fewer stops than a traditional bus route. The nearest stop to the Development Site on Route CT2 is located at the intersection of Cambridge Street and Webster Avenue/Columbia Street.

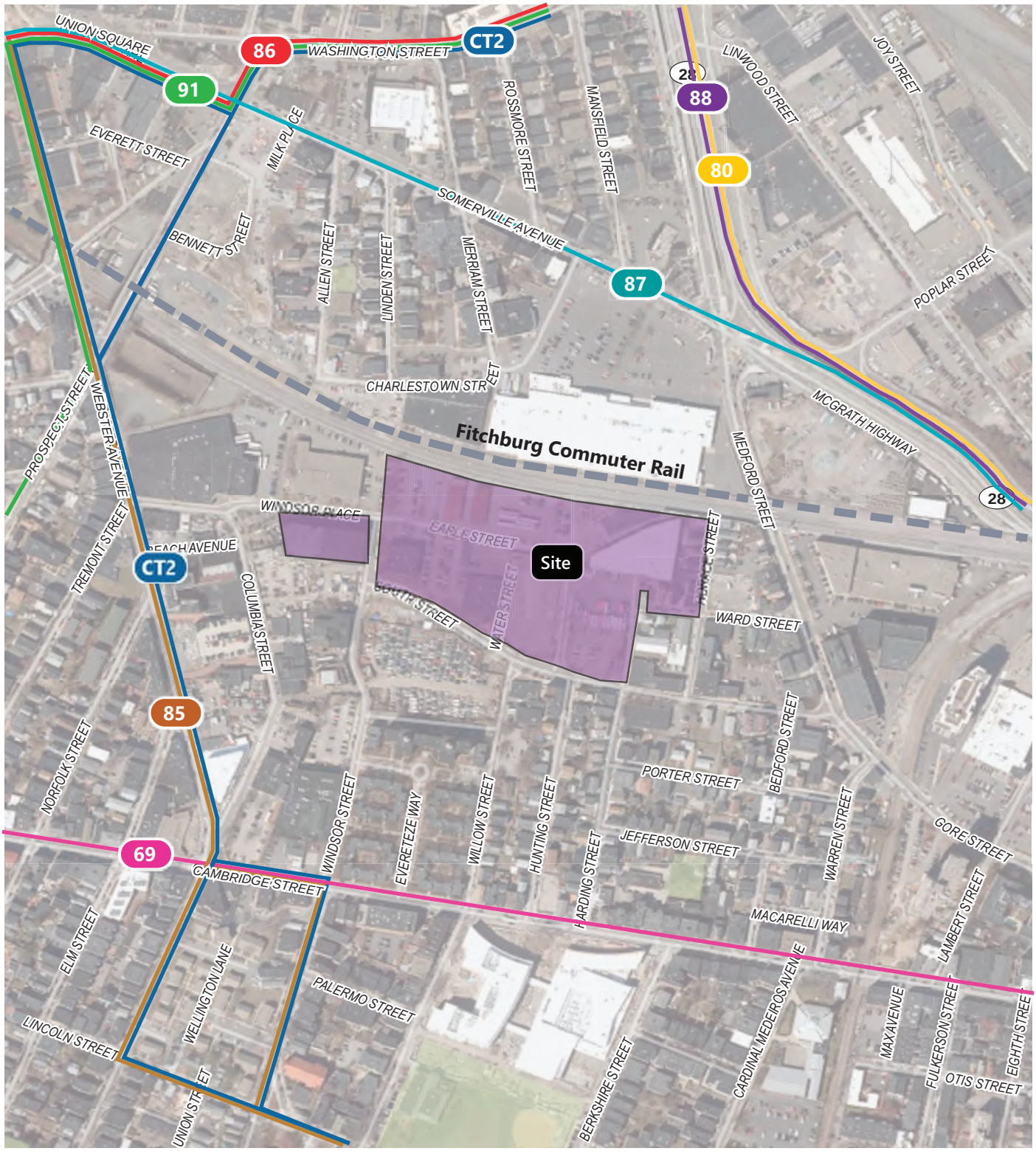
Peak period frequencies and ridership for MBTA bus services are summarized in Table 4. The existing MBTA bus routes are shown graphically in Figure 1.

Table 4 Project Area MBTA Service

Bus Route	Origin/ Destination	Peak-Hour Frequency (minutes)	Direction	Weekday	Saturday	Sunday
69	Harvard Square – Lechmere Station	10-20	Inbound	1,408	700	404
			Outbound	1,323	736	432
			Total	2,731	1,436	836
80	Arlington Center – Lechmere Station	30-40	Inbound	834	495	292
			Outbound	788	408	274
			Total	1,622	902	566
85	Spring Hill – Kendall/MIT Station	40-50	Inbound	364	n/a	n/a
			Outbound	222	n/a	n/a
			Total	586	n/a	n/a
86	Sullivan Square Station – Reservoir Station	12-18	Inbound	3,052	1,505	1,049
			Outbound	3,175	1,617	1,101
			Total	6,227	3,122	2,151
87	Clarendon Hill or Arlington Center – Lechmere Station	16-20	Inbound	1,804	1,184	635
			Outbound	1,878	1,295	672
			Total	3,682	2,480	1,307
88	Clarendon Hill – Lechmere Station	16-20	Inbound	1,929	1,113	661
			Outbound	1,884	1,015	737
			Total	3,813	2,128	1,398
91	Sullivan Square Station – Central Square, Cambridge	30	Inbound	713	754	403
			Outbound	726	718	344
			Total	1,439	1,472	747
CT2	Sullivan Square Station – Ruggles Station	20-25	Inbound	1,048	n/a	n/a
			Outbound	903	n/a	n/a
			Total	1,951	n/a	n/a

Source: Fall 2019 MBTA Ridership data, reflective of pre-COVID-19 pandemic conditions.

The location and distance of the nearest bus stops are summarized in Table 5. All bus stops shown in Table 5 are within an approximately 4-10 minutes walking time from the Site.



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Source: MassGIS

MBTA Bus Route

Figure 1

Existing Public Transportation Services

Boynton Yards
Somerville, Massachusetts

Table 5 Nearest MBTA Bus Stops

Bus Route	Nearest Stop	Direction	Distance to/from Site (ft) a	Avg Walking Time to/from Site (min) b
69, CT2	Cambridge St @ Columbia St	Inbound	1800	6.8
69	Cambridge St @ Windsor St	Outbound	1400	5.3
85	Webster Ave @ Norfolk St	Inbound	1250	4.7
	Webster Ave @ Columbia St	Outbound	1000	3.8
80, 87, 88	McGrath Highway @ Medford Street	Inbound	2400	9.1
	McGrath Highway @ Poplar Street	Outbound	2600	9.8
86	Somerville Ave @ Stone Ave	Inbound	2650	10.0
	Somerville Ave @ Prospect St	Outbound	2650	10.0
91	25 Webster Ave @ Newton St	Inbound	1850	7.0
	Prospect St @ Webster Ave	Outbound	1500	5.7
CT2	Columbia St @ Cambridge St	Outbound	1800	6.8

a Measured from approximate location of crossing between Civic Spaces 1 and 2.

b Average walking time based on walking speed of 3 mph, or 4.4 feet per second.

Future Conditions

The following sections summarize planned projects and on-going planning studies that will improve transit services within the vicinity of the Site.

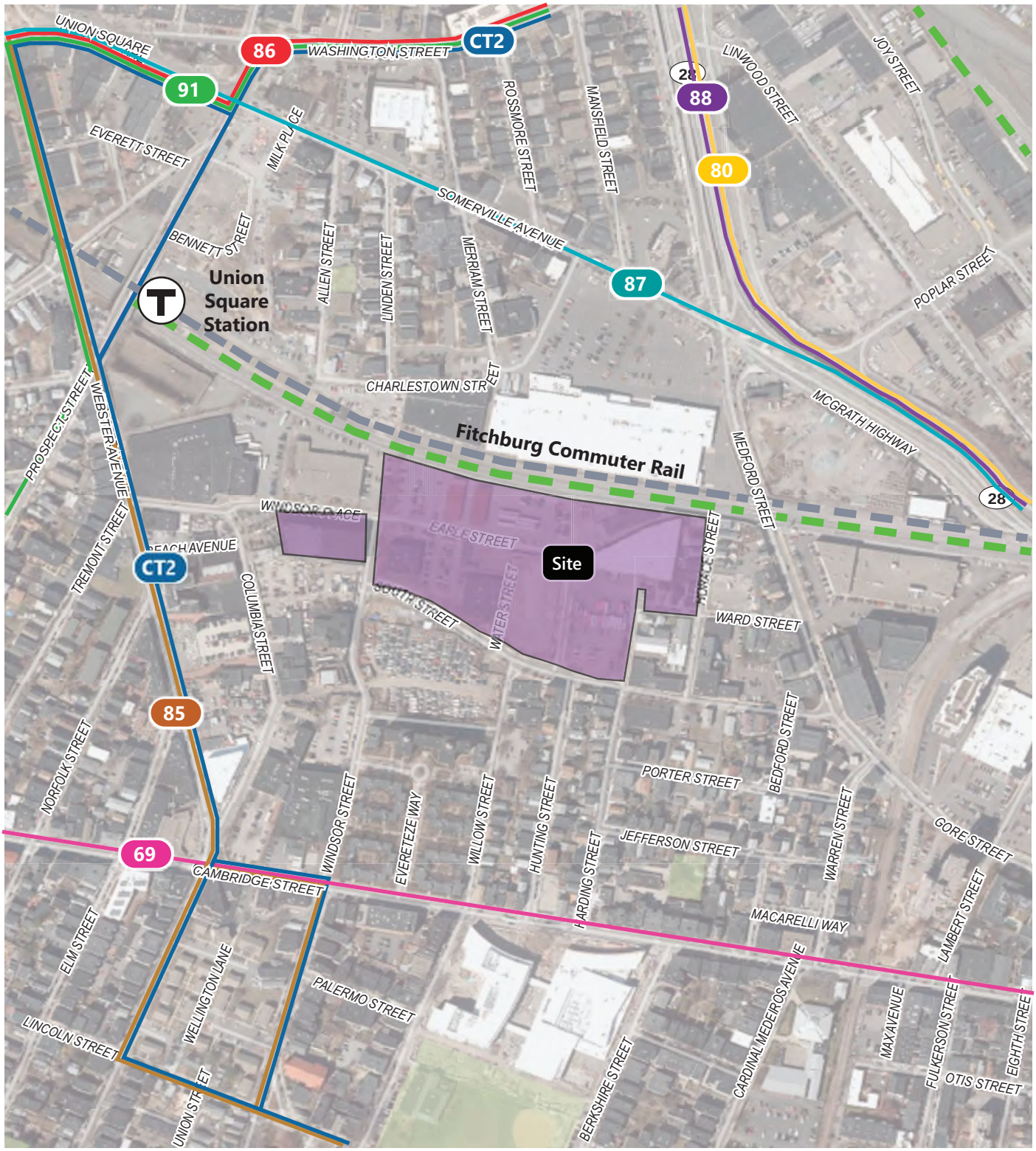
MBTA Green Line Extension Project

Construction is currently underway for a 4.3-mile extension of the MBTA Green Line light rail from its current terminus at Lechmere Station in Cambridge into Somerville and Medford. The extension will have two branches: a 0.9-mile southerly branch that will terminate near Somerville's Union Square and a 3.4-mile northerly branch that will parallel the Lowell Line of the MBTA Commuter Rail through Somerville and terminate at College Avenue in Medford. Union Square Station will be located on Prospect Street, approximately one-quarter of a mile from the Development Site. The planned Green Line Extension and closest station to the Project Site is shown graphically in Figure 2.

Headways for the trains servicing the new station are scheduled to be six and five minutes during the respective weekday morning and evening peak periods, and under ten minutes for all other time periods while the Green Line is in operation. The Union Square branch of the Green Line Extension is expected to be completed in December 2021.

MBTA Silver Line Extension Alternatives Analysis

The MBTA and MassDOT announced the launch of the MBTA Silver Line Extension Alternatives Analysis study in January 2021. The study will assess the feasibility, utility, and cost of various alignment and service frequency options for extending Silver Line service to Everett, Somerville, Cambridge, and Boston. The focus of this study, which is expected to be completed in Spring 2022, was identified as a key objective in MBTA's Focus40 plan.



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Source: MassGIS

MBTA Bus Route

Green Line Extension

Future MBTA Station

Figure 2

Future Public Transportation Services

Boynton Yards
Somerville, Massachusetts

Bicycle Accommodations

Existing Bicycle Accommodations

Bicycle facilities are available on many roadways in the study area. Cambridge Street provides bike lanes in both directions. Protected bike lanes were installed on Webster Avenue in 2019 and 2020. On Medford Street south of Somerville Avenue, protected bike lanes with flexposts were completed in May 2021. Prospect Street provides a northbound bike lane between Webster Avenue and Somerville Avenue and sharrows southbound, as well as sharrows in both directions between Cambridge Street and Webster Avenue.

Further away from the Site, Washington Street provides bike lanes in both directions. Somerville Avenue is currently under construction and will provide sidewalk-level protected bike lanes in the study area. On Medford Street southbound north of Somerville Avenue, sharrows are provided. Finally, a buffered bike lane is provided on the McGrath Highway Northbound Frontage Road north of Somerville Avenue.

Proposed Bicycle Accommodations

A total of 888 indoor secured and 203 outdoor short-term bicycle parking spaces are expected to be constructed when the Project is complete, as summarized previously in Table 3. In addition, the Proponent is committed to implementing a number of enhanced bicycle accommodations.

As part of Phase 2, which has been approved by the City of Somerville, though construction has not yet started, the Proponent is committed to implementing the following bicycle accommodations:

- Along South Street, install a sidewalk-level cycle track on the north side (westbound direction) and a street-level buffered bike lane on the south side (eastbound direction) abutting the Development Site;
- Along Windsor Street, install a sidewalk-level cycle track on the east side (northbound direction) and a street-level buffered bike lane on the west side (southbound direction) abutting the Development Site; and
- Construct Thoroughfare 1 as a pedestrian thoroughfare with a flush curb condition and traffic calming measures.

The Proponent will continue their commitment to enhanced bicycle accommodations within and surrounding the Development Site in the remaining phases of the Project.

Pedestrian Accommodations

Existing Pedestrian Accommodations

In the vicinity of the Development Site, South Street, Earle Street, and Harding Street currently have sidewalks provided along both sides of each roadways with crosswalks and accompanying ramps provided at key locations. The sidewalk on the easterly side of Earle Street terminates at the driveway to the Gentle Giant parcel to the north of the proposed Building 3. The sidewalk on the opposite side

of the street ends approximately 40 feet further to the north. From that point, the roadway curves to the northwest and transitions to Windsor Place. Sidewalks currently are not provided on Windsor Place between Windsor Street and Earle Street, but are provided on both sides west of Windsor Street. Windsor Street provides sidewalks on both sides from Windsor Place to just south of South Street.

Proposed Pedestrian Accommodations

Thoroughfare 1

With the construction of the Project, a new street, initially to be referred to as Thoroughfare 1, will be constructed from the intersection of Windsor Place and Windsor Street extending 725 feet to the east, where it will turn southward to connect at the intersection of Ward Street and Harding Street. Thoroughfare 1 serves as the Development Site's primary pedestrian spine, and this critical east/west connection is designed to deemphasize vehicular travel and to instead prioritize pedestrians and bicyclists. The entire length of Thoroughfare will be designed with a flush curb. Four dedicated paver crossing areas will be employed as traffic-calming measures while also offering a "festival street" condition to support special community events. Thoroughfare 1 will feature expanded sidewalks on both sides of the road, shared lane pavement markings for bicyclists ("sharrows"), and will provide street trees, planting areas and new lighting that will enhance the pedestrian experience. Thoroughfare 1 will provide loading and service access, as well as access to below-grade parking for Buildings 4 and 5.

Harding Street

Harding Street, the Project's eastern-most perimeter street, abuts a mix of light industrial and residential uses. Harding Street is an existing public way; however, the Project proposes improvements to this thoroughfare, and it is therefore included within the Development Site Boundary for the purposes of this Master Plan. During Phase 3 of the Project, the intersection at Ward Street will be reconstructed, and Harding Street will be extended north to connect to Thoroughfare 1. Public realm improvements, including a new street parking lane and expanded sidewalks will also be made on the Project side of the street to activate the frontage zone for Buildings 3A and 3B.

Earle Street

Earle Street is an existing public way; however, the Project proposes improvements to this roadway, and it is therefore included within the Development Site Boundary for the purposes of this Master Plan. Earle Street serves as the Development Site's service corridor/alley, providing parking garage and loading access to Building 1 and Buildings 3A and 3B. This street is intended to consolidate all primary service access, allowing Thoroughfare 1, Windsor Street, and Harding Street to remain focused on accommodating pedestrian and bicycle traffic. Despite being a service corridor/alley, Earle Street will provide continuous pedestrian sidewalks and buffer planting zones on both sides of the street adjacent to Buildings 1, 3A, and 3B.

Windsor Street

Windsor Street, the Project's western-most perimeter street, abuts the Taza Chocolate Factory commercial building. The public realm on the south side of the street will be widened to include an active frontage zone and northbound sidewalk-level cycle track along Building 2 with a landscaped area at the intersection with Thoroughfare 1. Streetscape improvements will be completed along the west side of the street associated with Building 6 (Taza). The landscaped area at the intersection of Thoroughfare 1 is envisioned as the primary Project gateway given its proximity to Union Square and the pedestrian circulation from the planned MBTA Green Line station to the Development Site. Loading and access for Building 2 will initially be from South Street and/or Windsor Street, but would be shifted to a dedicated alley if South Street is potentially realigned.

South Street

As mentioned, South Street presently has sidewalks provided on both sides of the roadway throughout the study area, and this will continue under future conditions with new and improved sidewalks along the segment of this roadway adjacent to the Development Site. Specifically, a minimum of 12 feet will be provided between the South Street northerly curb line and the face of the new buildings. This will provide ample space for sidewalks, landscaping, and street furniture. A sidewalk-level cycle track will be constructed on the north side of the street. Some portions of this sidewalk space will straddle the Development Site property line. However, the 10 feet of space to be provided for sidewalks and associated amenities along the south side of the roadway will be provided entirely within the South Street right-of-way.

Civic Spaces

The Proponent is committed to developing the Development Site with as much publicly accessible Civic and open space as is feasible outside the building footprints. The Project proposes three distinct Civic spaces that are consistent with the typologies and design guidelines provided in Article 13 of the Zoning Ordinance and, in aggregate pursuant to Section 8, will satisfy the 20 percent Civic space requirement in the BY Sub-Area.

Civic Space 1

At the heart of the Development Site on Lot C1, the Project proposes an approximately 22,360 SF signature Civic space that is most consistent with the Neighborhood Park typology. Civic Space 1 will be defined by a central, passive open lawn space surrounded by a permeable edge of plantings and seating. Civic Space 1 is envisioned as a flexible event space that can accommodate a wide range of pop-up activities, such as small performances, public art, farmers markets, or informal lawn games. Civic Space 1 is fronted by Thoroughfare 1, which is proposed to have a mid-block raised pedestrian crossing table that could be closed to vehicular traffic and would expand the useable area of Civic Space 1 for special events. The Proponent will continue to explore and consider additional design features that could further activate this space, such as an open-air amphitheater, arbor, or water feature. Civic Space 1 will be designed to allow for expansion of this Civic space should the City relocate South Street. Civic Space 1 will be constructed during Phase 2.

Civic Space 2

In the northeast corner of the Development Site to the east of Building 4 on Lot C2, the Project proposes an approximately 16,904 SF Civic space that is most consistent with the Neighborhood Park typology. The Project envisions that Civic Space 2 will include community garden plots, nature-based play elements, and a family picnic area. The Proponent hopes to explore an opportunity to partner with the South Street Farm, mentioned previously, to potentially relocate and expand the existing South Street Farm from its current location just outside of the Development Site boundary at the corner of South Street and Windsor Street to this location on the Development Site.

Civic Space 3

In the northwest corner of the Development Site to the west of Building 4 on Lot C3, the Project proposes an approximately 7,142 SF Civic space most consistent with the Pocket Park typology. Civic Space 3 could support activities such as a community dog park, adult fitness programs, and recreation and game courts. Civic Space 3 opens to the Thoroughfare 1 streetscape to the south and has a strong connection with Civic Space 1.

Additional Open and Landscaped Area

There are several opportunities for smaller scale open and landscaped areas throughout the Development Site. Currently, one new landscaped area is envisioned at the intersections of Thoroughfare 1 and Windsor Street, which will serve as a gateway into the neighborhood from the east. Two landscaped areas are envisioned to the south of Buildings 1 and 3 along South Street, and at the intersection of South Street and Harding Street, which will serve as a gateway into the neighborhood from the south and west. These landscaped areas are all intended to be publicly accessible open spaces.

Additionally, the Project will significantly increase and diversify the Development Site's urban tree canopy by proposing continuous street tree plantings along all the thoroughfares and by creating clustered shade tree plantings within the Civic spaces and private landscape areas. The Project Team is committed to working with the Public Space and Urban Forestry Division (PSUFD) to advance the landscape plan going forward to address the BYUDF (described in Section 1.12.4) goal of increasing tree canopy cover in the BY Sub-Area to at least 15 percent following ten years of growth after full build-out.

2

Trip Generation

The Project is comprised of office, research and development, and lab enabled uses (office/R&D/lab), residential, and retail use being developed in four phases. The Institute of Transportation Engineers' (ITE) *Trip Generation Manual*[3] categorizes these land uses and provides weekday daily, weekday morning peak hour, weekday evening peak hour, Saturday daily, and Saturday midday peak hour unadjusted vehicle trip generation estimates for each use. Trip generation estimates were developed following the same methodology used in previously submitted MMP and TIS reports for the Project. The resulting trip generation analysis is detailed in the following sections.

Project-Generated Traffic Volumes

The rate at which a development generates traffic is dependent upon several factors such as size, location, and concentration of surrounding developments. As previously discussed, the Project consists of commercial, retail, residential, and arts/creative enterprises uses. Trip generation estimates for the proposed uses were projected using data published by ITE for the various uses proposed. The trip generation analyses are presented below.

Existing Site-Generated Traffic

Per the Somerville TIS Guidelines, existing trips may be subtracted from new trips to generate a net new vehicle trip total with Mobility Division approval. Credit was taken for existing uses based on conditions before any construction started on the Project.

Therefore, credit for existing trips associated with the approximately 15,134 SF office building and two warehouse Gentle Giant buildings with a combined 31,441 SF were taken in the analysis. As the trips associated with the 2,937 SF multi-family housing development, the 11,659 SF vacant "Jam Spot" recording studio, and the surface parking lots are expected to be negligible, no credit was

3 Trip Generation Manual, 10th Edition, Institute of Transportation Engineers, Washington, D.C., 2017.

taken for the existing nominal traffic generated by these existing uses. It should be noted that the approximately 79,584 SF Taza building currently exists and is fully operational on Site today and is expected to remain as such under future conditions, with or without the Project in place. Therefore, trips associated with the Taza building are accounted for in the existing collected traffic data (from both September 2017 and May 2021).

Table 6 summarizes the Project-related trips for the existing uses on Development Site for which credit was taken because they will be or already have been demolished to make way for the redevelopment.

Table 6 Existing Site Trip Generation – Buildings to be Demolished

	Office [a]	Warehousing [b]	Total Adjusted Vehicle Trips
Weekday Daily			
Enter	60	34	94
Exit	60	34	94
Total	120	68	188
Weekday Morning			
Enter	25	16	41
Exit	4	5	9
Total	29	21	50
Weekday Evening			
Enter	2	7	9
Exit	11	16	27
Total	13	23	36
Saturday Daily			
Enter	12	1	13
Exit	12	1	13
Total	24	2	26
Saturday Midday			
Enter	3	1	4
Exit	3	1	4
Total	6	2	8

a Based on ITE LUC 710 (General Office Building), for 15,134 SF. Assumed 70% vehicular mode split based on Union Square Neighborhood Plan.

c Based on ITE LUC 150 (Warehousing), for 31,441 SF. Assumed 70% vehicular mode split based on Union Square Neighborhood Plan.

Taza Building-Generated Trips

As stated before, the approximately 79,584 SF Taza building is fully operational and is expected to remain so under future conditions. Table 7 summarizes the estimated Taza building trips based on ITE data, as existing trips are difficult to count based on the Site location.

Table 7 Existing Site Trip Generation – Taza Building

	R&D [a]	Retail [b]	Retail Pass-By [c]	Total Site Generated Vehicle Trips [d]
Weekday Morning				
Enter	33	37	9	**70**
Exit	5	20	9	**25**
Total	38	57	18	**95**
Weekday Evening				
Enter	7	8	4	**15**
Exit	37	10	4	**47**
Total	44	18	8	**62**
Saturday Midday				
Enter	4	10	3	**14**
Exit	4	10	3	**14**
Total	8	20	6	**28**

a Based on ITE LUC 760 (Research and Development Center), for 75,082 SF. Assumed 50% vehicular mode split. New vehicle trips with internal capture credits applied. Current commercial space assumed to have similar characteristics to LUC 760.

b Based on ITE LUC 820 (Shopping Center), for 4,500 SF. Assumed 50% vehicular mode split. New vehicle trips with internal capture and pass-by credits applied.

c 25% pass-by credit for weekday morning peak hour, 34% for weekday evening peak hour, 26% for Saturday midday peak hour

d Sum of columns a and b

As shown in Table 7, the Taza building is estimated to generate 95, 62, and 28 new vehicle trips during the weekday morning, weekday evening, and Saturday midday peak hours respectively. Credit for internal capture, mode-share, and pass-by trips was taken as discussed in the following sections.

Traffic associated with the Taza building was already included in existing study area roadway and intersection counts as the building is fully operational.

101 South Street-Generated Trips

As mentioned previously, an initial component of the Project – approximately 257,500 SF of the proposed commercial space and 12,500 SF of the proposed retail/restaurant space – is already under construction at 101 South Street.

The retail/restaurant use is expected to consist of small, service-oriented businesses. While exact tenants have not yet been secured, these are not expected to be large destination retail uses. Instead, potential uses will include small eating establishments, coffee shops, or galleries. While these do not fit the description of a transitional ITE "Shopping Center," retail traffic was estimated using this land use code, which results in an overly conservative analysis.

The new vehicle trips generated for this portion of the Project are presented in Table 8.

Table 8 101 South Street-Generated Peak-Hour Vehicle Trips by Use

Time Period	R&D [a]	Office [b]	Retail [c]	Retail Pass-By [d]	Net Site Generated Vehicle Trips [e]
Weekday Morning					
Enter	53	62	36	9	**151**
Exit	8	8	18	9	**34**
Total	61	70	54	18	**185**
Weekday Evening					
Enter	11	11	16	10	**38**
Exit	61	60	20	10	**141**
Total	72	71	36	20	**179**
Saturday Midday					
Enter	8	18	22	7	**48**
Exit	7	13	21	7	**41**
Total	15	31	43	14	**89**

a Based on ITE LUC 760 (Research and Development Center), for 128,750 SF. Assumed 50% vehicular mode split. New vehicle trips with internal capture credits applied.

b Based on ITE LUC 710 (General Office Building), for 128,750 SF. Assumed 50% vehicular mode split. New vehicle trips with internal capture credits applied.

c Based on ITE LUC 820 (Shopping Center), for 12,500 SF. Assumed 50% vehicular mode split. New vehicle trips with internal capture and pass-by credits applied.

d 25% pass-by credit for weekday morning peak hour, 34% for weekday evening peak hour, 26% for Saturday midday peak hour

e Sum of columns a, b, c

As shown in Table 8, 101 South Street is expected to generate 185, 179, and 89 new vehicle trips during the weekday morning, weekday evening, and Saturday midday peak hours respectively. Credit for internal capture, mode-share, and pass-by trips was taken as discussed in the following sections.

Traffic associated with 101 South Street was assigned to the existing study area roadways and intersections based on trip distribution patterns developed, as discussed in the Trip Distribution section of this report.

Unadjusted ITE Vehicle Trips

As previously discussed, the Project consists of approximately 440 residential units, 1,347,582 SF of commercial space (to be evenly split between research & development and office space), and approximately 59,000 SF of retail/restaurant space. Trip generation estimates for the Project are based on standard Institute of Transportation Engineers' (ITE) data[4]. Specifically, trip generation estimates for the proposed uses were projected using trip generation rates for LUC 222 (High-Rise Residential), LUC 760 (Research & Development Center), LUC 710 (General Office Building), and LUC 820 (Shopping Center). The proposed trip generation methodology is consistent with the

[4] Trip Generation Manual – 10th Edition; Institute of Transportation Engineers (Washington, D.C.); 2017.

methodology that was used for other nearby development projects which were approved by the City of Somerville Mobility Division.

It should be noted that the proposed Site retail uses are expected to be small, service-oriented businesses. While exact tenants have not yet been identified, these tenants are not expected to be significant destination-retail uses. Instead, the potential uses are intended to complement the proposed R&D/lab/office space on Site. While these potential uses do not fit the description of a traditional "Shopping Center", retail traffic was estimated using this land use code to provide a conservative analysis.

The unadjusted vehicle trip estimates are presented in Table 9.

Table 9 Project Trip Generation – Total Unadjusted Vehicle Trips by Land Use

Time Period	Residential [a]	R&D [b]	Office [c]	Retail [d]	Total Unadjusted Vehicle Trips
Weekday Daily					
Enter	973	3,549	3,376	2,100	9,998
Exit	973	3,549	3,376	2,100	9,998
Total	1,946	7,098	6,752	4,200	19,996
Trips per unit or 1,000 sf [e]	*4.42*	*10.53*	*10.02*	*71.19*	
Weekday Morning					
Enter	33	462	567	112	1,174
Exit	103	95	92	69	359
Total	136	557	659	181	1,533
Trips per unit or 1,000 sf [e]	*0.31*	*0.83*	*0.98*	*3.07*	
Weekday Evening					
Enter	96	114	112	177	499
Exit	62	599	586	191	1,438
Total	158	713	698	368	1,937
Trips per unit or 1,000 sf [e]	*0.36*	*1.06*	*1.04*	*6.24*	
Saturday Daily					
Enter	990	477	745	3,213	5,425
Exit	990	477	745	3,213	5,425
Total	1,980	954	1,490	6,426	10,850
Trips per unit or 1,000 sf [e]	*4.50*	*1.42*	*2.21*	*108.92*	
Saturday Midday					
Enter	88	81	193	212	574
Exit	72	81	164	196	513
Total	160	162	357	408	1,087
Trips per unit or 1,000 sf [e]	*0.36*	*0.24*	*0.53*	*6.92*	

Note: Trip generation includes estimates for Building 1 (101 South) and Building 6 (Taza Building).

a Based on ITE LUC 222 (High-Rise Residential) for 440 units, using the regression equation for all time periods.

b Based on ITE LUC 760 (Research & Development Center) for 673,791 sf, using regression equations (peak of generator) for weekday time periods and Saturday daily. Average rate used for Saturday midday peak.

c Based on ITE LUC 710 (General Office Building) for 673,791 sf, using regression equations (peak of adjacent street) for weekday time periods. Average rates used for Saturday time periods.

d Based on ITE LUC 820 (Shopping Center) for 59,000 sf, using the regression equation for all time periods.

e Residential based on trips per unit. Trips per 1,000 sf based on total SF of each land use.

Person Trips

The unadjusted vehicle trips estimated using the ITE data were subsequently converted into person trips by applying average vehicle occupancy rates (VOR) based on national data[5] for each use. The national average vehicle occupancy rates applied were 1.18 persons/vehicle for residential and R&D/office trips and 1.82 persons/vehicle for retail trips. The national rates are applied when converting to person trips to be consistent with ITE data, which is also based on national data.

Internal Capture Trips

As described in the ITE Trip Generation Handbook,[6] "because of the complementary nature of these land uses, some trips are made among the on-site uses. This capture of trips internal to the site has the net effect of reducing vehicle trip generation between the overall development site and the external street system (compared to the total number of trips generated by comparable land uses developed individually on stand-alone sites) an internal capture rate can generally be defined as the percentage of total person trips generated by a site that are made entirely within the site. The trip origin, destination, and travel path are all within the site."

Because the proposed redevelopment is a mixed-use project, the trip generation characteristics of the Project Site will be different from a single-use project. Some of the traffic to be generated by the proposed redevelopment will be contained on the Project Site as "internal" or "shared vehicle" trips. For example, employees may patronize the retail space. While these shared trips represent new traffic to the individual uses, they would not show up as new vehicle trips on the surrounding roadway network.

Net Person Trips

Based on the methodology outlined in the ITE Trip Generation Handbook[7], internal capture rates were applied to the gross person trips. The resulting peak-hour person trip estimates for the Project are presented in Table 10.

5 Summary of Travel Trends – National Household Travel Survey; USDOT Federal Highway Administration (Washington, DC); 2017.

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

7 Trip Generation Handbook, 3rd Edition; Institute of Transportation Engineers (Washington, D.C.); 2017.

Table 10 Project Trip Generation – Net Person Trips by Land Use

Time Period	Residential	R&D	Office	Retail	Net Person Trips
Weekday Daily					
Enter	735	4,129	3,928	3,325	**12,117**
Exit	804	4,092	3,893	3,328	**12,117**
Total	1,539	8,221	7,821	6,653	**24,234**
Weekday Morning					
Enter	38	527	648	141	**1,354**
Exit	119	81	78	88	**366**
Total	157	608	726	229	**1,720**
Weekday Evening					
Enter	56	130	127	265	**578**
Exit	39	691	676	289	**1,695**
Total	95	821	803	554	**2,273**
Saturday Daily					
Enter	754	495	772	5,170	**7,191**
Exit	724	460	719	5,288	**7,191**
Total	1,478	955	1,491	10,458	**14,382**
Saturday Midday					
Enter	52	93	221	323	**689**
Exit	50	84	171	302	**607**
Total	102	177	392	625	**1,296**

Note: Person trip generation estimate with internal capture credits applied. Trip generation includes estimates for Building 1 (101 South) and Building 6 (Taza Building).

Pass-By Trips

While the ITE rates provide estimates for all the traffic associated with each land use, not all of the traffic generated by the Project will be new to the area roadways. For example, a portion of the vehicle-trips generated by the retail land use will likely be drawn from the traffic volume roadways adjacent to the Development Site. For example, someone traveling on South Street may choose to deviate from their original travel path to visit the Development Site's retail before continuing to their destination. With the presence of nearby one-way streets, it is expected that most pass-by traffic will consist of westbound South Street travel that stops at the Development Site before continuing on to the west. As there will be on-street parking provided along the northerly side of South Street, most of this impulse traffic should be oriented to the Building 3 retail/restaurant uses.

For this evaluation, ITE pass-by rates for LUC 820 (Shopping Center) were utilized for the retail trip generation and applied to existing trips on South Street. Specifically, 34- and 26-percent of the Development Site's retail trip generation was assumed to be drawn from the surrounding roadway network during the weekday evening and Saturday midday peak hours, respectively. A 25-percent pass-by rate was assumed for all other time periods studied.

Existing Mode Share

The mode shares used for this trip generation evaluation were evaluated in two main steps. This was done to reflect the current transportation environment surrounding the Development Site, while also acknowledging the significant changes that are expected to occur in this area.

Based on US Census Data (2012-2016) for the overall City, the existing vehicle mode share is 71 percent with relatively low transit, walk, and bike shares (15-, 13-, and 1-percent, respectively). These figures generally are consistent with existing conditions data for the Union Square area as presented in the Union Square Neighborhood Plan (USNP)[8] and the Central Planning Transportation Staff (CTPS) report. However, due to the Development Site's close proximity to ample public transportation options and with the proposed MBTA GLX Project, the expected vehicle mode share is expected to be much lower in the future. As discussed later in this document, the anticipated future mode share data presented in the USNP and the CTPS report was used for reference. The USNP suggested that a vehicle mode share of 40 percent and higher walk and bike shares (23- and 15-percent, respectively) could be expected following the completion of the MBTA GLX project. For the initial trip generation evaluation, mode splits were conservatively estimated based on the existing conditions, as reflected by the USNP data for Union Square. Later in this document, these initial projections are compared to those based on the expected future mode splits. The resulting mode shares for each use based on existing conditions are presented in Table 11.

Table 11 Existing Mode Share

Use	Vehicle	Transit	Bike	Walk	Other [a]
Office/Lab	70%	14%	3%	8%	5%
Retail	70%	14%	3%	8%	5%
Residential	46%	25%	10%	15%	4%

Source: Peak hour/peak direction mode share estimates based on the Union Square Neighborhood Plan.

a Other includes work-from-home and other modes not listed in the table.

The mode shares discussed above were applied to the net-new person trips shown in Table 10 to generate the adjusted Project trips by mode. To reflect the number of vehicle trips generated by the Project, the adjusted person trips are converted back to vehicle trips by applying the local average vehicle occupancy rates. These rates are slightly different than the national AVO data discussed earlier in this section. Based on 2012-2016 U.S. Census Data,[9] a local AVO of 1.21 for residential trips and 1.16 for office and research and development use was determined. As local AVO data are not available for retail, the same 1.82 national AVO was determined for retail trips based on the USDOT data, as noted earlier.

Project-Generated Trips

The mode share and local average vehicle occupancy were applied to the person trips to estimate proposed trips by mode, and then the pass-by adjustments noted previously were applied to the vehicle trips generated by the retail portion of the Project. Following these calculations, trip generation associated with the existing Development Site uses were deducted, which resulted in the

8 Union Square Neighborhood Plan, City of Somerville, Somerville, Massachusetts, 2017.

9 US Census Data (2012-2016); City of Somerville.

net new trips from the Project. Tables 12 and 13 summarize the proposed trips by mode and proposed vehicle trips by use, respectively.

Table 12 Project-Generated Peak-Hour Trips by Mode (Existing Mode Shares)

	Vehicle [a]	Transit	Bike	Walk	Other [b]
Weekday Morning					
Enter	777	195	62	93	67
Exit	175	64	23	35	17
Total	952	259	85	128	84
Weekday Evening					
Enter	278	87	28	43	27
Exit	951	242	77	115	85
Total	1,229	329	105	158	112
Saturday Midday					
Enter	331	102	33	50	34
Exit	289	91	30	44	30
Total	622	193	63	94	64

Note Trip generation includes estimates for Building 1 (101 South) and Building 6 (Taza Building).

a Total development vehicle trips (not including pass-by trips associated with the retail portion).

b Other includes work-from-home and other modes not listed in the table.

As shown in Table 12, the Project, prior to the construction of the MBTA GLX project and implementation of this Project's MMP measures, would be expected to generate between 622 and 1,229 total vehicle trips during the peak hours studied, including trips generated by the existing Site uses. The breakdown of these trips by use is provided in Table 13 and Table 14 summarizes the total net new trips to be generated by the Project.

Table 13 Project-Generated Peak-Hour Vehicle Trips by Use (Existing Mode Shares)

	Residential	R&D	Office	Retail	Total Vehicle Trips [a]	Retail Pass-By [b]	Total New Vehicle Trips [c]
Weekday Morning							
Enter	14	318	391	54	777	11	**766**
Exit	45	49	47	34	175	11	**164**
Total	59	367	438	88	952	22	**930**
Weekday Evening							
Enter	21	78	77	102	278	36	**242**
Exit	15	417	408	111	951	36	**915**
Total	36	495	485	213	1,229	72	**1,157**
Saturday Midday							
Enter	20	56	133	124	331	31	**302**
Exit	19	51	103	116	289	31	**258**
Total	39	107	236	240	622	62	**560**

Note: Adjusted vehicle trips with internal capture credits applied. Trip generation includes estimates for Building 1 (101 South) and Building 6 (Taza Building).

a Total adjusted vehicle trips with internal capture credits applied.

b 25% pass-by credit for weekday morning peak hour, 34% for weekday evening peak hour, 26% for Saturday midday peak hour

c Total adjusted vehicle trips with internal capture and pass-by credits applied.

Table 14 Project-Generated Net New Peak-Hour Vehicle Trips (Existing Mode Shares)

	Total New Vehicle Trips [a]	Existing Office and Warehouse Trips [b]	Total Net New Vehicle Trips [c]	Taza Building Vehicle Trips [d]	Net New Vehicle Trips Added to Roadway Network [e]
Weekday Morning					
Enter	766	-41	**725**	-70	**655**
Exit	164	-9	**155**	-25	**130**
Total	930	-50	**880**	-95	**785**
Weekday Evening					
Enter	242	-9	**233**	-15	**218**
Exit	915	-27	**888**	-47	**841**
Total	1,157	-36	**1,121**	-62	**1,059**
Saturday Midday					
Enter	302	-4	**298**	-14	**284**
Exit	258	-4	**254**	-14	**240**
Total	560	-8	**552**	-28	**524**

a Total adjusted vehicle trips with internal capture and pass-by credits applied, from Table 13.

b Sum of existing office and warehouse land uses. Existing mode share applied, from Table 6.

c Total net new vehicle trips minus existing trips. Reflects total new trips generated by the project (including trips associated with Building 1 (101 South) and Building 6 (Taza Building)).

d Taza building adjusted trips, from Table 7. Since the Taza building currently exists, trips associated with it are included in the existing traffic data.

e Total net new vehicle trips that will be added to the roadway network.

As shown in Table 14, based on the existing local mode splits, the Project is expected to add 785, 1,059, and 524 additional vehicle trips to the roadway network during the weekday morning, weekday evening, and Saturday midday peak hours respectively. The expected distribution of the net new trips on the surrounding roadway system is discussed later in this document.

Future Project Mode Share

Through the implementation of this MMP, and the completion of the MBTA GLX project, it is the hope and expectation of the Proponent that the percentage of trips made by automobile can be reduced to under 50 percent. The future mode shares were determined following a review of thirteen transportation studies within the vicinity of the Development Site for development projects, municipal/state projects, and planning efforts. One of the main comparisons used was with Kendall Square area properties in Cambridge. Ongoing monitoring studies of those sites show that automobile travel has decreased from 47.8 percent of total traffic in 2014 to 43.8 percent of total site-generated traffic in 2018. While this part of Somerville has not yet developed the transportation environment of Kendall Square, it is clearly heading in that direction through the City's efforts. Based on this research, and subsequent consultation with the City of Somerville, the mode share estimates presented in Table 15 were determined to be appropriate for this study.

Table 15 Future Mode Share

Use	Vehicle	Transit	Bike	Walk	Other [a]
Office/Lab	50%	31%	6%	9%	4%
Retail	50%	31%	6%	9%	4%
Residential	50%	31%	6%	9%	4%

Source: Peak hour/peak direction mode share estimates based on various transportation studies and planning efforts, including but not limited to the Kendall Square area properties existing mode share.

a Other includes work-from-home and other modes not listed in the table.

The mode shares presented in Table 15 work towards achieving the SomerVision 2040 goal of having 75 percent of all new trips made by non-automobile traffic, with a benchmark goal of 62.5 percent by 2030. While the Project is not expected initially to reach those goals within this study's horizon, the 50 percent automobile usage should be achievable through the Project's approximate overall development 0.75 space/1,000 SF parking ratio, the MBTA GLX project, proposed pedestrian and bicycle improvements, and the Project's Mobility Management Plan (MMP). The automobile split is roughly 15 percent higher than that observed at Kendall Square (43.8% x 1.15 = 50.4%), which is reasonable given that the Kendall Square area currently is more established in limiting automobile traffic.

If annual monitoring and reporting identifies a shortfall in meeting this goal, additional mobility management programs and services will be implemented. The nature and details of the additional reasonable efforts to be undertaken by the Proponent, if required, will be determined through consultation with the City Director, Mobility Division. The measures could involve amplifying existing programs or introducing new measures.

Project-Generated Trips

The mode shares discussed above were applied to the net-new person trips previously presented in Table 10 to generate the adjusted Project trips by mode. As with the prior estimates based on existing mode splits, the adjusted person trips were converted back to vehicle trips by applying the local average vehicle occupancy rates. The portion of retail traffic made up of pass-by trips also was estimated following the same procedure discussed earlier in this report. Table 16 presents the Project-generated peak hour trips by mode using the anticipated future mode splits summarized above.

Table 16 Project-Generated Peak-Hour Trips by Mode (Future Mode Shares)

	Vehicle [a]	Transit	Bike	Walk	Other [b]
Weekday Morning					
Enter	561	420	81	122	55
Exit	142	113	22	33	15
Total	703	533	103	155	70
Weekday Evening					
Enter	207	178	34	52	23
Exit	684	525	102	152	69
Total	891	703	136	204	92
Saturday Midday					
Enter	245	213	41	62	28
Exit	214	189	37	55	24
Total	459	402	78	117	52

a Total development vehicle trips (not including pass-by trips associated with the retail portion).

b Other includes work-from-home and other modes not listed in the table.

As shown in Table 16, the Project, following the construction of the MBTA GLX project and the implementation of this Project's MMP measures, would be expected to generate between 459 and 891 total vehicle trips during the peak hours studied, including trips generated by the existing uses. The breakdown of these trips by use is provided in Table 17 and Table 18 summarizes the total net new trips to be generated by the Project.

Table 17 Project-Generated Peak-Hour Vehicle Trips by Use (Future Mode Shares)

	Residential	R&D	Office	Retail	Total Vehicle Trips [a]	Retail Pass-By [b]	Total New Vehicle Trips [c]
Weekday Morning							
Enter	16	227	279	39	**561**	8	**553**
Exit	49	35	34	24	**142**	8	**134**
Total	65	262	313	63	**703**	16	**687**
Weekday Evening							
Enter	23	56	55	73	**207**	26	**181**
Exit	16	298	291	79	**684**	26	**658**
Total	39	354	346	152	**891**	52	**839**
Saturday Midday							
Enter	21	40	95	89	**245**	22	**223**
Exit	21	36	74	83	**214**	22	**192**
Total	42	76	169	172	**459**	44	**415**

Note: Adjusted vehicle trips with internal capture credits applied. Trip generation includes estimates for Building 1 (101 South) and Building 6 (Taza Building).

a Total adjusted vehicle trips with internal capture credits applied.

b 25% pass-by credit for weekday morning peak hour, 34% for weekday evening peak hour, 26% for Saturday midday peak hour

c Total adjusted vehicle trips with internal capture and pass-by credits applied.

Table 18 Project-Generated Net New Peak-Hour Vehicle Trips (Future Mode Shares)

	Total New Vehicle Trips [a]	Existing Office and Warehouse Trips [b]	Total Net New Vehicle Trips [c]	Taza Building Vehicle Trips [d]	Net New Vehicle Trips Added to Roadway Network [e]
Weekday Morning					
Enter	553	-41	**512**	-70	**442**
Exit	134	-9	**125**	-25	**100**
Total	687	-50	**637**	-95	**542**
Weekday Evening					
Enter	181	-9	**172**	-15	**157**
Exit	658	-27	**631**	-47	**584**
Total	839	-36	**803**	-62	**741**
Saturday Midday					
Enter	223	-4	**219**	-14	**205**
Exit	192	-4	**188**	-14	**174**
Total	415	-8	**407**	-28	**379**

a Total adjusted vehicle trips with internal capture and pass-by credits applied, from Table 17.

b Sum of existing office and warehouse land uses. Existing mode share applied, from Table 6.

c Total net new vehicle trips minus existing trips. Reflects total new trips generated by the project (including trips associated with Building 1 (101 South) and Building 6 (Taza Building)).

d Taza building adjusted trips, from Table 7. Since the Taza building currently exits, trips associated with it are included in the existing traffic data.

e Total net new vehicle trips that will be added to the roadway network.

As shown in Table 18, based on the future mode splits, the Project is expected to add 542, 741, and 379 additional vehicle trips to the roadway network during the weekday morning, weekday evening, and Saturday midday peak hours respectively. The expected distribution of the net new trips on the surrounding roadway system is discussed later in this document.

Table 19 compares the expected net new vehicle trip generation for the Project added to the roadway network based on the anticipated future mode splits to that which theoretically would occur if the current mode splits were not improved through the MBTA GLX project's construction and the TDM program for the Project.

Table 19 Trip Generation Comparison – Anticipated Vs. Existing Mode Splits

	Project Trip Generation		Reduction in Vehicle Trips	
	With Existing Mode Splits [a]	With Targeted Mode Splits [a]	Vehicle Trips	Percent Decrease
Weekday Morning				
Enter	655	442	213	
Exit	130	100	30	
Total	785	542	243	31%
Weekday Evening				
Enter	218	157	61	
Exit	841	584	257	
Total	1,059	741	318	30%
Saturday Midday				
Enter	284	205	79	
Exit	240	174	66	
Total	524	379	145	28%

a Existing conditions mode share and Project mode share based on Tables 11 and 15, respectively.

As shown in Table 19, it is expected that the Project's vehicle trip generation can be reduced by between 28 and 31 percent through the implementation of the MMP, the Project's proximity to public transit, and the availability of bicycle/pedestrian accommodations. While most of this reduction is likely associated with the opening of Union Square station, details regarding the proposed TDM measures are provided later in this document.

Trip Distribution

Trips made to and from the Project during the peak hours are expected to be predominantly home-to-work and work-to-home trips in the morning and evening peak hours, respectively. Accordingly, the trip distribution for the R&D/lab/office portion of the proposed development has been derived based on Journey-to-Work data for the City of Somerville with the (2012-2016) U.S. Census data. The trip distribution is consistent with the trip distribution in the previously submitted MMP. The trip distribution for the retail portion of the proposed development is assumed to follow similar trip distribution patterns as the R&D/lab/office space. Larger-scale retail uses frequently will have unique trip distribution patterns that are dependent on their customer base and, therefore, may be different than those for an R&D/lab/office use. However, in this instance the retail uses are smaller, generally non-destination uses as compared to a standard shopping center. Accordingly, the retail distribution should closely mimic that of the R&D/lab/office uses. Table 20 and Figure 3 present the trip distribution.

Table 20 Vehicle Trip Distribution Summary

Travel Route	Direction (to/from)	Residential Trips	Office/R&D/ Retail Trips
McGrath Highway	North	18%	44%
Gore Street	East	10%	7%
Cambridge Street	East	20%	14%
	West	16%	6%
Somerville Avenue	West	10%	21%
Columbia Street	South	11%	3%
Prospect Street	South	15%	5%
Total		**100%**	**100%**

Source: Journey-to-Work data for the City of Somerville (2010 U.S. Census Data).

In addition to the regional distribution summarized above, the anticipated arrival/departure patterns for Project traffic are shown on the Vehicle Access and Parking Plan provided in Figure 4. Similarly, Figures 5 and 6 show the access plan for pedestrians and bicyclists with the proposed bicycle parking supplies for each building also highlighted in Figure 6.

Figure 3
Regional Trip Distribution

Boynton Yards
Somerville, Massachusetts

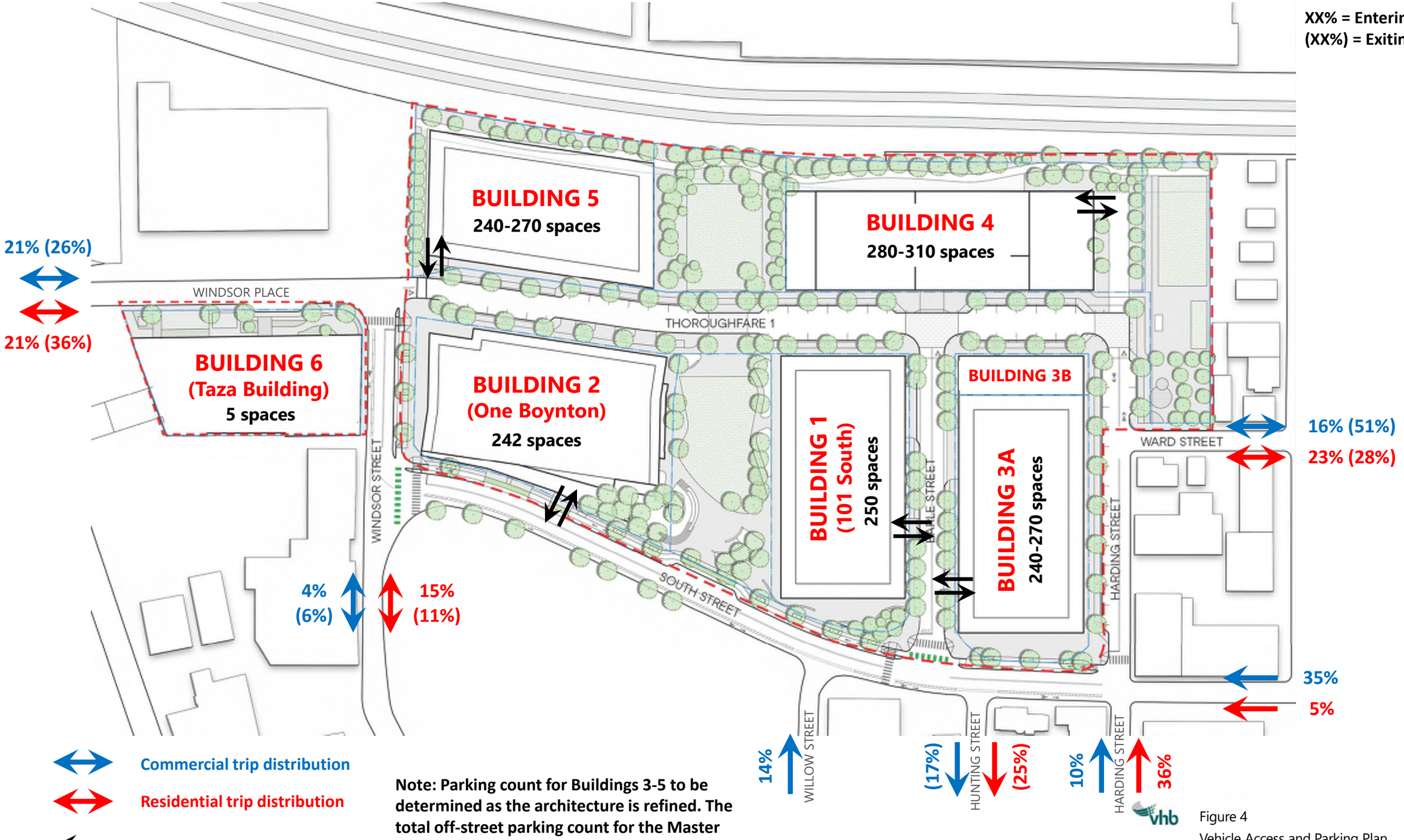
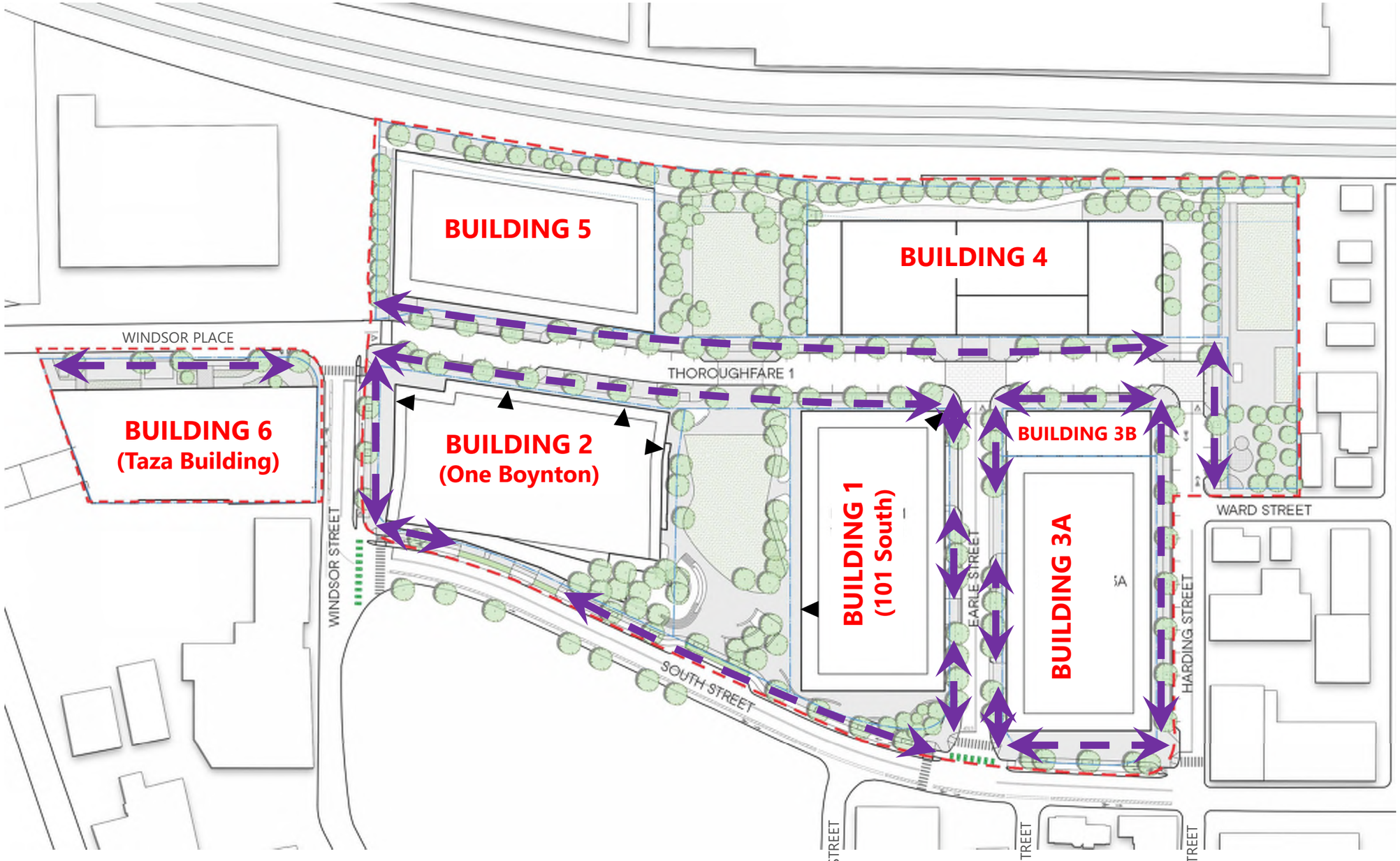


Figure 4
Vehicle Access and Parking Plan
Boynton Yards
Somerville, Massachusetts



▶ Building Entrance (general location; see architectural plans for detail)

Sidewalk locations (abutting Site roadways)

Figure 5
Pedestrian Access Plan
Boynton Yards
Somerville, Massachusetts

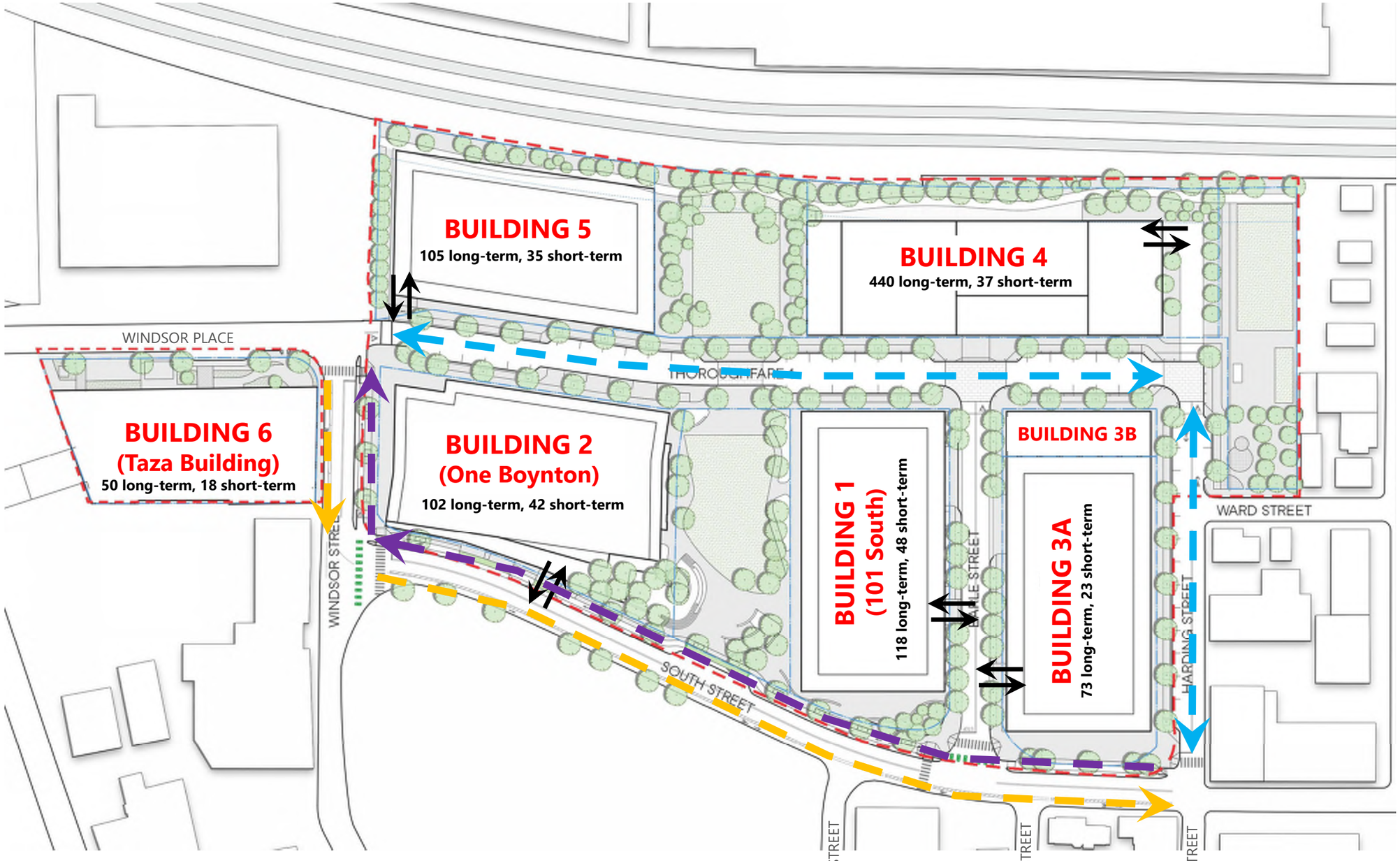


Figure 6
Bicycle Access and Parking Plan
Boynton Yards
Somerville, Massachusetts

3

Proposed Programs and Services

An MMP is required by the Somerville Zoning Ordinance. The purpose of an MMP is to ensure that the developers are fully aware of the mobility management responsibilities of future property owners and tenants – namely employers – and that advanced notice of the operational expectations necessary for successful plan implementation is provided to future property owners, tenants, parking facility operators, and property management firms.

The following section summarizes the City's Zoning Ordinance requirements for MMPs:

- Property owners of buildings with 50,000 SF or more of commercial space OR multi-tenant buildings that in combination have 50 or more employees are required to provide the following for their tenants:
  - An on-site transportation coordinator;
  - Posted mobility management information;
  - Distributed mobility management information;
  - Unbundled parking;
  - Preferential parking for carpool/vanpool vehicles; and
  - An annual mobility management education meeting for tenants and their employees.
- These same property owners must require future tenants to provide the following through lease agreements:
  - Qualified transportation fringe benefits for employees; and
  - A guaranteed ride home program for employees.
- Employers with 50 or more employees are required to provide the following for their employees:
  - An on-site transportation coordinator;
  - Posted mobility management information;
  - Distributed mobility management information;
  - Qualified transportation fringe benefits for employees;

  - A guaranteed ride home program for employees; and
  - An annual mobility management education meeting for tenants and their employees.
- The property owner of a parking facility is required to provide the following:
  - Preferential parking locations for carpool/vanpool; and
  - Posted mobility management information.
- The property owner of a residential building with 20 or more dwelling units is required to provide the following:
  - Posted mobility management information;
  - Distributed mobility management information; and
  - Unbundled parking.

The following sections outline the MMP responsibilities and commitments for the various stakeholders of the Project, including the Proponent, future tenants, and property management firms. While best efforts have been made to assign these commitments accordingly, specific duties outlined subsequently may be fulfilled by other stakeholders as tenant specific MMP policies are drafted.

Proponent / Property Owner Commitments

Transportation Coordinator

In conjunction with the initial phase of development, an overall on-site TDM coordinator will be designated to oversee all TDM programs for each of the Project's buildings and the Development Site in its entirety. In keeping with the requirements of the City, TDM coordinators will be provided for each tenant occupying a building. The person(s) in this role will coordinate with the City of Somerville Mobility Division or any future Transportation Management Associations formed in the future which the Project may possibly join to help promote a reduced reliance on single-occupant automobile travel to the Development Site. To that end, the TDM measures identified in the following sections will be implemented under the direction and supervision of this person.

The final job description for this role will be determined over time, but the duties of the on-site TDM coordinators may include, but not be limited to:

- Assist Development Site employees with ride matching and transportation planning;
- Develop and implementing appropriate TDM measures;
- Disseminate information regarding alternate modes of transportation and developing transportation-related marketing and educational materials;
- Develop and maintain information pertaining to pedestrian and cycling access to and from the Development Site;
- Host occasional transportation-related events to promote the use of commuting alternatives;
- Distribute transit maps and passes;
- Advocate with the state and local governments to improve transportation infrastructure and services;

- Monitor the effectiveness of TDM measures through surveys and other tools;
- Complete regulatory reports to state and city agencies, as required; and
- Implement a website that provides travel-related information and promotes awareness of the items listed above.

Ride-Sharing Services

The parking needs for the Project will be reduced due to the nearby availability of public bus service currently provided in the area. Furthermore, alternate means of travel, such as taxi and private ride services, such as Uber and Lyft, should continue to reduce the parking needs for the area. The exact level of usage by these private ride-sharing services can be quantified through post-opening monitoring studies to be conducted as discussed later in this document.

Promote Transit Use

Access to public transportation will significantly reduce demand for vehicular travel and parking spaces. This should be particularly effective in relation to the new Union Square station, which is planned to open in December 2021. To serve visitors, employees, and residents, the Proponent will work with the MBTA to identify appropriate locations for new or relocated bus stops near the Development Site and other possible amenities, including bus shelters and real-time transit information.

The on-site TDM coordinator will provide a central commuter information center within the Development Site in a prominent location, such as in a building's foyer or near garage elevators. This will provide employees, residents, and visitors with transit maps, transportation schedules, and route information for pedestrians and cyclists. One or two smaller centers also may be provided at central locations within the overall development, or possibly within each building. This also could include the residential lobbies or at the entrance of the planned office building among other possible locations that would be identified by the on-site TDM coordinator in consultation with the City's Mobility Division.

Parking spaces within the Development Site will not be tied to tenant space leases (i.e. unbundled as required by City of Somerville Zoning). As a condition of the local approval for Building 1 (101 South), the Proponent will implement a shuttle service to Kendall Square and Sullivan Square should Building 1 open prior to the opening of the Union Square Station. The Proponent will evaluate the ridership of this shuttle to determine the appropriate level of service and destinations after the Union Square Station opens. With the Development Site being located within one-quarter mile of the new station, employees who do not own an automobile should have easy access to public transportation.

Bike Sharing Service

Bluebikes began operating in July 2011 and currently provides over 3,000 bikes at 300+ bike-sharing stations. In addition to the Project's on-site bicycle parking, bike-share stations may be provided in conjunction with the Project. While it is possible that additional new bike-share stations may be provided near the new Union Square station or near the US2 Project, the Proponent intends to pursue the installation of two 19-dock bike-share stations at the Development Site, as specified in the approval letter for the overall MMP as part of the August 2020 Master Plan. The closest Bluebikes

bike-share stations are located over one-quarter mile to the north near the planned Union Square station, one-quarter mile to the south at the Cambridge Street/Columbia Street intersection, and 950 feet to the south at Cambridge Street's intersection with Berkshire Street. Therefore, the Proponent will work with Bluebikes to have the two new bike-share stations located next to the Development Site. The two 19-dock stations will be constructed during Phases 2 and 3, respectively.

Transportation Management Association Involvement

While there are not any active Transportation Management Associations (TMAs) in the vicinity of the Project, the Proponent is committed to be an active member of any TMAs formed in the future. The mission of most TMAs is to enhance quality of life through focusing on Transportation and Infrastructure, Land Use and Development, and Energy and the Environment. In the absence of a formal, established TMA, the Proponent will support local efforts in Somerville in improving and expanding public transportation in the area. Through this involvement, the pedestrian-friendly nature of the Development Site's design and internal roadway networks create a framework for offering alternative transportation services. If a TMA is formed in the future, the Proponent will consult with TMA management to confirm that the TMA structure, fees, and other details are compatible with the Project prior to officially becoming a member. With or without participation in any TMA, the Proponent is committed to implementing all of the TDM measures outlined in this MMP. Post-construction traffic monitoring and evaluation of TDM programs will also be the responsibility of the Proponent.

Monitoring and Annual Reporting

The Proponent is committed to a transportation monitoring program for the overall Project that will consist of annual transportation monitoring for a period of five years beginning six months after the first Certificate of Occupancy is issued (after the occupancy of 101 South). Each monitoring period will include and evaluation for each of the buildings that are currently open and occupied at that time. The monitoring program will include:

- Annual travel surveys of employees and patrons of the Development Site conducted by the on-site appointed TDM coordinators. These surveys will be developed through consultation with the City to determine the number of Development Site employees utilizing public transportation, those traveling to the Development Site by private automobile, and those using car-sharing services. Employees also will be surveyed to identify those that bike or walk to and from work;
- Automatic Traffic Recorder (ATR) counts at each Development Site driveway for a continuous 24-hour period on a typical weekday and Saturday;
- Weekday AM, weekday PM and Saturday midday peak hour turning movement counts (TMCs) and operations analysis at each Development Site driveway intersection;
- Biennial (every other year) counts of entering and exiting vehicles for each parking facility;
- Annual counts of vehicle and bike parking occupancy at the Development Site. This will be done through a field inventory to be conducted during a representative weekday midday period when it can reasonably be assumed that the peak parking demand for employees and visitors would occur; and
- Evaluation of motor vehicle crash data at study area intersections.

A monitoring summary report will be provided to MassDOT and the City.

Tenant Commitments

The following sections discuss the tenant types for which MMP programs will be implemented for the Project as well as overall MMP programs for all tenants. A description of the MMP elements is presented in this section along with information on how those elements aid employees, visitors, and retail patrons getting to and from the Development Site. The following plan first addresses general MMP measures that apply to all tenants with 50 or more employees, then special programs for the office/R&D/lab uses, retail shops/restaurants, and the residential tenants. Select duties outlined below may alternatively be fulfilled by the property management team or the Proponent's appointed TDM coordinator on behalf of the tenants.

As there will likely be multiple tenants located within the Development Site, MMP obligations will need to be included as part of the lease language between tenants and the property owner. Any tenants with more than 50 employees also will be required to submit their own MMP, along with a copy of the leases with financial aspects and other non-MMP elements redacted or an affidavit signed by the owner and tenant(s) verifying that this language was included and agreed to in the lease. This documentation will be provided to the City prior to the issuance of the Certificate of Occupancy of a space by these tenants.

General Tenant Measures

The following section describes overall commitments of all future tenants with 50 or more employees.

Transportation Coordinator

As required by the Zoning Ordinance, an on-site TDM coordinator will be designated for each tenant with 50 or more employees. This person may be the office manager, human resources employee, or other individual serving a dual role in another job.

The person(s) in this role will coordinate with the property owner's overall TDM to help promote a reduced reliance on single-occupant automobile vehicle travel to and from the Development Site. To that end, the tenant specific TDM measures identified in the following sections will be implemented under the direction and supervision of this person. Alternatively, the Project's appointed overall TDM coordinator may fulfill the duties outlined below. The final job description for this role will be determined over time, but the duties of the on-site TDM coordinator will include, but not be limited to:

- Assist employees with ride-matching and transportation planning;
- Disseminate information on alternate modes of transportation and information pertaining to pedestrian and cycling access to and from the Development Site;
- Develop transportation related marketing and education materials;
- Distribute transit maps and passes; and
- Host an annual mobility management educational meeting for employees.

Parking Management

Future tenants with over 50 employees who are leasing a number of parking spaces will be required to commit to the following TDM measures:

- Charge market rate for on-site parking spaces through employee lease agreements;
- Implement short-term parking lease agreements for employees; and
- Provide preferential carpool and vanpool parking within the parking garage and spaces near office building entrances within the parking garage as a convenience to commuters and to promote ridesharing.

In addition to the general TDM measures outlined above, the following use-specific programs for the office/R&D/lab uses, retail shops/restaurants, and residential tenants also will be provided.

Office/Laboratory Tenants

Office/lab employers within the Development Site will be encouraged to implement appropriate TDM measures by the on-site TDM coordinator. As not every TDM program will be suitable for every type of employer, such as telecommuting or flexible work hours, the on-site TDM coordinator will offer technical assistance to employers to evaluate potential programs and implement them when appropriate. Employer-based TDM measures may include the following programs:

- Provide preferential carpool and vanpool parking within the parking garage and spaces near office building entrances within the parking garage;
- Offer ride matching assistance managed by the on-site TDM coordinator or by MassRIDES so that employees find appropriate carpool and vanpool partners;
- Disseminate information on alternate modes of transportation and developing transportation;
- Offer sponsored vanpools and subsidized expenses;
- Provide 75-percent subsidy on Bluebikes passes;
- Provide 75-percent subsidy on MBTA link passes;
- Allow employees to use pre-tax dollars for the purchase of MBTA passes, as the pre-tax purchase is free from both federal and state income and payroll taxes;
- Provide telecommuting options for employees in appropriate jobs;
- Offer incentives for bicycle and pedestrian commutes, such as covered bicycle storage, changing rooms, and shower facilities;
- Hold promotional events for transit-riders, cyclists, and pedestrians;
- Offer direct deposit to employees; and
- Providing preferred parking for low-emitting fuel-efficient vehicles and/or electric vehicle charging stations within the future parking facilities for the additional buildings.

Retail/Restaurant Tenants

The Proponent will seek to attract a variety of retail shops, restaurants, and service tenants as ground-floor supporting uses. These shops will potentially include restaurants, apparel, furnishings,

general merchandise, and service uses, such as banks and office supplies. As most of these businesses will be small shops, the same levels of TDM opportunities internal to each individual business will not be as available as with larger employers, but employees who work on the Development Site will be able to take advantage of the transportation guidance and programs coordinated by the TDM coordinator.

The suite of TDM measures to be implemented in association with the retail shops and/or restaurant are fewer than for traditional offices but will still have an impact in reducing single-occupant vehicle travel. The retail TDM program may include the following:

- Improved Development Site amenities, such as cycling paths and pedestrian crossings, which enhance the ability of employees to walk or cycle to work;
- Ride matching services and transit information provided by the on-site TDM coordinator or MassRIDES;
- Promotional events for cyclists, pedestrians, and transit-riders;
- Direct deposits to employees; and
- Possible provision of parking for low-emitting fuel-efficient vehicles and/or electric vehicle charging stations within each of the garages serving the buildings comprising the Proposed Project.

Residential Building

In addition to providing a pedestrian friendly, mixed-use transit-orientated environment, the Proponent will enact a variety of additional strategies to reduce the need for auto trips by residents. This will include working with a car-sharing service such as Zipcar to provide cars for periodic use by residents, if such a demand exists. As noted earlier, the Project parking will be unbundled, which will require that residents rent or lease spaces, as opposed to have parking being included as part of the rental of a unit.

Several of the TDM measures to be implemented for the entire Development Site will be attractive to new residents. Specifically, the provision of secured bicycle storage, bicycle racks, pedestrian walkways, and proximity to public transportation, including several bus lines and the new Union Square station should help to minimize the need for vehicular travel and parking spaces. The Proponent also will provide preferred parking for low-emitting fuel-efficient vehicles and/or electric vehicle charging stations within each of the garages serving the buildings comprising the proposed Project. The exact number and location of these spaces will be determined through ongoing consultation with the City of Somerville as the building designs are advanced.

In addition to the requirement of providing only unbundled parking, the residential component of the Project also will need to post and distribute mobility management information. The physical posting of information will be handled by the building manager, and the information will be provided within either a bulletin board or wall display case to be provided in the residential lobby of Building 4. These boards/cases will display MBTA maps and schedules for busses in the Boynton Yards area and for the MBTA Green Line. Maps showing bicycle and pedestrian facilities in the vicinity of the Development Site also will be posted. Similar information identifying the locations of nearby car-sharing stations, Bluebikes stations, and the availability of carpool/vanpool opportunities also will

be posted. The initial posting of this information will be done by the Proponent prior to the issuance of the Building 4 Certificate of Occupancy.

The same information that will be posted as described above also will be provided to residents of Building 4 when they move in. Yearly emails with this information also will be sent to Development Site residents with additional emails sent if there are any notable changes to public transportation schedules, bicycle/pedestrian infrastructure, or the availability of ride-share or car-share services in the area.

Property Management Firm

The following sections discuss the TDM duties expected to be fulfilled by the property management firm.

Parking Management

As previously stated, the Proponent has committed to providing unbundled parking to future tenants and, in turn, future tenants will determine how parking spaces are allocated or leased to employees. Due to the extremely low proposed parking ratio, the Proponent anticipates that all parking spaces will be leased by tenant(s). To the extent that any parking spaces are not leased by tenants, those spaces will be made available to the public.

The Proponent, and ultimately the Property Management Firm will commit to the following additional TDM measures:

- Charge market rate for parking spaces through tenant lease agreements;
- Implement short-term parking lease agreements;
- Require tenants to offer short-term parking lease options to employees, such as month to month;
- Require tenants to charge employees market rate for on-site employee parking; and
- Provide preferential carpool/vanpool parking spaces;

The following additional TDM measures will also be considered:

- Demand-responsive pricing, which adjusts hourly rates for public and customer parking to manage parking availability;
- Offering parking cash-out incentives for employees;
- Shared parking; and
- Preferred parking for low-emitting fuel-efficient vehicles and/or electric vehicle charging stations within the Project garage.

SomerVision 2040

The Project is committed to making reasonable efforts to achieve the City's goal to control the percentage of trips made by automobile at 50 percent or less. If annual monitoring and reporting identifies a shortfall in meeting this goal, the Property Management Firm will implement additional mobility management programs and services.