III – Mobility Management Plan

Alta XMBLY
290 Revolution Drive

Somerville, Massachusetts

PREPARED FOR

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Project Information

Contact Information

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

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Project Description

The Alta XMBLY development will be constructed within an approximately 71,935 square foot (sf) (1.65 acre) parcel of land within the approved XMBLY development in Somerville, Massachusetts (the "Site"). This initial XMBLY development will occur within Alta XMBLY, which is bound by Grand Union Boulevard to the east, the planned Road K to the west, and the planned Road L and Revolution Drive to the north and south, respectively. A total

of 329 residential units are proposed within the planned eight-story Alta XMBLY building, along with 10,823 sf of street-level retail/restaurant use (the "Project"). The parking needs for this parcel will be accommodated by 188 structured parking spaces within the new Alta XMBLY building footprint. This parking will be designated for use by residents only, with parking for the retail/restaurant uses being provided on-street along Road K, and other nearby roadways where public parking is available. The proposed Site parking supply falls below the 342-space supply required by the City of Somerville Zoning Ordinance, but still will meet the anticipated functional needs of the proposed Project. A waiver from this parking requirement is being requested in conjunction with this submittal.

The proposed development for Alta XMBLY is consistent with the recently approved PUD-PMP for the overall XMBLY development. The anticipated trip generation associated with this proposed development is discussed in detail later in this Mobility Management Plan (MMP).

Build Out/Program Estimates

At its full build-out, the overall XMBLY development will include approximately 489 residential units, 612,500 sf of general office space, and 335,500 sf of research & Development/lab space. Approximately 28,140 sf of street-oriented retail/restaurant space also will be provided within multiple tenant spaces within the individual blocks comprising the Project. A new, approximately 16,000 sf fire station serving the Assembly Square district also will be constructed. This amenity will be located at the northwest corner of the building adjacent to the Foley Street/Middlesex Avenue intersection. The development also will feature new publicly accessible and sustainably designed open spaces which will benefit both the Project tenants and residents as well as visitors to the surrounding Assembly Square area.

The initial Alta XMBLY development considered under this MMP will consist of 329 residential units with 10,823 sf of supporting ground-floor retail/restaurant space.

Anticipated Phasing

The full development plans for the overall XMBLY development are summarized in the preceding section, and this project will be developed on an ongoing basis over several years. The Project's initial phase will consist of the development of Alta XMBLY, as described in the following section.

Alta XMBLY

The initial development of the Project will occur within Alta XMBLY. This new building will be bound by Grand Union Boulevard to the east, Road K to the west, and Road L and Revolution Drive to the north and south, respectively. A total of 329 residential units are proposed within Alta XMBLY, along with 10,823 sf of street-level retail/restaurant use. The parking needs for this parcel will be accommodated by approximately 188 structured parking spaces contained within the ground- and second levels of the building. In

addition to automobile parking, this Block also will include the number of secured bicycle parking spaces needed to comply with City of Somerville requirements.

A summary of the uses and associated building areas within the blocks described above is provided in Table 1. The building areas shown in Table 1 represent the total building areas for each block, including both leasable area, and "back-of-house" supporting space such as lobbies, mechanical rooms, etc.

Table 1 Development Program

Development	Residential	Office[a]	Research & Development[a]	Retail/ Restaurant space[b]	Fire Station	Total
Initial development						
Alta XMBLY	329 units	0 sf	0 sf	10,823 sf	0 sf	427,954 sf
Subtotal	329 units	0 sf	0 sf	10,823 sf	0 sf	427,954 sf
Percent of total XMBLY development	67%	0%	0%	38%	0%	27%
Subsequent development						
Block 21	0 units	373,500 sf	272,500 sf	14,317 sf	16,000 sf	676,317 sf
Block 24 (existing)[b]	0 units	162,000 sf	0 sf	0 sf [b]	0 sf	162,000 sf
Block 25 [c]	160 units	0 sf	0 sf	3,000 sf	0 sf	190,000 sf
Block 26	0 units	77,000 sf	63,000 sf	0 sf	0 sf	140,000 sf
Subtotal	489 units	612,500 sf	335,500 sf	17,317 sf	0 sf	1,168,317 sf
Total Full Build-out	**489 units**	**612,500 sf**	**335,500 sf**	**28,140 sf***	**16,000 sf**	**1,594,000 sf***

a A total of 948,000 sf of building space will be devoted to office or research and development space. The exact breakdown for between these two uses is based on current development plans, but may change over time based on market conditions and tenant needs.

b Block 24 currently contains a health club facility oriented towards existing Assembly Square workers and visitors. While there are no plans for this use to vacate the Site, it was assumed that this 25,000 sf could be converted to office space under the future conditions evaluated in the Traffic Impact and Access Study accompanying this submittal so as to consider a "worst-case" analysis.

* The exact amount of building space, and retail/restaurant space allocated to each building, will be determined as part of the subsequent permitting of each of the individual development blocks.

Parking Plan

The following section summarizes the proposed Alta XMBLY parking supply.

Proposed Parking Supply

The parking needs for the 329 residential units within Alta XMBLY will be accommodated by the approximately 188-space parking structure within the ground- and second levels of the building. Patrons of the proposed 10,823 sf of street-level retail/restaurant uses are expected primary to be in the form of shared trips with other nearby businesses or residences within the Project Site and/or the surrounding area.

The parking facilities within Alta XMBLY will be controlled through gating, ticketing, reader cards or other means. This will help avoid this parking being used for the MBTA or other nearby developments so that it will be available only for Project use. The parking supply 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.

The Somerville Zoning Ordinance requires 112 bicycle parking spaces for the proposed Alta XMBLY development, and this requirement will be satisfied within the proposed Project. The Project also will be providing short-term bicycle racks within 50 feet of each building entrance. The exact capacity and location of each rack will be determined through ongoing consultation with the City planning staff.

In addition to the parking facilities discussed above, there will be 34 newly created on-street parallel parking spaces provided along the full length of Road K. In addition to this parking there also is an abundance of on-street parking in the immediate vicinity of the Site. The parking spaces along Foley Street and Grand Union Boulevard along the Site frontage are metered. The cost for the spaces currently is $0.25 per fifteen minutes, with a 2-hour time limit during the Monday-Saturday (8 AM-8PM) metered operation of these spaces.

A graphic depicting the proposed Alta XMBLY parking supply, and the nearby on-street existing parking supply, is provided in Figure 1.

Motor Vehicle Parking Plan – Block 23 and On-Street parking

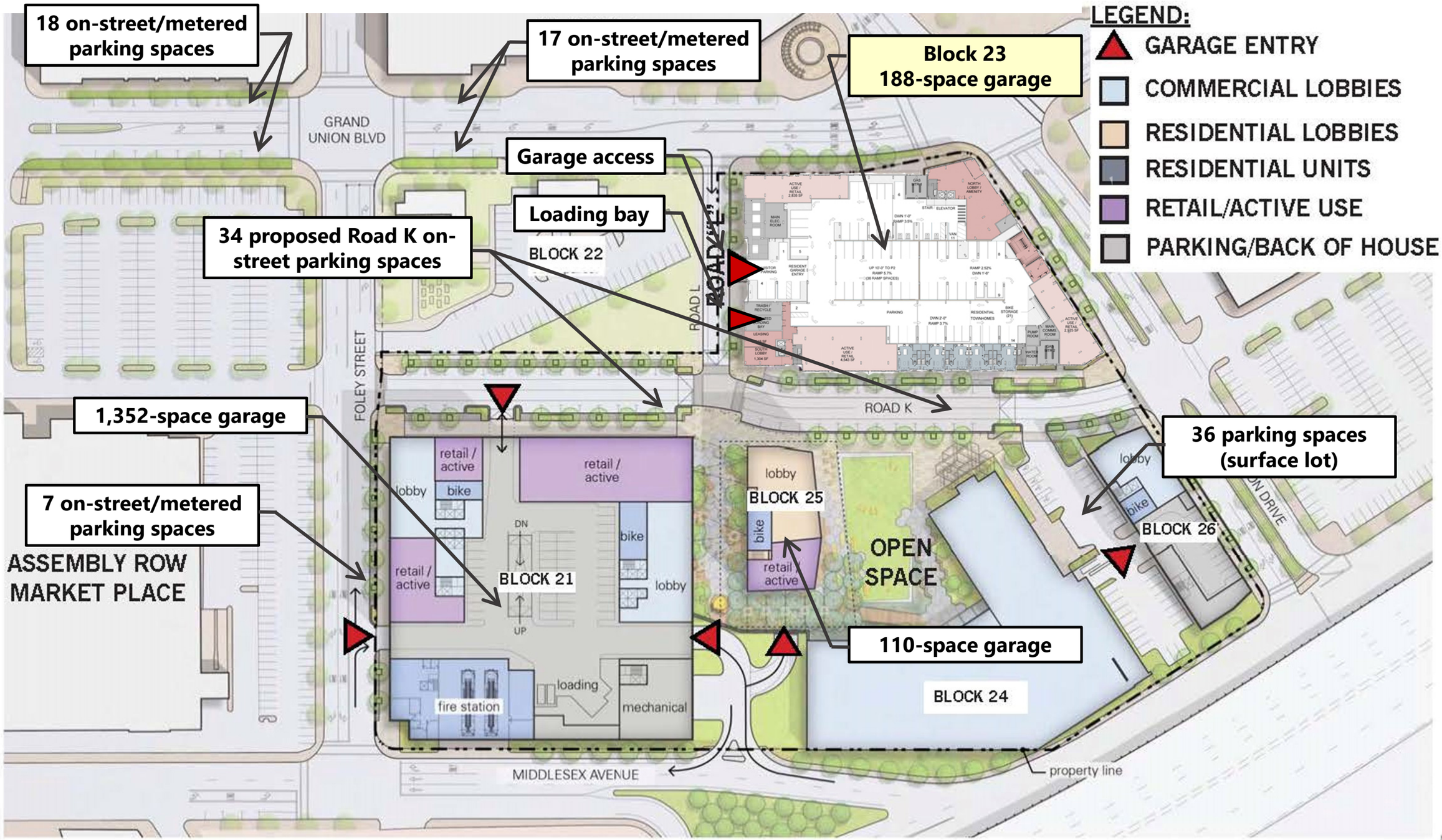


Figure 1

Nearby Transit Services

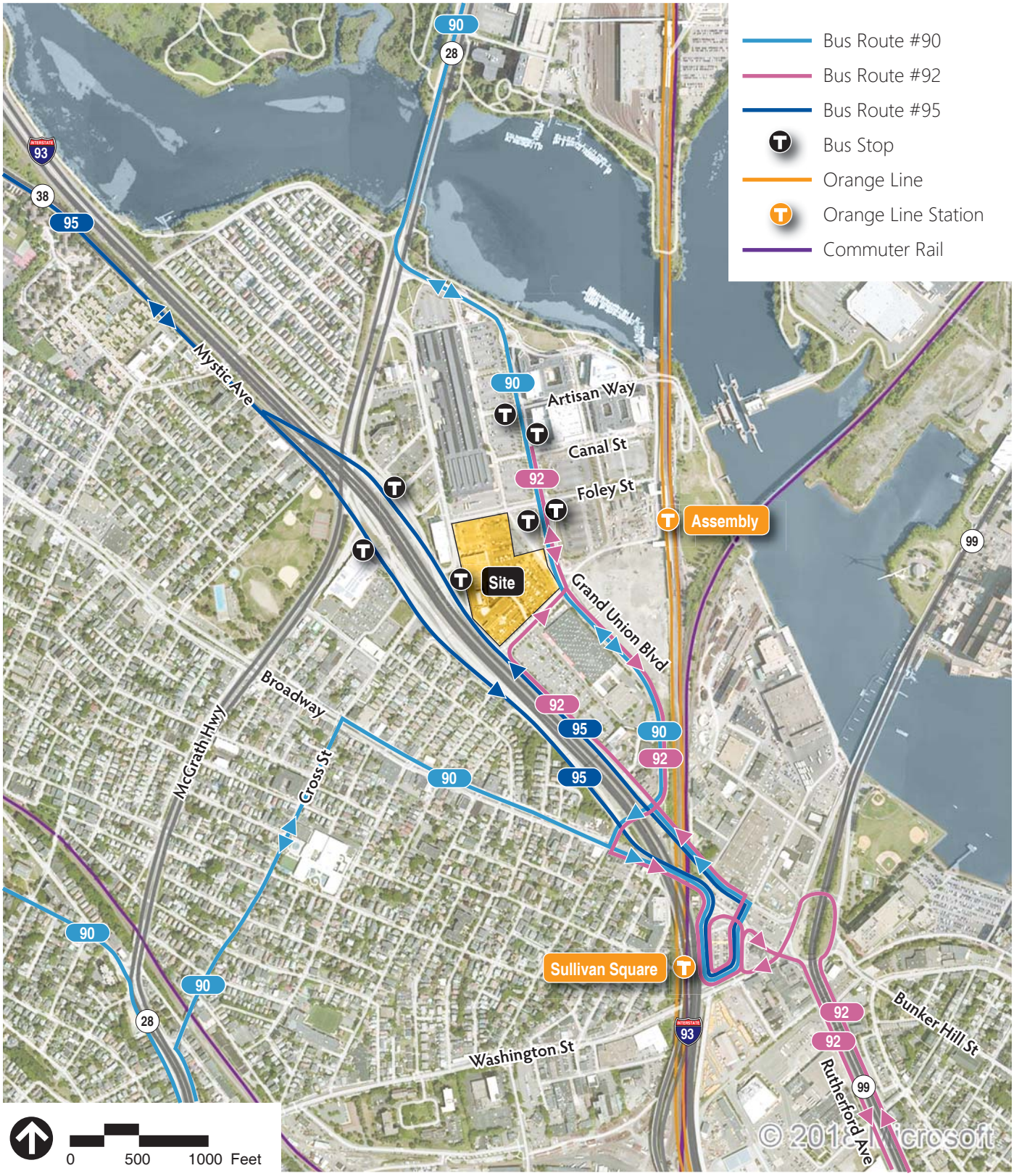
Ample public transportation services by the Massachusetts Bay Transportation Authority (MBTA) currently are provided in the immediate vicinity of the Project Site as summarized in the following section.

Existing Conditions

The study area is currently served by five MBTA bus routes within 0.5 miles of the Project Site. The area is serviced by MBTA Bus Routes 89, 90, 92, 95, and 101. MBTA Bus Routes 90, 92, and 95 directly serve the Site with stops on Mystic Avenue and Grand Union Boulevard. In addition, the Site is served by the Orange Line of the MBTA with Assembly Station located less than 1,000 feet east of the Site. Descriptions of each transit service is provided below:

- Bus Route 89 travels between Sullivan Square and Davis Square or Clarendon Hill via Broadway. The nearest stop to the Site is approximately 0.5 miles away at the intersection of Broadway and Lombardi Way / Mt. Vernon Street. During peak periods, Bus Route 89 has a frequency of approximately 7-15 minutes.
- Bus Route 90 travels between Wellington Station and Davis Square via Assembly Square Mall, Sullivan Square, and Highland Avenue. The nearest stop to the Site is on Grand Union Boulevard adjacent to the Site, at Foley Street. During peak periods, Bus Route 90 has a frequency of approximately 40-50 minutes.
- Bus Route 92 travels between Assembly Square Mall and Downtown Boston via Sullivan Square and Haymarket. The nearest stop to the Site is on Grand Union Boulevard adjacent to the Site, at Foley Street. On weekday, Bus Route 92 terminates at Sullivan Square before 9:30 AM and after 4:00 PM, therefore not providing service to the Site during peak periods.
- Bus Route 95 travels between Sullivan Square and West Medford via Mystic Avenue and Medford Square. The nearest stop to the Site is on Mystic Avenue (Route 38) adjacent to the Site, at Middlesex Avenue. During peak periods, Bus Route 95 has a frequency of approximately 25-40 minutes.
- Bus Route 101 travels between Sullivan Square and Malden Center via Broadway and Medford Square. The nearest stop to the Site is approximately 0.5 miles away at the intersection of Broadway and Lombardi Way / Mt. Vernon Street. During peak periods, Bus Route 89 has a frequency of approximately 5-20 minutes.

Peak period frequencies/headways for MBTA bus services are summarized in Table 2, and are shown graphically in Figure 2.



Source: Bing Aerial, MassGIS

Figure 2
Public Transit

XMBLY
Somerville, Massachusetts

Table 2 Project Area MBTA Service

Bus Route	Origin / Destination	Peak-Hour Frequency (minutes)		Weekday	Saturday	Sunday
89	Charlestown; Clarendon Hill or Davis Square – Sullivan Station via Broadway	7-15	Inbound	2,079	973	367
			Outbound	2,077	945	492
			Total	4,156	1,917	858
90	Charlestown; Davis Square – Wellington Station	45-50	Inbound	588	334	230
			Outbound	593	350	163
			Total	1,182	684	393
92	Charlestown; Assembly Square Mall – Downtown via Main Street	25-45	Inbound	667	294	N/A
			Outbound	654	285	N/A
			Total	1,321	579	N/A
95	Fellsway; West Medford – Sullivan Square	25-40	Inbound	896	445	206
			Outbound	986	491	236
			Total	1,881	936	442
101	Charlestown; Malden Station – Sullivan Station via Medford Square	20-30	Inbound	2,453	1,165	603
			Outbound	2,314	1,232	516
			Total	4,767	2,397	1,119

a Based on MBTA's Ridership and Service Statistics – Fourteenth Edition, 2014.

Assembly Square Orange Line Station

Assembly Station on the Orange Line of the MBTA is approximately 800- to 1,000 feet east of the Site via Revolution Drive or Foley Street. The Orange Line travels from Oak Grove in the north to Forest Hills in the south and serves the cities of Malden, Medford, and Somerville, as well as the Boston neighborhoods of Charlestown, Downtown, Chinatown, Back Bay, South End, Roxbury, and Jamaica Plain. The Orange Line runs approximately every six minutes during peak periods. The Assembly Square Station on the Orange Line opened in 2014.

Additional transit service is available within the study area beyond the 0.5 miles range discussed above. Additional stops on the Orange Line are located at Sullivan Square Station (located approximately 0.6 miles south of the Site) and Wellington (located approximately 1 mile north of the Site). Both Sullivan Square Station and Wellington Station are local transit hubs and provide connections to several additional MBTA bus routes as well.

Bicycle Network

As part of the traffic data collection, current biking activity was recorded for the study area intersections. The area surrounding Alta XMBLY has ample bike accommodations which were implemented as part of the adjacent Assembly Row development. These include new bike

lanes, a multi-use path, and other amenities. Grand Union Boulevard currently features striped bicycle lanes on both sides of the roadway. The segment of the newly proposed Road K between Revolution Drive and Road L is being designed for shared use by automobiles, bicyclists, and pedestrians with parking along both sides of the street for most of its length. Space also is available within the Road K cross-section for 5-foot wide bike lanes in both directions to the north of the segment between Road L and Revolution Drive. With the inherent traffic-calming nature of the southerly segment, a shared-lane treatment will be provided for cars, bikes, and pedestrians. The planned multi-modal setting, the at-grade roadway/sidewalk configuration of Road K, and other factors, will allow for bicyclists and pedestrians to readily utilize the same space automobile traffic due to the expected low speeds. The nearest "Blue Bikes" bike-sharing station to the Site previously was located at Broadway at Mt. Pleasant Street approximately 0.40 miles to the south. However, in July 2018 a new Blue Bikes station was installed near the northerly headhouse at Assembly Station less than ¼ mile to the east of the Site. The new internal Site roadways proposed as part of the Project will be designed to accommodate bicycle traffic within the mixture of vehicular and pedestrian traffic along Road K and Road L.

Sidewalks

As part of the planned multi-modal environment of XMBLY there will be ample pedestrian accommodations in place surrounding Alta XMBLY. Grand Union Boulevard already features 8-foot wide sidewalks along both sides of the roadway, with crosswalks provided at Foley Street to the north, and Revolution Drive to the south. Push-button actuated exclusive pedestrian phases are provided at both intersections.

A continuous 6-foot wide concrete sidewalk will be constructed along the northerly Site frontage along Road L. Street furniture and tree pits also will be provided within the approximately 16-foot wide area between the curbline and the building. A variable-width sidewalk will be constructed along the Site's Road K frontage along with ample street furniture, trees and other amenities. A continuous 6-foot wide sidewalk also will be provided along the northerly side of Revolution Drive, with additional space for street trees and landscaping. The segment of Road K between Road L and Revolution Drive is being designed to promote shared use between automobiles, bicyclists, and pedestrians. The design of this segment involves the roadway being raised to be flush with the sidewalks to help promote the desired multi-modal environment. Bollards will be provided along the roadway edge between the on-street parking and sidewalk area for added pedestrian protection.

Mode Split / Trip Generation

The proposed Alta XMBLY development is comprised of residential and supporting retail/restaurant uses. The rate at which any development generates traffic is dependent upon a number of factors such as size, location, and concentration of surrounding developments. The Trip Generation Manual[1] published by the Institute of Transportation Engineers (ITE) categorizes these land uses and provides weekday daily, weekday morning, weekday evening, Saturday daily and midday peak hour unadjusted vehicle trip generation estimates for each use. For the proposed development, the trip generation estimates for the planned uses were projected using Land Use Code (LUC) 221 (Mid-Rise Residential) and LUC 820 (Shopping Center). The methodology used, and results of this analysis, are discussed in detail in the following sections.

Proposed Project-Generated Traffic

The proposed transit-oriented Alta XMBLY development will consist of a mixture of residential and supporting retail/restaurant/active uses set within the overall surrounding mixed-use XMBLY development. As noted above, traffic associated with the proposed residences was estimated using ITE LUC 221 (Mid-Rise Residential). The retail uses are expected to be 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 gallery uses. While these clearly do not fit the description of a transitional ITE "Shopping Center", retail traffic was estimated using this land use code (LUC 820), which results in an overly conservative analysis. The overall unadjusted vehicle trip estimates for the Project are presented in Table 3.

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

Table 3
Alta XMBLY Trip Generation –
Total Unadjusted Trips

Time Period	Apartments: 329 units[1] +	Retail/Restaurant: 10,823 sf[2]	= Total
Weekday Daily (vpd)	1,790	410	**2,200**
Weekday Morning Peak (vph)			
Enter	29	6	**35**
Exit	81	4	**85**
Total	110	10	**120**
Weekday Evening Peak (vph)			
Enter	85	20	**105**
Exit	54	21	**75**
Total	139	41	**180**
Saturday Daily (vpd)	1,418	500	**1,918**
Saturday Midday Peak (vph)			
Enter	71	25	**96**
Exit	74	23	**97**
Total	145	48	**193**

vpd Vehicles per day
vph Vehicles per hour
1 Source: Trip Generation Manual; Tenth Edition; Institute of Transportation Engineers; Washington, D.C.; 2017. Based on ITE LUC 221 (Mid-Rise Residential), based on 329 units.
2 Based on ITE LUC 820 (Shopping Center), assumes 10,823 sf of retail/restaurant space.

The values shown in Table 3 are the base unadjusted vehicle-trip estimates prior to the necessary adjustments for internal Assembly Square trip sharing, mode-splits, and other factors. The details of how these subsequent adjustments were made by each step are discussed in the following sections.

Person Trips

The unadjusted vehicle trips calculated using the ITE data were subsequently converted into person trips by applying national data[2] for vehicle-occupancy rates for a variety of uses. This was done so that the national ITE-based data also would be converted to person trips using national data for consistency.

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

Internal Capture Trips

As described in the ITE Trip Generation Handbook "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."

Based on the methodology outlined in the ITE Trip Generation Handbook, internal capture rates were applied to the gross person trips. The resulting peak-hour person trip estimates for the Project and are presented in Table 4.

Table 4 Alta XMBLY Peak-Hour Person Trips

	Residential [a]	Retail [a]	Total Person Trips
Weekday Morning			
Enter	32	11	43
Exit	92	7	99
Total	124	18	142
Weekday Evening			
Enter	96	35	131
Exit	61	38	99
Total	157	73	230
Saturday Midday			
Enter	80	45	125
Exit	84	42	126
Total	164	87	251

a Person trip generation estimate with internal capture credits applied.

Mode Share

For existing conditions, the mode split was estimated based on 2010 U.S. Census data for Tract 3398.01 in Medford. This tract is located east of and adjacent to Wellington Circle in Medford, and has been determined by the City of Somerville to be generally representative of the existing mode splits likely occurring within Assembly Square. Specifically, the census data reflects an existing mode split of approximately 69- automobile usage, with the remainder being split between transit, pedestrians, bicyclists, or those that work from home. The mode shares used for the future conditions

evaluation were developed considering multiple sources. These include a traffic study[3] for a prior development proposal on the Project Site, and data from the Notice of Project Change (NPC)[4] prepared for the Partner's office development within Assembly Square. Mode shares presented as part of the nearby North Point development also were considered due to the similarities in some components of that project. The following sections discuss aspects of the Project which also should help promote a shifting from single-occupant automobile use as the predominant mode of travel at the Site.

Promotion of 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 MBTA Orange Line Assembly Square Station already being in operation within a short walking distance to the Site.

As part of the overall XMBLY Development a central commuter information center will be provided within the Project Site in a prominent location such as in a building foyer, or near garage elevators. This will provide employees, residents, and visitors with transit maps and 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 within the Alta development among other possible locations that would be identified by the overall XMBLY on-site TDM coordinator in consultation with the City of Somerville planning staff and the Assembly Square Transportation Management Association (TMA).

Facilitating Bicycle and Pedestrian Travel

Travel to the Project Site by cycling or walking will be promoted by the Proponent through the provision of improved bicycle and pedestrian connections within the Project Site and surrounding Assembly Square area. In addition to secured, covered bike storage within the building, bicycle racks also will be provided at locations surrounding the Site. Walking to and from, and throughout the Project Site will be encouraged by the provision of a pedestrian-friendly site layout, which features sidewalks and crosswalks at key points both within the Site and connecting to adjacent planned developments. The bicycle and pedestrian infrastructure improvements will help to promote non-vehicular travel to the Project Site.

The nearest Blue Bikes bike-sharing station to the Site is located near the northerly headhouse at Assembly Station less than ¼ mile to the east of the Site. As required as a condition of the XMBLY approval, the Proponent for that project will be providing a bike-share docking station with at least fifteen (15) shared docks and nine (9) bicycles. As also noted as part of that condition, if additional docks are provided then additional bikes will be included to maintain a 0.57 bike-to-dock ratio. The new station will be installed prior

3 The Office and Research Center + The Residences at Assembly (Chapter 3 – Transportation) Design Consultants, Inc. (Somerville, Massachusetts), September 30, 2016.

4 Assembly Row Revised Program for Partners Healthcare Site – Notice of Project Change; VHB, Watertown, Massachusetts (May 15, 2014).

to the issuance of the Certificate of Occupancy for the Alta building, with the exact location being determined through consultation with Blue Bikes and the City of Somerville.

Secured bicycle parking spaces will be provided to meet the City of Somerville requirements. In total, 110 secured bicycle parking spaces are required for the residential component of the Site. The resulting 111 parking spaces within the structured parking garage will satisfy the overall Project requirement, with additional bicycle spaces for non-residential uses being provided on the sidewalks adjacent to the building. The Project will be providing short-term bicycle racks within 50 feet of each building entrance. The exact capacity and location of each rack will be determined during the Special Permit process for each individual block, but the bicycle parking provided will comply with City requirements.

Parking Management

The parking ratios proposed for the Project are considerably lower than those found in a suburban setting and are low even for sites that are well-served by public transportation. With the limited supply, parking spaces will need to be allocated to a select number of residents and employees.

The Project retail space will consist of small shops, restaurants, or cafes within the ground-level of the Alta building. Even without any formal shared parking program, there clearly will be shared activity. With those uses, most customer traffic should be in the form of residents or nearby office/lab workers already at the overall XMBLY site or surrounding area as opposed to destination retail traffic.

Project Mode Share

The resulting anticipated mode splits are presented in Table 5. More conservative mode-splits, with higher automobile use, were utilized in the Traffic Impact and Access Study accompanying this submittal. Through the implementation of this Mobility Management Plan it is the hope and expectation of the Proponent that the percentage of trips made by automobile can be reduced to under 50-percent. Accordingly, while an 80-percent retail automobile usage was evaluated as part of the PUD-PMP transportation analysis, the estimates shown in Table 5 are based on the desired 50-percent maximum, which should be attainable in the overall multi-modal environment. With the transit-oriented mixed-use environment surrounding the Site it is expected that there will only be 43-percent automobile usage for the residential component.

Table 5 Alta XMBLY Mode Share

Use	Vehicle	Transit	Bike/Walk
Residential	43%	47%	10%
Retail/Restaurant	50%	25%	25%
Overall Alta	47%	41%	12%

Source: Based on hybrid of mode shares used in Partners Health Care Study PNF (2014), Certified NorthPoint TIS (with data from Kendall Square K2 City of Cambridge, "Hotel Parking and Transportation Demand Management Reports – City of Cambridge", Assembly Edge PUD-PMP (2017), US Census data, and Boston Transportation Department data for Zone 11 (Sullivan Square).

The mode shares discussed above were applied to the net-new person trips to generate the adjusted Project trips by mode. The local average vehicle occupancy, based on US Census data for each primary use then was applied to the vehicle mode to reflect the number of vehicle trips generated by the Site.

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 Project Site. For example, someone traveling on Grand Union Boulevard may choose to deviate from their original travel path to visit the site retail, before heading back to continue to their final destination. 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 the surrounding roadways. Specifically, 34- and 26-percent of the Site trip generation was assumed to be drawn from the surrounding roadway network during the weekday evening and Saturday midday peak hours, respectively. For all other time periods studied, a 25-percent pass-by rate was assumed.

Project-Generated Trips

The mode share and local average vehicle occupancy were applied to the person trips to estimate net new trips by mode, and then the pass-by adjustments noted above were applied to the vehicle trips generated by the retail portion of the Site. Tables 6 and 7 summarize the net new trips by mode and net new vehicle trips by use, respectively.

Table 6 Project-Generated Peak-Hour Trips by Mode

	Bike/Walk	Transit	Vehicle[a]
Weekday Morning			
Enter	6	18	14
Exit	11	45	34
Total	17	63	48
Weekday Evening			
Enter	17	48	39
Exit	13	34	29
Total	30	82	68
Saturday Midday			
Enter	17	42	35
Exit	16	45	36
Total	33	87	71

a Total development vehicle trips (including pass-by trips associated with the retail portion).

As shown in Table 6, the Project is expected to generate between 48 and 71 total vehicle trips during the peak hours studied. The breakdown of these trips by use are summarized below in Table 7.

Table 7 Project-Generated Peak-Hour New Vehicle Trips by Use [a]

	Residential	Retail	- Pass-By [b]	Total New Trips
Weekday Morning				
Enter	11	3	1	**13**
Exit	32	2	1	**33**
Total	43	5	2	**46**
Weekday Evening				
Enter	30	9	3	**36**
Exit	20	8	3	**25**
Total	50	17	6	**61**
Saturday Midday				
Enter	24	14	3	**32**
Exit	27	12	3	**33**
Total	51	26	6	**65**

a New vehicle trips with internal capture credits applied.
b Pass-by credits of 25%, 34%, and 26% applied to weekday morning, weekday evening, and Saturday midday peak hour retail trip generation, respectively.

As shown in Table 7, the Project is expected to generate between 46 and 65 net new vehicle trips on the surrounding roadways during the critical peak hours studied.

The anticipated vehicle trip generation presented above is based on the targeted maximum of 50-percent automobile usage. As noted earlier, the existing auto usage for this area currently is estimated at 69-percent. Table 8 compares the expected vehicle trip generation for the Project (based on the desired 50-percent auto use maximum) to that which would occur if the current mode splits were not improved.

Table 8 Project Trip Generation Comparison – Proposed vs. Existing Mode Splits

	Project Trip Generation		Reduction in Vehicle Trips	
	with Existing Mode Splits[a]	with Targeted Mode Splits[b]	Vehicle Trips	Percent decrease
Weekday Morning				
Enter	21	**13**	**8**	
Exit	53	**33**	**20**	
Total	74	**46**	**28**	**38%**
Weekday Evening				
Enter	60	**36**	**24**	
Exit	43	**25**	**18**	
Total	103	**61**	**42**	**41%**
Saturday Midday				
Enter	54	**32**	**22**	
Exit	56	**33**	**23**	
Total	110	**65**	**45**	**41%**

a Existing conditions mode share based on 2010 U.S. Census data for Tract 3398.01 in Medford.
b Project mode share based on Table 6.

As shown in Table 8, it is expected that Project vehicle trip generation can be reduced by between 28- to 45 peak-hour vehicle trips through the implementation of the MMP, public transit, and the availability of bicycle/pedestrian accommodations.

Mode Share Commitment

The Proponent is committed to making reasonable efforts to achieve the City's goal to control the percentage of trips by automobile at 50% or less, consistent with SomerVision. In combination with proposed pedestrian and bicycle improvements, close proximity to public transit services, and inherent walkable characteristics of the Assembly Square neighborhood, implementation of this Mobility Management Plan is anticipated to help decrease the percentage of trips made by automobile to 47%, a 22% reduction below estimated existing conditions of 69% of trips made by automobile. If annual monitoring and reporting identifies a shortfall in meeting this goal, additional mobility management programs and services will be implemented.

Proposed Programs and Services

A Mobility Management Plan (MMP) is required for any development within the Assembly Square Mixed-Use District. As a matter of departmental policy for the City of Somerville, the Director of Transportation and Infrastructure requires a MMP for various sizes and types of development, including the following:

- 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
- Employers with 50 or more employees are required to provide the following:
  - an on-site transportation coordinator;
  - an annual mobility management education meeting for tenants;
  - posted mobility management information;
  - distributed mobility management information;
  - qualified transportation fringe benefits for employees; and
  - a guaranteed ride home program for employees.

The combined Alta retail/restaurant component is only 10,823 sf in size, and should have a limited number of employees. If future individual retail tenants have fifty (50) or more employees, then they will be required to submit their own MMP for approval. Verification of conformance with this condition will be provided to the City of Somerville by the property owner either as a copy of the leases (with financial aspects and other non-MMP elements redacted) or via 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 a tenant with fifty (50) or more employees.

The following sections discuss the land use types for which MMP programs will be implemented for the Project. A description of the MMP elements is presented in this section along with information on how those elements aid employees, residents, visitors, residents, and retail patrons getting to and from the Project Site. As there may be

multiple tenants located within the Site, MMP obligations will need to be included as part of the lease language between retail tenants and the property owner. Verification of the ongoing conformance with this condition will be provided to the City of Somerville by the property owner either as a copy of the leases (with financial aspects and other non-MMP elements redacted) or via 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 a tenant with fifty (50) or more employees.

General MMP measures to be implemented as part of this Project will involve promoting transit use and facilitating bicycle and pedestrian travel both through Site amenities and ongoing practices and programs. These will include providing bicycle racks and amenities and also will involve a new Blue Bikes bike-share station being provided within the overall XMBLY development site as a condition of that project's approval. The mixed-use nature of the overall XMBLY site by itself also effectively will function as a transportation demand management measure. Specifically, with the variety of uses proposed and already in place in the surrounding area, the need to travel off-site by automobile for dining or shopping opportunities will be minimized. With the mixture of Alta XMBLY residences and office/lab uses in the surrounding XMBLY site and beyond, it is possible that some residents may specifically choose to work at the Site due to it also being their place of employment, further reducing the need for vehicular travel.

The following plan first addresses general TDM measures that apply to the whole Project Site, then special programs for the residential use.

General Measures

TMA involvement

As required by Condition #3 of the approved Mobility Management Plan for the XMBLY PUD Master Plan, the XMBLY proponent will become an active member of the Assembly Square Transportation Management Association. The condition specifically requires that the property owner must have a signed contractual agreement to join or be a member of the Assembly Square Transportation Management Association (TMA) established by Federal Realty and others. Proof of membership must be submitted to the Director prior to the issuance of any Certificate of Occupancy for any building. The XMBLY proponent currently is taking the internal steps needed to initiate becoming a member of the TMA, and this requirement will be satisfied within the timeframe noted above. Once the required XMBLY internal coordination has been advanced, the Proponent will join the newly-formed TMA. On August 22, 2018 the Proponent also requested information from the entity managing the TMA regarding the structure, terms and conditions, and other aspects of the newly formed TMA. Following that initial outreach, TMA representatives indicted that these details were being finalized and were targeted for internal approval in Fall 2018. It is expected that most of the MMP measures will be undertaken either directly by or through coordination with the TMA. In the event that the TMA does not provide any such service its implementation will be the responsibility of the property owner.

Ride-Sharing Services

The parking needs for the Project will be lessened due to the nearby availability of public transit currently provided in the area. Furthermore, alternate means of travel, such as taxi, private ride services (Uber, Lyft, and others) should continue to reduce the parking needs for this 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.

Use-Specific Measures

In addition to the general TDM measures outlined above, the following use-specific programs for the residents also will be provided.

Residential

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 Alta XMBLY residents. This will include working with a car-sharing service (such as Zipcar) to provide cars for periodic use by residents, if such as 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 Project 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 MBTA Assembly Square Orange Line station should help to minimize the need for vehicular travel and parking spaces. As noted earlier, the Proponent will consider providing 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.

In addition to the requirement of providing only unbundled parking, the Alta 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 at the corner of Road K and Road L, the lobby at the corner of Grand Union Boulevard and Revolution Drive, and the bicycle storage/workshop area. These boards/cases will display MBTA maps and schedules for busses in the Assembly Square area and for the Orange Line. Maps showing bicycle and pedestrian facilities within Assembly Square and connecting to the surrounding area also will be posted. Similar information identifying the locations of nearby car-sharing stations, Blue Bike 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 Alta Certificate of Occupancy.

The same information that will be posted as described above also will be provided to Site residents when they move in, or when new employees start work at the retail/restaurant

use. Yearly emails with this information also will be sent to site residents (and the retail/restaurant tenant), 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.

Monitoring and Annual Reporting

The Proponent will conduct annual travel surveys as required by Condition #3 of the approved Mobility Management Plan for the XMBLY PUD Master Plan. These surveys will be developed through consultation with the City to determine the number of retail site employees utilizing public transportation, those traveling to the 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. The Proponent is committed to making reasonable efforts to achieve the City's goal to control the percentage of trips made by automobile at 50% or less, consistent with SomerVision. If annual monitoring and reporting identifies a shortfall in meeting this goal, additional mobility management programs and services must be implemented. These additional measures, if required, could involve increasing awareness of MMP program components through additional or relocated posted information, and more frequent distribution of MMP information.

Following the opening of the Site, biennial (every other year) counts of entering and exiting automobile trips for the Alta XMBLY parking garage will be conducted as part of the overall XMBLY traffic monitoring. The counts will be conducted using automatic traffic recorders or similar approved counting equipment to be installed at the driveway to capture a typical 24-hour weekday period. As retail automobile traffic will not be parking in the Alta garage, the trip generation for the proposed 8,025 sf retail use cannot readily be quantified through counts. Instead, the trip generation for that use will need to be determined to the extent possible through the employee surveys noted above, which will be supplemented with travel mode information requested from retail/restaurant patrons on the same day as the Alta traffic counting. The post-opening monitoring also will include the annual reporting of parking utilization for the Alta XMBLY parking garage. This will be done through an inventory to be conducted for a representative weekday midday period when it can reasonably be assumed that the combined peak parking demand would occur. As part of the summary report to be provided to the City, a status summary of the Mobility Management Plan in place at the Site also will be provided. In keeping with standard practices for the City of Somerville, all of the monitoring outlined above will occur during the months of April/May or September/October, unless other time periods are pre-approved by the City.