




CITY OF CAMBRIDGE
Traffic, Parking and Transportation
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MEMORANDUM

To: Cambridge Planning Board
From: Joseph E. Barr, Director 
Date: February 22, 2016
Re: 399 Binney Street project (PB#310)

The Traffic, Parking & Transportation Department (TP&T) has reviewed the Transportation Impact Study (TIS) for the 399 Binney Street Project, by DivcoWest. The proposed project will demolish two existing buildings at the corner of Binney Street and Cardinal Medeiros, totaling 38,200 square feet (sf) known as Buildings 1500 and 1700 at the One Kendall Square (OKS) complex, and construct an office/lab building totaling 172,500 square feet, including approximately 1,900 sf ancillary retail space. Parking for the project will be accommodated at the existing on-site parking garage.

TP&T certified the TIS as complete and reliable on January 11, 2016. The TIS was conservative because it evaluated an 180,000 sf building (compared to 172,500 sf proposed) and did not take any trip credits for the existing buildings. The TIS indicated that the project will generate a total of:

- 990 daily vehicle trips including, 148 AM and 135 PM peak hour vehicle trips,
- 750 daily transit trips (112 AM/103 PM peak hour transit trips),
- 694 daily pedestrian trips (104 AM/95 PM peak hour pedestrian trips) and,
- 306 daily bicycle trips (46 AM/42 PM peak hour bicycle trips).

The Project's TIS, like all Cambridge Traffic Impact Studies, evaluated a Future 5-year Build scenario condition which takes into account other area development projects and a general 0.5% per year background traffic growth rate. The TIS accounted for 7 other development projects in various stages of development, including Alexandria's Binney Street development, 88 Ames Street, MIT Kendall Square Redevelopment, 249 Third Street project, First Street mixed use project, the Middlesex County Courthouse redevelopment, and North Point.

The TIS indicated that the project had 4 planning board special permit transportation exceedances including a decrease in vehicle level of service from D to E in the morning peak hour at the Hampshire Street/Broadway/Tech Square intersection and three exceedances for bicycle facilities on Cardinal Medeiros Avenue, Binney Street and Bristol Street. It should be noted the bicycle exceedances are an existing condition (e.g. no bicycle lanes), although the project will create additional bicycle trips. The full TIS summary is attached.

TP&T has been working with the applicant on this project and offers the Planning Board the following general comments and parking comments, followed by items that we believe need further review, and lastly, our recommended project mitigation:

1.0 General Comments:

1.1. Site Plan and Circulation

- a) The project will have a positive impact on the Binney Street and Cardinal Medeiros Avenue by consolidating curb cuts and improving the sight lines at the Cardinal Medeiros Avenue/Binney/Bristol intersection by setting the proposed building back.
- b) The proposed new courtyard off of Cardinal Medeiros Avenue and a new pedestrian plaza off of Binney Street will improve pedestrian conditions in the area.
- c) TP&T supports converting the existing pedestrian crossing on Binney Street into a raised pedestrian crossing, subject to final City approvals, including approval by the Fire Department.

1.2 Loading

- a) TP&T supports the applicant's request for a special permit to allow the curb cut width on Cardinal Medeiros for the loading dock to exceed 30 feet (to be about 41.5 feet) because the curb cut will serve the loading dock for the 399 Binney Street building and the existing cinema loading dock.

1.3 Bicycle

- a) TP&T and the Community Development Department (CDD) are concerned about the access to the short-term and long-term bicycle parking spaces from Binney Street, which would require either entering through the lobby of the parking garage, which may be inconvenient for bicyclists, or passing through the proposed plaza between the garage and 399 Binney Street, which is more convenient but may conflict with pedestrians using the plaza.
- b) TP&T thanks the applicant for offering to provide a bicycle count station, similar to the EcoTotem recently installed on Broadway. However, TP&T believes that an EcoTotem would be of limited value to the city in this location, and that mitigation resources would be better directed to supporting the ongoing operations of the existing Hubway Station currently located on the Hampshire Street side of One Kendall Square.

1.4 Grand Junction multi-use path

- c) The City of Cambridge has long identified the Grand Junction railroad right of way as a location for a multi-use path. TP&T thanks the applicant for working with the City to accommodate the future Grand Junction multi-use pathway by adjusting the curb line of the garage driveway to be a minimum 26 feet from the rail centerline and agreeing to convey a strip of land to the City.

2.0 Vehicle Parking:

- a) The One Kendall garage is currently registered for 1,530 parking spaces, of which 1,050 are permitted as "commercial parking" spaces, meaning that they are allowed to serve any members of the general public. A total of 480 spaces are currently dedicated for existing employees/customers of the One Kendall Square complex.
- b) The TIS indicated that on average the parking garage has 630 unoccupied spaces.
- c) The proposed 399 Binney Street building will require a minimum of 225 parking spaces per zoning; however, the TIS anticipates an actual parking demand of approximately 216 spaces.

- d) The project also proposes reducing the number of parking spaces in the garage by about 20 in order to add bicycle parking spaces.
- e) With the 399 Binney Street project, the One Kendall Square garage will have just enough parking to meet the minimum zoning parking requirements for the entire One Kendall Square complex. However, based on direct observation and study, it is expected that the garage will continue to have several hundred excess parking spaces available at any given point in time.
- f) The applicant is also requesting a Special Permit to reduce the total number of zoning required parking spaces by 231 spaces, based on the rationale that the office/lab building and the cinema will have peak parking demands at different times of the day and week. The request of 231 spaces equals 75% of the number of spaces required for the cinema, which is the greatest reduction that can be authorized by the "shared parking" rationale. While reducing the requirement will not further reduce the actual number of parking spaces in existence, it will ensure that additional parking spaces will remain available to serve other uses or the general public.
- g) TP&T supports the special permit request for reduction in required parking based on the "shared parking" rationale, with the following conditions:
 - i. Prior to the issuance of the project's building permit the applicant must re-register the One Kendall Square parking garage with TP&T to update the exact number of spaces and users, consistent, however, with the terms of the January 25, 1993 garage permit.
 - ii. The applicant should remain open to other potential uses for the commercial parking spaces that will not be needed to meet the One Kendall Square complex parking demands. These could for example, be used to provide parking for new buildings in the area instead of building new parking spaces for these projects. They may also continue to serve the One Kendall Square complex parking needs. Commercial parking spaces have a high degree of flexibility on their use, but may also have limitations based on zoning and/or other parking regulations.
 - iii. The applicant should provide annual reports to TP&T on the daily and peak hour garage occupancy for vehicles and bicycles by user groups, including use of commercial parking spaces for parkers not associated with the One Kendall Square complex. The annual reports will be part of the Monitoring requirements described below. The specific data provided and format of the report shall be approved by TP&T in coordination with the applicant.
 - iv. The One Kendall Square garage should continue to provide free parking for Cambridge residents during declared snow emergencies, which has been very helpful in the past for residents wishing to move their cars off city streets while snow clearance takes place.

3.0 Items for Further Review

TP&T believes that the following items require further review:

- a) The applicant should explore additional options with TP&T and CDD for access to the short-term and long-term bicycle parking from Binney Street for final review and approval of the bicycle parking design, layout and access routes and equipment specifications.
- b) The final garage driveway design should be approved by TP&T. It should not contain landscaping elements over 3 feet tall that could block sightlines for vehicles exiting the driveway.
- c) The final design of the loading dock area should be as functional and safe as possible (i.e. sight lines, exit warning devices, etc.) and approved by TP&T.
- d) The applicant should create a loading dock management plan that minimizes the impacts, particularly during peak periods.

- e) The applicant should support the existing Hubway station on the city sidewalk adjacent to the Hampshire Street plaza or find a location approved by the City to locate it within the plaza. Ongoing financial contribution is addressed in 4.3(b) below.

4.0 Transportation Mitigation:

To lessen the traffic impacts from the project, TP&T recommends the following special permit conditions:

4.1. Prior to the issuance of the project's Building Permit:

- a) The applicant shall commit to conveying (in fee or easement, in a manner agreeable to the applicant and the City) the strip of land along the Grand Junction rail line for future public use as the Grand Junction multi-use path at a mutually acceptable time following the contemplated expansion of the TDR donating district to include the subject land; however, refusal or delay by the City reaching an agreement should not prevent or delay the 399 Binney development.

4.2 Prior to the issuance of the project's Occupancy Permit:

- a) If approved by the City, the applicant should construct the raised pedestrian crossing on Binney Street.
- b) The applicant should replace the existing bicycle racks at the One Kendall Square complex that are not consistent with the city's current standards for the rack design. For example, bike racks that look like radiators or multiple hooped racks do not meet city rack designs and should be replaced by racks that do, such as, inverted U, single hoops or post and ring type racks. This will provide more effective and functional bicycle parking.
- c) The applicant should install a new traffic signal controller, cabinet and updated conduit as needed, to replace aging equipment at the intersection of Hampshire Street at Cardinal Medeiros Ave. The intersection will continue to serve both the Hampshire Street and Broadway intersection from this one cabinet.
- d) The applicant should update the existing real-time vehicle and bike count station at the Cardinal Medeiros/Hampshire Street intersection to include vehicles and bikes traveling northbound on Portland and southbound on Cardinal Medeiros, and install a new real-time vehicle and bike count station at the Binney Street/Fulkerson/Galileo Galilei Way intersection.
- e) The applicant should contribute \$X toward work on improving transit conditions in the Kendall Square area, such as funding studies or other transit initiatives. Funds should be provided to the City or an entity approved by the City such as the Kendall Square Transit Enhancement Fund being created and managed by the City and the Cambridge Redevelopment Authority.

Item e)
is still
being
considered
by
TPT.

4.3 After the issuance of the Occupancy Permit:

- a) When the project is 80% or more occupied, or 1 year after occupancy of the project, whichever is sooner, the applicant should conduct new traffic counts at the Cardinal Medeiros/Binney/Bristol intersection, and complete a traffic signal warrant analysis. If it is determined by TP&T that a traffic signal should be installed, the applicant should be required to install it. This will help mitigate the project's 101 new AM and 76 new PM peak hour vehicle trips at this intersection.

- b) The applicant should contribute the annual operating and maintenance costs for the Hubway station located near or on the Hampshire Street plaza, on an ongoing basis based on a schedule to be developed by the applicant and the City.

5.0 Transportation Demand Management (TDM) Plan:

In the project's TIS and Planning Board Project Review Special Permit application, the applicant committed to preparing a comprehensive Transportation Demand Management (TDM) program to lessen the project's transportation impacts. TP&T recommends that the applicant be obligated to implement the following TDM measures for employees and patrons at the 399 Binney Street project:

- a) Continue to make available at least eight parking spaces in the garage for carsharing vehicles, as demand warrants.
- b) Provide air pumps and other bike tools, such as a "fix-it" stand, in the bicycle parking area in the One Kendall Square garage.
- c) The property owner will become a member of the Charles River Transportation Management Association (CRTMA) or other similar organization acceptable to TP&T, and extend Emergency Ride Home and ridematching benefits to all employees through CRTMA or other providers acceptable to TP&T.
- d) Provide stickers for the EZRide Shuttle (or other similar service acceptable to TP&T providing shuttle service to MBTA red and green lines) to all employees at 399 Binney, at a minimum, which can (but is not required to) be extended to all employees at the One Kendall complex.
- e) Provide 100% MBTA pass subsidies to employees at 399 Binney Street (up to the federal maximum).
- f) Provide a subsidy in the amount of \$50 per month (to increase with inflation) to employees at 399 Binney who bike or walk to work at least 3 days per week.
- g) Charge market rate parking fees directly to employees, either through payroll deduction or daily garage entrance fees.
- h) Provide employee an option for no monthly parking passes, but instead charge employees by the day for parking, which will encourage employees to make different commute mode choices each day instead of thinking of themselves as single-mode commuters.
- i) Provide a minimum of 15 dedicated parking spaces for carpooling/vanpooling in the garage, as demand warrants.
- j) Either install a real-time multimodal transportation display screen at 399 Binney Street to help people decide which mode to choose for each trip (transit, carsharing vehicle, Hubway bike share, etc.), or establish a transportation information center located in an area that is central, visible, convenient, and equally accessible to all employees and visitors. The center will feature information on:
 - i. Available pedestrian and bicycle facilities in the vicinity of the project site
 - ii. MBTA maps, schedules, and fares
 - iii. Area shuttle map and schedule, if one exists
 - iv. "Getting Around in Cambridge" map and other CitySmart materials (available at the Cambridge Community Development office)
 - v. Location of bicycle parking
 - vi. Hubway regional bikeshare system
 - vii. Carsharing
 - viii. Ride-matching
 - ix. Other pertinent transportation information

- k) Designate a transportation coordinator (TC) for the site to manage the TDM program. The TC will also oversee the marketing and promotion of transportation options in a variety of ways:
 - I. Posting information in a prominent location in the building and on the Project's website, Social media, and property newsletters.
 - II. Responding to individual requests for information in person and via phone and email.
 - III. Performing annual transportation surveys.
- l) The TC will compile and distribute up-to-date information explaining all transportation options to all new employees as part of their New Employee Packet. The packets will contain information on both the range of options available and any building manager programs to support the use of these options.
- m) The TC will be on-site during a minimum of 2 hours per week and will be available during other times to employees via email and telephone. Email and phone information for the TC will be posted in the transportation information center.
- n) The TC will participate in any TC trainings offered by the City of Cambridge or local TMA.

The applicant is also encouraged to extend some of or all of these programs and services to other employees and tenants in the OKS complex, to further help achieve the City's overall transportation goals.

6.0 Transportation Monitoring Program:

The property owner will implement an annual transportation monitoring program for the 399 Binney Street project to include:

- a) Annual survey of office/lab and retail employees and retail patrons.
- b) The information reported will include, but not be limited to, mode shares by origin, response rate, number of employees, number of parking access cards issued and user type, status of required TDM measures, and trend data over time.
- c) The property owner should provide annual reports to the TP&T and CDD on the monthly and hourly weekday and weekend garage occupancy (vehicles and bicycles), including user groups of the garage. This report shall be for the full garage, not just use of the garage by the 399 Binney Street project. The report should include, but not limited to, daily and peak hour garage occupancy for vehicles and bicycle by user groups, including use of commercial parking spaces for parkers not associated with the One Kendall Square complex. The data and format shall be approved by CDD and TP&T based on reporting by the garage operator.
- d) All surveys and counts shall be designed and conducted in a manner approved by CDD and TP&T and approved before issuance of the first Certificate of Occupancy. Monitoring and surveying shall begin when the occupancy of the project has reached ninety percent (90%) or within one year of the date of the first Certificate of Occupancy, whichever is sooner. If the Certificate of Occupancy is issued between September 1st and February 29th, the monitoring should take place during the months of September or October and be reported to the City no later than November 30. If the Certificate of Occupancy is issued between March 1st and August 31st, monitoring should take place during the months of April or May and be reported to the City no later than June 30.

CITY OF CAMBRIDGE

Summary Sheet

Special Permit Transportation Impact Study (TIS)**Planning Board Permit Number:**

PROJECT NAME: 399 Binney Street - One Kendall Square
 Address: 399 Binney Street
Cambridge, MA 02139
 Owner/Developer Name: DivcoWest LLC.
 Contact Person: Jeffrey Longnecker
 Contact Address: One Kendall Square, Suite B3201
Cambridge, MA 02139
 Contact Phone: (617) 720-7436

SIZE:

ITE sq. ft.: 180,000 SF
 Zoning sq. ft.: 172,500 SF
 Land Use Type: OFFICE

PARKING:

Existing Parking Spaces: 1530 Use: Parking Garage - One Kendall
 New Parking Spaces: 1530 Use: Parking Garage - One Kendall
 Date of Parking Registration Approval: January 25, 1993

TRIP GENERATION:

	Daily	AM Peak Hour	PM Peak Hour	Saturday Peak Hour (retail only)
Total Trips	2776	414	379	
Vehicle	990	148	135	
Transit	750	112	103	
Pedestrian	694	104	95	
Bicycle	306	46	42	

MODE SPLIT (PERSON TRIPS): Vehicles (SOV): 32 % Bicycle: 11%
 Rideshare (HOV): 5 % Pedestrian: 25%
 Transit: 27%

TRANSPORTATION CONSULTANT:

Company Name: Tetra Tech, Inc.
 Contact Name: Erik Maki, P.E., PTOE
 Phone: (508) 786-2255

Date of Building Permit Approval: _____

CITY OF CAMBRIDGE **Planning Board Criteria Performance Summary**
Special Permit Transportation Impact Study (TIS) **Page 1**

Planning Board Permit Number: _____

Project Name: 399 Binney Street - One Kendall Square

Total Data Entries = 20

Total Number of Criteria Exceedances = 4

1. Project Vehicle Trip Generation

Weekday = 990 AM Peak Hour = 148 PM Peak Hour = 135 Meets Criteria? [Y/N] N

2. Level of Service (LOS)

Intersection <i>[Name / Name]</i>	A.M. Peak Hour			P.M. Peak Hour		
	Existing <i>[A-F]</i>	With Project <i>[A-F]</i>	Meets Criteria? <i>[Y/N]</i>	Existing <i>[A-F]</i>	With Project <i>[A-F]</i>	Meets Criteria? <i>[Y/N]</i>
Cardinal Medeiros / Portland / Hampshire	C	C	N	C	C	N
Portland / Broadway	D	D	N	C	C	N
Tech Square / Hampshire / Broadway	D	E	Y	D	D	N
Binney / Fulkerson / Galileo Galilei	E	F	N	D	D	N

3. Traffic on Residential Streets

Street Segment <i>[Name]</i>	A.M. Peak Hour			P.M. Peak Hour		
	Existing Volume <i>[#####]</i>	With Project <i>[##]</i>	Meets Criteria? <i>[Y/N]</i>	Existing Volume <i>[#####]</i>	With Project <i>[##]</i>	Meets Criteria? <i>[Y/N]</i>
Cardinal Medeiros (Hampshire to Binney) (1/3 or less Residential)	766	814	N	833	862	N
Cardinal Medeiros (Binney to Cambridge) (1/2 or more Residential)	542	564	N	585	614	N
Fulkerson (Charles to Cambridge) (1/2 or more Residential)	286	298	N	113	115	N
Charles (Fulkerson to Sixth) (1/3 or less Residential)	208	210	N	265	275	N
Bristol (Berkshire to Cardinal Medeiros) (1/2 or more Residential)	125	132	N	53	54	N

5. Pedestrian and Bicycle Facilities

Intersection	A.M. Peak Hour			P.M. Peak Hour		
	Existing PLOS	With Project	Meets Criteria?	Existing PLOS	With Project	Meets Criteria?
<i>[Name / Name]</i>	<i>[A-F]</i>	<i>[A-F]</i>	<i>[Y/N]</i>	<i>[A-F]</i>	<i>[A-F]</i>	<i>[Y/N]</i>
Cardinal Medeiros / Hampshire / Portland	C	C	N	C	C	N
Broadway / Portland	C	C	N	C	C	N
Broadway / Hampshire / Tech Square	D	D	N	D	D	N
Binney / Galileo Way / Fulkerson	D	D	N	D	D	N

Adjacent Street or Public Right-of-Way	Sidewalks or Walkways Present?	Meets Criteria?	Bicycle Facilities or Right-of-Ways Present?	Meets Criteria?
<i>[Name]</i>	<i>[Y/N]</i>	<i>[Y/N]</i>	<i>[Y/N]</i>	<i>[Y/N]</i>
Cardinal Medeiros Avenue	Y	N	N	Y
Binney Street	Y	N	N	Y
Bristol Street	Y	N	N	Y
On-Site:	Y	N	N	N