



# CITY OF CAMBRIDGE TRAFFIC, PARKING, + TRANSPORTATION

## MEMORANDUM

**To:** Cambridge Planning Board  
**From:** Joseph E. Barr, Director  
**Date:** May 31, 2022  
**Subject:** 15 Wilson Road, The Davis Companies (PB#391)

The Cambridge Traffic, Parking, and Transportation Department (TP+T) has reviewed the Transportation Impact Study (TIS) and Planning Board Special Permit Application for the proposed 15 Wilson Road Project (aka 40 Smith Place / 45 & 55 Wilson Road) by The Davis Companies (the "Project").

The proposed Project includes construction of a 280,046-sf building containing technical office use and potential future retail on the ground floor.

The Project proposes 323 total automobile parking spaces on-site in a below-grade garage (273 spaces for the new 280,046-sf building, 40 spaces for an existing 10 Wilson Road building, and 10 parking spaces for an existing 26 Smith Place building).

The project proposes 88 long-term bicycle parking spaces and 20 short-term bicycle parking spaces on-site and four (4) off-street loading bays.

TP+T certified the Project's TIS as complete and reliable on February 11, 2022. It should be noted that the TIS evaluated a 265,000-sf building, whereas the Special Permit application proposes a 280,046-sf building. TP+T believes that the increase in project size will create some additional project generated trips but will not substantially change the overall findings in the TIS.

The TIS evaluated the area's transportation conditions at six intersections, including the Project's trip generation and cumulative traffic impacts with other development projects as required in all TISs. The TIS reviewed all modes of transportation (vehicle, transit, walking, and bicycling). The TIS estimated that the project will generate a total of:

- 1,517 daily vehicle trips (192 AM peak hour/165 PM peak hour vehicle trips). Because the site has existing buildings, the net-new vehicle trips are estimated to be **182 during the AM peak hour and 154 during the PM peak hour**.

- 401 daily transit trips, (50 AM peak hour / 44 PM peak hour transit trips).
- 104 daily pedestrian trips, (14 AM peak hour /10 PM peak hour transit trips).
- 269 daily bicycle trips, (34 AM peak hour / 28 PM peak hour bicycle trips).

The TIS indicated that the planning board special permit transportation criteria were exceeded in 22 instances:

- The Concord Avenue/Smith Place intersection had a vehicle level of service (LOS) exceedance during the PM peak hour due to additional vehicle trips at that intersection. Other intersections will also have additional project generated vehicular trips but did not trigger the LOS criteria.
- The Concord Avenue/Blanchard Road intersection had lane queue exceedances at two (2) turning movements (AM peak hour for the Blanchard Road SB Left/Thru/Right movement and PM peak hour for the NB Left/Thru movement).
- Fifteen (15) pedestrian level of service (PLOS) exceedances at 4 intersections. The pedestrian delays crossing the intersections are under existing conditions due to PLOS E or F.
- Four (4) pedestrian and bicycle facilities exceedances, including:
  - No sidewalk on Smith Place, between the Concord Avenue and the site driveway.
  - No bicycle facilities on Smith Place, between Concord Avenue and the site driveway.
  - No bicycle facilities on Smith Place, between the site driveway and Wilson Road/Adley Road.
  - No bicycle facilities on Wilson Road, between Smith Place and Moulton Street.

The Planning Board transportation criteria summary sheet is attached, and the full TIS was submitted with the Planning Board Special Permit Application.

TP+T offers the Planning Board our following initial comments on the Project:

### **1.0 General Comments**

From a mobility perspective, some positive elements of the proposed Project include:

1.) New sidewalk where sidewalk is missing on Smith Place, 2.) New multi-use path on the site, as recommended in the Envision Cambridge Alewife District Plan (however, the proposed multi-use path layout at Smith Place is a little different than illustrated in the Alewife District Plan and needs further City staff design review), 3.) New separated bike lanes on Smith Place and Wilson Road (however, the separated bike lanes are only proposed on the Project side of Smith Place and Wilson Road), 4.) Underground parking spaces instead of surface parking spaces, and 5.) An on-site loading.

Some less positive or negative elements of the proposed Project include: 1.) New vehicle trips will be added to the Alewife area, which is an already congested area during the morning and evening peak hours, 2.) The total proposed parking ratio is greater than the Alewife District Plan recommendation, 3.) It is unclear why 50 parking spaces are needed to serve two other buildings (additional comments about the automobile parking plan is provided below), and 4.) The proposed 14-foot-wide multi-use path needs to be verified that it includes 2-foot buffer zones on each side with no vertical obstructions.

Finally, the Project will meet the City zoning requirements for bicycle parking. The Project also triggers the requirement for a Parking and Transportation Demand Management (PTDM) Plan because it is creating new parking spaces.

## 2.0 Automobile Parking

The Project proposes 323 off-street parking spaces in a below-grade garage and proposes that 40 spaces will serve the nearby 10 Wilson Road building, and 10 spaces will serve the nearby 26 Smith Place building. It is unclear how the 50 total parking spaces for the two buildings will be controlled and what happens if they are not used by those buildings (e.g., could they then be used by the 15 Wilson Road building users?). The Planning Board may want to ask for more clarification about the 40 spaces for the 10 Wilson Road and 10 spaces for 26 Smith Place buildings (e.g., are they used today, are they needed, can the deed to the spaces be purchased and sold, etc.)?

A summary of the 15 Wilson Road parking allocation plan is shown in the Table below:

### 15 Wilson Road Project Proposed Parking Plan

Building	Square Feet (sf)	Proposed Parking Allocation	Parking Ratio
15 Wilson Road	280,046 sf	<b>273 spaces at 15 Wilson Road</b>	1.0 space/1,000 sf
10 Wilson Road	76,359 sf	<b>95 total spaces (55 spaces at 10 Wilson Road, 40 spaces at 15 Wilson Rd.)</b>	1.2 space/1,000 sf
26 Smith Place	3,654 sf	<b>10 spaces at 15 Wilson Road</b>	2.7 space/1,000 sf
<b>Total</b>	<b>360,059</b>	<b>378</b>	<b>1.0 space/1,000 sf</b>

As can be seen in the Table above, the parking plan proposes an overall average parking ratio of about 1.0 parking space per 1,000 sf. The Envision Cambridge Alewife District Plan recommends a maximum 0.8 parking space/1,000 sf for R&D use. It is also

important to note that even under the current zoning, the minimum parking requirement is approximately 0.95 spaces per 1,000 sf.

TP+T recommends that projects in the Alewife District be consistent with the Alewife District Plan parking ratio recommendation. A maximum 0.8 parking ratio for the 15 Wilson Road Project would be approximately 224 parking spaces (49 less spaces than proposed, not including the 50 spaces for the 10 Wilson Road and 26 Smith Place buildings).

In 2020, The Davis Companies received a Planning Board Special Permit for the 75-109 Smith Place project, which is currently under construction, at a 1.1 spaces/1,000 sf parking ratio with conditions to reduce the parking ratio to 1.0 space/1,000 sf or 144 spaces by eliminating surface parking spaces upon the opening of a bridge over the commuter rail tracks and make a \$10 per square foot contribution to the City. The Project will also consider, but not required, to further reduce parking at the point when the pedestrian and bicycle bridge is opening.

In 2022, a more recently approved Planning Board Special Permit project at 180 Fawcett Street agreed to a 0.8 parking ratio and will consider, but is not required to, further reduce parking in the future.

Based on the Planning Board's comments for this 15 Wilson Road Project, TP+T will continue to discuss the number of parking spaces with The Davis Companies, and prior to the Planning Board deciding on the Project, TP+T expects to develop a mutually agreeable parking plan with the Applicant, including consideration of the appropriate parking needs for the 10 Wilson Road and 26 Wilson Road buildings.

### **3.0 Roadways and Circulation**

City staff have spent a significant amount of work considering how the roadways and transportation services in the Quadrangle should function in the future, to support the creation of a mixed-use neighborhood. Key themes include greater access and connectivity for all modes, reduction of vehicle traffic through enhanced transportation demand management, improved bus and shuttle services to the Alewife MBTA Red Line station, and new bicycle and pedestrian infrastructure. The Davis Companies has been working cooperatively with city staff on the Project's site plan and roadway cross-sections.

For Smith Place, the Project will construct a raised bike lane on the Project's side of Smith Place, along with a 5-foot street tree zone, 5-foot sidewalk, 12-foot zone for a future elevated walkway, and on-street parking on the Project's side. It will require the property owner on the other side of Smith Place to provide land when that site is redeveloped to fully achieve the city's future cross-section plan for Smith Place (such as a raised bike lane and elevated sidewalks on both sides of the street).

TP+T's comments for the Smith Place design include the following:

- The 5-foot sidewalk is a little narrow and would be better if made slightly wider.
- More analysis is needed to determine if further changes can be made so that Smith Place curb to curb width doesn't have a pinch point near the site's driveway.
- More analysis is needed for a pedestrian and bicyclists' connection from the multi-use path to Concord Avenue.
- More analysis is needed for the design of the proposed connection/ramp between Smith Place and the multi-use path.

For Wilson Road, the Project will construct a raised bike lane, 5-foot street tree zone, 5-foot sidewalk, and 12-foot future elevated sidewalk. There is no existing on-street parking on the Project's side of Wilson Road. There is on-street parking on the north side of Wilson Road today, which may need to be eliminated for a raised bicycle lane on that side in the future.

TP+T's comments on for Wilson Road design include the following:

- The Davis Companies owns both sides of Wilson Road. They are committing to construct a raised bike lane on the Project side (south side) of Wilson Road, but there is no commitment and timeline for when a raised bike lane would be created on the north side of Wilson Road.
- TP+T recommends that the Planning Board consider when, how and who should be obligated to create a raised bike lane on the north side of Wilson Road. It should also be noted that on-street parking will already need to be eliminated or relocated to accommodate a raised bike lane on the north side of Wilson Road.

#### **4.0 Multi-Use Path**

TP+T supports the proposed multi-use path, which was recommended in the Alewife District Plan, and offers the following comments:

- The multi-use path should be 14-foot wide, plus 2-foot-wide buffers on each side for an 18-foot clear width. No trees should be planted in the 2-foot buffer zones.
- The design of the multi-use path near Smith Place is a little different from the illustration in the Alewife District Plan, which may be acceptable but should be reviewed carefully with City staff, including the access ramp between Smith Place and the multi-use path.
- The Applicant should construct the multi-path and have it completed prior to issuance of an Occupancy Permit for the 15 Wilson Road project.
- The Applicant or future property owner should be responsible for maintaining the multi-use path (e.g., snow and ice removal, crack repairs, lighting, etc.).

- Public access easements or agreements should be approved by the Public Works Department (DPW).
- The Project should be obligated to connect the multi-use path with a future multi-use path across Wilson Road near 75 Moulton Street. There is an existing crosswalk in that location that may need to be modified. For example, there is an existing fire hydrant that may need to be relocated.

#### **4.0 Curb Cuts and Loading**

TP+T supports the curb cut locations for the loading zone off Smith Place and the curb cut location off Wilson Road for the below-grade parking garage. The curb cut widths should be as narrow as possible to minimize the vehicle and pedestrian conflicts and the vehicular and pedestrian sight lines for the underground garage ramp at the sidewalk will need to be carefully reviewed.

The loading zone is designed to accommodate a WB-40 size truck and 4 loading bays. The TIS estimated that the Project will generate about 39 deliveries per day, including from a variety of sizes of cars, vans, and trucks. Trucks should be able to turn-around on-site and not have to back-in or back-out from Smith Place.

#### **5.0 Bicycle Parking**

TP+T supports the Project's bicycle parking plan, which will meet the zoning required number of bicycle parking spaces for long-term and short-term bicycle parking spaces. All short-term bicycle parking spaces will be located on the Project's property.

The Applicant should work to make sure short-term bike parking is as close as possible to building entrances that will serve ground floor retail uses.

#### **6.0 Transportation Mitigation:**

TP+T provides the following initial recommendations for transportation mitigation to offset the Project's transportation impacts. As discussed above, one key item that needs further discussions with the Applicant is the total number of parking spaces.

As also stated above, the Project requires a Parking and Transportation Demand Management Plan (PTDM) which will include TDM measures, such as a new public bikeshare station.

Item#	Transportation Mitigation	Due Date
1	As recommended in the Alewife District Plan, the Applicant shall provide a one-time \$5 per square foot contribution to the City toward the Alewife Pedestrian Bicycle Bridge or other Transportation Improvements in Alewife Area. (Example: 280,046 sf x \$5/SF = \$1,400,230). This mitigation item was recommended in the Envision Cambridge Alewife District Plan for new development projects in the Alewife Area to contribute toward this long-term but needed project to connect the Quadrangle and Triangle to improve access within the district.	Prior to the issuance of the Building Permit.
2	<b>[Placeholder for final parking agreement]</b> . Based on the Planning Board comments, TP+T will continue to discuss the number of parking spaces with The Davis Companies, and prior to the Planning Board deciding on the Project, TP+T expects to develop a mutually agreeable parking plan with the Applicant.	
3	The Property Owner shall design, construct, and maintain the multi-use path as approved by the city and provide public access easement or agreements as approved by DPW.	Final multi-use path design to be approved by the City prior to the issuance of a Building Permit.  Construction and public access and maintenance agreement shall be approved by the City and completed prior to issuance of the first Occupancy Permit unless an extension is approved by TP+T due to unforeseen circumstances or reasonable delays.

<p><b>4</b></p>	<p>Reconstruct Smith Place and Wilson Road as approved by the City as necessary to align with the City's cross-section plans for Smith Place and Wilson Road. This shall include, elevated and at-grade sidewalks, separated bicycle facilities adjacent to the site, and street trees/landscaping.</p> <p>The Property owner shall also be responsible for maintaining the sidewalk and separated bicycle lanes adjacent to the building.</p> <p>This item will help mitigate the pedestrian and bicycle facility criteria that was triggered for this Project.</p>	<p>The final design shall be approved by the city prior to the issuance of a Building Permit.</p> <p>Construction completed prior to issuance of an Occupancy Permit unless a later date is necessary and approved by the City because of reasonable construction conditions.</p>
<p><b>5</b></p>	<p>Contribute \$280,000 to the city toward planning, design and or installation of transportation improvements in the Alewife District, such as a potential new traffic signal at Concord Ave/Smith Place, upgrading the Pedestrian crossing beacon at Concord Ave/Spinelli Place into a Red Rapid Flashing Beacon, and/or other transportation projects in the area. This item will help mitigate the new vehicle trips, delay and queuing generated by the Project and decrease in pedestrian and bicycle comfort from new vehicle traffic. The contribution is based approximately on \$1/sf and consistent with contributions from other projects in the area.</p>	<p>Prior to the issuance of the Building Permit.</p>
<p><b>6</b></p>	<p>To align with recent requests from the City Council for electrical vehicle charging in development projects, the Project will install 25% of total number of spaces, whether through dual-head Level 2 chargers or individual Level 2 chargers. In addition, the project will ensure sufficient capacity in the electrical panel and transformer(s) to support future installation of chargers serving all parking spaces.</p>	<p>25% of the total parking spaces to have EV charging and 75% be EV-Ready prior to the issuance of an Occupancy Permit.</p>



**PROJECT**

Project Name: 40 Smith / 45 Wilson Redevelopment  
 Project Address: 40 Smith Place / 45 Wilson Road  
 Cambridge, MA 02138  
 Owner/Developer Name: Quad 40 Smith Place, LLC c/o The Davis Companies  
 Contact Person: Chris Chandor  
 Contact Address: 125 High Street, Suite 2111  
 Boston, MA 02110  
 Contact Phone Number: 617-451-1300

**SIZE**

ITE sq. ft.: 265,000 GSF  
 Land Use Type: Office/Lab

**PARKING**

Existing Parking Spaces\*: 149 Building Use: Industrial/Transportation  
 New Parking Spaces: 323 Building Use: R&D  
 Net New Parking Spaces: 174 *(compared to existing)*  
 \*Surveyed parking spaces

**TRIP GENERATION**

	Daily	Morning Peak Hour	Evening Peak Hour
<b>Total Person Trips</b>	<b>2,585</b>	<b>327</b>	<b>281</b>
SOV	1,389	176	151
HOV	128	16	14
Transit	401	50	44
Walk	104	14	10
Bicycle	269	34	28
Other	165	20	18

**MODE SPLIT (Share of Person Trips)**

	R&D Use
SOV	54%
HOV	10%
Transit	16%
Walk	4%
Bike	10%
Other	6%

**TRANSPORTATION CONSULTANT**

Company Name: VHB  
 Contact Name: Sean M. Manning, PE, PTOE  
 Contact Phone Number: 617-728-7777

Date of Building Permit Approval: \_\_\_\_\_

**Planning Board Criteria**

Total Data Entries = 87

Total Number of Criteria Exceedances = 22

### Criteria A – Project Vehicle Trip Generation

Period	Criteria (trips)	Build (trips)	Exceeds Criterion?
Weekday Daily	2,000	1,517	No
Weekday Morning Peak Hour	240	182	No
Weekday Evening Peak Hour	240	154	No

### Criteria B – Vehicular LOS

Intersection	Morning Peak Hour				Evening Peak Hour			
	Existing Condition	Build Condition	Traffic Increase	Exceeds Criterion?	Existing Condition	Build Condition	Traffic Increase	Exceeds Criterion?
Concord Avenue/ Smith Place	E	F	6%	No	F	F	6%	Yes
Concord Avenue/ Moulton Street/ Neville Manor	A	B	6%	No	B	C	6%	No
Concord Avenue/Fawcett Street	E	F	5%	No	E	E	6%	No
Concord Avenue/ Blanchard Road/ Griswold Street	F	F	4%	No	F	F	4%	No
Smith Place/ Site Driveway	B	B	39%	No	B	B	29%	No
Smith Place/ Wilson Road	B	B	45%	No	B	B	29%	No

**Criteria C – Traffic on Residential Streets**

Roadway	Segment	Amount of Residential	Morning Peak Hour			Evening Peak Hour		
			Existing <sup>1</sup>	Increase <sup>2</sup>	Exceeds Criterion?	Existing <sup>1</sup>	Increase <sup>2</sup>	Exceeds Criterion?
Blanchard Road	Colby St to Concord Ave	1/2 or more	1,002	27	No	1,133	24	No
Griswold Street	Sunset Rd to Concord Ave	1/2 or more	57	0	No	33	0	No
Concord Avenue	Stewart Terrace to Blanchard Rd	1/2 or more	682	37	No	678	30	No

- 1 Where driveways/on-street parking created a segment inflow/outflow volume imbalance, an average was calculated per direction and added
- 2 Net new project trips after trip credits are applied

**Criteria D – Lane Queue (for signalized intersections)**

Intersection	Lane	Morning Peak Hour			Evening Peak Hour		
		2021 Existing	2021 Build	Exceeds Criterion ?	2021 Existing	2021 Build	Exceeds Criterion ?
Concord Avenue at Moulton Street / Neville Manor	Concord EB Left/Thru	3	3	No	3	3	No
	Concord EB Thru/Right	3	4	No	4	4	No
	Concord WB Left/Thru/Right	6	8	No	7	8	No
	Neville Manor NB Left/Thru/Right	0	0	No	1	1	No
	Moulton NB Left/Thru/Right	2	2	No	3	4	No
Concord Avenue at Blanchard Road	Concord EB Left/Thru	9	10	No	10	11	No
	Concord EB Thru/Right	7	8	No	8	9	No
	Concord WB Left	4	4	No	5	6	No
	Concord WB Thru	6	6	No	8	8	No
	Concord WB Right	3	3	No	4	5	No
	Blanchard NB Left/Thru	12	13	No	18	27	Yes
	Blanchard SB Left/Thru/Right	65	72	Yes	13	12	No

**Criteria E – Pedestrian Delay**

Intersection	Crosswalk	Morning Peak Hour			Evening Peak Hour		
		2021 Existing	2021 Build	Exceeds Criterion?	2021 Existing	2021 Build	Exceeds Criterion?
Concord Avenue at Smith Place	West	F	F	Yes	F	F	Yes
	North	A	A	No	A	A	No
Concord Avenue at Moulton Street / Neville Manor	East	D	D	No	D	D	No
	North	D	D	No	D	D	No
	South	D	D	No	D	D	No
Concord Avenue at Fawcett Street	East	F	F	Yes	F	F	Yes
	West	F	F	Yes	F	F	Yes
	North	A	A	No	A	A	No
Concord Avenue at Blanchard Road	East	E	E	Yes	E	E	Yes
	West	E	E	Yes	E	E	Yes
	North	E	E	Yes	E	E	Yes
	South	E	E	Yes	E	E	Yes
Smith Place at Loading Dock Driveway	East	A	A	No	A	A	No
	West	A	A	No	A	A	No
Smith Place at Wilson Road / Adley Road	East	A	A	No	A	A	No
	West	A	A	No	A	A	No
	North	A	A	No	A	A	No
	South	A	B	Yes	B	B	No

**Criteria F – Pedestrian and Bicycle Facilities**

Adjacent Street	Link (between)	Sidewalk or Walkway Present	Exceeds Criteria?	Bicycle Facilities or Right of Ways Present	Exceeds Criteria?
Smith Place	Concord Avenue and Site Driveway	No	Yes	No	Yes
	Site Driveway and Wilson Road/ Adley Road	Yes	No	No	Yes
Wilson Road	Smith Place and Moulton Street	Yes	No	No	Yes