



WESTBROOK PARTNERS

REDGATE™

Project: 55 Wheeler Street
Cambridge, Massachusetts

Residential Building
Planning Board Special Permit Submission
Volume 1 June 29, 2017

**DiMella
Shaffer**
Architecture | Interior Design | Planning

Landscape Architect:
landworks>studio, Inc.

Civil and Environmental Engineer:
WSP USA, Inc

Traffic Engineer:
VHB, Inc.

Structural Engineer:
L.A. Fuess Partners, Inc.

MEP Engineer:
CES Consulting Engineers, Inc.

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1. APPLICATION FORMS



CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

SPECIAL PERMIT APPLICATION • COVER SHEET

In accordance with the requirements of the City of Cambridge Zoning Ordinance, the undersigned hereby petitions the Planning Board for one or more Special Permits for the premises indicated below.

Location of Premises: 55 Wheeler Street, Cambridge, MA

Zoning District: Alewife Overlay District 4 (AOD4) and Office 1 District

Applicant Name: 55-9 Wheels Owner, LLC

Applicant Address: 7121 Fairway Drive, Suite 410, Palm Beach Gardens, FL 33418

Contact Information: 617- 532-7153 RJoseph@wbproperties.com 775-259-9201

Telephone # Email Address Fax #

List all requested special permit(s) (with reference to zoning section numbers) below. *Note that the Applicant is responsible for seeking all necessary special permits for the project. A special permit cannot be granted if it is not specifically requested in the Application.*

- i. Section 4.26.1 - permit the construction of multifamily housing in the underlying Office 1 District;
- ii. Section 19.20 - Project Review special permit consistent with the Design Objective of Section 19.30
- iii. Section 20.95.1 - permit a base Floor Area Ratio ("FAR") for the Project of 2.0 for multifamily residential use;
- iv. Section 20.95.4 - permit for a reduction in the lot area per dwelling unit to 600 square feet;
- v. Section 20.95.2.4 - permit the buildings to have a maximum height of seventy-five (75) feet; and
- vi. Section 6.35.1 (and Section 10.45) - a reduction in the required minimum off-street parking for the Project to 0.85 spaces per dwelling unit;
- vii. Section 20.73 - permit for earthmoving and landscaping in a Flood Plain Overlay District;
- viii. Section 6.43.5(b) - to permit a curb cut on Fawcett Street extension measuring ± 43 ft. for access to below grade garage and off street service and loading;
- ix. Section 20.95.34.1 - to reduce the required side yards and rear yard (if any) to a minimum of fifteen (15) feet;
- x. Section 20.95.34 - to permit hard surface within the portions of the Property between Wheeler Street and Building 1 and, if necessary, between Buildings 2 +3 and the Fawcett Street and Wheeler Street extensions.

List all submitted materials (include document titles and volume numbers where applicable) below.

Volume 1: Application Forms, Project Narrative, Infrastructure Narrative, Community Outreach Narrative, Transportation Summary, Sustainability Narrative, Acoustical Narrative and Flood Plain Certification.

Volume 2: Existing Conditions Map, Site Context Map, Proposed Site Plan, Proposed Floor Plans, Proposed Landscaping Plan, Proposed Elevations, Existing Conditions Photographs, Proposed Perspective Renderings, Tree Study, Shadow Study

Traffic Impact Study Submitted Under Separate Cover

Signature of Applicant:

Diego Rizo, Vice President of 55-9 Wheels Owner, LLC

For the Planning Board, this application has been received by the Community Development Department (CDD) on the date specified below:

Date

Signature of CDD Staff

OWNERSHIP CERTIFICATE

Project Address: 55 Wheeler Street

Application Date: June 29, 2017


This form is to be completed by the property owner, signed, and submitted with the Special Permit Application:

I hereby authorize the following Applicant: 55-9 Wheels Owner, LLC
at the following address: 7121 Fairway Drive, Suite 410, Palm Beach Gardens, FL 33418
to apply for a special permit for: 55 Wheeler Street
on premises located at: 55 Wheeler Street, Cambridge, MA
for which the record title stands in the name of: 55-9 Wheels Owner, LLC
whose address is: 7121 Fairway Drive, Suite 410, Palm Beach Gardens, FL 33418

by a deed duly recorded in the:

Registry of Deeds of County: Middlesex Book: 66570 Page: 563


OR Registry District of the Land Court, Certificate No.: _____ Book: _____ Page: _____


Signature of Land Owner (If authorized Trustee, Officer or Agent, so identify)
Diego Rico, Vice President of 55-9 Wheels Owner, LLC

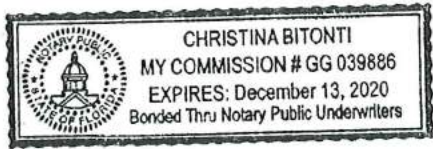
To be completed by Notary Public:

State of Florida
~~Commonwealth of Massachusetts~~, County of Palm Beach

The above named Diego Rico personally appeared before me,
on the month, day and year June 28, 2017 and made oath that the above statement is true.

Notary: 

My Commission expires: 12/13/2020



FEE SCHEDULE

Project Address: 55 Wheeler Street

Application Date: June 29, 2017

The Applicant must provide the full fee (by check or money order) with the Special Permit Application. Depending on the nature of the proposed project and the types of Special Permit being sought, the required fee is the larger of the following amounts:

- If the proposed project includes the creation of new or substantially rehabilitated floor area, or a change of use subject to Section 19.20, the fee is ten cents (\$0.10) per square foot of total proposed Gross Floor Area.
- If a Flood Plain Special Permit is being sought as part of the Application, the fee is one thousand dollars (\$1,000.00), unless the amount determined above is greater.
- In any case, the minimum fee is one hundred fifty dollars (\$150.00).

Fee Calculation

New or Substantially Rehabilitated Gross Floor Area (SF): 563,609 SF × \$0.10 = \$56,360.90

Flood Plain Special Permit Enter \$1,000.00 if applicable: \$1,000.00

Other Special Permit Enter \$150.00 if no other fee is applicable: \$0

TOTAL SPECIAL PERMIT FEE **Enter Larger of the Above Amounts:** \$57,360.90

DIMENSIONAL FORM

Project Address: 55 Wheeler Street

Application Date: July 29, 2017

	Existing	Allowed or Required (max/min)	Proposed	Permitted
Lot Area (sq ft)	249,518 sq ft		249,518 sq ft	
Lot Width (ft)	240 ft		240 ft	
Total Gross Floor Area (sq ft)	42,000 sq ft	648,747 sq ft	563,609 sq ft	
Residential Base	N/A	499,036	499,036 sq ft	
Non-Residential Base	N/A	N/A	N/A	
Inclusionary Housing Bonus	N/A	149,711 sf ft	64,573 sf ft	
Total Floor Area Ratio	N/A	2.6	2.26	
Residential Base	N/A	2.0	2.0	
Non-Residential Base	N/A	N/A	N/A	
Inclusionary Housing Bonus	N/A	.6	.26	
Total Dwelling Units	0	539	526	
Base Units	N/A	415	415	
Inclusionary Bonus Units	N/A	124	111	
Base Lot Area / Unit (sq ft)	N/A	600	600	
Total Lot Area / Unit (sq ft)	N/A	462	474	
Building Height(s) (ft)	35'	85 ft / 105 ft	77 ft	
Front Yard Setback (ft)	9.5 ft	15 ft *	0 ft **	
Side Yard Setback (ft)	21 ft 2 in	0 ft *	15 ft	
Side Yard Setback (ft)	566 ft	0 ft *	15 ft	
Rear Yard Setback (ft)	13 ft	0 ft *	N/A	
Open Space (% of Lot Area)		15%	36%	
Private Open Space		15%	20%	
Permeable Open Space			20%	
Other Open Space (Specify)			16% (Pub Beneficial)	
Off-Street Parking Spaces	271	1 per 1 D.U.	448	
Long-Term Bicycle Parking		1.07 per 1 D.U.	562	
Short-Term Bicycle Parking		.1 per 1 D.U.	54	
Loading Bays	1	N/A	1	

Use space below and/or attached pages for additional notes:

* Special Permit (20.95.34)

** The front yards that will be established upon the completion of the new roadways on the property and dedication of the same to the City of Cambridge will measure 0' at their minimum depth along the to-be-constructed extensions of Wheeler Street and Fawcett Street, respectively, which, front yards shall be deemed to be compliant yards as a result of the applicability of Section 20.99 of the Ordinance.



CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

CERTIFICATION OF RECEIPT OF PLANS BY CITY OF CAMBRIDGE TRAFFIC, PARKING & TRANSPORTATION

City Department/Office:

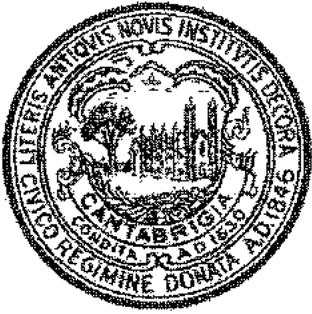
Project Address:

Applicant Name:

For the purpose of fulfilling the requirements of Section 19.20 and/or 6.35.1 and/or 5.28.2 of the Cambridge Zoning Ordinance, this is to certify that this Department is in receipt of the application documents submitted to the Planning Board for approval of a Project Review Special Permit for the above referenced development project: (a) an application narrative, (b) small format application plans at 11" x 17" or the equivalent and (c) Certified Traffic Study. The Department understands that the receipt of these documents does not obligate it to take any action related thereto.

Signature of City Department/Office Representative

Date



CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

CERTIFICATION OF RECEIPT OF PLANS BY CITY OF CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

City Department/Office: DPW/ENGINEERING

Project Address: 55 Wheeler ST

Applicant Name: 55-9 WHEELS OWNER

For the purpose of fulfilling the requirements of Section 19.20 of the Cambridge Zoning Ordinance, this is to certify that this Department is in receipt of the application documents submitted to the Planning Board for approval of a Project Review Special Permit for the above referenced development project: (a) an application narrative and (b) small format application plans at 11" x 17" or the equivalent. The Department understands that the receipt of these documents does not obligate it to take any action related thereto.

KM Falser
Signature of City Department/Office Representative

6/28/17
Date



CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

Landworks

CERTIFICATION OF RECEIPT OF PLANS BY CITY OF CAMBRIDGE TREE ARBORIST

City Department/Office: CAMBRIDGE DEPARTMENT OF PUBLIC WORKS
Project Address: 55 WHEELER, CAMBRIDGE, MASSACHUSETTS
Applicant Name: 55-9 WHEELS OWNER LLC

For the purpose of fulfilling the requirements of Section 4.26, 19.20 or 11.10 of the Cambridge Zoning Ordinance, this is to certify that this Department is in receipt of the application documents submitted to the Planning Board for approval of a MultiFamily, Project Review or Townhouse Special Permit for the above referenced development project: a Tree Study which shall include (a) Tree Survey, (b) Tree Protection Plan and if applicable, (c) Mitigation Plan, twenty one days before the Special Permit application to Community Development.

Signature of City Department/Office Representative

5-22-17

Date



CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

CERTIFICATION OF RECEIPT OF PLANS BY CITY OF CAMBRIDGE WATER DEPARTMENT

City Department/Office: CWD / 250 FA. PKWY.
Project Address: 55 Wheeler St.
Applicant Name: Westbrook Partners

For the purpose of fulfilling the requirements of Section 19.20 of the Cambridge Zoning Ordinance, this is to certify that this Department is in receipt of the application documents submitted to the Planning Board for approval of a Project Review Special Permit for the above referenced development project: (a) an application narrative and (b) small format application plans at 11" x 17" or the equivalent. The Department understands that the receipt of these documents does not obligate it to take any action related thereto.

Steven Lee 6/27/2017
Signature of City Department/Office Representative Date



CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

CERTIFICATION OF RECEIPT OF PLANS BY CITY OF CAMBRIDGE LEED SPECIALIST

City Department/Office:

Project Address:

Applicant Name:

For the purpose of fulfilling the requirements of Section 22.20 of the Cambridge Zoning Ordinance, this is to certify that this Department is in receipt of the application documents submitted to the Planning Board for approval of a Special Permit for the above referenced development project: (a) an application narrative, (b) small format application plans at 11" x 17" or the equivalent and (c) completed LEED Project Checklist for the appropriate LEED building standard, accompanying narrative and affidavit. The Department understands that the receipt of these documents does not obligate it to take any action related thereto.

Signature of City Department/Office Representative

Date

2. PROJECT NARRATIVE

This is an application by 55-9 Wheels Owner, LLC (the “Applicant”) for Special Permits to enable the construction of a multifamily residential building at 55 Wheeler Street (the “Property”), containing 526 dwelling units, including two on-grade courtyards, a third elevated courtyard, and associated vehicular and bicycle parking (the “Project”). The Property is situated near the Fresh Pond Reservation and lies within Alewife Overlay District 4 (“AOD4”)/Office 1 District.



Figure 1 - Context

55 Wheeler Street contains approximately 6 acres and is presently improved by office buildings and extensive surface parking that have been occupied by Abt Associates since the 1960s. The Property is fenced and is accessible only by a controlled access gate from Wheeler Street. Recent residential developments on the Fawcett/Wheeler block have begun to transform this block into a residential neighborhood. However, the existing 55 Wheeler property is a barrier to vehicular, bicycle and pedestrian access in what is commonly referred to as the “quadrangle” section of Alewife. Both Wheeler Street and the Fawcett Street Extension dead end at the southerly and westerly property lines, respectively.

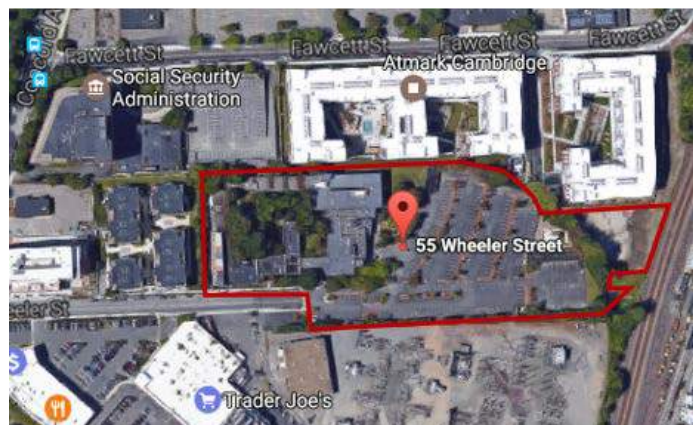


Figure 2 – Property Existing Conditions

The Applicant is proposing to redevelop the existing Property into a residential community consisting of 526 units in three buildings (Buildings 1, 2 and 3) with varying heights up to seven (7) stories. Building 1 stands alone on the south side of the property and will include approximately 137,029 sf of residential uses as well as 17,976 sf of covered structured parking on the ground floor. Buildings 2 and 3 are designed to appear as separate buildings and are connected in the courtyard. Buildings 2 and 3 include approximately 408,604 sf of residential use. In total the Project includes approximately 563,609 square feet of residential and above grade structured parking Gross Floor Area.

To provide a variety of housing options the proposed Project will contain studio apartments, one bedroom units, two bedroom units and three bedroom units. Twenty percent (20%) of the gross floor area of the residential units will be affordable pursuant to the City's newly adopted Inclusionary Zoning.

The Project includes several east-west connections including an extension of Fawcett Street which will include both pedestrian sidewalks and dedicated bike lanes. Currently, the north-south Wheeler Street culminates in a mid-block dead end. The Project will extend Wheeler Street – including sidewalks and dedicated bike lanes – northerly both to provide connection to Fawcett Street for full block circulation and to provide a link between Fresh Pond and the regional bikeway system by connecting to a potential future pedestrian bridge over the MBTA right of way. The Applicant intends to convey an easement or fee interest to the City of Cambridge (and get the City to accept a dedication of the same) in the new roadway running from the present terminus of Wheeler Street to Fawcett Street, immediately upon the Applicant substantially completing the construction of such roadway, in accordance with the provisions of that certain Reciprocal Easement Agreement dated September 27, 2001, entered into with the owner of the property situated at 70 Fawcett Street.

The inclusion of a pedestrian Mews between Buildings 1 and 2 will facilitate pedestrian and slow bike movements east to west. A landscaped area, lined by ground floor units the Mews will include a path from Wheeler Street to the western property boundary that will be open for use by public pedestrian and bicycle travel. As shown on Volume II, Page 38 of this Application, the width of the 55 Wheeler path will range from 16 - 18 feet at the east and west ends to 8 feet (plus 2-11 foot vertical obstacle free buffer) in the middle adjacent to direct unit entries. As shown on Volume II, Page 41, the path location has been aligned with a 26 foot wide area between two existing structures on adjacent properties where the path could be continued approximately 220 feet westerly to connect with Fawcett Street.

Vehicular access to the structured parking garage set below the building will be from two separate entrances on Wheeler Street and the Fawcett Street Extension. The garage will contain 426 spaces (384 below grade and 42 in the podium level of Building 1). A small surface lot containing 22 spaces will be located to the north of the residential buildings. This lot will be off set from the roadway with a driveway entrance and will be screened with the addition of trees and other landscaping. This lot acts as a buffer between the public open space and the transformer station to the east. It is anticipated that this portion of the lot will be utilized primarily for visitor parking to the 55 Wheeler Street Project as well as at grade, easily accessible car sharing spaces for the quadrangle community. Approximately 15 on-street spaces will be created as part of the construction of Wheeler Street Extension. These spaces will

be conveyed to the City and are not counted in the Project's owned and controlled off-street parking supply.

The Project will include a separate service road adjacent to the garage entry off of Fawcett Street at the back of the building to provide off street service and loading. The Project is designed for trash pickup for all buildings to be accommodated from the Fawcett Street service area. The Applicant will continue to work with the City on truck access (Volume II, Page 57-58) and other details.

The Project will contain 562 secure and covered long term bicycle parking spaces as well as a repair area located in the garage. There will also be 54 short term bike parking spaces located on the Property in proximity to the building entrances.



Figure 3 – Proposed Site Plan

The Project has been designed to engage with and open up to the street. The buildings will all include direct entry units on the ground floors. These will be raised to create a stoop condition that will allow for patios and other outdoors spaces for residents to linger and activate the street. The building is aligned in such a way that it steps back from the Wheeler Street at the north side, resulting in very generous courtyard adjacent to the entries to Buildings 2 and 3 that opens up onto the streetscape and will be accessible to the public. This courtyard will not be controlled and will act as a physical and visual extension of the community open space.

The Project will improve pedestrian accessibility around the quadrangle by creating new sidewalks along the newly constructed sections of Wheeler Street and the Fawcett Street Extension. The combination of resiliency considerations and ADA requirements have inspired the team to also create a double sidewalk condition along Wheeler Street at the building that results in a city sidewalk along the street edge and a parallel access sidewalk providing access to units.

The Project will also include the design and construction of a 30,000 +/- square foot park. This park is separated from the residential development by the Fawcett Street Extension to facilitate and encourage public use. Approximately one-quarter of the park will be a lawn area closer to the street that can be utilized for informal sports or lounging activities as well as programming by the nearby property

management companies and/or the community. Behind the lawn area will be over 20,000 square feet of natural landscape planted with trees and grasses for exploration and natural discovery activities. The Applicant intends to subject the open space as shown (Volume II, Page 56) to a restrictive covenant that will require that the area be maintained as open space that is available for use by the inhabitants of the City as well as by the residents of the Project. The covenant will permit the City and the Applicant to revisit the arrangement concerning such open space upon the conveyance by the Applicant of any rights to the City to construct the pedestrian bridge on a portion of the Property.

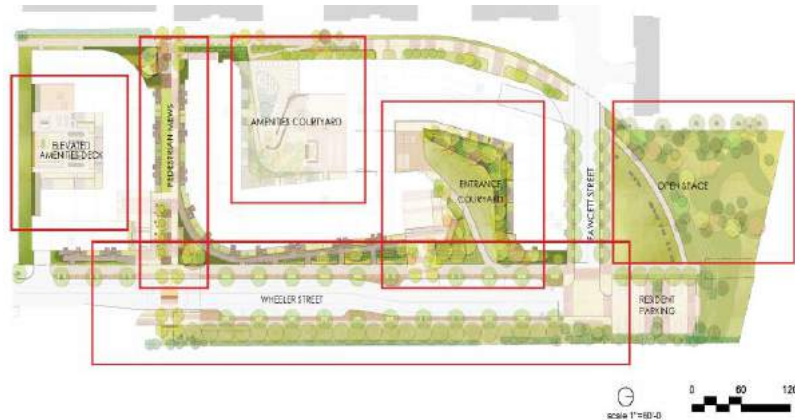


Figure 4 – Proposed Landscape Plan

The landscaping strategy for the Project creates a diverse plant palette comprised mainly of native species. The Project includes several storm water best management practices (BMPs) which will reduce the rates of storm water runoff from the Property as well as improve runoff water quality. The building and outdoor spaces will be designed to complement and improve the streetscape with landscaping, open resident balcony areas overlooking the street, and a transparent lobby area containing seating, a reception area, and building support spaces.

The building designs will create interest by varying the massing and materials, and the colors and fenestrations of the façade will be carefully considered based on adjacent uses and views, so as to reinforce the pedestrian experience and help the building integrate with its surroundings.



Figure 5 – Architectural Interest (Massing and Materials)

The Project will achieve LEED v4 Silver and will include a number of sustainability features as described in Section 7 of this document. Consistent with the City of Cambridge’s efforts related to its Climate Change Vulnerability Assessment, the Project will include several features to protect residents and equipment during future surge events. The Project is designed with raised entries into the occupied spaces to meet the 2070 1% floor elevation. In addition, the mechanicals are elevated and there will be flood elevation controls at the garage entrances. Furthermore, the Project will reduce the heat island effect of the Property by replacing the existing surface parking with the proposed buildings and landscaping.

The Project includes many design elements that advance the goals outlined in the Concord-Alewife plan, including developing housing close to the Alewife MBTA Station. The Project is a short walk from the Alewife MBTA Station and, by way of sidewalks and bike lanes of the Alewife Brook Parkway, provides connection between the Fresh Pond Reservation with the pedestrian and bicycle friendly amenities of the Alewife Brook Reservation. Further, the Project also meets the goal of creating a variety of housing opportunities, including a variety of 1, 2 and 3 bedroom units and approximately 100 units of new affordable housing.

3. ZONING AND CONSISTENCY

3. ZONING AND CONSISTENCY

i. Special Permits Required

Based on the below, the Applicant respectfully requests the Planning Board grant the following Special Permits in favor of the Project:

- i. Special Permit under Section 4.26.1 to permit the construction of multifamily housing in the underlying Office 1 District;
- ii. Special Permit under Section 19.20 for a Project Review Special Permit consistent with the Design Objectives of Section 19.30;
- iii. Special Permit under Section 20.95.1 to permit a base Floor Area Ratio (“FAR”) for the Project of 2.0 for multifamily residential use;
- iv. Special Permit under Section 20.95.4 to permit for a reduction in the lot area per dwelling unit to 600 square feet;
- v. Special Permit under Section 20.95.2.4 to permit the buildings to have a maximum height of seventy-seven (77) feet;
- vi. Special Permit under Section 6.35.1 (and Section 10.45) for a reduction in the required minimum off-street parking for the Project to 0.81 spaces per dwelling unit;
- vii. Special Permit under Section 20.73, authorizing the implementation earth-movement and landscaping within the portion of the Property situated within the Flood Plain Overlay District;
- viii. Special Permit under Section 6.43.5(b) to permit a curb cut measuring +/- forty-three (43) feet for access to the underground parking garage and at-grade building services off of the to-be-constructed Fawcett Street extension;
- ix. Special Permit under Section 20.95.34.1 to reduce required the side yards and the rear yard (if any) to a minimum of fifteen (15) feet; and
- x. Special Permit under Section 20.95.34 to permit hard surface within the portions of the Property between the westerly street line of Wheeler Street and the easterly building face of Building 1 to be more than twenty-five percent (25%) of such area to accommodate sidewalks for the public realm and the entry walkways to Building 1 and, to the extent necessary, between the street line of the to-be-constructed Wheeler Street Extension and the Fawcett Street Extension (collectively, the “Street Extensions”) and the easterly and northerly faces of Building 2 and 3, respectively, to more than twenty-five percent (25%) of such area.

With regard to the Special Permits referenced in Item x., above, the Applicant believes that the requirements for Permeable or Green Area Open Space contained in Section 20.95.34 do not apply to the Street Extensions because the Extensions will eventually be turned over to the City of Cambridge as public ways. Section 20.99 provides that in the event that an owner subdivides its lot to convey a fee or easement interest in a street that it constructs on its lot necessary to

make the same a public way controlled by the City of Cambridge, then the requirements with regard to minimum lot size, required yards or other dimensional, open space or other regulatory requirement or limitation shall not apply. Here, but for the required creation of the Street Extensions and the conveyance of the same to the City of Cambridge, the front yard requirements would not apply to any portion of the Property, except for along the existing frontage on Wheeler Street parallel to the easterly building face of Building 1 (and for which condition, we have requested a Special Permit to reduce this yard requirement). So, the requirements of Section 20.95.34 should not apply to any portion of the Property, except for the existing Wheeler Street frontage. In the event that the Planning Board determines that the provisions of 20.99 do not apply to the Permeable and Green Open Space requirements of the Ordinance, the Applicant hereby requests a waiver with regard to the amounts required in the definition of Permeable and Green Open Space Area to permit the proposed coverage to exceed twenty-five percent (25%) to account for the installation of walkways and service area access to the residential project as well as for the construction of sidewalks.

ii. General Criteria for Approval of a Special Permit

The Project satisfies the criteria for the issuance of the requested Special Permits as described below. Special Permits will normally be granted where specific provisions of the ordinance are met, except when particulars of the location or use, not generally true of the district or of the uses permitted in it, would cause granting of such permit to be the detriment of the public interest.

(1) The requirements of the Zoning Ordinance can or will be met.

With the relief granted by the above requested Special Permits, the Project will satisfy the requirements and comply with the controls of the Zoning Ordinance. With regard to the limitations on FAR and Lot Area Per Dwelling Unit (“Lot Area/DU”), the granting of the Special Permit relief will work in concert with as-of-right Inclusionary Relief to make the Project FAR of 2.26 and the Lot Area/DU of 474 square feet comply. More specifically, the granting of the Special Permit under Section 20.95.1 will increase the permitted FAR for the Property to 2.0. The Applicant, in providing the required Inclusionary Housing Units for the entire Project will be entitled, pursuant to Section 11.203.5(a), to apply for a bonus that would permit the Applicant to yield an additional 30% in GFA for the Project, which would effectively bring the allowable FAR for the Project to 2.92. The Project as proposed will have an FAR of 2.26 and, therefore, is compliant with the FAR limitations of the Zoning Ordinance.

Additionally, with regard to Lot Area/DU, the granting of the Special Permit under Section 20.95.4 will allow for the Project to reduce the minimum Lot Area/DU to 600 square feet (from 1,200 square feet). The Applicant will then be entitled, pursuant to the provisions of Section 11.203.5(a), to a 30% reduction in the minimum required Lot Area/DU, which would reduce the requirement to 462 square feet. As noted above and in the Dimensional Table attached to this Application, the Applicant proposes to have a

Lot Area/DU of 474 square feet and therefore complies with the requirement of the Ordinance.

Aside from the above, and except for the grant of the other requested Special Permits and a finding by the Planning Board for the reduction in permeable area (as defined by Section 20.96) from 25% to 20%, the Project complies with the bulk and dimensional requirements and limitations of the Ordinance as more specifically set forth in the Dimensional Table included in the application.

(2) Traffic generated or patterns of access or egress would not cause congestion hazard, or substantial change in established neighborhood character for the following reasons:

As set forth in the Traffic Impact Study submitted with this application, the proposed construction of a residential Project in this area will not have substantial adverse impacts on City traffic within the study area. In addition, the Project's location near the Alewife MBTA Station and its contributions to the area bicycle and pedestrian infrastructure network are expected to encourage alternative transportation modes by residents.

(3) The continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance will not be adversely affected by the nature of the proposed uses for the following reasons.

Adjacent uses will not be adversely affected by the Project. If anything, the Project will enhance the surrounding neighborhood. The block bounded by Wheeler Street, Fawcett Street and Concord Avenue has been transforming into a residential neighborhood in recent years with the addition of the Atmark buildings and the Reservoir Lofts among other Projects. The addition of another residential use will further enhance the mixed-use nature of this neighborhood and will further the Alewife Overlay District's goals for establishing additional housing uses close to the Alewife MBTA Station. The additional residential units proposed by the Project will enhance the District's vibrancy, continue the establishment of a residential neighborhood in this area of Cambridge and assist in creating a safe and active environment throughout the day and evening.

(4) Nuisance of hazard would not be created to the detriment of the health, safety and/or Welfare of the occupants of the proposed use or the citizens of the City.

The Project will not create any nuisance or hazard that would detrimentally affect the health, safety and/or welfare of the surrounding neighborhood or on the citizens of Cambridge generally. On the contrary, locating a high-quality residential building in this location will enhance the streetscape along Wheeler Street and enhance public safety by increasing utilization of the Fresh Pond Reservation. The Project redevelops an existing commercial use in this increasingly residential area and better aligns the use of the Property with that of the surrounding neighborhood. Additionally, the Project will create meaningful Publicly Beneficial Open Space that will add much needed green space to the community and provide a location for a possible future bridge connection to Cambridge Park Drive and the Alewife MBTA Station over the MBTA right-of-way that abuts the Property to the north. These open space and pedestrian amenities will improve the health, safety and welfare of the surrounding community.

(5) For other reasons, the proposed use would not impair the integrity of the district or adjoining

district or otherwise derogate from the intent or purpose of this Ordinance for the following reasons.

The Project is fully in compliance with the provisions of the Concord-Alewife Overlay District and advances several of the goals outlined in the Concord-Alewife Plan. As set forth in the Plan, the Project is a response to the desire for residential focus closer to the Alewife MBTA Station. Parking and services are screened from public view, and the building's ground floor units will be accessible from the public sidewalk, further enhancing the pedestrian oriented streetscape.

iii. Conformance with City Wide Urban Design Objectives (Section 19.30 – Project Review Special Permit)

Section 19.31: New projects should be responsive to the existing or anticipated pattern of development. Indicators include:

(1) Heights and setbacks provide suitable transitions to abutting or nearby residential zoning districts that are generally developed to low scale residential uses.

The area surrounding the Project consists largely of residential and office buildings and as well as a retail shopping center district. There are residential uses directly abutting the Property, with the property to the west being a similar multifamily apartment building. The heights and setbacks of the Project improve and enhance the pedestrian experience along Wheeler Street. The Project's proposed height is approximately seventy-seven (77) feet, which is eight (8) feet below the maximum height permitted by special permit in the AOD4 of eight-five (85) feet. The Project is set back thirty three (33) feet from Wheeler Street along the street edge and steps further back to approximately fifty (50) feet at the entry courtyard, which setbacks are in excess of what is required under Section 20.95.31 of the Ordinance.

(2) New buildings are designed and oriented on the lot so as to be consistent with the established streetscape on those streets on which the project lot abuts. Streetscape is meant to refer to the pattern of building setbacks and heights in relationship to public streets.

The buildings will face Wheeler Street and establish a friendly pedestrian court along the building edge that will serve to access ground level direct entry units and an active streetscape that will greatly improve the existing street edge. These ground level units will be accessible with at-grade entry doors and the building common entries will provide support and amenity spaces such as a leasing office and reception area accessed from the entry courtyard. The building and outdoor spaces will be designed to complement and improve the streetscape with landscaping, open resident balcony areas overlooking the street, and a transparent lobby area containing seating, a reception area, and building support spaces. This transitional space connects to another at-grade courtyard featuring an amenity and pool deck area. Most of the parking will be located below grade to reduce the impact on Wheeler Street, and podium parking in Building 1 will be screened to prevent views into the garage area.

(3) In mixed use projects, uses are to be located carefully to respect context.

This is not a mixed-use project.

(4) Where relevant, historical context are respected, e.g. special considerations should be given to buildings on the site or neighboring buildings that are preferably preserved.

The existing Abt building was constructed in approximately 1966. Due to the fact that the building is greater than 50 years old, it will require demolition approval from the Cambridge Historical Commission.

Section 19.32: Development should be pedestrian and bicycle-friendly, with a positive relationship to its surroundings.

(1) Ground floors, particularly where they face public streets, public parks, and publicly accessible pathways consist of spaces that are actively inhabited by people.

The design will complement the City's planning for the Concord-Alewife neighborhood. The Project will create 526 residential units in the Cambridge Highlands area near the Fresh Pond Mall and Alewife MBTA Station, an area specifically targeted for further residential development. The residential uses of the building will be actively inhabited by people along both Wheeler Street and the Fawcett Street connector. A pedestrian way (the "Mews") running east to west through the Project will add activity with at grade entrances between Building 1 and 2 and also encourage future connections to Fawcett Street and the neighborhood to the west.

The residential use of the building and the ground level spaces facing Wheeler Street and the Fawcett Street connector will activate and enhance the pedestrian experience along both streets and provide opportunities for future connections to the residential buildings on Fawcett Street to the west, the park and future bridge connection to the north, Fresh Pond Reservation to the south and the retail to the east.

The pedestrian experience is paramount throughout the Project. This is true particularly along the extended Wheeler street corridor and running East-West across the Property through the pedestrian Mews both of which provide an active residential front door and stoop experience. For residents, this design approach promotes healthy habits connecting them directly to multi-modal transportation options. And for visitors the active ground floor provides a sense of community and ensures care. The existing pedestrian corridor along the Western edge of the Property will be shared by adjacent properties and the planting will be enhanced.

The Project will provide 54 short-term, exterior at-grade bicycle parking spaces located throughout the Property. The majority of these spaces will be located in close proximity to the proposed main lobby entrances, and adjacent to the Wheeler Street extension which will connect to the pedestrian bridge at the Alewife T station. A total of 562 long-term, covered and secure bicycle parking

will be provided in the garage.

(2) Covered parking on the lower floors of a building and on-grade open parking, particularly where located in front of a building, is discouraged where a building faces a public street or public park, and publicly accessible pathways.

The Project will include a total of 448 parking spaces, with the majority of the spaces being located within a below-grade parking garage. Forty-two (42) of the 448 spaces will be located at the ground level of Building 1. This parking will be screened from Wheeler Street behind the two-story townhouse units occupying most of the south face of Building 1 along the Wheeler Street. The buildings are set back and fronted by a landscaped buffer to further reinforce the pedestrian nature of the street edge.

The Project includes connecting Wheeler Street to Fawcett Street Extension which are both currently dead end streets. A small surface lot containing twenty-two (22) of the 448 spaces will be located to the north of the residential buildings. This lot will be off set from the roadway with a driveway entrance and will be screened with the addition of trees and other landscaping. This lot acts as a buffer between the public open space and the transformer station to the east. It is anticipated that this lot will be utilized primarily for visitor parking to the 55 Wheeler Street Project as well as at grade, easily accessible car sharing spaces for the quadrangle community.

(3) Ground floors should be generally 25-50% transparent. The greatest amounts of glass would be expected for retail uses with lesser amounts for office, institutional or residential use.

The ground floors will be as transparent as is appropriate to residential units located on and accessible from the public sidewalks. The ground floor of Building 1 will feature a transparent entry lobby. The ground floor of Building 2 will also include a transparent lobby containing a reception area, and leasing offices. This Building 2 lobby will also be transparent to the inner courtyard, visually connecting the two at grade courtyards between Building 2 & 3.

(4) Entries to buildings are located so as to ensure safe pedestrian movement across streets, encourage walking as a preferred mode of travel within the city and to encourage the use of public transit for employment and other trips.

Careful thought has been given to pedestrian movement through the Property and the buildings have been designed to encourage pedestrian access along the street edge. The main entrance to Building 1 is set back thirty-three (33) feet from the street and is adjacent to the Mews, a pedestrian way situated between Building 1 and 2, which provides direct access units on both sides enhancing the experience along Wheeler Street. An elevated crosswalk will be located at the entrance to the Mews. The main entrance of Building 2 & 3 farther down Wheeler Street is setback fifty (50) feet from Wheeler Street and is adjacent on one side by at-grade entry units which have their own sidewalk and front yard areas, and on the other side by semi-public landscapes courtyard.

The Applicant will consider the following TDM programs as part of the proposed Project to encourage residents to use alternatives to travel by automobile:

- Make available no fewer than 1 carshare parking spaces for a vehicle-sharing company.
- Encourage car/vanpooling in coordination with MassRIDES, Alewife TMA or other private ride-matching service provider.
- Provide air pumps and other bike tools, such as a “fix-it” stand in the bicycle storage areas.
- Join the Alewife Transportation Management Association (TMA).
- Charge parking separately from the residential rent.
- Designate a transportation coordinator (TC) for the site to manage the TDM program.
- Post information in a prominent location in the building and on the building’s website, social media and property newsletters promoting the use of transportation options and service information.

(5) Pedestrians and bicyclists are able to access the site safely and conveniently; bicyclist should have secure storage facilities conveniently located on-site and out of the weather.

The Project has been designed to minimize negative impacts to adjacent properties and knit the community together more closely through pedestrian and bicycle connections. To encourage nonautomotive transportation, pedestrians and bicyclists will have safe access to and from the Property by means of convenient entry points and paths to the building. The building orients itself both to Wheeler Street and Fawcett Street Extension and will provide bicycle lanes that will link to lanes on Concord Avenue and the Fresh Pond Reservation. Currently bike paths along Alewife Brook Parkway connect back to more extensive bicycle and pedestrian trails in Cambridge. The Project incorporates a large open space to the north that will promote and provide opportunity for new bicycle connections to the north of the Property and a potential future bicycle/pedestrian bridge over the tracks that would connect to the Alewife Linear Park Trail, the Somerville Community Path, and the Minuteman Trail.

There will be enclosed, secure, storage space for 562 bicycles in the below grade parking garage with access to service elevators. An additional 54 short term bike storage spaces are provided adjacent to the main lobby entrances for visitors.

Section 19.33: The building and site design should mitigate adverse environmental impacts of development upon its neighbors

(1) Mechanical equipment that is carefully designed well organized or visually screened from its surroundings and is acoustically buffered from neighbors.

The Project is designed to mitigate the impact of any mechanical equipment on its surroundings and enhance the overall appearance of the existing streetscape and skyline. Mechanical equipment that is located on the roof will be positioned away from the edge of the building and out of the sight line. Each residential unit’s HVAC system is comprised of individual mechanical equipment located within each unit, with low-profile rooftop condensing units located at the center of the building roof away for the street and adjacent open spaces. Wall mounted gas meters will be located on the west side of the

Project out of view from Wheeler Street and Fawcett Street Extension. Screening will be provided for electrical transformers required for the Project.

(2) Trash that is handled to avoid impacts (noise, odor, and visual quality) on neighbors, e.g. use of trash compactors or containment of all trash storage within a building is encouraged.

Trash and recycling access for the Project will be provided for residents throughout the building and will be directed to a central location, to prevent any odors or noises. These facilities will be accessed by a service road at the west of Buildings 2 and 3 (off of the Fawcett Street Extension) so as not to be visible or impact neighbors or residents.

(3) Loading docks that are located and designed to minimize impacts (visual and operational) on neighbors.

The loading dock for the Project will be located off of an access driveway at the west of Buildings 2 and 3 (off of the Fawcett Street Extension) and will be hidden from view from Wheeler Street and the Fawcett Street Extension. The loading dock will serve as the trash pick-up area and also for resident move-ins, keeping this traffic off of Wheeler Street and the Fawcett Street Extension. There will be very little impact on the neighbors due to the location of the service driveway, which is on the west side adjacent to Atmark's service and trash access area.

(4) Stormwater Best Management Practices and other measures to minimize runoff and improve water quality are implemented.

The drainage design and stormwater management design addresses both the quality and flow rates of stormwater runoff from the Property and conforms to the standards outlined by the Massachusetts Department of Environmental Protection Stormwater Management Policy and the City of Cambridge Department of Public Works Concord-Alewife Stormwater Management Guidelines. These include:

- Complying with the MassDep Stormwater Management Standards (in accordance with Massachusetts Wetlands Protection Act Regulations and Water Quality Certification Regulations)
- Complying with the City of Cambridge DPW Stormwater Management Guidelines
- Implementing a treatment train of BMPs to improve water quality and reduce peak discharge rates of runoff in comparison to predevelopment conditions.
- Providing on site storage of stormwater runoff.
- Installing a groundwater recharge system designed to infiltrate clean stormwater runoff and provide phosphorus removal.
- Minimizing impacts on municipal stormwater systems and improving stormwater effluent quality.

(5) Landscaped areas and required Green Area Open Space, in addition to serving as visual amenities, are employed to reduce the rate and volume of stormwater runoff compared to pre-development conditions.

The existing Property is developed and predominantly covered by impervious surfaces consisting of an existing office building and paved parking areas with generally flat topography. The Property also contains two ancillary buildings. Runoff from the existing site is captured by existing catch basins in the parking areas and conveyed to the existing 4'x8' City of Cambridge drainage culvert. Runoff from the existing roof areas are conveyed to the drainage culvert by existing roof drain services. The 4'x8' drainage culvert flows northward on Wheeler Street, through the existing site parking lot to a bending weir structure which directs runoff through a box culvert to an outfall at the Alewife Reservation Constructed Wetland.

The Project provides a new stormwater management system that includes water quality and quantity controls, and will result in a reduction in peak runoff rates. The proposed Property generally maintains the existing drainage patterns, discharging stormwater runoff to the 4'x8' drain culvert.

Water quality units will provide treatment of runoff prior to discharging into the municipal system. Precast concrete tanks have been designed to provide stormwater detention to reduce the peak rates of runoff. The design includes Best Management Practices (BMPs) for maintaining stormwater runoff quality both during and after construction, and is designed to protect downstream and underlying receiving waters from stormwater related impacts.

The stormwater management system designed for the Property has been prepared in accordance with applicable local, state, and federal regulations, including the City of Cambridge Department of Public Works (DPW) Stormwater Management Guidelines and Massachusetts Department of Environmental Protection (DEP) Stormwater Standards. Per the Stormwater Management Guidelines, the Cambridge DPW requires Projects to provide storage for the difference between the 2-year, 24-hour pre-construction runoff hydrograph and the post-construction 25-year, 24-hour runoff hydrograph. This storage volume will be provided via on-site detention. The Project is designed to treat a water quality volume of one inch (1") of runoff over the proposed impervious area.

The Project will provide a substantial improvement in stormwater management on-site by enhancing the quality of stormwater discharge and reducing the peak rates of runoff from the Property to alleviate capacity issues in the municipal system. As a result, the Planning Board should make a finding, pursuant to Section 20.96.1, that even though the amount of Permeable Area is below the 25% requirement of Section 20.96, the substantial improvement in on-site stormwater management through the elimination of presently existing impervious surface, advances the relevant purposes of the AOD.

(6) The structure is designed and sited to minimize shadow impacts on neighboring lots, especially shadows that would have a significant impact on the use and enjoyments of adjacent open spaces.

The Project is bordered by Atmark at 80 Fawcett Street to the west, The Reservoir Lofts at 28-31 Wheeler Street to the south, a large Eversource electrical substation to the east and MBTA tracks to the north. The Project will be no more than seven (7) stories in height. A shadow analysis indicates shadows from the Project will not impact these adjacent users nor the use and enjoyment of adjacent open spaces.

(7) Changes in grade across the lot are designed in ways that minimize the need for structural retaining walls close to the property line.

The Project will raise the elevation of the ground floor above the 2070 Cambridge Climate Vulnerability Projection level (22.49') and will have minimal retaining walls and minimizes changes in grade.

The first-floor elevation for all three buildings will be set at the resiliency elevation of 22.5' and will be graded into existing conditions without the use of retaining walls. The grades at the Southern end of the Property between Building 1 and the property line will be raised making the adjacent retaining wall unnecessary. Grades within the flood plain will not be modified.

(8) Building scale and wall treatment, including provisions of windows, are sensitive to existing residential uses on adjacent lots.

The Project's massing along the south responds to the residential scale and is sensitive to the lower height of The Reservoir Lofts by setting back at both the 5th and 7th story and locates a large courtyard facing the existing residences. The composition of windows and balconies along the street edge, and the wall treatment and adjacent ground treatment have been carefully considered in relation to the existing context to make certain that those elements are in harmony with the intended residential use, while also creating interest in support of an architecturally diverse block. Landscaping between the Project and the adjacent buildings has also been considered to reduce hard edges/fencing between Projects and increase permeability within the block.

(9) Outdoor lighting is designed to provide minimum lighting necessary to ensure adequate safety, night vision, and comfort, while minimizing light pollution.

The Project will be designed to provide the required lighting necessary to ensure adequate safety, night vision, and comfort, while minimizing light pollution. The east-facing entrances will be very transparent and are set back from Wheeler Street, which will allow ambient light to enhance the experience of the entry courtyard in the evening hours. It also will be supplemented with accent and safety lighting along the pedestrian access points and perimeter of the building where necessary. The Building 1 at-grade parking garage wall treatment and screening will minimize interior lighting from spilling out of the garage.

Outdoor building and landscape lighting will provide sufficient light levels for safety and an active public realm, but respect the dark-sky requirements of LEED and City's Draft Outdoor Lighting Ordinance.

(10) The creation of a Tree Protection Plan that identifies important trees on site, encourages their protection, or provides for adequate replacement of trees lost to development on the site.

A tree survey plan was submitted to the City of Cambridge Arborist and is included in Volume II of this submission. The total DBH of significant trees at the existing Property is 1,354. Of these the Project will retain 542 DBH and remove 812 DBH. A total of 960 DBH of new trees will be planted as part of the proposed Project resulting in a net increase of 148 DBH at Project completion.

The Project will retain existing White Pine trees along the Eastern property line. These along with the arborvitae hedge create an evergreen buffer to the adjacent commercial service and utility uses. There are nine existing street trees on Wheeler Street at the Southern end of the Property that will be preserved and re-planted. There are seven existing trees on the adjacent property at the Northern end of the Project next to the proposed public park. These will be protected during the park construction with tree protection fencing, comprised of snow fencing on 2-foot by 4-foot lumber framing, set 6 feet from the trunk of the tree.

Section 19.34; Projects should not overburden the City infrastructure services, including neighborhood roads, city water supply system, or sewer system

(1) The building and site design are designed to make use of water-conserving plumbing and minimize the amount of stormwater run-off through the use of best management practices for stormwater management.

In addition to a reduction in the Property's impervious ground cover, as discussed in item 19.33(5), the Project includes several stormwater best management practices (BMPs) which will further reduce the rates of stormwater runoff from the Property as well as improve runoff water quality. Along the northerly and easterly perimeter of the Property, a large underground detention basin is proposed to temporarily store runoff and release it at a controlled, reduced rate. A green roof, which doubles as an elevated courtyard, will provide additional stormwater flow rate attenuation by containing up to 3.5" of stormwater above the courtyard surface, allowing the water to slowly percolate through the soil medium before being collected by subdrains and discharged from the Property. Runoff from the proposed entry courtyard area at the main building entrance is to drain into a bioretention area which will filter runoff before it is discharged from the Property. The stormwater management system has been designed so that the Project's peak rate of runoff for the 25-year storm (5.7" of rainfall) is less than the peak rate of runoff generated by the existing site during the 2-year storm (3.3" of rainfall).

The building will include the installation of water-conserving low flow plumbing fixtures and aerators that will reduce the water demand of each one bathroom unit by as much as 55 gallons per day when compared with code mandated fixtures. The building systems will be designed to meet the stretch code and LEED standards.

(2) The capacity and condition of drinking water and wastewater infrastructure systems are shown to be adequate, or steps necessary to bring them up to an acceptable level are identified.

Existing water infrastructure available to the Property includes a 12" water main within Wheeler Street extending into the existing parking lot and a 10" water main within the private Fawcett Street extension roadway located at the Residences at Fresh Pond. According to survey information and the City of Cambridge GIS mapping, the existing office building is connected to the 12" water main to the east via a domestic service connection and fire service connection of unknown sizes.

The Project is proposing to extend the Wheeler Street right-of way to connect to the Fawcett Street extension, and loop the existing 12" water main to connect to the existing 10" water main. In the

proposed condition, Buildings 1 and 2 will be serviced by the existing 12" water main within the Property via two (2) new 4" domestic service connections and two (2) new 8" fire service connections on the east side of the building. Building 3 will connect to a new section of 12" water main on the north side of the building via a new 4" domestic service connection and an 8" fire service connection.

The three (3) proposed domestic water supplies will all be provided by new 4" connections with a tapping sleeve and gate valve connecting to the 12" water main within Wheeler Street and the Property. The three (3) proposed fire protection water supplies will all be provided by new 8" connections with a tapping sleeve and gate valve to the 12" water main within Wheeler Street and the Property. The two (2) existing water connections to the existing office building will be capped and abandoned in accordance with the City of Cambridge requirements.

The proposed domestic water demand is anticipated to be approximately 86,600 gpd for all three (3) buildings. Per discussions with the Cambridge Water Department, there is sufficient capacity for the Project service connections for both fire and domestic services. As such, fire pump systems and domestic water booster pump systems are not anticipated to be required to supplement the building systems.

Further, two (2) additional connections to the existing 48" MWRA sewer main exist within the Property. The southernmost existing site connection directs sewer flows from an on-site, one-story ancillary building within the existing parking area. This sewer connection is of an unknown size and material and connects to the existing 48" MWRA sewer main via an existing, on-site sewer manhole. The northernmost existing site connection appears to accept sewer flows from west of the Property along the northern boundary. This sewer connection is an 18" PVC sewer which connects to the existing 48" MWRA sewer main via an existing, on-site sewer manhole.

In total, there are five (5) existing sewer services on the Property that connect directly to the existing 48" MWRA sewer main in four (4) locations, as described above.

The Project will generate approximately 78,750 gallons per day of wastewater. Each of the three (3) proposed buildings will have a separate 6" sewer connection on the east side of the building to the 48" MWRA sewer main. The Project proposes to connect by gravity to the 48" MWRA sewer main and to utilize the same connection locations as in the existing condition.

The two (2) existing sewer connections from the existing office building will be capped and abandoned in accordance with the City of Cambridge requirements. The existing 12" PVC connection to the southeast and the 18" PVC connection to the north of the Property will remain.

Snowmelt and ancillary runoff within the subsurface parking garage will be collected by floor drains and routed through oil/water separators into pump chambers where the flows will be pumped to the proposed 6" sewer services and ultimately discharged to the existing 48" MWRA sewer main.

(3) Buildings are designed to use natural resources and energy resources efficiently in construction, maintenance, and long-term operation of the building, including supporting mechanical systems that reduce the need for mechanical equipment generally and its location on the roof of a building

specifically. The buildings are sited on the lot to allow construction on the adjacent lots to do the same. Compliance with Leadership in Energy and Environmental Design (LEED) certification standards and other evolving environment efficiency standards is encouraged.

The Project will be designed to minimize any negative impact on the environment and its performance will be measured using the LEED standards. A description of the sustainable design approach for the Project is contained in the LEED Narrative and LEED Checklist submitted with this Application. Mechanical systems will be of high efficiency and insulated, minimizing impact on the water, electrical, and gas service.

Section 19.35: New construction should reinforce and enhance the complex urban aspects of Cambridge as it has developed historically.

The Project will provide residential activities along the public streetscape, which will contribute to the overall character of the neighborhood. This additional residential activity by the Project will enhance the diverse neighborhood and continue the tradition of a successful mix of uses in the City of Cambridge. By providing a complementary use to the existing residential, office, and retail uses that presently exist in the neighborhood, the urban aspects of the area will be strengthened and improved by the Project. The introduction of an additional residential units offers employees of the nearby office buildings a convenient option of a walking commute, while also giving surrounding retailers and services in the neighborhood additional foot traffic to further activate their retail uses. The Project will also create additional residential opportunities in close proximity to the public transportation offered by the Alewife MBTA Station.

Section 19.36: Expansion of the inventory of housing in the city is encouraged.

When completed, the Project will provide up to 526 new residential units, including approximately 100 affordable housing units, in an area of Cambridge that the City has targeted for future residential development. The Project provides a variety of unit types, from studios, one-bedroom, two-bedroom, and three-bedroom units.

As described further above, the units will be located and designed to improve the Wheeler Street streetscape by means of wall fenestration and balconies, and thus improve the relationship to the adjoining properties.

Section 19.37: Enhancement and expansion of open space amenities in the city should be incorporated into new development in the city.

The Project enhances and expands open space amenities in the neighborhood. A ground level courtyard directly adjacent to and facing Wheeler Street further strengthens the pedestrian experience. Vegetated courtyard spaces and a pool area will provide outdoor recreational areas for the residents with visual connection to and from the entry courtyard. Landscaping at the entrance court and along the front yard of the building further enhances Wheeler Street by providing a landscape buffer along the building while

creating an active pedestrian court along the street front and between the Building 1 and 2 main entrances. Furthermore, the pedestrian Mews between Building 1 and 2 will be an additional open space amenity for the neighborhood. The planting along the front entry court consisting of perennials and seasonally planted annuals are designed to provide seasonal color, while vines along the building face provide additional texture to create an inviting front entry sequence. The front entry and streetscape planting provides large shade trees along the public sidewalk to define the public realm while a series of flowering shrubs and perennials enliven this sunny corridor.

The landscape design for the development of 55 Wheeler seeks to enhance the pedestrian experience for both residents and the public through increased connectivity and beautifully landscaped public ways. Planning for a potential future pedestrian bridge connection to the Alewife MBTA station makes the Wheeler Street extension a significant public corridor. The goal is to provide enhanced street plantings that not only provide a pleasant pedestrian experience but also reduce the carbon footprint, cool the urban heat island effect, as well as increase floodwater resiliency through the use of species that draw up and transpire significant amounts of water. A public park at the terminus of Wheeler street provides a platform for small, medium, and large gatherings by providing flexible green space planted with water loving and pollinator species.

iv. Compliance with Criteria Specific to Special Permits

a) Alewife Overlay District – Section 20.93.2

1. Special Permit Criteria

In issuing a Special Permit for any relief within the Alewife Overlay Districts, the special permit granting authority is to be guided by the purposes of the Overlay Districts (Section 20.92), the objectives and design guidelines for development contained in the Concord-Alewife Plan, and the general standards for issuance of a special permit (Section 10.43). The Project is located within the Southeast Quadrangle of the Alewife Overlay District.

Purposes of the Alewife Overlay Districts:

(a) Encourage forms of development, mix of uses, and range of improvements that will facilitate and encourage walking, biking and transit use;

The Project will introduce a significant component of residential use in an area that is emerging as a mixed use neighborhood. The Project is a short walk to the Alewife MBTA Station and will include 616 bicycle parking spaces. The existing 6 acre site currently acts as a barrier between the quadrangle properties to the west and the shopping area to the east. The Project includes several east-west connections including an extension of Fawcett Street which will include both pedestrian sidewalks and dedicated bike lanes as well as a pedestrian Mews between Buildings 1 and 2 which will facilitate pedestrian and slow bike movements east to west. Currently the north-south Wheeler Street culminates in a mid-block dead end. The Project will extend Wheeler Street – including sidewalks and

dedicated bike lanes both to provide connection to Fawcett Street for full block circulation and to provide a link between Fresh Pond and the regional bikeway system by connecting to a potential future pedestrian bridge over the MBTA right of way.

(b) Preserve and enhance the capacity to store floodwater, recharge ground water and manage the collection and disposal of storm water in ways that add to the quality and visual appeal of the built environment;

The Project will meet all of the new, enhanced requirements for storm water management on the Property as well as flood water storage as described in Section 4 of this application.

(c) Minimize the negative impact of new development on the adjacent Cambridge Highlands residential neighborhood;

The Property is well-removed from the Highlands neighborhood, and, therefore, no negative impacts are anticipated.

(d) Integrate the entire area through the creation of new pedestrian paths, roadways, green spaces and bridges that will facilitate movement within the several Districts;

The Project will significantly enhance the integration of the existing Property with and provide connections to the surrounding area. The existing 6 acre Property currently acts as a barrier between the quadrangle properties to the west and the shopping area to the east. The Project includes several east-west connections including an extension of Fawcett Street for vehicles, cars and bicycles as well as a pedestrian Mews between Buildings 1 and 2 which will facilitate pedestrian and slow bike movements east to west. Currently the north-south Wheeler Street culminates in a mid-block dead end. The Project will extend Wheeler Street both to provide connection to Fawcett Street for full block circulation and to provide a link between Fresh Pond and the regional bikeway system by connecting to a potential future pedestrian bridge over the MBTA right of way.

(e) Introduce a significant component of residential living and support retail services to enhance the area's appeal for all persons who come to work, shop as well as live within the Districts;

The Project will create 526 new dwelling units which will create demand for the retail uses in the adjacent retail district, and provide a housing alternative to employees of office tenants in the immediate neighborhood who would prefer to walk to work, including, approximately 100 new affordable housing units.

(f) Create an identity and sense of place for all Alewife Districts that parallels the development of the historic urban centers that characterize much of Cambridge;

Replacing the existing office/commercial structure on the Property with three residential buildings containing 526 dwelling units will further advance the creation of a mixed-use district. The Project is consistent with the pattern of development that has occurred throughout other light industrial areas in the City over the past several decades. The creation of residences and the introduction of needed open

green space will also serve to create a new identity and sense of place consistent with other successful, mixed-use neighborhoods in Cambridge.

2. Consistency with the Goals for AOD4 in the Concord-Alewife Plan

The Project is consistent with the goals of the Concord-Alewife Plan for the AOD4, encouraging more transit oriented development, encouraging housing close to the Alewife MBTA Station, and improving bicycle and pedestrian access.

The buildings have been designed consistent with the Concord-Alewife Design Guidelines, providing interest and animation at the street edge. The buildings are set back from the property line varying distances, with varying façade lengths that breakdown the pedestrian scale and experience. Front yards that also vary in depth from the street further enhance the street edge.

Ground level units entered from the street activate a new street extension and placement of public amenity spaces like leasing offices, a reception area, seating, and bicycle storage activate the ground level to further enhance the experience along Wheeler Street and the Fawcett Street connector.

The Concord-Alewife goals and guidelines for the AOD4 include:

1. Break large blocks into smaller blocks, of size similar to those in surrounding Cambridge neighborhoods, to improve circulation and to be compatible with surrounding neighborhoods.

The Project redevelops an existing commercial site and turns it into a multi-family residential property, similar in scale to residential buildings found in the area, and will complement the surrounding commercial uses, keeping with the direction of development in the neighborhood of a vibrant mixed-use community. The buildings will activate Wheeler Street with more pedestrian oriented activities, promoting use of public transportation and the nearby bicycle trails and create a public green space that the area is in great need of. The buildings will breakdown the length of façade along Wheeler Street and varying materials and fenestration of the building's façade will integrate well with the scale of the surrounding neighborhood, which currently has a mix of medium and large scale multifamily buildings and large scale commercial and office buildings. The building's wall treatments and open outdoor spaces on the east and north sides of the building create a pleasant experience along Wheeler and the Fawcett Street connector and an active street edge of direct entry units that maintains a pedestrian friendly experience along the new Wheeler Street extension.

The Project includes several east-west connections including an extension of Fawcett Street which will include both pedestrian sidewalks and dedicated bike lanes as well as a pedestrian Mews between Buildings 1 and 2 which will facilitate pedestrian and slow bike movements east to west. Currently the north-south Wheeler Street culminates in a mid-block dead end. The Project will extend Wheeler Street – including sidewalks and dedicated bike lanes both to provide connection to Fawcett Street for full block circulation and to provide a link between Fresh Pond and the regional bikeway system by connecting to a potential future pedestrian bridge over the MBTA right of way.

2. Vary the design of individual buildings to create an architecturally diverse district.

The buildings incorporate varied setbacks along the east facing street edge and front yards, and to the north side of the building facing the public open space. The buildings will create interest by varying the massing, and the colors and fenestrations of the façade will be carefully considered based on adjacent uses and views, so as to reinforce the pedestrian experience and help the building integrate with its surroundings.

3. Street-level facades should include active uses such as frequent residential entrances, with setbacks for stoops and porches; neighborhood serving retail including shops, restaurants, cafes; services for the public or for commercial offices such as fitness centers, cafeterias, day care centers; community spaces such as exhibit or meeting spaces; and commercial lobbies and front entrances.

The Property and ground floor of the building have been designed to include open landscaped areas with benches, entrance lobbies, leasing offices, amenity lounges, bicycle parking, individual unit entrances to direct entry units, elevators and stairs to activate the street as much as possible. It also provides a combination of active and quiet outdoor spaces with a variety of planting, native and ornamental, that enhances the environment. The ground level parking is not visible from the street, with only the two vehicular entrances at either end of the Property visible from Wheeler and the Fawcett connector. All ground level vehicular parking is screened behind at-grade units and entrance lobbies at the perimeter wall fronting the street.

4. Encourage awnings/canopies to provide shelter and enliven ground-floor facades.

Transparent entry lobbies at the front of Building 1 and 2/3 will feature canopies that identify the main entrance of each building. Secondary entrances to bicycle storage areas will also be provided with canopies for resident shelter. Individual unit entries at the ground floor will be designed to facilitate engagement by future residents and include patios and stoops.

5. Design residential buildings with individual units and front doors facing street, including row-house units on the lower levels of multifamily residences. Create a pedestrian-friendly environment along Cambridgepark Drive.

The Project will provide direct entry townhouses and flats facing Wheeler Street, along both sides of the Mews between building 1 and 2, and facing the Fawcett Street connector and open space to the north, strengthening the pedestrian experience. The Project is not located proximate to CambridgePark Drive.

6. Encourage sustainable and green building design and site planning.

Energy efficiency and environmental sensitivity will be an integral feature of the Project, by employing Low Impact Development (LID) principles and practices into the overall stormwater management design, by incorporating sustainable building strategies to achieve a LEED Silver standard meeting the United States Green Building Council's LEED for Homes rating system, and by meeting the requirements of the stretch code.

7. Design Residential Buildings with individual units and front doors facing the street, including row house units on the lower levels of multifamily residences.

The Project will provide direct entry townhouses and flats facing Wheeler Street, along both sides of the Mews between building 1 and 2, strengthening the pedestrian experience.

8. Use low-impact-development principals in building and site design as a way to meet city, state, and federal stormwater requirements.

The Project employs LID and conventional stormwater management practices to control rates of stormwater runoff and to improve water quality. The Project includes 3 landscaped courtyards one of which faces and is open to Wheeler Street near the entry lobby of building 2 which function as green roofs, perimeter landscaping and a service road with porous surfacing to reduce the amount of impervious ground cover at the Property. The park at the north end of the Property contains a bioretention area and an underground stormwater detention area.

9. Improve existing streets to meet City standards, including streetscape improvements.

The Project will add to the existing street network by adding complete street extensions of Wheeler Street and Fawcett Street Extension. These streets will include new sidewalks, dedicated bike lanes, traffic calming and on street public parking. The Project will improve both the new and existing streetscape by providing at-grade front yard landscaping along the entire length of the building and its entry courtyard, and connect existing streets to meet City standards.

10. Strengthen bicycle and pedestrian links to adjacent areas. Provide links that strengthen physical and visual connections to open space resources.

The Project will strengthen pedestrian and bicycle links through the extension of Wheeler Street and the Fawcett Street Extension as well as the east-west Mews. This will provide opportunity for future links to the Alewife Brook Reservation by way of increased utilization. Bicycle storage areas and a repair area will be provided at the ground level of the building.

11. Screen service areas from Cambridgepark Drive.

Although the Project is not proximate to Cambridgepark Drive, the residential building will screen service areas from Wheeler Street. Entrance lobbies, direct entry units, and associated landscaping features have been placed along the street edge to keep building services from view. A loading dock to accommodate trash, move-in, and delivery service for Building 2 and 3 is accessed by a rear service road and is hidden from Wheeler Street.

12. Parking Below grade is preferred. If above grade parking is to be provided, design it so it is not visible from nearby residential neighborhoods, from public streets, or from pathways. Line above-grade structured parking with active uses (shops, cafes, lobbies) along important public ways; use parking structures to provide visual and acoustical screening.

The Project provides 384 parking spaces below grade and 42 parking spaces are also provided in the podium of Building 1. The parking is designed so it is not visible from the neighboring properties, from public streets, or from pathways. The podium level parking at Building 1 is fronted with an active lobby and direct entry units. Bicycle storage in Building 1 provides a visual and acoustical buffer to the neighbors at the south, with a variety of landscaping and architectural screening. In addition, a small surface lot containing twenty-two (22) spaces will be located to the north of the residential buildings. This lot will be off set from the roadway with a driveway entrance and will be screened with the addition of trees and other landscaping. This lot acts as a buffer between the public open space and the transformer station to the east. It is anticipated that this lot will be utilized primarily for visitor parking to the 55 Wheeler Street Project as well as at grade, easily accessible car sharing spaces for the quadrangle community.

13. Design and locate lighting and signage to support the district’s pedestrian-friendly quality.

The lighting will be designed to provide a safe and friendly quality to the district, will minimize light spilling onto adjacent properties, and will improve the street lighting along Wheeler Street. All building entrances and facades, and the landscaping in the building entry courtyard, will include lighting that will enhance the nighttime streetscape and create a pedestrian friendly environment.

b) Reduction of Required Parking – Section 6.35.1

The Project will provide a total of 448 spaces, or .85 spaces per dwelling unit, which is slightly less than the one parking space per dwelling unit required in the Zoning Ordinance. The Applicant is seeking a reduction in required parking to .81 to account for spaces that may be lost during design development or in the future.

The 55 Wheeler Street Project Transportation Impact Study (TIS) was certified on February 7, 2017 and included the following analyses and discussions on parking pursuant to Section 6.35.3.

Existing Parking Conditions on Site

According to the City’s 1990 parking inventory, 55 Wheeler Street was reported as having 271 employee parking spaces. Based on field observations, the parking lot has approximately 274 spaces available for employees.

The building and parking lot will be demolished as part of the Project, however per TIS Scoping Letter, a parking utilization study was conducted for the existing building. The parking utilization study was based on count data collected near the parking gate in October 2016 and the results are presented in Table 1. The lot reached its peak occupancy at 12:30 PM with 186 spaces occupied (68 percent occupied).

Table 1 Parking Occupancy for existing office use (Wednesday, October 5, 2016)

Time Period	Vehicles In	Vehicles Out	Occupied Spaces	% Occupied
7:00 – 7:30 AM	11	3	19	7%
7:30 – 8:00 AM	21	1	39	15%
8:00 – 8:30 AM	22	3	58	21%
8:30 – 9:00 AM	49	3	104	38%
9:00 – 9:30 AM	55	6	153	56%
9:30 – 10:00 AM	19	2	170	62%
10:00 – 10:30 AM	15	4	181	66%
10:30 – 11:00 AM	6	2	185	68%
11:00 – 11:30 AM	2	6	181	66%
11:30 – 12:00 PM	4	2	183	67%
12:00 – 12:30 PM	7	8	182	66%
12:30 – 1:00 PM	10	6	186	68%
1:00 – 1:30 PM	5	8	183	67%
1:30 – 2:00 PM	2	5	180	66%
2:00 – 2:30 PM	3	8	175	64%
2:30 – 3:00 PM	6	7	174	64%
3:00 – 3:30 PM	5	8	171	62%
3:30 – 4:00 PM	4	25	150	55%
4:00 – 4:30 PM	10	30	130	47%
4:30 – 5:00 PM	7	30	107	39%
5:00 – 5:30 PM	2	31	78	28%
5:30 – 6:00 PM	0	38	40	15%
6:00 – 6:30 PM	2	27	15	5%
6:30 – 7:00 PM	8	17	6	2%

Parking Analysis

As previously noted, the parking utilization study shows the existing parking facility as currently underutilized with a peak occupancy at 68 percent. The site is located within walking distance to the Alewife Train Station and several bus routes, which is an indicator of lower parking utilization rates due to higher numbers of car-free commuters.

As presented in the recent 605 Concord Avenue TIS (January 2016), the American Community Survey data for census tract 3546 for access to vehicles in rental properties suggests that approximately 21 percent of residential units do not have access to any vehicles. The remaining 79 percent of the units in the census tract have access to a minimum of one vehicles. The average number of vehicles per unit is calculated at less than 1 space per unit, for this census tract.

Observations at 29-31 Wheeler Street in November 2011 yielded night-time parking demand of approximately 86 to 90 percent with a parking ratio of 1 space per unit. Similar overnight occupancy was observed at the 87 New Street development and at 30 Cambridgepark Drive. Late morning to midday observations at these locations yield a demand of 44 to 51 percent. Translating utilization rates that were observed at the above referenced sites to the 55 Wheeler Street development, results in estimated parking demand between 452 and 473 spaces for night-time occupancy, and between 231 and 268 spaces for a daytime occupancy.

The Project is proposing to supply a total of 448 vehicle parking spaces for 526 residential units, at a parking ratio of approximately 0.85 spaces per unit. This includes 426 spaces below the proposed buildings that will be reserved resident parking available for a monthly fee. An additional 22 spaces in a small surface lot to the north of the residential buildings will be utilized primarily for visitor parking and for at grade, easily accessible car sharing spaces for the quadrangle community. Short-term loading and visitors may also be accommodated by on-street parking, no visitor parking is proposed in the garage. It is anticipated that 15 additional on-street parking spaces will be constructed as part of the construction of the Wheeler Street Extension and will be conveyed to the City.

Access to Alternative Modes

Due to the location of the site, the majority of residents (47 percent) will likely use public transportation as their main mode of transportation. Figures 1.d.1 and 1.d.2 (included in Section 7 of this application) illustrate available public and private transit connections within a walking distance to the Site. Bike and Car Sharing services are illustrated in Figure 1.d.3.

Parking for 616 bicycles will be provided primarily at grade and in the below grade garage. In addition, the Project is in close proximity to the Alewife MBTA Station, which is less than a half a mile from the Project.

A transportation coordinator will be available to residents on-site for parking and transportation information.

On-Street Parking / Curb Use

Figure 1.c.1 presents existing on-street parking regulations in the area. On-street parking in the vicinity of the site is prohibited on the east side of Wheeler Street by No Parking or No Stopping regulations. On one portion of the west side of Wheeler Street, Resident Permit and 2 Hour Parking is permitted.

Transportation Demand Management

The Applicant will support a program of transportation demand management (TDM) actions to reduce automobile trips generated by the Project. The goal of the Project's TDM plan is to reduce the use of

single occupant vehicles (SOVs) by encouraging carpooling and vanpooling, bicycle commuting and walking, and increased use of the area’s public transportation system by residents.

The Applicant will consider the following TDM programs as part of the proposed Project to encourage residents to use alternatives to SOV travel:

- Make available no fewer than 1 carshare parking spaces for a vehicle-sharing company.
- Encourage car/vanpooling in coordination with MassRIDES, Alewife TMA or other private ride-matching service provider.
- Provide air pumps and other bike tools, such as a “fix-it” stand in the bicycle storage areas.
- Join the Alewife Transportation Management Association (TMA).
- Charge parking separately from the residential rent.
- Designate a transportation coordinator (TC) for the site to manage the TDM program.
- Post information in a prominent location in the building and on the building’s website, social media and property newsletters promoting the use of transportation options and service information.

c) Increase in Width of Curb Cut for Parking Garage Entrance and Building Servicing

The Project will include a curb cut along the northerly side of the proposed buildings that will provide access to (a) the underground parking garage and (b) the at-grade building service spaces situated at the rear of the building along its westerly boundary. The curb cut, which will measure approximately forty-three (43) linear feet, exceeds the limitations of Sections 6.43.5(b) of the Ordinance and will combine access off of the newly constructed and dedicated Fawcett Street extension for two separate uses that would otherwise be entitled, as-of-right, to their own separate curb cuts. By combining access to the two amenities into a single curb cut, the Applicant will be facilitating traffic and safety, by limiting the number of locations along the street line of Fawcett Street where turning and entering conflicts could occur.

d) Flood Plain Overlay Special Permit

Section 20.73 provides, among other things, that “no earth or other materials shall be dumped, filled, excavated, transferred or otherwise altered in the Flood Plain Overlay District” without the Planning Board issuing a Special Permit. As shown on Volume II, Page 59 of this Application, a very small portion of the Site, measuring approximately 14,540 square feet is located in Flood Zone AE as depicted on the FEMA Flood Insurance Rate Map Number 25017C0419E, dated June 4, 2010, and has an elevation of 18.46 Cambridge City Base. This area of the Site will be maintained as Publicly Beneficial Open Space that will be open for recreational purposes to residents of the building and members of the general public and no structures will be constructed therein. Currently this portion of the Property is covered by a combination of bituminous concrete, hard-packed dirt, and a very small grass area. The proposed redevelopment of this area to inviting, green open space will not result in a change in the base elevation of the same. Pursuant to Section 20.74, we have included with this Application a certification from Brian

K. Fairbanks, P.E. of WSP USA certifying that the proposed modifications being made to the above-referenced area will not result in any increase in the flood levels during the occurrence of the 100-year flood and that the changes to this area will not require the installation of any flood water retention systems on the Site. Additionally, in Volume II of this Application we have included detailed landscape plans for the area showing the proposed final condition of this area. The Applicant intends to file a Notice of Intent with the City of Cambridge Conservation Commission, seeking an Order of Conditions to undertake the landscaping work set forth in this Application.

4. INFRASTRUCTURE NARRATIVE

4. INFRASTRUCTURE NARRATIVE

i. Stormwater Management Design

The existing Property is developed and predominantly covered by impervious surfaces consisting of an existing office building and paved parking areas with generally flat topography. The Property also contains two ancillary buildings. Runoff from the existing Property is captured by existing catch basins in the parking areas and conveyed to the existing 4'x8' City of Cambridge drainage culvert. Runoff from the existing roof areas are conveyed to the drainage culvert by existing roof drain services. The 4'x8' drainage culvert flows northward on Wheeler Street, through the existing Property parking lot to a bending weir structure which directs runoff through a box culvert to an outfall at the Alewife Reservation Constructed Wetland.

The Project provides a new stormwater management system that includes water quality and quantity controls, and will result in a reduction in peak runoff rates. The proposed Property generally maintains the existing drainage patterns, discharging stormwater runoff to the 4'x8' drain culvert.

Water quality units will provide treatment of runoff prior to discharging into the municipal system. Precast concrete tanks have been designed to provide stormwater detention to reduce the peak rates of runoff. The design includes Best Management Practices (BMPs) for maintaining stormwater runoff quality both during and after construction, and is designed to protect downstream and underlying receiving waters from stormwater related impacts.

The stormwater management system designed for the Property has been prepared in accordance with applicable local, state, and federal regulations, including the City of Cambridge Department of Public Works (DPW) Stormwater Management Guidelines and Massachusetts Department of Environmental Protection (DEP) Stormwater Standards. Per the Stormwater Management Guidelines, the Cambridge DPW requires Projects to provide storage for the difference between the 2-year, 24-hour pre-construction runoff hydrograph and the post-construction 25-year, 24-hour runoff hydrograph. This storage volume will be provided via on-site detention. The Project is designed to treat a water quality volume of one inch (1") of runoff over the proposed impervious area.

The Project will provide a substantial improvement in stormwater management on-site by enhancing the quality of stormwater discharge and reducing the peak rates of runoff from the Property to alleviate capacity issues in the municipal system.

ii. Water Infrastructure Design

Existing water infrastructure available to the Property includes a 12" water main within Wheeler Street extending into the existing parking lot and a 10" water main within the private Fawcett Street extension roadway located at the Residences at Fresh Pond. According to survey information and the City of Cambridge GIS mapping, the existing office building is connected to the 12" water main to the east via a domestic service connection and fire service connection of unknown sizes.

The Project is proposing to extend the Wheeler Street right-of way to connect to the Fawcett Street extension, and loop the existing 12" water main to connect to the existing 10" water main. In the proposed condition, Buildings 1 and 2 will be serviced by the existing 12" water main within the Property via two (2) new 4" domestic service connections and two (2) new 8" fire service connections on the east side of the building. Building 3 will connect to a new section of 12" water main on the north side of the building via a new 4" domestic service connection and an 8" fire service connection.

The three (3) proposed domestic water supplies will all be provided by new 4" connections with a tapping sleeve and gate valve connecting to the 12" water main within Wheeler Street and the Property. The three (3) proposed fire protection water supplies will all be provided by new 8" connections with a tapping sleeve and gate valve to the 12" water main within Wheeler Street and the Property. The two (2) existing water connections to the existing office building will be capped and abandoned in accordance with the City of Cambridge requirements.

The proposed domestic water demand is anticipated to be approximately 86,600 gpd for all three (3) buildings. Per discussions with the Cambridge Water Department, there is sufficient capacity for the Project service connections for both fire and domestic services. As such, fire pump systems and domestic water booster pump systems are not anticipated to be required to supplement the building systems.

iii. Wastewater Infrastructure Design

Further, two (2) additional connections to the existing 48" MWRA sewer main exist within the Property. The southernmost existing site connection directs sewer flows from an on-site, one-story ancillary building within the existing parking area. This sewer connection is of an unknown size and material and connects to the existing 48" MWRA sewer main via an existing, on-site sewer manhole. The northernmost existing site connection appears to accept sewer flows from west of the Property along the northern boundary. This sewer connection is an 18" PVC sewer which connects to the existing 48" MWRA sewer main via an existing, on-site sewer manhole.

In total, there are five (5) existing sewer services on the Property that connect directly to the existing 48" MWRA sewer main in four (4) locations, as described above.

The Project will generate approximately 78,750 gallons per day of wastewater. Each of the three (3) proposed buildings will have a separate 6" sewer connection on the east side of the building to the 48" MWRA sewer main. The Project proposes to connect by gravity to the 48" MWRA sewer main and to utilize the same connection locations as in the existing condition.

The two (2) existing sewer connections from the existing office building will be capped and abandoned in accordance with the City of Cambridge requirements. The existing 12" PVC connection to the southeast and the 18" PVC connection to the north of the Property will remain. Snowmelt and ancillary runoff within the subsurface parking garage will be collected by floor drains and routed through oil/water separators into pump chambers where the flows will be pumped to the proposed 6" sewer services and ultimately discharged to the existing 48" MWRA sewer main.

5. COMMUNITY OUTREACH

5. COMMUNITY OUTREACH

The Applicant has engaged in significant public outreach over the past year. The team has held two large public meetings as well as many smaller meetings with abutters and neighborhood groups, as well as meetings with City department officials.

The first public meeting was held on March 1, 2017 at Temple Beth El and the second was held on May 10, 2017 at the Tobin School. The team met with the City of Cambridge Transit Advisory Committee on May 3, 2017. The team also presented at a regular meeting of the Fresh Pond Residents Alliance (FPRA) on May 24, 2017.

The team has held several meetings with residents of the adjacent Reservoir Lofts Condominiums (Wheeler Street) to discuss detailed design items including service and landscaping between the Projects. These meetings were attended by members of the City Council. The team has also met with the owners of the Atmark Residences (Fawcett Street) to discuss details including service and integrating open spaces.

The Project team has also met with City staff multiple times to discuss the design, sustainability, and transportation, as well as the design of the new sections of Wheeler Street and Fawcett Street Extension that will be turned over to the City. The Applicant has also regularly attended Envision Cambridge and Alewife Working Group meetings beginning in the spring of 2016.

The Applicant has created a website at www.55wheelerst.com where presentations and other materials are posted. This website address has been socialized at the Project's public meetings.

6. TRANSPORTATION SUMMARY/ PLANNING BOARD CRITERIA



Memorandum

To: 55 Wheeler Street Project Team

Date: June 14, 2017

Project #: 13651.00

From: VHB, Inc.

Re: Special Permit Application
Transportation Summary

The 55 Wheeler Street Project Transportation Impact Study (TIS) was certified on February 7, 2017 and finds that the Project will not have substantial adverse impacts on City traffic within the study area. The TIS has been evaluated within the context of the Planning Board Criteria to identify the transportation impacts. The Planning Board Criteria considers the Project's vehicular trip generation, changes in level of service at identified signalized intersections, increased volume of trips on residential streets, increased length of vehicle queues at identified signalized intersections and lack of sufficient pedestrian and bicycle facilities.

A discussion of the Criteria set forth by the Planning Board is presented in the final section of the TIS for the Project.

The following summarizes the impacts to the transportation network as a result of the proposed 55-Wheeler Street Project.

Criterion A – Project Vehicle Trip Generation:

The Project is not expected to exceed the Planning Board criteria for daily, morning peak and evening peak Project vehicle trip generation under the Build program.

Criterion B – Change in level of service at identified intersections:

The Project Build Condition is not expected to exceed the vehicular level of service criteria.

Criterion C – Increased volume of trips on residential streets:

The Project-induced traffic volume on one Roadway segment, Fawcett Street between Connecting Road and Concord Avenue, is expected to exceed the residential street volume increase criteria. The Project is expected to add 58 and 61 total two-way vehicle trips during the morning and evening peak hour, respectively. The PTDM threshold is 45 vehicle trips.

Criterion D – Increase of length of vehicle queues at identified signalized intersections:

The Project is not expected to exceed the Planning Board criteria for increase of length of vehicle queues at signalized intersections.

Criterion E (part 1) – Pedestrian Delay:

The Existing Condition Pedestrian Level of Service (PLOS) analysis indicates that four (4) of the crossings at study area signalized intersections operate at a PLOS of E during the morning and evening peak hour. The analysis also indicated that four (4) of the crossings at unsignalized intersections operate at a PLOS F during

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the morning and evening peak hour. Since the Project is not improving these crossings to a PLOS D, then it is considered a criteria exceedance. It is important to note that the Project is not increasing the pedestrian delay as PLOS is a function of signal timings.

Criterion E – Pedestrian and Bicycle Facilities:

All adjacent roadways to the Project provide existing sidewalks, however neither Wheeler Street nor Fawcett Street currently provide bicycle facilities and therefore both are criteria exceedances.

The Proponent has committed to complete pedestrian and bicycle connections within the site area, including provisions of wide sidewalks and bike lanes on Wheeler Street extension adjacent to project site. The project will also designate a portion of land south of the rail road tracks for the future pedestrian bridge landing that would provide a link between the neighborhood and Alewife Station. To mitigate the potential transportation impacts resulting from these minimal exceedances, the Proponent is committed to working with the City to provide a comprehensive Transportation Demand Management (TDM) Plan. The goal of the Project’s TDM plan is to reduce the use of single occupancy vehicles (SOVs) by encouraging carpooling, vanpooling, bicycling, walking and increased use of the area’s public transportation system by residents.

A detailed review of each criteria is presented in the TIS document and also provided below:

Planning Board Special Permit Criteria Details

Criterion A – Project Vehicle Trip Generation

Table A-1 presents the Project vehicle trip generation criterion. Project vehicle trip generation is based on ITE trip rates, adjusted for local mode split and vehicle occupancy rates as discussed previously.

Table A-1 Project Vehicle Trip Generation

Time Period	Criteria (trips)	Build	Exceeds Criteria?
Weekday Daily	2,000	1,477	No
Weekday Morning Peak Hour	240	40	No
Weekday Evening Peak Hour	240	63	No

The Project is not expected to exceed the Planning Board Criteria for daily, morning peak, and evening peak Project vehicle trip generation under the Build program.

Criterion B – Vehicle LOS

The criteria for a Project’s impact to traffic operations at signalized intersections are summarized in Table B-1 below. These criteria are evaluated for each signalized study-area intersection and presented in Table B-2.

Table B-1 CRITERION - Vehicular Level of Service

Existing	With Project
VLOS A	VLOS C
VLOS B, C	VLOS D
VLOS D	VLOS D or 7% roadway volume increase
VLOS E	7% roadway volume increase
VLOS F	5% roadway volume increase

Table B-2 Vehicular Level of Service

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/ Blanchard Road/ Griswold Street	F	F	-0.9%	No	F	F	-1.4%	No
Concord Avenue/ Spinelli Place	F	F	-1.1%	No	F	F	-2.2%	No
Concord Avenue/ Smith Place	F	F	-1.1%	No	F	F	-2.1%	No
Concord Avenue/ Moulton Street/ Neville Manor	B	B	-1.1%	No	C	C	-2.1%	No
Concord Avenue/ Fawcett Street	E	F	1.7%	No	C	C	1.6%	No
Concord Avenue/ Wheeler Street	E	F	1.8%	No	E	E	3.7%	No
Site Driveway on Wheeler Street	-	-	-23.7%	No	-	-	-7.6%	No
Ped Crossing at Concord Avenue	A	A	1.4%	No	A	A	1.1%	No
Ped Crossing Between Rotaries	A	A	1.5%	No	C	D	2.4%	No

Intersection	Morning Peak Hour				Evening Peak Hour			
	Existing Condition	Build Condition	Traffic Increase	Exceeds Criterion	Existing Condition	Build Condition	Traffic Increase	Exceeds Criterion
Fawcett Street/ Connecting Roadway	B	B	30.5%	No	B	B	40.7%	No
Alewife Brook Parkway at Terminal Road	B	B	0.2%	No	C	C	0.5%	No
Fresh Pond Rotary	F	F	1.5%	No	F	F	2.6%	No
Sozio Rotary	F	F	1.4%	No	F	F	2.6%	No

Criterion C – Traffic on Residential Streets

This criterion considers the magnitude of Project vehicle trip generation during any peak hour that may reasonably be expected to arrive and/or depart by traveling on a residential street. The criteria, based on a Project-induced traffic volume increase on any two-block residential street segment in the study area, are summarized in Table C-1.

Table C-1 CRITERION – Traffic on Residential Streets

Parameter 1: Amount of Residential ¹	Parameter 2: Current Peak Hour Street Volume (two-way vehicles)		
	< 150 VPH	150-400 VPH	> 400 VPH
1/2 or more	20 VPH ²	30 VPH ²	40 VPH ²
>1/3 but <1/2	30 VPH ²	45 VPH ²	60 VPH ²
1/3 or less	No Max.	No Max.	No Max

1 - Amount of residential for a two block segment as determined by first floor frontage

2 - Additional Project vehicle trip generation in vehicles per lane, both directions

VPH - Vehicles per hour

15 of the 23 roadway segments in the study area identified as street segments which have more than 1/3 of residential frontage, and are therefore evaluated against the traffic volume criteria. The results are presented in Table C-2.

Table C-2 Traffic on Residential Streets

Roadway	Segment	Amount of Residential	Morning Peak Hour			Evening Peak Hour		
			Existing ¹	Increase ²	Exceeds Criteria?	Existing ¹	Increase ²	Exceeds Criteria?
Blanchard Road	Colby St to Concord Ave	1/2 or more	955	-8	No	1160	-14	No
	Mannix Cir to Concord Ave	>1/3 but <1/2	940	-3	No	1010	-4	No
Griswold Street	Sunset Rd to Concord Ave	1/2 or more	40	0	No	30	-1	No
Concord Avenue	Blanchard Rd to Spinelli Pl	1/3 or less	1630	-19	No	1270	-29	No
	Spinelli Pl to Smith Pl	1/3 or less	1610	-19	No	1248	-29	No
	Smith Pl to Moulton St	1/2 or more	1550	-19	No	1185	-29	No
	Moulton St to Fawcett St	1/3 or less	1640	-19	No	1303	-29	No
	Fawcett St to Wheeler St	1/3 or less	1800	25	No	1415	16	No
	Between Fresh Pond and Sozio Rotaries	1/3 or less	3580	53	No	3040	74	No
Spinelli Place	Parking Lot to Concord Ave	1/3 or less	190	0	No	120	0	No
Smith Place	Adley Rd to Concord Ave	1/3 or less	270	0	No	285	0	No
Moulton Street	Wilson St to Concord Ave	1/3 or less	160	0	No	175	0	No
Fawcett Street	Connecting Rd to Concord Ave	>1/3 but <1/2	290	58	Yes	195	61	Yes
Wheeler Street	Site Drive to Concord Ave	1/3 or less	225	-18	No	270	2	No
Alewife Brook Parkway	Terminal Rd to Fresh Pond Rotary	1/3 or less	2910	8	No	2775	18	No
Fresh Pond Parkway	Sozio Rotary to Vassal Ln	1/3 or less	2445	38	No	2065	49	No

Note: Volume interpolated from nearest data available in study area

- 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

Criterion D – Lane Queue

The criteria for a project’s impact to queues at signalized intersections are summarized in Table D-1 below. These criteria are evaluated for each lane group at study-area signalized intersections and presented in Table D-2.

Table D-1 CRITERION – Vehicular Queues at Signalized Intersections

Existing	With Project
Under 15 vehicles	Under 15 vehicles, or 15+ vehicles with an increase of 6 vehicles
15 or more vehicles	Increase of 6 vehicles

Table D-2 Length of Vehicular Queues at Signalized Intersections

Intersection	Lane	Morning Peak Hour			Evening Peak Hour		
		2016 Existing	2016 Build	Exceeds Criteria?	2016 Existing	2016 Build	Exceeds Criteria?
Blanchard Rd St at Concord Ave	Blanchard NB Left/Thru	8	8	No	15	15	No
	Blanchard NB Right	0	0	No	0	0	No
	Concord EB Left/Thru/Right	15	14	No	10	10	No
	Concord WB Left	6	6	No	7	7	No
	Concord WB Thru	8	8	No	12	11	No
	Concord WB Right	5	5	No	10	10	No
Neville Pl/Moulton St at Concord Ave	Blanchard SB Left/Thru/Right	18	18	No	19	19	No
	Neville NB Left/Thru/Right	1	1	No	2	2	No
	Concord EB Left/Thru/Right	3	3	No	6	6	No
	Concord WB Left/Thru/Right	6	6	No	15	13	No
	Moulton SB Left/Right	1	1	No	6	6	No

Ped Crossing at Concord Ave	Concord Ave EB Thru	4	5	No	4	3	No
	Concord Ave WB Thru	8	11	No	7	7	No
Ped Crossing bet Rotaries	Concord Ave EB Thru	17	22	No	22	23	No
	Concord Ave WB Thru	13	13	No	6	6	No
Terminal Rd/Fresh Pond Mall at Alewife Brook Pkwy	Alewife NB Thru	13	13	No	10	10	No
	Alewife NB Right	2	2	No	2	2	No
	Terminal EB Right	2	2	No	4	4	No
	Fresh Pond Mall WB Right	2	2	No	7	7	No
	Alewife SB Thru	20	19	No	21	22	No
	Alewife SB Right	4	4	No	4	4	No

Criterion E – Pedestrian and Bicycle Facilities

Criteria E-1: Pedestrian Delay

Pedestrian delay is a measure of the pedestrian crossing delay on a crosswalk during the peak hour as determined by the pedestrian level of service analysis in the HCM 2000.

Table E-1 presents the indicators for this criterion. Tables E-2 present the evaluation of PLOS criteria for each crosswalk at study area intersections under existing and full build conditions.

Existing	With Project
PLOS A	PLOS A
PLOS B	PLOS B
PLOS C	PLOS C
PLOS D	PLOS D or increase of 3 seconds
PLOS E, F	PLOS D

Table E-2 Signalized Intersection PLOS Summary

Intersection	Crosswalk	Morning Peak Hour			Evening Peak Hour		
		Existing	Build	Exceeds Criteria?	Existing	Build	Exceeds Criteria?
Concord Avenue at Blanchard Road/Griswold Street	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
Concord Avenue at Moulton Street/Neville Manor	East	C	C	No	C	C	No
	North	C	C	No	C	C	No
	South	C	C	No	C	C	No
Concord Ave between Wheeler St and Fawcett St	East	C	C	No	C	C	No
Midblock Crosswalk between Fresh Pond rotary and Sozio Rotary	East	C	C	No	C	C	No
Alewife Brook Parkway at Terminal Road	West	D	D	No	D	D	No
	North	D	D	No	D	D	No
Concord Ave at Spinelli Place	East	F	F	Yes	F	F	Yes
	North	A	A	No	A	A	No
Concord Ave at Smith Place	West	F	F	Yes	F	F	Yes
	North	B	B	No	B	B	No
Concord Ave at Fawcett Street	West	F	F	Yes	F	F	Yes
	North	C	C	No	B	B	No
Concord Ave at Wheeler Street	West	F	F	Yes	F	F	Yes
	North	C	C	No	C	C	No
Site Driveway at Wheeler St	North	A	A	No	A	A	No
Fawcett St at Connecting Road	East	A	A	No	A	A	No
	South	A	B	Yes	A	B	Yes

Criteria E-2 & E-3: Safe Pedestrian and Bicycle Facilities

Safe pedestrian and bicycle facilities are off-road or non-street bicycle lanes and sidewalks that are along a publicly-accessible street.

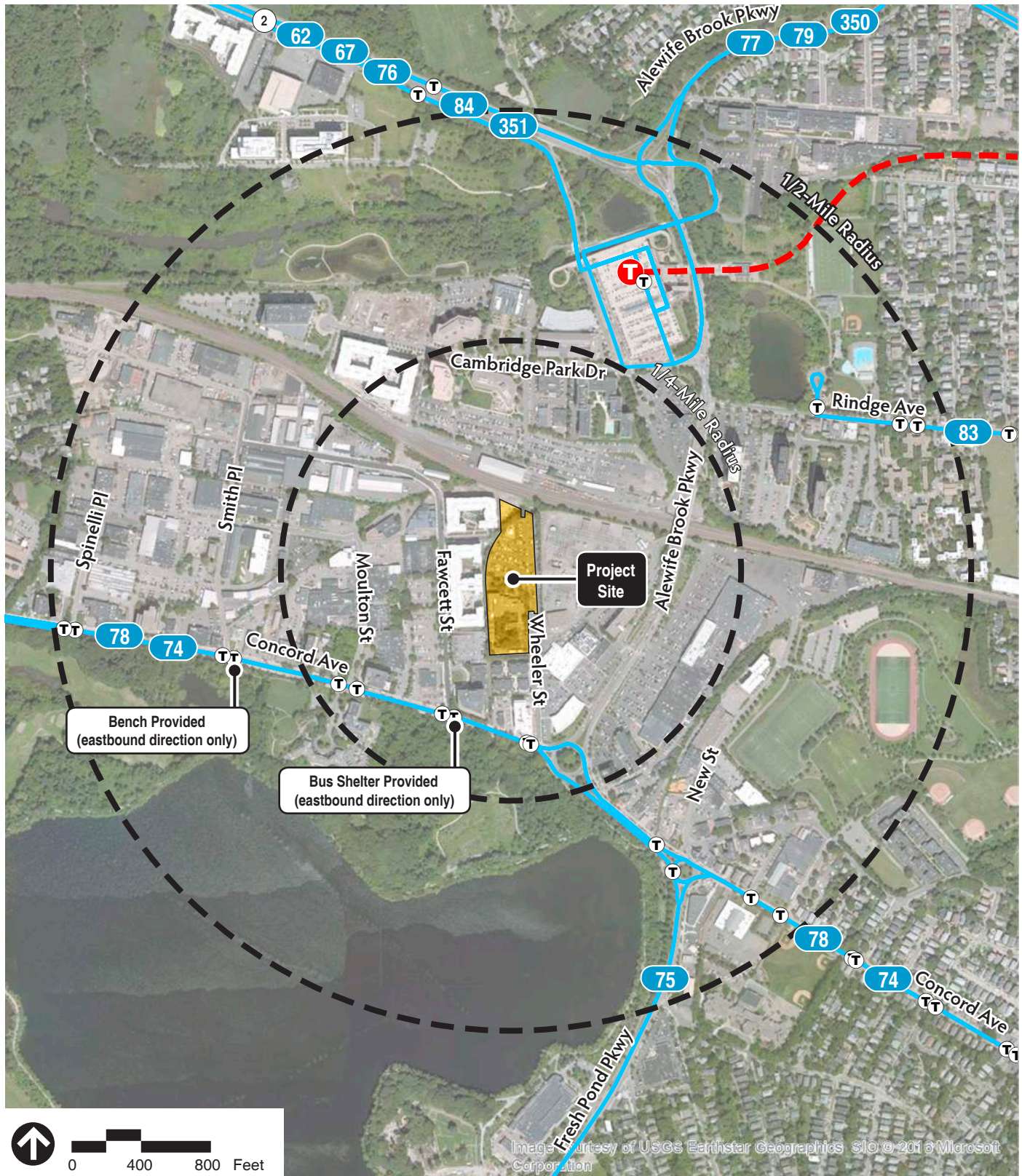
Table E-3 presents the indicators for this criterion. The evaluation of sidewalks or walkways and bicycle facilities are displayed.

Table E-3 Pedestrian and Bicycle Facilities

Adjacent Street	Link (between)	Sidewalk or Walkway Present	Exceeds Criteria?	Bicycle Facilities or Right of Ways Present	Exceeds Criteria?
Wheeler Street	Site Driveway and Concord Avenue	Yes	No	No	Yes
Concord Ave	Fawcett Street and Wheeler Street	Yes	No	Yes	No
Fawcett Street	Concord Avenue and Connector Road	Yes	No	No	Yes

7. PARKING REDUCTION ANALYSIS

FIGURES



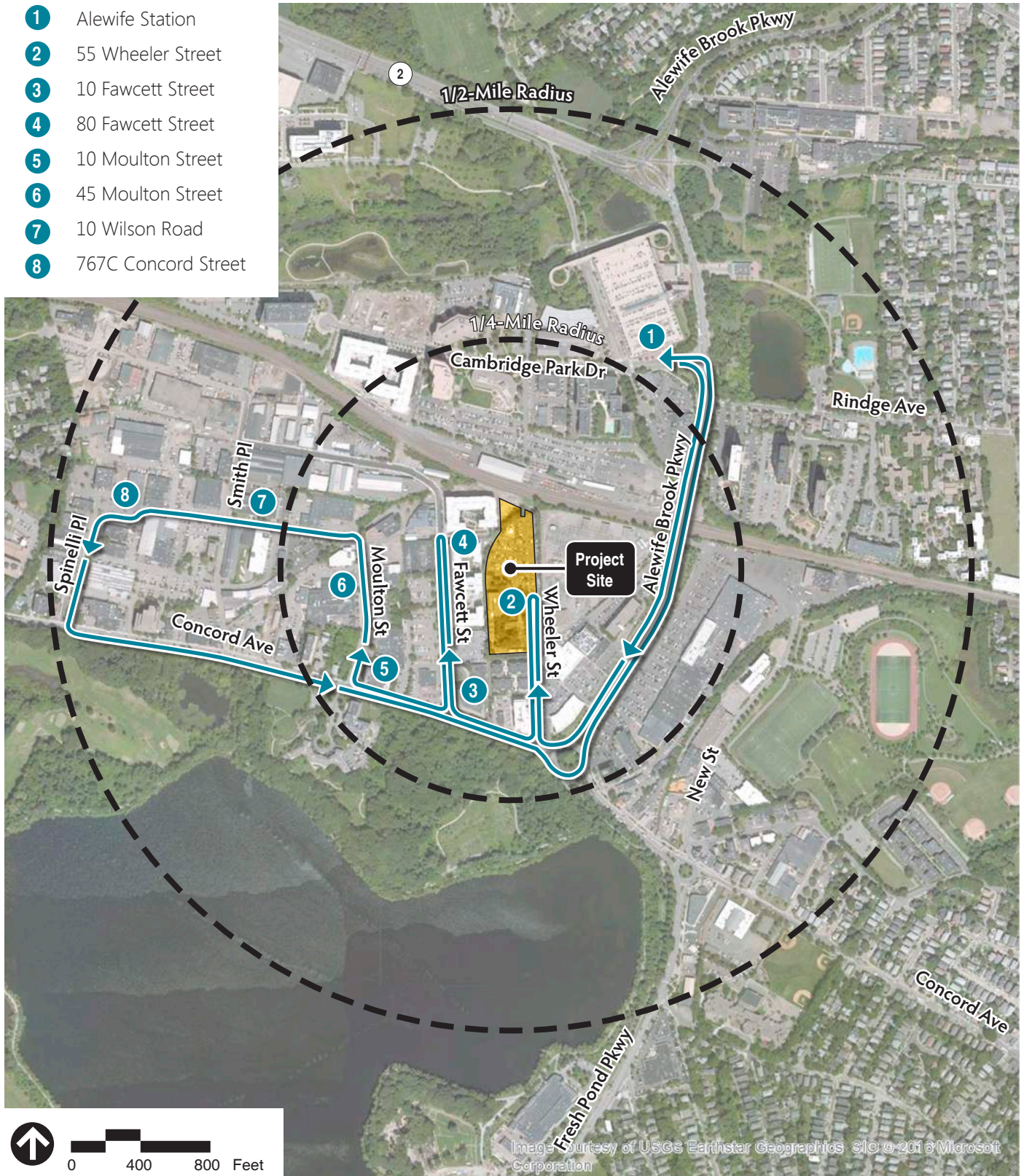
Source: Bing Aerial, MBTA



Figure 1.d.1
Public Transit

**55 Wheeler Street Project
Cambridge, Massachusetts**

- 1 Alewife Station
- 2 55 Wheeler Street
- 3 10 Fawcett Street
- 4 80 Fawcett Street
- 5 10 Moulton Street
- 6 45 Moulton Street
- 7 10 Wilson Road
- 8 767C Concord Street

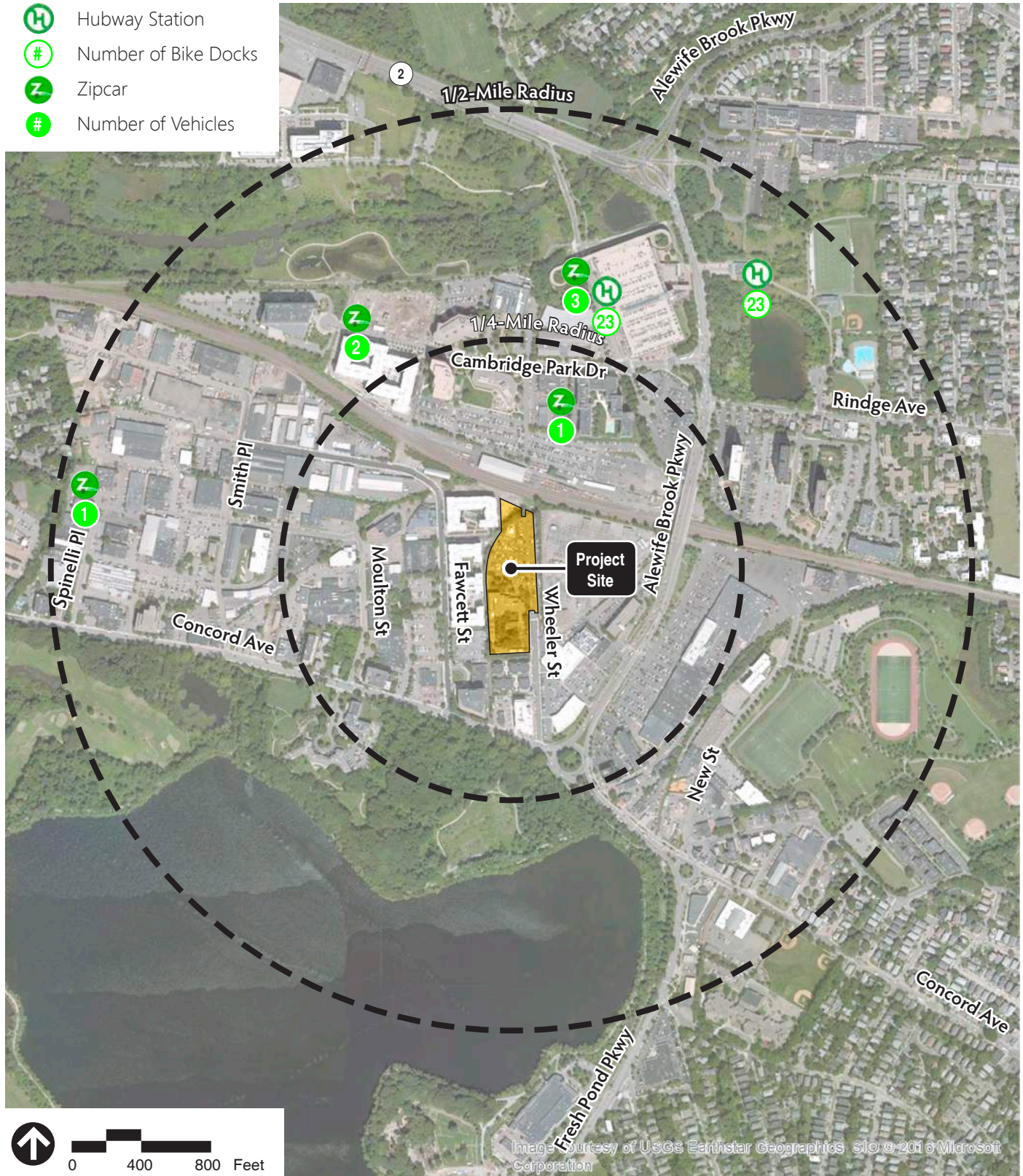


Source: Bing Aerial, Alewifetma.org



Figure 1.d.2
Private Transit Services
(Alewife TMA Shuttle Bus Route)

**55 Wheeler Street Project
Cambridge, Massachusetts**

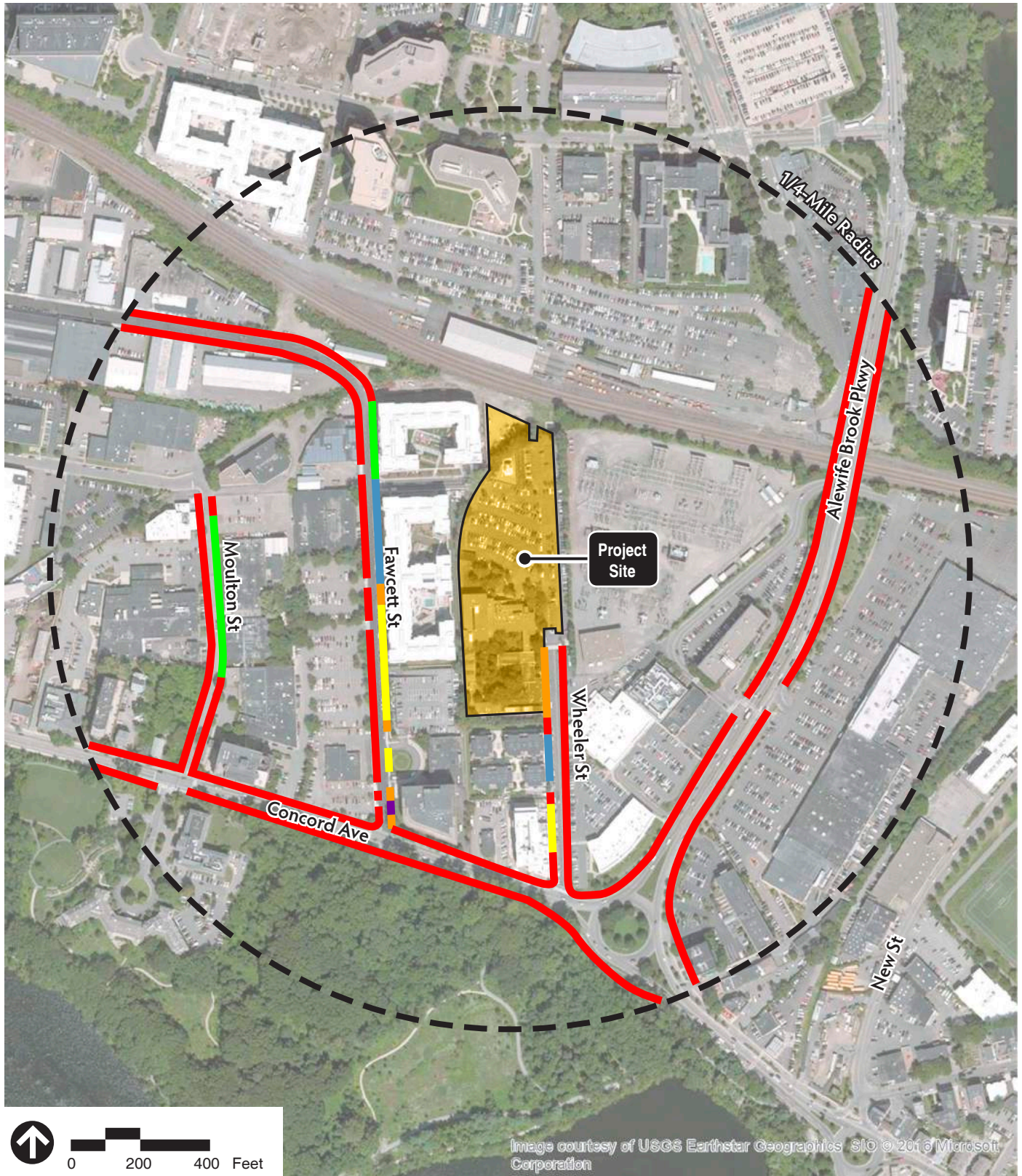


Source: Bing Aerial, Alewifetma.org



Figure 1.d.3
Bike and Car Sharing Services

**55 Wheeler Street Project
Cambridge, Massachusetts**



Source: Bing Aerial

- █ 2-Hour Parking
- █ Cambridge Resident Permit Parking
- █ No Parking
- █ Handicapped Parking Space
- █ Unregulated Parking
- █ No Stopping



Figure 1.c.1
Summary of On-Street Parking Regulations

**55 Wheeler Street Project
Cambridge, Massachusetts**

8. FLOOD PLAIN CERTIFICATION



June 28, 2017

Planning Board
City of Cambridge
City Hall Annex
344 Broadway
Cambridge, MA 02139

To whom it may concern:

This letter has been prepared on behalf of 55-9 Wheels Owner, LLC for the proposed redevelopment of 55 Wheeler Street in Cambridge, MA (the "Property") to certify that the improvements proposed as part of the project do not result in an increase in flood levels during the occurrence of the 100-year flood, in accordance with section 20.74 of the City of Cambridge Zoning Ordinance.

The Property is located within Zone AE and Zone X (shaded) as shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Middlesex County, Massachusetts, Panel 419 of 646, Community Panel Number 2501860419E, Effective Date June 4, 2010. The base flood elevation is calculated using the base flood elevation of 6.8 (NAVD88) for cross section H of the Alewife Brook (Little River), which translates to elevation 18.46 Cambridge City Base (CCB).

A small portion of land at the northern end of the Property is within Zone AE with the associated base flood elevation of 18.46 CCB. Under existing conditions, this portion of land is currently comprised of bituminous concrete pavement. Granite curbing serves as the edge of pavement and also the southern limit of the Zone AE, as the base flood elevation is contained within the curb reveal. The curbing and pavement are currently in poor condition. The area is generally flat, sloping gently to the northern property line. This existing pavement area is drained by two existing catch basins.

As part of the proposed 55 Wheeler Street redevelopment project, the small portion of land within Zone AE will be altered to become part of a newly proposed park area. The existing paved surface will be removed and replaced with landscaping and plantings. No significant structures or amenities are proposed within the area that will alter the base flood elevation or existing flood storage capacity. The project currently plans to match existing grades within the park and retain the current drainage patterns, while creating a new landscaped open space. Trees and other plantings will be added to the area and coordinated with the City of Cambridge.

Kind regards,

Brian K. Fairbanks, P.E.
Senior Project Manager | Civil

cc: Westbrook Partners, Redgate, Goulston & Storrs, DiMella Shaffer



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wsp.com

9. SUSTAINABILITY NARRATIVE



Community-Based Sustainable Development

15 Court Square, Suite 420
Boston, MA 02108

Article 22 Permit Issue Compliance

55 Wheeler Street

Cambridge, MA

I. Project Description

The 55 Wheeler Street project complies with the Special Permit application requirements as defined in Article 22: Sustainable Design and Development ordinance in the City of Cambridge. The project will be designed under the guidelines of U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) for Building Design and Construction (BD+C): Multifamily Midrise (MR) Version 4 (V4). The building will meet or exceed the minimum required rating of Silver.

As described further in the document, the property owner has committed to creating efficient and healthy living environment for its tenants as well as a welcoming design for the neighborhood. The project will address climate change vulnerability items including voluntary compliance with the 2070 Cambridge Climate Vulnerability Projection 100 year event level, raised occupied living spaces, elevated mechanical equipment installation, reduced heat island effect measures, and flood elevation controls at garage entrances.

Attached as addenda to this document are:

- Preliminary LEED MR V4 checklist,
- ASHRAE 90.1-2010 modeling assumptions
- Pathway to Net Zero Emissions

II. Affidavit

As the LEED Project Administrator, I have reviewed the project documents and consulted with the Owner and Design and Construction team to address LEED related items and will compile LEED documentation that meets the review requirements stated in the LEED Reference Guide. Furthermore, I will oversee the submission of the documentation to the USGBC through the LEED Provider and the ultimate certification of the project. The project will meet LEED BD+C MR V4 Silver rating level and the team has set a goal of Gold. The Special Permit application is submitted with a Preliminary rating of Gold with 66 points and 17 maybe points, where a Silver rating is achieved with 50+ points.

Sincerely,

Maciej Konieczny, LEED AP BD+C, H, CEM
Senior Project Manager
New Ecology, Inc.
Registered Since Dec 2013.

III. LEED BD+C: H MR V4 Scorecard

New Ecology reviewed the project scope and understands the credit summary presented in Table 1: Summary Scorecard to be reasonable and achievable. While the Silver level certification is required, and the property owner commits to reaching that threshold, it is clear that a Gold level certification is likely within reach. Attached in Appendix A, please find the official preliminary checklist.

Table 1: Summary Scorecard

Category	Yes Points	Maybe Points
Integrative Process	2	0
Location and Transportation	14	1
Sustainable Sites	4	3
Water Efficiency	6	2
Energy and Atmosphere	20	2
Materials and Resources	3.5	2
Indoor Environmental Quality	11.5	2
Innovation	3	3
Regional Priority	2	2
Total Points	66	17

IV. Narrative for LEED Credits

The 55 Wheeler Street Projects fulfills all the prerequisites for all categories.

A. Integrative Process

IP Integrative Process	2 points
<p>Option 1: Integrative Project Team 55 Wheeler Street Project has assembled a comprehensive design team that includes skills required to comply with this Credit including Architect, MEP, building science and performance testing consultant, green building, civil, and landscape architecture specialists. Project has already completed integrative design meetings including Conceptual design, LEED planning (4-hour charrette) and is committed to continue close coordination between professions.</p>	
<p>Option 3: Trades Training 55 Wheeler Street Project has committed to complete at least 8 hours of trades training during the construction phase. The training will include a kick off meeting with trades where project specific details will be reviewed and will be followed with multiple shorter meetings throughout the construction.</p>	

B. Location and Transportation

LT Floodplain Avoidance	Required
-------------------------	----------

<p>55 Wheeler Street Project is not located within FEMA 100 year floodplain despite its location near Alewife Brook. Despite its location outside of the current flood zone, the project will raise the first floor finished elevation above the 2070 Cambridge Climate Vulnerability Projection 100 year event level, far exceeding LEED requirements. Additionally, to improve buildings' resiliency, mechanical equipment will be elevated, minimizing potential damage from severe weather events and allowing the buildings to remain operational during such events, or, under a worse case scenario, to return to operation much more quickly than a generic building where equipment may be easily submerged during flooding.</p>	
LT Site Selection	7 yes points; 1 maybe point
<p>Option 1: Path 1: Previously Developed. 55 Wheeler Street Project will be sited where at least 75% of the total buildable land is previously developed. The current use is parking lots and old concrete slabs.</p>	
<p>Option 2: Infill Development. 55 Wheeler Street Project site will be completely located within ½ mile from previously developed land. The site is located in a densely populated area of north Cambridge.</p>	
<p>Option 3: Open Space. 55 Wheeler Street Project is located within less than ½ mile of Fresh Pond and the associated walking, hiking, and golf facilities.</p>	
<p>Option 5: Bicycle Network and Storage (maybe point). 55 Wheeler Street Project will comply with City of Cambridge bicycle storage requirements. At this stage, it is not clear whether all the requirements of this credit will be met, specifically the bicycle network requirement that is location rather than project specific, therefore a maybe status is assigned</p>	
LT Compact Development	3 yes points
<p>55 Wheeler Street Project will achieve a density of 186 units per acre, significantly exceeding the 80 unit per acre credit requirement.</p>	
LT Community Resources	2 yes points,
<p>55 Wheeler Street Project is located in the Fresh Pond Circle area of Cambridge that provides significant community resources. The project will easily meet the credit requirement of 12 uses and may qualify for exceptional performance credit. These include minimum of:</p> <ul style="list-style-type: none"> • 2 Supermarkets • Clothing department store • 2 Banks • Health club • Laundry • 2 child care facilities • Movie theater • Government office • Urgent Care Center 	

LT Access to Transit	2 yes points,
55 Wheeler Street Project is located within ½ mile of rapid transit (MBTA Red Line) as well as within ¼ mile of multiple bus routes: 74, 75, 78 and will meet the ride frequency requirement of this credit.	

C. Sustainable Sites

SS Construction Activity Pollution Prevention	Required
55 Wheeler Street Project construction documents will include a Soil Erosion Sedimentation Control Plan to be developed in accordance with the EPA Construction General Permit of the NPDES. A Stormwater Pollution Prevention Plan (SWPPP) will also be developed for the site in accordance with the requirements for the US EPA's National Pollutant Discharge Elimination System Construction General Permit. These documents will be used to document compliance with this prerequisite.	
SS No Invasive Plants	Required
55 Wheeler Street Project is committed to meeting this prerequisite and complying with US Department of Agriculture's GRIN Taxonomy for Plants database, the National Association of Exotic Pest Plant Council, or the UMass Extension school list. The project team includes a Massachusetts licensed landscape architect that will adhere to these guidelines during design.	
SS Heat Island Reduction	2 maybe points
55 Wheeler Street Project intends to attempt this credit using a combination of approaches including: - High SRI paving materials in the landscape with SR value of at least 0.33 - Inclusion of trees in landscaped areas to provide shade on new roadway and landscaped public/ private courtyards - The majority of parking (more than 75%) for the project is undercover, located under landscaped, vegetated roof courtyards - The roof will have a high SRI to meet LEED Heat Island Effect requirements.	
SS Rainwater Management	2 yes points, 1 maybe point
55 Wheeler Street Project is committed to complying with the National Pollutant Discharge Elimination System Guidelines. Project will manage on site at least 95 th percentile rainfall event as defined by the US EPA's Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects, under Section 438 of the Energy Independence and Security Act. Depending on final design and Cambridge requirements, the project may achieve an additional point if it will be able to manage 98 th percentile rain event.	
SS Nontoxic Pest Control	2 yes points
55 Wheeler Street Project is committed to complying with this credit by incorporating the following strategies:	

- Use solid concrete foundation walls
- Seal all external cracks, joints, penetrations and entry points
- Design discharge points for rain gutters, A/C condensate lines,
- Design Landscape features to provide a minimum 18” space between exterior wall and any plantings
- Develop an integrated pest management policy

D. Water Efficiency

WE Water Metering	Required
55 Wheeler Street Project will comply with the requirements of this credit by installing a water meter for each unit within the development.	
WE Total Water Use	6 yes points, 2 maybe points
<p>55 Wheeler Street Project will reduce demand for water through high efficiency fixtures and efficient landscaping practices. By using efficient fixtures such as:</p> <ul style="list-style-type: none"> • Shower: 1.5 GPM • Kitchen: 1.5 GPM • Bath Lavatory: 1.0 GPM • Toilet: 1.1 GPF • Clothes washers: 4.5 WF • Dishwashers: 4.5 GPC <p>The project will achieve 41.7% total reduction of indoor and outdoor water consumption. We are approaching this credit conservatively, where 35% reduction is needed to reach 6 points.</p>	

E. Energy and Atmosphere

EA Minimum Energy Performance	Required
<p>55 Wheeler Street Project will be complying with the requirements of this prerequisite by meeting the following requirements:</p> <ul style="list-style-type: none"> • Multifamily Midrise Whole Building Energy Simulation. Project will demonstrate a 5% improvement over baseline building performance rating according to the building performance rating method of USGBC’s residential midrise simulation guidelines, based on SHRAE Standard 90.1-2010, Appendix G. • Multifamily Midrise Commissioning Option 2: Commissioning using Prescriptive Path which includes the following: <ul style="list-style-type: none"> ○ Reduced Heating and Cooling Distribution system losses for In-unit HVAC. The project has retained the services of a rating company to test and verify design elements including duct air leakage rates. ○ Fundamental Commissioning of Central HVAC Systems. The project will retain the services of a 3rd party commissioning authority to confirm correct operation and functionality of centralized mechanical systems. ○ Construction Document Specifications. The project has retained the services of a sustainability consultant to review construction documents 	

and assure the team that appropriate air sealing details and protocols are used	
<ul style="list-style-type: none"> ○ MFHR Thermal Enclosure Inspection Checklist. The project has retained the services of a 3rd party Green Rater to verify envelope design elements are correctly implemented during construction. 	
EA Energy Metering	Required
55 Wheeler Street Project will comply with this prerequisite by submetering every unit for electric and gas consumption.	
EA Education of the Homeowner, Tenant, or Building Manager	Required
55 Wheeler Street Project will comply with this prerequisite by providing the owner an operations and maintenance manual with all LEED/sustainability related requirements.	
EA Annual Energy Use	18 yes points, 2 maybe points
55 Wheeler Street Project will achieve additional energy savings beyond the 5% required by the prerequisite. The project will meet or exceed the Massachusetts Stretch Energy Code by the required 10% margin over ASHRAE 90.1-2013 baseline. Since the Massachusetts code baseline is currently stricter than LEED baseline, at this stage of design, we anticipate the project to achieve approximately 18% savings over LEED MR V4 baseline as defined by ASHRAE 90.1-2010; (14 points). In addition, we anticipate additional 4 points for units smaller than baseline per the USGBC home size adjustment.	
EA Efficient Hot Water Distribution System	2 yes points
55 Wheeler Street Project will insulate all hot water piping to a min of R-4	

F. Materials and Resources

EA Certified Tropical Wood	Required
55 Wheeler Street Project has committed to using non-tropical woods, or when tropical woods are required, to use only FSC Certified woods. Every effort will be made to avoid tropical woods.	
EA Durability Management	Required
55 Wheeler Street Project has committed to complying with this prerequisite to promote durability and performance of the building enclosure and its components and systems through appropriate measures as appropriate and as outlined by the USGBC including: <ul style="list-style-type: none"> • Use of nonpaper faced backer board in specific bath areas • Use of water resistant flooring in kitchen and baths • Design and install drain pan and automatic water shutoff valve 	
EA Durability Management Verification	1 point
55 Wheeler Street Project has retained the services of a 3 rd party verification team to confirm that designed durability measures have been installed correctly.	

EA Environmentally Preferable Products	0.5 yes points, 2 maybe points
55 Wheeler Street Project is committed to providing a healthy living environment to its tenants and to install components that minimize material consumption through recyclable content, reclamation, or overall reduced life cycle impact. During the design and construction, including submittal review process, the team will strive to further maximize the product points in this section.	
EA Construction Waste Management	2 yes points
55 Wheeler Street Project is committed to reducing construction waste 40% below USGBC's baseline.	

G. Indoor Environmental Quality

EQ Ventilation	Required
55 Wheeler Street Project will meet all requirements of ASHRAE Standard 62.2-2010 (with errata). Each unit will have kitchen and bath exhaust fans as required by the Standard. In addition, fresh air will be mechanically supplied directly to each unit through an HRV.	
EQ Combustion Venting	Required
55 Wheeler Street Project will meet the requirements of this prerequisite by installing only sealed combustion equipment.	
EQ Garage Pollutant Protection	Required
55 Wheeler Street Project will meet the requirements of this prerequisite by completely separating living spaces from the garage spaces. In addition, the garage will be mechanically ventilated to further reduce the potential for CO contamination to the living areas. Additionally, the project will install flood elevation controls at garage entrances to reduce the effect of potential flooding events on the building and its occupants.	
EQ Radon Resistant Construction	Required
55 Wheeler Street Project is located in EPA radon zone 1 which means that LEED required for the project to mitigate radon risk. The project is complying with this prerequisite by installing a garage under the building. Although not required by LEED, the garage will be mechanically ventilated.	
EQ Air Filtering	Required
55 Wheeler Street Project will comply with the requirements of this prerequisite by installing air handling equipment in each unit with air filters rated MERV 8.	
EQ Environmental Tobacco Smoke	Required
55 Wheeler Street Project will comply with the requirements of this prerequisite completely banning smoking within the building and on the site. The ban will be	

communicated with tenants through leasing documents as well as strategically located signage.	
EQ Compartmentalization	Required
55 Wheeler Street Project will comply with the requirements of this prerequisite by developing a comprehensive set of air sealing details and specifications and by using a 3 rd party to verify that the constructed building complies with LEED requirements.	
EA Enhanced Ventilation	3 yes points
55 Wheeler Street Project will comply with the requirements of this credit by installing continuously operating exhaust fans, by meeting ASHRAE 62.2-2010 Standard and by not exceeding ASHRAE requirements by more than 10%	
EA Contaminant Control	0.5 yes points, 1.5 maybe points
55 Wheeler Street Project will comply with the requirements of this credit by designing and installing complying walk-off mats at each primary entrance. As determined during construction, the project team will strive to complete air testing and a preoccupancy flush.	
EQ Balancing of Heating and Cooling Distribution Systems	2 yes points
55 Wheeler Street Project will comply with the requirements of this credit by confirming that air supply delivery rate is within 25% of designed value as calculated using Manual J (1 point). In addition, the project will confirm that pressure differential between any bedroom and the rest of each unit will not exceed 3Pa.	
EQ Enhanced Compartmentalization	1 Maybe point
55 Wheeler Street Project will attempt to comply with the requirements of this credit.	
EQ Combustion Venting	2 yes points
55 Wheeler Street Project will comply with the requirements of this credit by not installing fire places or wood stoves in any of the units.	
EA Enhanced Garage Pollutant Protection	1 yes point
55 Wheeler Street Project will comply with the requirements of this credit by following the requirements in ASHRAE 62.1-2010. The garage will be exhaust sufficiently to create negative pressure with respect to adjacent spaces with the doors to the garage closed. The project will provide self-closing doors and deck-to-deck partitions or a hard lid ceiling. The pressure differential with the surrounding spaces must be at least 5 Pascals (Pa) (0.02 inches of water gauge) when all doors are closed.	
EQ Low Emitting Products	2 yes points; 0.5 maybe points
55 Wheeler Street Project will comply with the requirements of this credit by specifying and confirming the application of paints, coatings, flooring, adhesives, and sealants	

comply with California Department of Public Health Standard Method V1.1–2010, using CA Section 01350, Appendix B, New Single-Family Residence Scenario.	
EQ No Environmental Tabaco Smoke	1 yes point
55 Wheeler Street Project will comply with the requirements of this credit by requiring that the maintenance company enforce the total ban on smoking on site. The prohibition will be communicated in building lease agreements or in condo or co-op association covenants and restrictions, and provisions for enforcement will be included.	

H. Innovation in Design









ID Green Cleaning Cleaning Policy	1 yes point
55 Wheeler Street Project will comply with the requirements of this credit by closely following EBOM v4 EQp3 Green Cleaning Policy.	
ID Green Cleaning Product Purchasing	1 maybe point
55 Wheeler Street Project will comply with the requirements of this credit by closely following EBOM v4 EQp3 Green Cleaning Product Purchasing.	
ID Exemplary Performance	1 maybe point
55 Wheeler Street Project will comply with the requirements of this credit by doubling the unit density under LT Compact Development.	
ID LEED Accredited Professional	1 yes point
55 Wheeler Street Project will comply with the requirements of this credit by hiring a LEED accredited professional: Maciej Konieczny	

I. Regional Priority

RP various	2 yes credits, 2 maybe credits
55 Wheeler Street Project will attempt to comply with the requirements of this credit by achieving regional priority credits:	
<ul style="list-style-type: none"> • Balancing and Cooling Distribution • Access to Transit • Community Resources • Rainwater Management • Nontoxic Pest Control 	

Scorecard

Note: The information on this tab is READ-ONLY. To edit this information, see the Credit Category tabs.

	Integrative Process	Preliminary	Y 2 of 2	M 0	Verified 0
	IPc Integrative Process		2 of 2	0	
	Location and Transportation	Preliminary	Y 14 of 15	M 1	Verified 0
	LTP Floodplain Avoidance		Required		Verified
	<i>Performance Path</i>				
	LTC LEED for Neighborhood Development		0 of 15	0	
	<i>Prescriptive Path</i>				
	LTC Site Selection		7 of 8	1	
	LTC Compact Development		3 of 3	0	
	LTC Community Resources		2 of 2	0	
	LTC Access to Transit		2 of 2	0	
	Sustainable Sites	Preliminary	Y 4 of 7	M 3	Verified 0
	SSp Construction Activity Pollution Prevention		Required		Not Verified
	SSp No Invasive Plants		Required		Not Verified
	SSc Heat Island Reduction		0 of 2	2	
	SSc Rainwater Management		2 of 3	1	
	SSc Nontoxic Pest Control		2 of 2	0	
	Water Efficiency	Preliminary	Y 6 of 12	M 2	Verified 0
	WEP Water Metering		Required		Not Verified
	<i>Performance Path</i>				
	WEC Total Water Use		6 of 12	2	
	<i>Prescriptive Path</i>				
	WEC Indoor Water Use		0 of 6	0	
	WEC Outdoor Water Use		0 of 4	0	
	Energy and Atmosphere	Preliminary	Y 20 of 37	M 2	Verified 0
	EAP Minimum Energy Performance		Required		Not Verified
	EAP Energy Metering		Required		Not Verified
	EAP Education of the Homeowner, Tenant or Building Manager		Required		Not Verified
	EAC Annual Energy Use		18 of 30	2	
	EAC Efficient Hot Water Distribution System		2 of 5	0	
	EAC Advanced Utility Tracking		0 of 2	0	
	Materials and Resources	Preliminary	Y 3.5 of 9	M 2	Verified 0
	MRP Certified Tropical Wood		Required		Not Verified
	MRP Durability Management		Required		Not Verified
	MRC Durability Management Verification		1 of 1	0	
	MRC Environmentally Preferable Products		0.5 of 5	2	
	MRC Construction Waste Management		2 of 3	0	
	Indoor Environmental Quality	Preliminary	Y 11.5 of 18	M 2	Verified 0
	EQP Ventilation		Required		Not Verified
	EQP Combustion Venting		Required		Not Verified
	EQP Garage Pollutant Protection		Required		Not Verified
	EQP Radon-Resistant Construction		Required		Not Verified
	EQP Air Filtering		Required		Not Verified
	EQP Environmental Tobacco Smoke		Required		Not Verified
	EQP Compartmentalization		Required		Not Verified
	EQC Enhanced Ventilation		3 of 3	0	
	EQC Contaminant Control		0.5 of 2	1.5	
	EQC Balancing of Heating and Cooling Distribution Systems		2 of 3	0	
	EQC Enhanced Compartmentalization		0 of 3	0	
	EQC Combustion Venting		2 of 2	0	
	EQC Enhanced Garage Pollutant Protection		1 of 1	0	
	EQC Low-Emitting Products		2 of 3	0.5	
	EQC No Environmental Tobacco Smoke		1 of 1	0	
	Innovation	Preliminary	Y 3 of 6	M 3	Verified 0
	INP Preliminary Rating		Required		Not Verified
	INC Innovation		2 of 5	3	
	INC LEED Accredited Professional		1 of 1	0	

**Regional Priority****Preliminary** Y 2 of 4

M 2

Verified 0

RPC Regional Priority

2 of 4

2

Point Floors

The project earned at least 8 points total in Location and Transportation and Energy and Atmosphere

The project earned at least 3 points in Water Efficiency

The project earned at least 3 points in Indoor Environmental Quality

Total**Preliminary** Y 66 of 110

M 17

Verified 0**Certification Thresholds** Certified: 40-49, Silver: 50-59, Gold: 60-79, Platinum: 80-110



Community-Based Sustainable Development

55 Wheeler Street
Cambridge, MA

June 6, 2017

Introduction

The City of Cambridge continues to lead the way to an efficient and low carbon future by setting aggressive goals and guidelines. Understanding that close to 80% of its greenhouse gas emissions result from building operations, in June 2015, Cambridge unanimously adopted the Net Zero 25-year Action Plan. The plan clearly outlines proposed policy goals for new construction by sector type; by 2022, Cambridge, in cooperation with the local industry and stakeholders, will have developed new zoning requirements for residential new construction sector.

55 Wheeler Street development will not be a net zero building; however, significant thought and planning has been dedicated by the development team to align the project with the City's goals. As outlined below, cost effective and practical steps will be taken to make each building efficient and ready for on-site solar photovoltaic generation. To aid the City in its path to net zero emissions in residential new construction, technically viable options are presented below. While, these may not be financially feasible at this moment, they do outline a path for future policies to carbon neutral residential construction.

Pathway to Net Zero Emissions

Building Size	3 buildings: <ul style="list-style-type: none">• Building 1: Approx. 184,000sf, 120 units• Building 2/3: Approx. 513,000sf, 406 units
Building Height	7 floors + 1 level of parking

Net Zero Emissions Pathway

The pathway to net zero emissions for 55 Wheeler Development is to replace gas-fired equipment with high efficiency electric alternatives, maximize the electricity generated on site, and then purchase green energy or carbon offsets to offset the emissions from the remaining electric load.

HVAC System	Convert the planned unit HVAC systems to refrigerant based heat pumps to provide heating and cooling. Conversion will require the installation of a refrigerant only based air handler in each unit instead of the planned hot water coil supplied by a gas fired unit. Since the new units will provide cooling and heating for each residential unit, outdoor
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condensing units will require conversion to equipment that will have the capacity to heat and cool.

Centralized systems, including ventilation, will have to be converted to heat pumps. Options such as ground source heat pumps for the centralized systems will need to be considered as it is unlikely to be practical to use GSHP for all units. Current scope utilizes refrigerant based systems for cooling only and gas fired equipment for heating.

Replace DHW System

Convert DHW system to all-electric high efficiency storage tanks such as hybrid heat pump options by GE or other manufacturers. Conversion will require removal of the gas fired storage tanks and since the DHW system is directly connected with the heating system, a conversion will have to occur concurrently with HVAC conversion.

Alternatively, a central storage, electric based system may be installed in combination with exploring roof space for central solar thermal DHW system. Conversion will require changing the proposed design from unit based DHW to a central system by deleting the planned natural gas-fired boilers water heaters, upgrading any necessary electrical circuits for the new electric storage tanks, and adding the new tanks. The addition of solar thermal will require installing the appropriate supports and connections on the roof, installing collector panels, piping supply and return lines from solar storage tanks in the mechanical room to the roof, connecting the new solar storage tanks to the electric storage tanks, and adding system controls and monitoring equipment.

On-Site Renewables

Roof will be designed to accommodate future solar thermal or solar PV systems. During the design and as practical, the mechanical roof mounted equipment will be mounted on the northern side of each building to accommodate future renewables and electrical conduits will be installed between the roof and central electrical switchgear rooms. Space will be outlined during the design to show future location of inverters, storage, and related equipment.

Off-Site Renewables/RECs

Purchase green power (RECs) or carbon offsets to cover remainder of building common meter load emissions not covered by on-site solar PV array; engage residents in a group purchase of green power or carbon offsets to cover apartment meter load emissions. In cases where it may not be practical to abandon gas fired equipment, purchase RECs to offset the equivalent electrical source energy.

10. ACCOUSTICAL NARRATIVE



33 Moulton Street
Cambridge MA 02138
617 499 8000
acentech.com



June 14, 2017

Chris Vlachos
DiMella Shaffer
281 Summer Street
Boston, MA 02210

Via email: cvlachos@dimellashaffer.com

Subject Environmental Sound Analysis
55 Wheeler Street
Cambridge, MA
Acentech Project No. 628418

Dear Mr. Vlachos:

This letter presents our review and recommendations on the proposed rooftop mechanical equipment and emergency generator for 55 Wheeler Street in Cambridge, MA. This project site needs to comply with the City of Cambridge noise regulation as well as the Massachusetts state regulation.

APPLICABLE NOISE REGULATION

Massachusetts

The Massachusetts Department of Environmental Noise Policy defines noise pollution by the condition resulting when:

- The equipment increases broadband sound level by more than 10 dBA above ambient, or
- The equipment with tonal sound - when any octave band center frequency sound pressure level exceeds the two adjacent bands by 3 dB or more

For this project, we assume that the existing background sound levels are high enough in the project area that meeting the City of Cambridge Noise Regulation would be the more stringent requirement.

City of Cambridge

The City of Cambridge Noise Regulation has fixed sound emissions level limits for daytime and nighttime hours. There are different limits based on the zoning district. Based on the latest version of the City of Cambridge Zoning Map, the equipment of our project should at minimum meet the Business/Commercial Zoning Districts at the closest receivers with sound pressure levels as shown. There are also some residences on Wheeler Street, which we recommend designing towards the Residential Zone even if it is not required by the City. Table 1 on the following page shows the sound limits established for Residential and Business/Commercial Zones.

Octave Band Center Frequency of Measurement (Hz)	Residential Area (Daytime) dB	Residential Area (Nighttime) dB	Commercial/Business (All Times) dB
31.5	76	68	79
63	75	67	78
125	69	61	73
250	62	52	68
500	56	46	62
1000	50	40	56
2000	45	33	51
4000	40	28	47
8000	38	26	44
Single Number Equivalent	60 dBA	50 dBA	65 dBA

Table 1. City of Cambridge Maximum Allowable Octave Band Pressure Levels

Daytime is defined by the City as the period between the hours of 7AM and 6PM except Sunday and holidays.

PRELIMINARY EQUIPMENT EVALUATION AND PREDICTION

Your engineer has provided us with preliminary rooftop equipment selections and emergency generator information. Most equipment units are located on the roof level. The preliminary layout is attached at the end of this report.

We have predicted the sound emission levels of the future equipment to the property lines. We have assumed that for nighttime conditions, all rooftop mechanical equipment will operate at full capacity in the worst-case scenario. For worst-case daytime condition, the same rooftop equipment will be operating, as well as the emergency generators.

The list below shows the preliminary list of equipment for this project:

- One air-cooled condensing unit for each residence on the roof, similar to Lennox XC25 series.
- Three make-up air units or ERV units serving the common areas on the roof. Units have not been confirmed yet by the engineer but will be designed to meet the noise regulation.
- Three 200 kW emergency generators, similar to Kohler 200RZX with sound enclosures and mufflers

We expect the individual air-cooled condensing units and the ERV units to meet the most stringent noise limit of 50 dBA at the closest residences.

Tone Evaluation

Based on the equipment sound data and the predicted sound levels to the closest receivers, we do not anticipate the equipment to emit tonal sound as defined by the state of Massachusetts.

Predicted Equipment Sound Levels

Based on the equipment sound data and the noise control measures described above, we predicted the rooftop equipment sound emission levels to Receivers 1, 2, and 3.

Receiver Location	Overall daytime project sound emission levels including the emergency generator (dBA)	Overall daytime and nighttime project sound emission levels without the emergency generator (dBA)	Sound Limits (dBA)
1 (Residential)	59 dBA	32 dBA	60 dBA (day)
2 (Residential)	54 dBA	28 dBA	50 dBA (night)
3 (Commercial)	53 dBA	37 dBA	65 dBA

The predicted A-weighted levels with the noise control described above will be within the allowable daytime and nighttime sound limits.

CONCLUSION

Based on our evaluation of the rooftop equipment and emergency generators proposed for 55 Wheeler Street, the equipment sound emission to the community are within the acceptable sound limits and will not produce any tonal sound.

* * * * *

I trust this letter provides the information that you need at this time. If you have questions, please call me on my direct line at 617.499.8080.

Sincerely,



Rose Mary Su
Senior Consultant

Encl: Preliminary Equipment Layout

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PRELIMINARY EQUIPMENT LAYOUT AND RECEIVER LOCATIONS

Roof Level

