9 MARCH 2023

MOBILITY MANAGEMENT PLAN

Davis Square Plaza Redevelopment

March 9, 2023

Prepared for:
Asana Partners

Prepared by:
McMahon Associates

Contents

1. Contact Information

Project:

Davis Square Plaza
260 Elm Street
Somerville, MA 02144

Proponent:

Asana Partners
1616 Camden Road Suite 210
Charlotte, NC 28203

Welch Liles
wliles@asanapartners.com
(704) 490-2528

2. Project Description

The Proponent is submitting this Mobility Management Plan to the City of Somerville in respect to the proposed redevelopment of Davis Square Plaza (the "Project"), located at 58 Day Street, 256-260 Elm Street, and 274-280 Elm Street in Somerville. The Project involves the redevelopment of approximately 0.9 acres across four parcels fronting on Elm Street, Day Street and Herbert Street in the Davis Square neighborhood.

Located in the heart of Davis Square, the Project is designed to meet the City of Somerville's goals to reduce motor vehicle trips and vehicle emissions and promote alternative modes of travel. The Project would be integrated into the surrounding street network and re-activate the pedestrian realm within Davis Square Plaza. The seamless pedestrian connections between the Project and adjacent street network would facilitate access to the site by walking, nearby transit, including MBTA buses, subway, and commuter rail, as well as biking, whether via personal bikes or the Bluebikes bike share program. A central component of the Project is that parking is not provided, which would further incentivize non-vehicular trips to the site and promote a multimodal environment. The Project would also seek Leadership in Energy and Environmental Design (LEED) Platinum certification.

The Project would support and enhance the existing character of Davis Square by increasing density and activity in a vibrant commercial area. It is anticipated that users of the site would rely on and support the many existing multimodal transportation options that currently exist and are likely to be expanded in the future.

This redevelopment would include major renovations to the north building and the demolition and reconstruction of the south building. It would result in roughly 120,000 square feet (sf) across the two buildings, which would be comprised of approximately 20,300 sf of retail space, approximately 59,400 sf of lab space, and approximately 39,600 sf of office space. When complete, the Project would be able to

accommodate approximately 40 employees in the retail spaces and approximately 480 employees in the office and lab spaces.

The Project is split into two phases, which are detailed below:

Table 1: Phasing Details

PHASE 1: 58 Day Street/274-280 Elm Street	
Use	**Total SF**
Retail	9,100
Lab	17,700
Office	11,800
PHASE 2: 256-260 Elm Street	
Use	**Total SF**
Retail	11,200
Lab	41,700
Office	27,800

The values displayed in Table 1 only account for the leasable square footage. The remaining square footage, not shown Table 1, is allocated to service space, common areas, vertical penetrations, and penthouse space. Originally planned to be constructed separately, Phase 1 and Phase 2 will be constructed concurrently, with construction anticipated to begin in August 2023 and be complete by October 2024. The renovation of 58 Day Street/274-280 Elm Street would leave the existing ground-floor retail and United States Post Office space on the first floor intact while renovating the remainder of the building's office and retail spaces.

Parking

On-site parking is not proposed as part of the Project. With a location just a few hundred feet from the Davis Square T station with connections to the MBTA Red Line and numerous bus lines, the Proponent envisions the Project as a transit-friendly hub of commercial activity embedded into the walkable streetscape that already exists in the neighborhood. As such, the Project would not include parking provided on site, as the Proponent expects the majority of traffic to arrive by foot, bike or transit. The lack of on-site parking is consistent with the LEED Platinum certification the Project is seeking.

Bike Parking

The Project would provide four short-term bicycle parking spaces for patrons and 15 long-term bicycle parking spaces for employees. Short-term bicycle parking would be accessed via the main plaza, and long-term bicycle parking would be accessed via an entrance on Herbert Street.

Loading

Loading access would be provided on Herbert Street via a loading dock driveway. Deliveries would access the site by backing into the loading area and exit by pulling forward onto Herbert Street. Garbage removal would be completed by a garbage truck, which would also enter by backing into the Herbert Street loading area and exit by pulling forward onto Herbert Street.

3. Local Transportation Review

3.1. Bicycle Network

The Davis Square area connects to or is within a short distance from a number of bicycle facilities, shown in Figure 1, connecting to locations like the Alewife MBTA Station (Red Line), Porter MBTA Station (Red Line and Commuter Rail), and destinations like Union Square and Teele Square. The Project site is located approximately 350 feet – about a two-minute walk – from one of the major bicycle facilities in the City: the Somerville Community Path. This shared-use path links Alewife Station in the west and Lowell Street in the east, with a future connection planned along the MBTA Green Line extension right-of-way, which would connect from Lowell Street to Cambridge Crossing near the Lechmere Green Line station.

Additionally, the Project is sited in close proximity to bike lanes along Highland Avenue and Cutter Avenue and a few blocks, approximately ¼ mile, from bike lanes on Massachusetts Avenue in Cambridge. The Massachusetts Avenue bike lanes are extensive, providing access to Porter Square and Cambridge in the southeast and downtown Arlington to the Northwest.

There are also several Bluebikes bike share stations near the Project site. The closest, adjacent to the western headhouse of Davis Station, is also the largest within a half-mile, offering 25 total docking stations. The next closest, at Grove Street south of Winslow Avenue, offers 15 docks. Beyond those two, both of which are within a quarter-mile walk of the Project site, six additional stations exist within a half-mile walk.

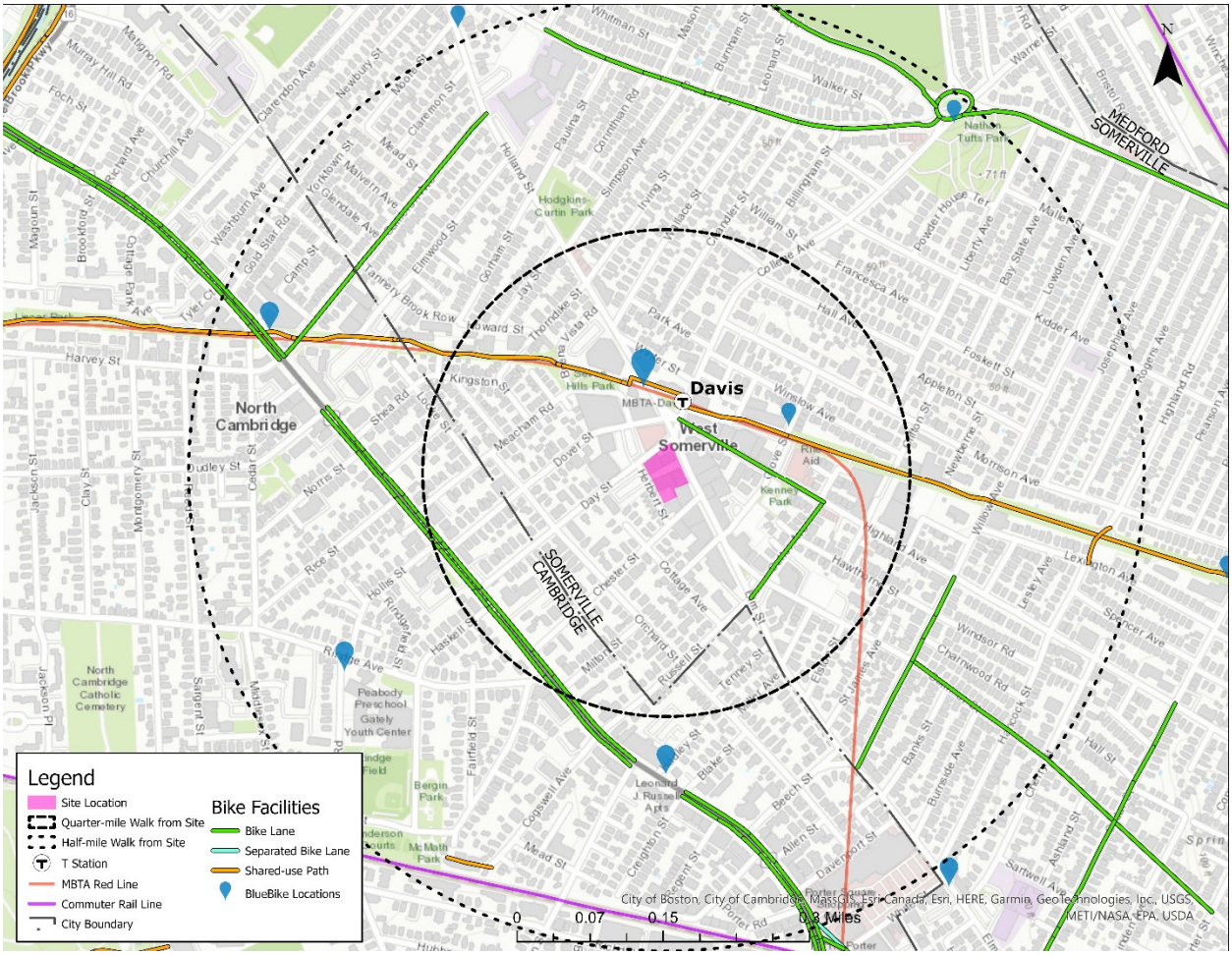

Figure 1: Bicycle Facilities around Project Site

3.2. Pedestrian Facilities

Pedestrian facilities, including sidewalks, curb ramps, and marked crosswalks, around the Project site are comprehensive, providing access from the site to the amenities and transportation resources of the surrounding Davis Square neighborhood. Destinations like Massachusetts Avenue can be reached within a quarter-mile walk, while Porter Square or Powder House Square can be reached within a half mile walk.

Generally, sidewalk widths vary between approximately 7 to 10 feet along Day and Herbert Streets, to approximately 10 feet along Elm Street. Despite wide sidewalks on Elm Street adjacent to the Project site and Davis Square Plaza, the path into the plaza is currently inaccessible due to slope and grading issues. The Project would improve pedestrian facilities by resetting the brick on Elm Street and repaving the plaza to be ADA-accessible.

Crosswalks exist at all four corners of the Project site. At the Elm Street intersections, east of the Project site, crossings exist across both intersecting roadways. At the Herbert Street intersections, to the west, crosswalks only exist across Herbert Street but not Day Street or Chester Street.

3.3. Local Transit Network Overview

Situated in close proximity to the Davis Square transit hub, the Project site benefits from a wealth of bus and train connections, including six bus routes and the MBTA Red Line within a 2-minute walk. These routes are summarized in Table 2, and transit connections are shown in Figure 2.

Table 2: Transit Route Summary

Type of service	Route	Origin	Destination	Nearest stop	Walk distance to nearest stop	Walk time to nearest stop
Bus	87	Arlington Center	Lechmere	Elm St @ Chester St	300’	2 min.
Bus	88	Clarendon Hill	Lechmere	Elm St @ Chester St	300’	2 min.
Bus	90	Davis	Assembly	Elm St @ Chester St	300’	2 min.
Bus	94	Medford Square	Davis	Elm St @ Chester St	300’	2 min.
Bus	96	Medford Square	Harvard	Elm St @ Chester St	300’	2 min.
Bus	89	Davis	Sullivan	Davis Square Busway	300’	2 min.
Bus	77	Arlington Heights	Harvard	Massachusetts Ave @ Dover St	0.2 mi.	5 min.
Bus	83	Rindge Ave	Central Square	Rindge Ave @ Massachusetts Ave	0.3 mi.	7 min.
Rapid Transit	Red Line	Alewife	Ashmont/ Braintree	Davis	350’	2 min.
Commuter Rail	Fitchburg line	Wachusett	North Station	Porter	0.7 mi.	13 min.

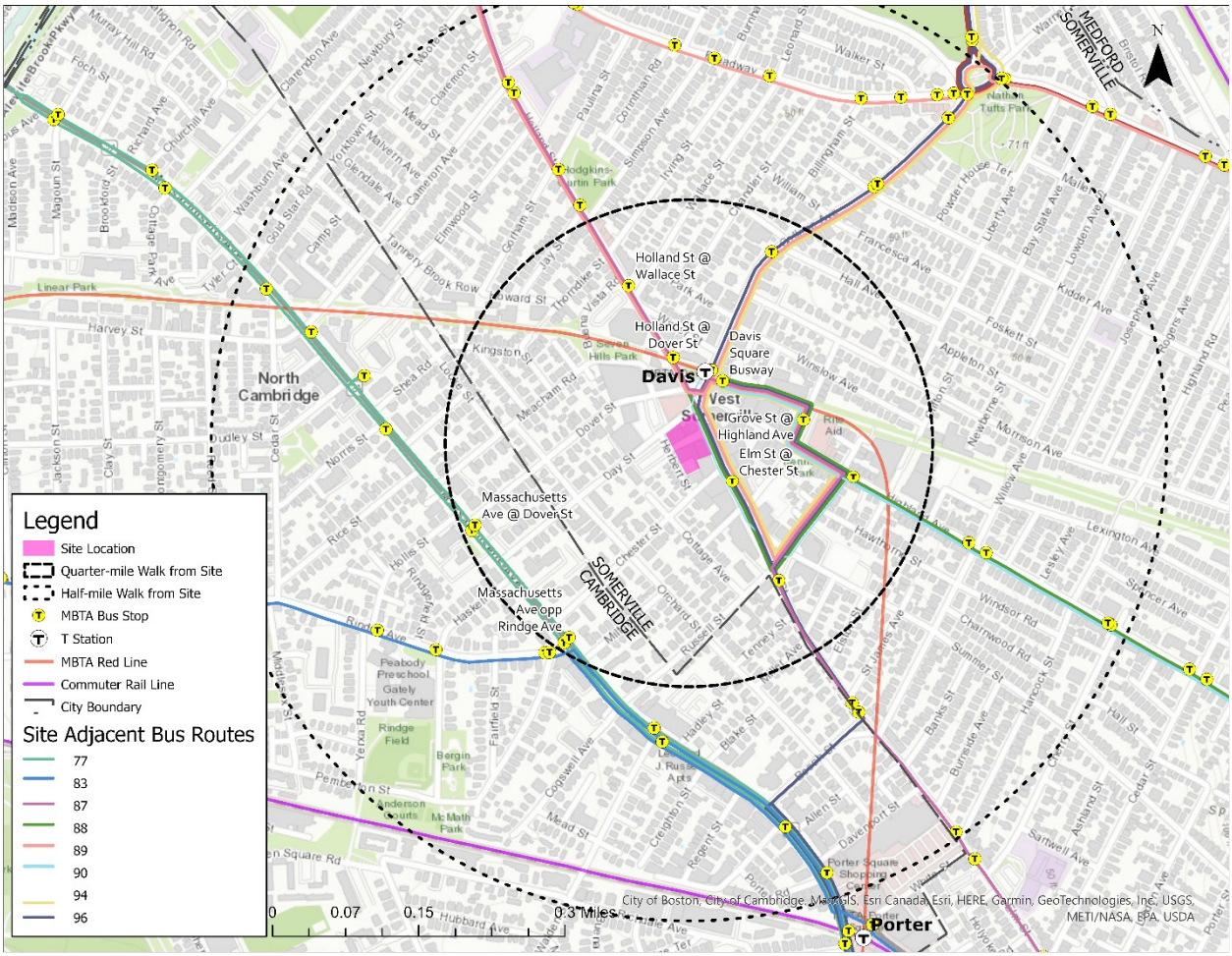

Figure 2: Transit Service around Project Site

3.3.1. Bus Service

Davis Square is a major bus hub, served by six MBTA bus routes (87, 88, 89, 90, 94, 96). Eleven bus stop pairs are located within ¼ mile of the Project site (5-minute walk), the typical distance people are willing to walk to access a bus stop. These routes provide access to numerous destinations, including Sullivan and Assembly Stations in Somerville on the MBTA Orange Line, Porter, Central and Harvard Stations on the MBTA Red Line in Cambridge, Lechmere Station on the MBTA Green Line in Cambridge, and the downtown commercial districts of Arlington and Medford. Figure 3 shows walking paths to the nearest bus stops.

The bus routes within the vicinity of the Project are well utilized in the MBTA system; ridership is shown in Table 3. Route 77 is the most used bus in proximity to the Project Site, with a weekday ridership of 6,651 passengers per day, nearly double that of any of the other routes. Routes 87 and 88 have the highest ridership through Davis Square, with a total weekday ridership of 3,680 and 3,813 passengers per day, respectively.

Figure 3: Access to Nearest Bus Stops from Project Site

3.3.2. Rapid Transit Service

The Project site is located 350 feet from Davis Station where users can access the MBTA Red Line, providing service between Cambridge and Braintree, including Harvard, Central and Kendall in Cambridge, and major stations in Boston: Park Street, Downtown Crossing, and South Station.

As described in section 4.3.1, the Project is also located within ¼ mile of eight bus stop pairs, which site users can use to access the MBTA Orange and Green Lines at Sullivan Station, Assembly Station and Lechmere Station.

3.3.3. Rail Service

Just beyond a half-mile walk from the Project site, Porter Station provides access to the MBTA Commuter Rail system via the Fitchburg Line. In addition to its inbound destination at North Station in Boston, outbound trains from Porter travel to destinations including Belmont, Waltham, Concord, and Fitchburg.

Table 3: Transit Route Ridership and Headways[1]

Route	Daily Ridership[2]			Peak Headways[2]		
	Weekdays	*Saturdays*	*Sundays*	*Weekdays*	*Saturdays*	*Sundays*
87: Arlington Center – Lechmere	3,682	2,480	1,307	15 – 20 minutes	30 – 35 minutes	40 minutes
88: Clarendon Hill - Lechmere	3,813	2,128	1,398	17 – 20 minutes	25 minutes	40 minutes
89: Davis – Sullivan	3,479	1,714	969	15 minutes	26 minutes	46 minutes
90: Davis – Assembly	1,073	564	330	35 minutes	60 minutes	70 minutes
94: Medford Square - Davis	1,528	634	493	30 minutes	40 minutes	60 minutes
96: Medford Square - Harvard	2,088	859	540	30 minutes	40 minutes	60 minutes
77: Arlington Heights - Harvard	6,652	4,590	3,313	9 – 13 minutes	12 – 18 minutes	20 minutes
83: Rindge Ave – Central Square	1,828	940	560	18 – 25 minutes	40 minutes	50 – 60 minutes
80: Arlington Center - Lechmere	1,622	902	566	20 – 25 minutes	30 minutes	60 minutes
Red Line: Alewife – Ashmont/Braintree	258,199	82,469	83,262	4 – 5 minutes	7 – 8 minutes	8 – 9 minutes
Fitchburg Line: Wachusett – North Station (Spring 2018 data)	9,302	N/A	N/A	1 hour	2 hours	2 hours

3.4. Local Parking Supply

While on-site parking is not provided as part of the Project, the Project is anticipated to lease 40 parking spaces off site at 55 Day Street. Overall parking demand is expected to be low due to the Project's extremely favorable location for pedestrians, bicyclists and transit riders, who are expected to constitute the majority of trips to and from the Project site.

Public parking was also reviewed in the vicinity of the site, as depicted in Figure 4. Within ¼ mile of the Project, there are 255 metered public parking spaces. While the majority of these are located on the street, some are in off-street parking lots, including the Grove Street lot between Elm Street and Highland Avenue. The above parking inventory does not include off-street pay-to-park facilities that use methods other than individual meters, such as the Day Street lot at the corner of Herbert Street and the Cutter Avenue lot between Elm Street and Summer Street.

According to the City of Somerville website, City parking meters are active Monday to Saturday from 8:00 a.m. to 8:00 p.m. The cost per hour is $1.25 ($0.25 per 12 minutes). Generally, curbside spots allow two hours of parking while off-street spaces allow three. Due to these regulations, it is unlikely that users of the Project would drive to the site and park using publicly available parking for extended periods of time on a regular basis.

[1] Ridership in passengers per day (Fall 2019 data unless noted otherwise). Source: MBTA
[2] Based on Spring 2022 schedule

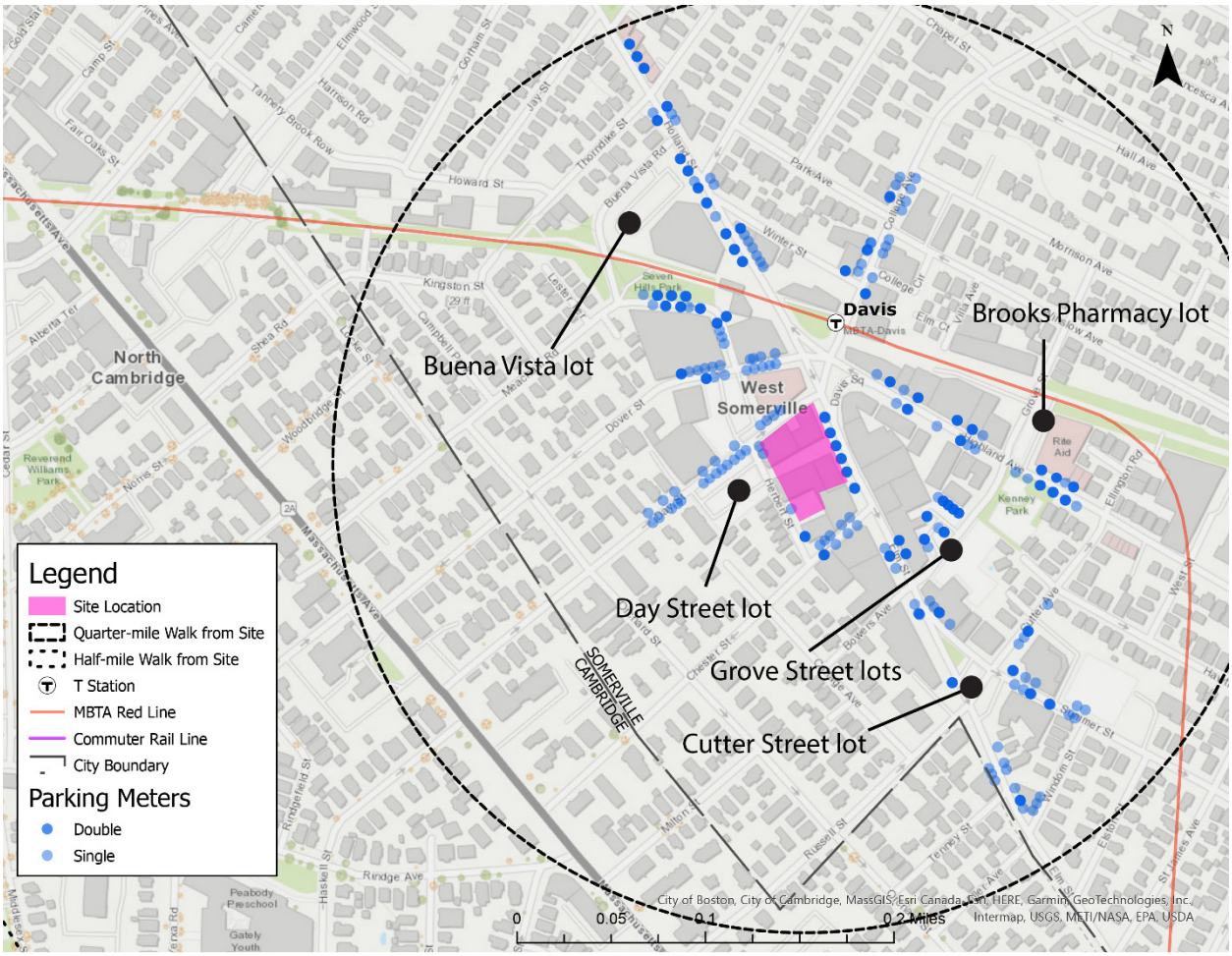

Figure 4: Parking around Project Site

3.5. Current Planning & Projects

In accounting for the transportation network around the Project site, it is important to consider other ongoing or planned projects that the Project may be able to support. Also important are the City's planning policies. Relevant to the Project, these plans and/or policies include:

- **Holland Street and College Avenue Mobility Improvements:** These two streets, branching north and west from Davis Square, are currently being repaved and will be restriped to incorporate multimodal enhancements including bike lanes, bus lanes, and pedestrian crossing improvements. These changes have the potential to improve transit travel time, reliability, and mobility around the Project site.
- **Vision Zero:** Somerville has embraced Vision Zero planning, which puts forth the goal of reducing traffic-related fatalities to zero. The Project intends to create a safe and favorable pedestrian realm that would fit into Somerville's Vision Zero goals.
- **Davis Square Commercial Area Plan:** The Davis Square Neighborhood Plan, adopted in 2019 and reimagined as the Davis Square Commercial Area Plan in 2022, is currently being updated by the City of Somerville. The updated plan is anticipated to propose changes to outdoor dining,

pedestrian and bicycle safety, and civic spaces, including the potential to close Elm Street to vehicle traffic and create a pedestrian plaza. The Project helps support this vision by improving the pedestrian realm along the site frontage on Elm Street and better integrating the sidewalk network with Davis Square Plaza. The Project would continue to coordinate with the City in determining the scope and nature of the improvements that are forthcoming.

- **Green Line Extension:** The Green Line Extension would eventually create two new branches of rapid transit service through Somerville, beginning from a relocated Lechmere Station in East Cambridge. The first branch, opened in March 2022, connects Lechmere to Union Square, while the second, targeted to open in Summer 2022, would travel along the MBTA right of way from Lechmere to Gilman and Ball Square and eventually Medford. While the closest stations would be greater than a quarter-mile from the Project site, the Green Line Extension is important to consider as it would have general impacts on transit-use patterns in Somerville. Additionally, the Project site is located close to the Somerville Community Path, which would provide access to the Green Line and eventually be extended in the right-of-way alongside it.

4. Transportation Assumptions

To determine the potential transportation impact of the Davis Square Plaza redevelopment, a number of assumptions were made. Among these assumptions are the volume of trips that the Project would generate to and from the site, the modes by which these trips would be made, and how they would be distributed in the transportation network.

4.1. Estimated trip generation

To estimate the number of vehicle trips associated with the Project, the Institute of Transportation Engineers' (ITE) publication, Trip Generation Manual, 11th Edition, was referenced. ITE is a national research organization of transportation professionals, and Trip Generation Manual, 11th Edition provides traffic generation information for various land uses compiled from studies conducted by members nationwide. The trip generation for the Project would be informed by Land Use Codes (LUCs) 822 (Strip Retail Plaza (<40k)), 710 (General Office Building), and 760 (Research and Development). These references establish vehicle trip rates (in this case expressed in trips per square foot) based on traffic counts conducted at similar types of existing land uses. Understanding that Somerville is a dense urban environment, the ITE vehicle trips were distributed across other modes such as walking, biking, and transit.

4.2. Mode Splits

To be able to apply the estimated ITE trip generation volumes to the dense, urban cityscape of Davis Square, existing mode splits in the proximity of the Project site were reviewed. The review of mode share data is based on information collected by the U.S. Census American Community Survey (2015-2019). A breakdown of modes based on the available tract and city-wide data is provided in Figure 5 below.

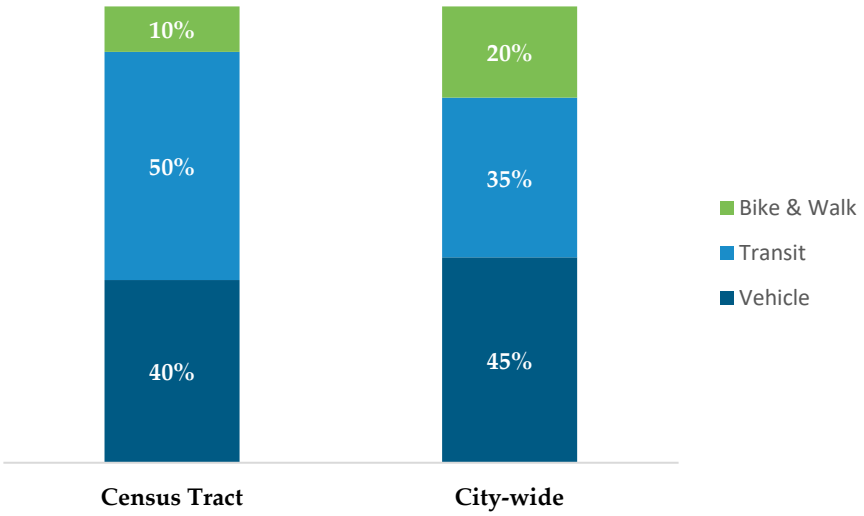

Figure 5: Mode Split Data

As shown in Figure 5 above, approximately 60% of people within the Project site census tract are shown to take active transportation modes (walk, bike, and transit). The portion of active transportation mode share for the city as a whole is shown to be lower. Given the proximity of the Project site to the MBTA Red Line and bus services, the mode splits of the trips associated with the proposed Project are expected to be more closely reflected by the mode splits of the census tract. After applying the mode shares shown above, the estimated change in vehicle trips associated with the proposed Project is displayed in Table 4 below.

Table 4: Projected Change in Trips

	Weekday AM			Weekday PM			Saturday Midday			Weekday Daily		
Description	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Change in Trips												
Vehicle person trips	30	5	35	0	28	28	-5	-3	-8	143	143	286
Public transportation	37	5	42	0	34	34	-5	-5	-10	177	177	354
Bicycle	4	0	4	0	4	4	-1	0	-1	19	19	38
Walk	4	0	4	0	3	3	0	0	0	18	18	36
Change in Vehicle Trips	**28**	**5**	**33**	**0**	**26**	**26**	**-5**	**-3**	**-8**	**131**	**131**	**262**

The proposed redevelopment is projected to generate approximately 33 additional vehicle trips (28 entering vehicles and five exiting vehicles) during the weekday morning peak hour, approximately 26 additional vehicle trips (zero entering vehicles and 26 exiting vehicles) during the weekday afternoon peak hour, and approximately eight fewer vehicle trips (five fewer entering vehicles and three fewer exiting vehicles) during the Saturday midday peak hour. The proposed redevelopment is estimated to generate approximately 262 additional vehicle trips (131 entering vehicles and 131 exiting vehicles) over the course of an average weekday. The number of additional vehicle trips

projected to be generated by the redevelopment is considered to be conservative given the location of the project site within Davis Square.

4.3. Projected Parking Demand

As the Project would not be providing new parking, there is not expected to be significant parking demand generated from the Project.

5. Trip Distribution Review

Once volumes are generated, traffic impacts must be derived by determining where new trips may take place. This can be affected by numerous factors, including:

- The layout of surrounding streets
- The locations of the nearest transit facilities
- The locations of nearby on- and off-street public parking
- The location of entrances (specifically principal entrances) at the Project site
- The location of loading or service areas
- The location(s) of bicycle parking

U.S. Census data provides information about the locations in which employees destined for a workplace reside. Figure 6 below shows a summary of the top five municipalities of individuals that work in Somerville.

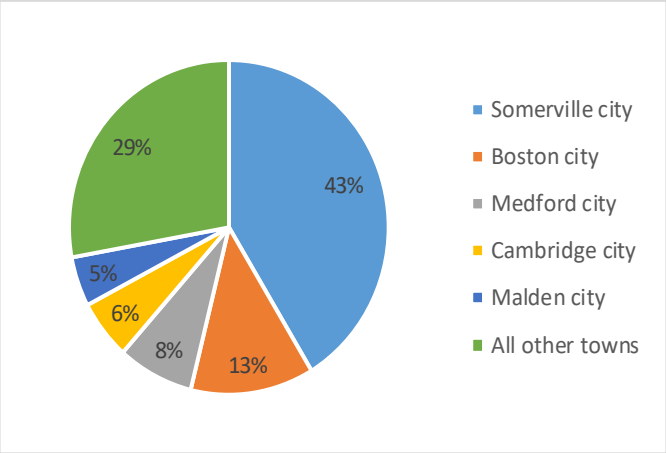

Figure 6: Journey to Work Trip Distribution

A review of the Journey to Work data for Somerville indicates that approximately 43% of workers in Somerville also reside in Somerville. Approximately 19% of Somerville workers are shown to reside in Cambridge and Boston. This means over 60% of workers can reasonably access the Project site via walking, biking, or transit.

The arrival and departure patterns for the proposed Project are not anticipated to change significantly from existing conditions. The principal entrance for both phases of the Project would be the doors opening to the central plaza.

6. Mobility Management Commitment

Reducing the number of vehicular trips to the site and supporting multimodal travel is an essential component of the Project. The Proponent is committed to undertaking efforts to help the City reach its goal of controlling the percentage of trips made to the site by motor vehicle. The Proponent has a mode share goal of greater than 50% for non-vehicle travel, consistent with SomerVision, and would implement several programs and services through lease agreements with future tenants to promote walking, biking, and transit use. As tenants have not yet been selected for the Project, the proposed mobility management commitments are focused on physical resources and future programs. The Proponent is committed to selecting tenants that would embrace these transportation demand management (TDM) and mobility management goals.

6.1. Design/Physical Strategies

- **Pedestrian-friendly design strategies**
  Set directly on the sidewalks of Davis Square, the Project's site design embraces walkability by providing a major through-connection from Elm Street to Herbert Street. Not only does this reduce the size of the blocks and increase mobility, but the Proponent would improve the pedestrian realm by re-bricking the sidewalk on Elm Street and creating accessible access to the central plaza.

- **No On-Site Parking**
  Embedded in the transit-, bike-, and pedestrian-friendly environment of Davis Square, the Project would not be providing on-site parking, further embracing the goal of reducing vehicle travel. Ample access opportunities are available through transit and non-motorized modes. It is anticipated that the existing public parking supply would accommodate any those who choose to park and walk to the Project site.

- **Transit Information Board**
  With many transit facilities within proximity to the Project site, ensuring existing transit is used is key to achieving the targeted mode share. The Proponent would provide digital screens in building lobbies with transit schedules and arrival/departure time information. The Proponent would also investigate the possibility of posting transit information on its website.

- **Bicycle Accommodations**
  To allow for bicycle commuting to the Project site, the Proponent would provide bicycle parking on site, as detailed above. To improve the comfort of biking to the Project site, the Proponent would also install showers and changing rooms on site.

6.2. Mobility Management Provided by Property Owner for Tenants

As a property owner with a multi-tenant building with fifty (50) or more employees, the Proponent will provide the following for tenants:

- **On-site transportation coordination for the building**
  This person would be responsible for ensuring that mobility management strategies, programs, and reporting are implemented by tenants.

- **Annual mobility management educational meeting for tenants and employees**
  This meeting would provide an update on mobility management strategies and programs for both tenants and employees. It would be led by the on-site transportation coordination.
- **Posted and distributed mobility management information**
  Information on neighborhood options for walking, biking, and transit would be posted in a visible, accessible location. This includes the transit board/screen mentioned previously and also includes the distribution of information such as schedules, flyers, and brochures in the employee break rooms of each tenant, as detailed below in section 6.3.

Providing un-bundled parking is not applicable, as parking is not included as part of the site development.

6.3. Mobility Management Provided by Tenants

Once tenants are selected for the Project, the Proponent would work with them to implement additional, program-based mobility management strategies. The Proponent would encourage tenants to embrace TDM approaches, including:

- **Employee Commuter incentives/Guaranteed Ride Home Program**
  These include programs that make non-vehicle travel easier or more appealing to commuters and can include carpool matching services, guaranteed ride home service, flexible work hours or telecommunication-friendly policies. Tenants could also offer bike share memberships to employees, encouraging use of the Bluebikes station at Davis Square.

- **Informational strategies**
  Tenants would be encouraged to post commuter information in key areas, provide relevant commute information to new employees, and participate in annual meetings related to transportation.

- **On-site transportation coordinators**
  Tenants would be encouraged to hire an on-site transportation coordinator, someone who would organize TDM programs at large, liaise between the employer and the City, and distribute information to employees.

- **Transportation Management Association (TMA) membership**
  Although at present no TMA expressly serves Davis Square, the Proponent would be interested in joining such an organization, should one become available in the neighborhood. TMAs work under the broader umbrella of MassCommute to keep members

informed on transportation, provide them with TDM resources and ideas, and connect employers to public officials and other decision makers.

7. Monitoring and Annual Reporting

Ensuring that these strategies are helping the Project meet its transportation mode share goal would be an ongoing effort. To this end, The Proponent would undertake the following commitments to monitoring and annual reporting:

- **Annual Travel Survey**
  To determine progress toward a mode share goal, the Proponent would work with its tenants to develop and administer a travel survey each year, intended to determine the travel behavior of on-site employees and visitors. The results of this survey would help to identify the mode share of the site.

- **Annual Status Updates**
  Based on the results of the travel survey, the Proponent would prepare a status report on its progress toward the mode share goal. This report would be submitted to the City of Somerville.

- **New Strategies**
  Should it be determined that the Project is falling short of multimodal travel goals, the Proponent commits to develop and implement new strategies to reach the goal. The Proponent would also implement new strategies as additional resources become available, such as the creation of a TMA in the Project area.

- **Biennial Counts of Parking/Ins and Outs**
  While the Project does not have on-site parking to monitor, the Proponent would commit to providing biennial counts of traffic volumes at a nearby intersection deemed essential to the Project's impact.