



Developer
On Behalf of
BRE/CPD, LLC.
Owner

160 Cambridge Park Drive Residences

Cambridge, MA

Special Permit Submission
Volume I
February 27, 2012



CUBE³
STUDIO
architecture interiors planning

goulston & storrs
counsellors at law
think results

 **BSC GROUP**

 **VHB** *Vanasse Hangen Brustlin, Inc.*

 **McNamara/Salvia, Inc.**
Consulting Engineers
HALEY & ALDRICH

Applicant / Developer

The McKinnon Company
1 Leighton Street
1905
Cambridge, MA 02141
Tel: 617.354.4363
Fax: 617.354.6811

Architect

CUBE 3 Studio LLC
360 Merrimack Street
Building 5 Floor 3
Lawrence, MA 01843
Tel: 978.989.9900
Fax: 978.989.9954

Legal

Goulston & Storrs
400 Atlantic Avenue
Boston, MA 02110
Tel: 617.482.1776
Fax: 617.574.4112

Civil Engineer

BSC Group
15 Elkins Street
Boston, MA 02127
Tel: 617.896.4300
Fax: 617.896.4301

Transportation Engineer

Vanasse Hangen Brustlin
99 High Street
10th Floor
Boston, MA 02110
Tel: 617.728.7777
Fax: 617.728.7782

Structural Engineer

McNamara / Salvia, Inc.
160 Federal Street
5th Floor
Boston, MA 02110
Tel: 617.737.0040
Fax: 617.737.0042

Geotechnical Engineer

Haley & Aldrich, Inc.
465 Medford Street
Suite 2200
Boston, MA 02129
Tel: 617.886.7400
Fax: 617.886.7790



February 21, 2012

Hugh Russell
Chairman
Cambridge Planning Board
344 Broadway
Cambridge, MA 02139

Dear Mr. Russell and Members of the Board,

On behalf of BRE/CPD LLC, an affiliate of Equity Office Properties, I am pleased to submit this application for a series of Special Permits to develop a residential project at 160 CambridgePark Drive. Additionally, we will be amending existing Special Permits to properly subdivide the properties.

Equity has been the owner of the property since June of 2011. They also own the office buildings at 125 and 150 CambridgePark Drive. We have concluded that a more appropriate use of the 160 property would be as a residential development. As such, the Project described more fully in this application is a single 398 unit residential complex with no additional parking garage, as was previously approved.

The Project is a major step forward towards achieving the Overlay's goal of a Mixed-Use District here in District 6. Only one other residential Project exists within the entire District. It stands apart appropriately from the surroundings office buildings. It is of lower height and distinctively residential in scale and attention to design detail.

This Project also represents a chance to implement a shared parking arrangement between the housing and the office parking. It is an exciting opportunity for the team. This is a transit oriented Project and we continue to work with City Staff to take advantage of this location and our proximity to the Red Line at Alewife Station.

On February 13th, the Cambridge Conservation Commission voted unanimously to issue an Order of Conditions to allow this Project to proceed. If we are fortunate enough to receive favorable consideration on the application before you, then we will execute a forward sale of the Project to The Hanover Company.

The Hanover Company will be the builder, owner and manager of this rental property. We have been struck by the quality of their portfolio, the stability and longevity of the company and their excellent reputation as property owners. Above all, we have been impressed by the quality of the people at Hanover. This Project will be placed into very capable hands.

I look forward to coming before you on March 20th. Our presentation will be concise knowing that our entire team will be ready to respond to questions from the Board after public testimony has been taken.

Best,



Richard McKinnon
Developer



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: **125, 150, 160, 180 and 180R CambridgePark Drive**

Zoning District: Office-2A, Alewife Overlay District 6 and Flood Plain Overlay District

Applicant Name: The McKinnon Company on Behalf of BRE/CPD LLC

Applicant Address: 1 Leighton Street Unit #1905, Cambridge, MA 02141

Contact Information:	617.354.4362	McKinnoncompany@comcast.net	617.354.6811
	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.*

- Section 20.70 - Flood Plain Overlay District
- Section 20.95.1 - Maximum Floor Area Ratio
- Section 20.95.34 - Waiver of Yard Requirements
- Section 20.97.2 - Pooled Parking
- Section 20.97.3 (and 5.25.42) - Waiver of Gross Floor Area Provisions for Parking Facilities
- Section 6.35 - Relief from Parking Requirements
- Section 6.43.6 - Common Driveways
- Section 6.44.1 - Setbacks for On Grade Open Parking Facilities
- Section 19.20 - Project Review

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

- Volume I - Dimensional Forms, Ownership Certificate, Fee Schedule, Project Narrative, Sewer/Water/Noise Narrative, Flood Plan Documentation, LEED Narrative Checklist, Neighborhood Outreach
- Volume II - Site Maps, Survey, Existing Photos, Proposed Site Plan, Floor Plans, Elevations, Perspective Renderings, Landscape Plans, Shadow Studies, Lot Subdivision Plan, Tree Study, Open Space Plans

Signature of Applicant:

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

DIMENSIONAL FORM

Project Address: 160 CambridgePark Drive

Application Date: 02.27.12

	Existing	Allowed or Required (max/min)	Proposed	Permitted
Lot Area (sq ft)	N/A	5,000 sq ft	183,604 sq ft	
Lot Width (ft)	N/A	50 ft	527.5 +/- ft	
Total Gross Floor Area (sq ft)	N/A	477,370 sq ft	445,000 sq ft	
Residential Base	N/A	367,208 sq ft	367,208 sq ft	
Non-Residential Base	N/A	N/A	N/A	
Inclusionary Housing Bonus	N/A	110,162 sq ft	77,792 sq ft	
Total Floor Area Ratio	N/A	2.6	2.4	
Residential Base	N/A	2.0	2.0	
Non-Residential Base	N/A	N/A	N/A	
Inclusionary Housing Bonus	N/A	0.6	0.4	
Total Dwelling Units	N/A	398	398	
Base Units	N/A	306	306	
Inclusionary Bonus Units	N/A	92	92	
Base Lot Area / Unit (sq ft)	N/A	600 sq ft	600 sq ft	
Total Lot Area / Unit (sq ft)	N/A	461 sq ft	461 sq ft	
Building Height(s) (ft)	N/A	85 ft / 105 ft	69 ft 11 in	
Front Yard Setback (ft)	N/A	(H+L)/4 = 131 +/- ft	15 ft	
Side Yard Setback – Right (ft)	N/A	(H+L)/5 = 75 +/- ft	38.6 +/- ft	
Side Yard Setback – Left (ft)	N/A	(H+L)/5 = 57 +/- ft	35.6 +/- ft	
Rear Yard Setback (ft)	N/A	(H+L)/4 = 132 +/- ft	26.6 +/- ft	
Open Space (% of Lot Area)	N/A	15%	15.5+/- %	
Private Open Space	N/A	N/A	N/A	
Permeable Open Space	N/A	25%	8.4+/- %	
Other Open Space (Specify)	N/A	N/A	N/A	
Off-Street Parking Spaces	N/A	1 per 1 d.u.	398 (Shared)	
Bicycle Parking Spaces	N/A	1 per 2 d.u.	204	
Loading Bays	N/A	N/A	N/A	

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

OWNERSHIP CERTIFICATE

Project Address: 160 Cambridgepark Drive

Application Date: 02.27.12

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

I hereby authorize the following Applicant: The McKinnon Company
at the following address: One Leighton Street, Unit 1905, Cambridge, MA 02141
to apply for a special permit for: A building composed of 398 residential units to be known as 160 CambridgePark Drive, and associated amendments to existing special permits for 125 CambridgePark Drive (PB# 26) and 150 CambridgePark Drive (PB# 47)
on premises located at: Portions of 125, 150 and 180 CambridgePark Drive
for which the record title stands in the name of: BRE/CPD LLC
whose address is: 345 Park Avenue, New York, NY 10154

by a deed duly recorded in the:
Registry of Deeds of County: Book: 57080 Page: 451
OR Registry District of the Land Court, Certificate No.: Book: Page:

Signature of Land Owner (If authorized Trustee, Officer or Agent, so identify)
[Handwritten signature: J. Conley]

To be completed by Notary Public:

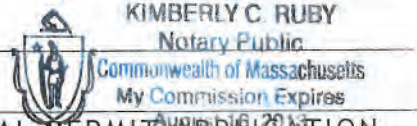
Commonwealth of Massachusetts, County of Suffolk

The above named John F. Conley personally appeared before me,

on the month, day and year February 23, 2012 and made oath that the above statement is true.

Notary: Kimberly C Ruby

My Commission expires: August 16, 2013



125, 150, 160, 180 and 180R CambridgePark Drive Narrative in Support of Special Permit Application

I. PROJECT DESCRIPTION

The McKinnon Company (the “Applicant”), as developer on behalf of BRE/CPD LLC, a Delaware limited liability company (“BRE/CPD”), proposes to develop a new multifamily residential building on an approximately 184,000 square foot site (the “Site”) located on portions of the existing 150 and 180 CambridgePark Drive properties. We refer to the Site created by the subdivision described below as 160 CambridgePark Drive in this Application. The Site is in the Office 2-A District, the Alewife Overlay District 6 and the Flood Plain Overlay District. The Site is currently improved by a surface parking lot, serving the existing office buildings at 100, 125, 150 and 200 CambridgePark Drive pursuant to the terms of various recorded easement agreements. BRE/CPD is the current owner of 125, 150, 180 and 180R CambridgePark Drive (the “Existing Property”).

The existing 125 CambridgePark Drive improvements were constructed pursuant to special permit PB #26, filed with the City Clerk on September 15, 1982, and recorded with the Middlesex County Registry of Deeds on January 9, 2009, at Book 14759, Page 134, as amended. The existing 150 CambridgePark Drive improvements were constructed pursuant to special permit PB #47, filed with the City Clerk on February 19, 1985, and recorded with the Middlesex County Registry of Deeds on January 9, 2009, at Book 16125, Page 209, as amended. Such special permits are collectively referred to in this Application as the “Existing Special Permits.” Entitlements currently exist, under special permit PB #236, filed December 1, 2008, and recorded with the Middlesex County Registry of Deeds on January 9, 2009, at Book 52065, Page 537, to construct two new office and/or research and development buildings, with a new parking garage, on 150, 180 and 180R CambridgePark Drive.

The Applicant proposes to construct a first class, six-story, multifamily building (the “Residential Building”) at the Site, containing 398 units of rental housing, including four first-floor apartments directly accessible from CambridgePark Drive, a clubhouse, two courtyards, a pool for residents and an at-grade parking facility primarily beneath the Residential Building. The Project Site will be created by a subdivision of the Existing Property as reflected in the Application materials. In addition to the Residential Building, significant stormwater management improvements to the existing parking lots on 150, 180 and 180R CambridgePark Drive will be constructed as well. (The Residential Building together with the improvements to the existing parking lots are referred to collectively in this Application as the “Project”). The Residential Building will provide a variety of unit types: approximately 74% of the units (295) will be one-bedroom units and approximately 26% of the units (103) will be two-bedroom units. The parking facility will contain approximately 398 vehicular parking spaces and 204 bicycle parking spaces. (The Applicant is exploring opportunities to provide additional bicycle storage beyond the requirements of the Cambridge Zoning Ordinance (the “Ordinance”).) Access to and egress from the Residential Building will be provided through two entrance driveways on CambridgePark Drive, as well a shared access drive located in part on the remaining 150 CambridgePark Drive property pursuant to the terms of a recorded easement agreement.

Located less than a quarter mile from the Alewife MBTA station, the Residential Building's pedestrian and bicycle friendly design and extensive Transportation Demand Management program will encourage residents to utilize public transportation. Moreover, the Site is located in close proximity to the Alewife Reservation, and has ready access to the extensive bicycle and pedestrian trails in Cambridge, Arlington, and Watertown. This offers residents diverse commuting and recreational options.

The Project will introduce a creative shared parking arrangement between existing office users and the new residential use that allows a net reduction in the existing surface parking supply. A total of 1,623 parking spaces are currently approved at the Existing Property. As noted above, the Residential Building's parking facility will contain 398 parking spaces. However, (i) the Project will displace 428 existing surface parking spaces on the Site; (ii) 125 CambridgePark Drive's right to use spaces on the Existing Property pursuant to a recorded easement agreement will be reduced from 492 to 368 spaces; and (iii) 150 CambridgePark Drive's right to use spaces on the Existing Property pursuant to a recorded easement agreement will be reduced from 682 to 510 spaces. We note that 339 spaces on the Existing Property are committed to 100 CambridgePark Drive pursuant to a recorded easement agreement, which easement agreement BRE/CPD cannot unilaterally amend; and 110 spaces on the Existing Property (70 of which are on the Site) are committed to 200 CambridgePark Drive pursuant to a recorded easement agreement, which easement agreement BRE/CPD cannot unilaterally amend. In order to reduce the parking overall, an additional up to 80 spaces within the Residential Building's parking facility will be shared with the existing office buildings at 125 and 150 CambridgePark during weekdays, pursuant to a recorded easement agreement; and the Residential Building will have a right use 100 parking spaces on the amended 150 CambridgePark Drive parcel during nights and weekends, pursuant to a recorded easement agreement. Upon completion of the Project, a total of 1,593 parking spaces will remain on the Existing Property, including the Site. Accordingly, the Project will create 398 new units of rental housing, but will result in a net reduction of 30 parking spaces overall.

II. ZONING RELIEF SOUGHT

Multifamily dwellings are allowed as-of-right at the Site. The Project's compliance with the Ordinance's dimensional requirements (upon the recording of a subdivision plan substantially as shown on the Lot Subdivision Plan submitted with this Application) is summarized in the Dimensional Forms submitted with this Application. The Applicant is requesting amendments to the Existing Special Permits, along with new special permits in connection with the Residential Building (collectively, the "Special Permits"), to include the following relief under the Ordinance in connection with the Project:

- Special Permit under Section 20.70 of the Ordinance for construction in the Flood Plain Overlay District.
- Special Permit under Section 20.95.1 of the Ordinance, to allow in increased Floor Area Ratio ("FAR") of approximately 2.38 at the Site.
- Special Permit under Section 20.95.34 of the Ordinance, to reduce the front, side and rear yard requirements otherwise applicable in the Office 2-A District.

- Special Permit under Section 20.97.2 of the Ordinance, to permit the new pooled parking arrangements between the Site and 100, 125, 150, 180, 180R and 200 CambridgePark Drive.
- Special Permit under Section 20.97.3 (and Section 5.25.42) of the Ordinance, to exclude the Residential Building’s at-grade parking facility from applicable Floor Area Ratio limitations.
- Special Permit under Section 6.35 of the Ordinance, to reduce the Project’s required amount of parking to permit the proposed shared parking arrangements.
- Special Permit under Section 6.43.6 of the Ordinance, to permit the common driveway located partially on the Site and partially on the amended 150 CambridgePark Drive parcel.
- Special Permit under Section 6.44.1 of the Ordinance, to permit on grade open parking spaces and driveways within five (5) feet of side and rear property lines.
- Project Review Special Permit under Section 19.20 of the Ordinance for construction of more than 50,000 square feet of new Gross Floor Area.

III. ZONING REQUIREMENTS FOR GRANTING REQUESTED RELIEF

The provisions of the Ordinance set forth below apply to the requested Special Permits. Application of each provision to the Project follows the provision in italics.

A. 10.43 Generally Applicable Criteria for Approval of a Special Permit

Pursuant to Section 10.43 of the Ordinance, 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 to the detriment of the public interest because:

- 1) It appears that requirements of this Ordinance cannot or will not be met.

With the requested Special Permits, the Project will meet all requirements of the Ordinance.

- 2) Traffic generated or patterns of access or egress would cause congestion, hazard or substantial change in established neighborhood character.

The Applicant has completed a detailed analysis of the traffic impacts associated with the Project as evidenced in the Transportation Impact Study (the “TIS”) prepared by Vanasse Hangen Brustlin, Inc. and submitted to the City of Cambridge Traffic, Parking and Transportation (“TP&T”) Department. The TIS includes an analysis of the existing and future vehicular traffic, bicycle and pedestrian volumes, defines site access requirements, identifies specific improvements on the Site, analyzes shared parking

opportunities, and presents a detailed Transportation Demand Management (“TDM”) program to reduce the Residential Building’s vehicle dependency.

The TIS, submitted to TP&T for review on February 21, 2012, was prepared in accordance with the City’s guidelines for TIS and responds to the TP&T scoping determination dated January 23, 2012.

The TIS as submitted indicates that the Project is expected to have minimal impact on traffic and will not cause congestion, hazard, or substantial change to the established neighborhood character. It is noted also that the traffic generated by the Project will be significantly less than that associated with the office/research and development project on 150, 180 and 180R CambridgePark Drive for which entitlements currently exist under Special Permit PB #236.

- 3) The continued operation of or the development of adjacent uses as permitted in the Ordinance would be adversely affected by the nature of the proposed use.

The Project will not adversely affect continued operation or future development of adjacent uses. The Site is surrounded on the west, north and east by existing commercial uses that are also located within the Alewife Overlay District 6, and the Site abuts railroad tracks to the south (within the Industry B-1 District and the Alewife Overlay District 2). The Project will complement the existing adjacent uses by providing convenient residential housing for employees of the surrounding office buildings. Moreover, adding additional residential use to the mix of commercial and residential uses in the area will both forward the Alewife Overlay District 6’s stated intent of introducing a significant component of residential living to enhance the area’s appeal (thereby enhancing the district’s vibrancy and adding to the general security of the area) and provide opportunities to increase recreational use of the Alewife Reservation.

- 4) Nuisance or hazard would be created to the detriment of the health, safety and/or welfare of the occupant of the proposed use or the citizens of the City.

The Project will not create any nuisance or hazard to the detriment of the health, safety and/or welfare of the occupants of the Project or the citizens of the City. To the contrary, the Project will replace an existing surface parking lot with a new residential building that will enhance the vibrancy of the Alewife Overlay District 6. The Project is consistent with the City’s broader health, safety and welfare goals as set forth in Section 19.30 (Citywide Urban Design Objective) of the Ordinance to foster development which is responsive to the existing or anticipated pattern of development, is designed for pedestrian and bicycle access, mitigates adverse environmental impacts upon its neighbors, expands the inventory of housing in the City and provides open space amenities.

- 5) For other reasons, the proposed use would impair the integrity of the district or adjoining district, or otherwise derogate from the intent and purpose of this Ordinance.

The Project will not impair the integrity of any of the districts in which it is located or any adjoining district, nor will the Project derogate from the intent and purpose of the

Ordinance. The construction of the Project will enhance and further the purposes of the districts in which it is located and all adjoining districts. When completed, the Project will replace an existing surface parking lot with a thoughtfully designed and landscaped first class, residential building that is in compliance with the requirements of the Alewife Overlay Districts and the Flood Plain Overlay District.

Alewife Overlay District 6 and the adjoining Alewife Overlay District 2 –

As discussed in more detail below, the intent of the Alewife Overlay Districts is to encourage development that will facilitate and encourage walking, biking and transit use and reduce the growth of auto trips; preserve and enhance the capacity to store floodwater, recharge groundwater and manage the collection and disposal of stormwater; minimize the negative impact of new development on adjacent residential neighborhoods while introducing new amenities and services that will benefit the residents of such neighborhoods; integrate the entire area through the creation of new pedestrian paths, roadways, green spaces and bridges that will facilitate movement within the several Districts and beyond; introduce a significant component of residential living to enhance the area's appeal; and create an identity and sense of place that parallels the development of the historic urban centers that characterize much of Cambridge.

As discussed in more detail below, the Project will go a long way towards meeting the intent of the Alewife Overlay Districts. In particular, the Project will introduce additional residential living, convenient for employees of (and sharing parking with) the surrounding office buildings, thereby facilitating walking, biking and transit use and reducing the growth of auto trips and minimizing negative impacts on the neighborhood. Moreover, the Project will adopt the Transportation Demand Management measures identified in the TIS, thereby minimizing the amount of traffic passing through nearby arterial and neighborhood streets. In addition, the Project will take advantage of shared parking opportunities, resulting in a net reduction in the number of existing registered parking spaces even with the addition of 398 residential units. This Application includes a reduction in the existing parking ratios of the existing office buildings at 125 and 150 CambridgePark Drive, and reduces the area's dependence on auto access and parking. The Project will also restore areas that are currently paved to active and more appropriate uses, by replacing the existing surface parking lot with a residential redevelopment conforming to best practices for mitigation of impacts and preservation of the natural environment. As outlined below in more detail the Project also furthers the Districts' intent of maintaining flood storage capacity.

Flood Plain Overlay District –

The purpose of the Flood Plain Overlay District is to protect the health, safety, and general welfare, to protect human life and property from the hazards of periodic flooding, to preserve the natural flood control characteristics and the flood storage capacity of the flood plain, to preserve and maintain the ground water recharge areas within the Flood Plain, and to ensure the appropriate design and location of flood water retention systems and their relationship to other surrounding development. The Project

falls within the 100-year floodplain of the Little River, which is located north of the Site, across CambridgePark Drive. The Project will conform to the intent and purpose of the Flood Plain Overlay District. The Project has been designed to provide compensatory flood storage per the Massachusetts Wetland Protection Act. The design of the Project, in particular its potential impact of the Flood Plain, has previously been reviewed by the Cambridge Conservation Commission, which voted to approve the Project's amended Order of Conditions on February 13, 2012 (the "Order of Conditions"). More detail regarding the Project's conformance with the intent of the Flood Plain Overlay District is provided below.

- 6) The new use or building construction is inconsistent with the Urban Design Objectives set forth in Section 19.30.

As described in detail below, the Project is consistent with the Urban Design Objectives set forth in Section 19.30.

B. 20.75 Criteria for Flood Plain Overlay District Special Permit

Pursuant to Section 20.75 of the Ordinance, the Planning Board shall grant a Special Permit for development in the Flood Plain Overlay District if the Board finds that such development has met the following criteria in addition to other criteria specified in Section 10.40:

- 1) No filling or other encroachment shall be allowed in Zone A areas or in the floodway which would impair the ability of these special flood hazard areas to carry and discharge flood waters, except where such activity is fully offset by stream improvements such as, but not limited to, flood water retention systems as allowed by applicable law.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 25017C0419E dated June 4, 2010, the Site is located in Flood Zone AE.

In order to minimize the volume of ground-level structures placed within the limits of Floodplain, the Residential Building (and associated at-grade parking) will be constructed above the existing 100-year flood plain elevation. As such, the area under the majority the Residential Building's at grade parking will mitigate the available flood storage of the Site, resulting in a slight increase in the Site's available flood storage. As evidenced by the Cambridge Conservation Commission's approval of the amendment to Order of Conditions, the Cambridge Conservation Commission has determined that the Project will not impair the ability of the applicable flood hazard areas to carry and discharge flood waters.

- 2) Displacement of water retention capacity at one location shall be replaced in equal volume at another location on the same lot, on an abutting lot in the same ownership, on a noncontiguous lot in the same ownership, or in accordance with the following requirements.

The existing and proposed conditions of the Site were analyzed on a foot-by-foot incremental elevation basis, in accordance with the MA DEP performance standards for work within a Bordering Land Subject to Flooding (BLSF). The Project's certified Flood Report, submitted in connection with the amendment to Order of Conditions, encloses graphics detailing the available flood storage at each foot interval and a tabular summary of the same. The proposed flood water retention system is located underneath the Residential Building providing compensatory flood storage on a foot-by-foot incremental elevation basis allowing flood waters to flow and recede to the Little River in an unrestricted manner. Accordingly, the displacement of existing water retention capacity on the Site will be replaced with equal water retention capacity as part of the Project and as approved by the Conservation Commission.

- 3) All flood water retention systems shall be suitably designed and located so as not to cause any nuisance, hazard, or detriment to the occupants of the site or abutters. The Planning Board may require screening, or landscaping of flood water retention systems to create a safe, healthful, and pleasing environment.

The Project's flood water retention system has been designed and located so as not to cause any nuisance, hazard, or detriment to the occupants of the Site or abutters. The flood water retention system is located underneath the Residential Building, and creates a safe, healthful and pleasing environment for the occupants of the Project and abutters. Additionally, measures have been incorporated into the flood water retention system's design to allow for periodic cleaning and maintenance.

- 4) The proposed use shall comply in all respects with the provisions of the underlying zoning district, provisions of the State Building Code, Wetlands Protection Act, and any other applicable laws.

Upon issuance of the Special Permits, the Project will comply with all applicable provisions of the Office 2-A District, the Alewife Overlay District 6 and the Flood Plain Overlay District. As evidenced by the Cambridge Conservation Commission's approval of the amendment to Order of Conditions, the Project complies with the Wetlands Protection Act. The Project also will comply with the State Building Code and any other applicable laws.

- 5) Applicants for development in the Alewife area shall be familiar with area-specific and general city-wide land use plans and policy objectives (e.g. *Concord-Alewife Plan, A Report of the Concord Alewife Planning Study, November 2005; Towards a Sustainable Future, Cambridge Growth Policy, 1993, Update, 2007; Section 19.30 – Urban Design Objectives of this Zoning Ordinance*) and shall demonstrate how their plan meets the spirit and intent of such documents in conjunction with the requirements of this Section 20.70 – Flood Plain Overlay District and Section 20.90 – Alewife Overlay Districts 1-6.

The Project is consistent with the aims of the Concord-Alewife Plan, A Report of the Concord Alewife Planning Study and the relevant policy statements of Towards a Sustainable Future. As set forth in the Concord-Alewife Design Areawide Guidelines and Towards a Sustainable Future: List of Policy Statements, the Project will encourage

non-automobile mobility by creating a pleasant and safe pedestrian and bicycle environment, and will screen at-grade parking and service areas from public streets. The Project will also seek to utilize Low Impact Development (LID) principles in building and site design in addition to meeting the City, State, and Federal stormwater requirements. Some of the LID techniques used include the use of native plantings, a rain garden, and increased groundwater infiltration. The Project will offer open space amenities in the form of a large urban plaza along CambridgePark Drive, as well as two private courtyards and a swimming pool area open to the residents, thereby providing more open space and outdoor recreational facilities to residents of Cambridge. As discussed in more detail below, consistent with the Concord-Alewife Design Guidelines for the Site, the Project will create a pedestrian-friendly environment along CambridgePark Drive, provide setbacks from the right-of-way for open spaces and screen service areas from CambridgePark Drive. The Residential Building has been designed to provide vibrancy at the street level with the placement of public amenity spaces on the ground floor. In particular, the Project seeks to activate the street edge for the length of the Residential Building along CambridgePark Drive through the thoughtful placement of key building support spaces and residential living areas. The plaza provides an active public space for pedestrians and bicyclists, and allows for the bicycle storage area to directly front this space with large glass areas, bicycle repair stands, and informal seating and gathering areas. On the second level, the clubhouse provides strong visible presence on the plaza, with a large glass area and active uses. The primary building entry is also located at the inside corner of the plaza, and graceful landscaped areas provide shade, and public seating areas, within the open space. Four residential units have been located at the ground floor directly on CambridgePark Drive beyond the main entry plaza. These units will further reinforce the pedestrian nature of this street edge, and provide direct sidewalk access to the four units. The Project also anticipates the use of the nearby Alewife Reservation trail system. In the wider transportation context, the Project benefits from excellent pedestrian/bicycle access to Alewife MBTA station, thereby reducing vehicular trips to and from the Project.

- 6) The requirement of Section 20.74(3) has been met (*i.e.*, Certification and supporting documentation by a Massachusetts registered professional engineer demonstrating that any encroachment of the floodway shall not result in any increase in flood levels during the occurrence of the 100-year flood).

The Project's compensatory flood storage has been designed to provide for no decrease in the Site's floodwater storage capacity. This analysis has been performed for all flooding up to and including a 100-year flood event, pursuant to the certified Flood Report prepared by the BSC Group, which was reviewed and approved by the Cambridge Conservation Commission in connection with the amendment to Order of Conditions.

C. Section 20.93.2 Criteria for Approval of an Alewife Overlay District Special Permit

In reviewing applications for Alewife Overlay District special permits, the Planning Board shall be guided by the objectives, criteria, and guidelines contained in the publication Concord-Alewife Plan in addition to the requirements of Section 10.40 (Special Permits) and Section 20.90. These guidelines are also intended to assist in shaping any contemplated physical

change within the Alewife Overlay Districts. With respect to consistency with the Concord-Alewife Plan, special emphasis shall be placed on preservation of key rights-of-way for infrastructure projects as indicated in the Priority Infrastructure Plan.

- 1) The Concord-Alewife objectives, criteria and guidelines, generally and for the “Triangle District” (in which the Site is located), include the following:

- (a) Break large blocks into smaller blocks, of sizes similar to those in surrounding Cambridge neighborhoods, to improve circulation and to be compatible with surrounding neighborhoods.

The Project will replace an existing surface parking lot with a residential redevelopment of a scale similar to that found in other areas of Cambridge, and will complement the surrounding office buildings. The nearby residential buildings include the existing 30 CambridgePark Drive with 311 units, the proposed 70 Fawcett Street with 429 units, the existing 37 Wheeler Street with 72 units and the proposed 223 Concord Turnpike with 228 units. The Residential Building will enliven CambridgePark Drive by introducing additional residences, convenient for employees of (and sharing parking with) the surrounding office buildings. Close proximity to Alewife Station, area parks and trails, and retail shopping facilitates walking, biking and transit use and minimizes negative impacts on surrounding neighborhoods. As a dead-end street serving mainly commercial office buildings, CambridgePark Drive is dominated by larger scale structures that inadequately address the pedestrian scale environment that is desirable in well-planned mixed-use neighborhoods. The Residential Building will break the block down into two primary sections with staggered distances from the street, multiple entries and varied façade treatments. A series of active uses along CambridgePark Drive will ensure that a pedestrian scale will be captured along the entire length of the Residential Building. This vibrant, active street edge will create a pleasant, walkable pedestrian experience along CambridgePark Drive.

- (b) Vary the design of individual buildings to create an architecturally diverse district and create building height/façade setbacks between 85’ and 105’.

The Residential Building is set at a height (as defined in the Ordinance) of approximately 70 feet, which is well below the height of 105’ that could be allowed. The design incorporates varied setbacks, thereby creating a rhythm along CambridgePark Drive, and utilizes material changes and diverse roof lines to reduce the scale of the Residential Building. The Residential Building’s height is set off from the greater heights of the adjacent office buildings. The large urban plaza pulls the building façade away from CambridgePark Drive, thereby diversifying the building architecturally.

- (c) Street-level facades should include active uses such as frequent residential entrances, with setbacks for stoops and porches; neighborhood-serving retail including shops, restaurants, cafés; services for the public or for commercial offices such as fitness centers, cafeterias, day care centers; community spaces such as exhibition or meeting spaces; and commercial lobbies and front entrances. Provide small setbacks (5’ to 15’) from the right-of-way for café seating, benches, or small open spaces.

The Residential Building has been programmed to orient its most active uses along CambridgePark Drive to animate the streetscape and activate the district. These uses include the main entry lobby, leasing office, bicycle storage and lounge at the ground level, as well as the clubhouse amenity area on the first residential floor. The Project also introduces four residential units with private entries at the ground floor to further enhance the streetscape. The parking area is virtually entirely concealed behind the amenities and residential units at the ground level to eliminate the visual impact of such parking along CambridgePark Drive. The street level façades have been designed to provide a pedestrian friendly scale, through the use of material change and building setbacks.

(d) Encourage awnings/canopies to provide shelter and enliven ground-floor façades.

The Residential Building features a series of large canopies and awnings along CambridgePark Drive to enhance the pedestrian experience and activate the streetscape, as well as identify the main building entry. The main entry vestibule consists of a large curving canopy that draws pedestrians from the urban plaza into the building, while complementing the plaza design. Smaller, more intimate canopies are located at the residential entries and secondary building entries. The urban plaza features shallow canopies above the storefront windows at the leasing and bicycle storage areas to mimic the retail component that is discussed in the Concord-Alewife Design Guidelines.

(e) 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 four residential units that front CambridgePark Drive will complement the streetscape with direct entries, landscaping and private terraces. The parking area is virtually entirely concealed behind the amenities and residential units at the ground level to eliminate the visual impact of such parking along CambridgePark Drive, thereby creating a pedestrian-friendly environment.

(f) Encourage sustainable and green building design and site planning.

The Residential Building will seek certification under the Energy Star Home program, the US Green Building Standard and LEED-Homes. An overview of the Project's LEED compliance is contained in the LEED Narrative and LEED Checklist submitted with this Application.

(g) Use low-impact-development principles in building and site design as a way to meet city, state, and federal stormwater requirements.

The Project incorporates Low Impact Development (LID) design features into the overall stormwater management design of the Site, including, to the extent practical, a natural landscape stormwater bio-retention/rain garden area to provide improved stormwater quality, promote ground water infiltration and reduce site runoff rates. As described

above, the stormwater management design for the Project has been approved by the Cambridge Conservation Commission pursuant to the Order of Conditions.

(h) Use site design that preserves future rights-of-way identified in the Circulation Concept Plan. Locate new development to preserve right-of-way for future crossing of the railroad tracks to connect the Triangle and Quadrangle. Provide pedestrian links that strengthen physical connections to Alewife Reservation, consistent with its master plan. Strengthen bicycle and pedestrian links to adjacent areas. Provide links that strengthen physical and visual connections to open space resources.

The Project is consistent with the Circulation Concept Plan, in that the Project will create a shared access drive between the Site and the existing 150 CambridgePark Drive building. Potential future development on the Existing Property could incorporate a railroad track crossing to connect the Triangle and Quadrangle. Because of the Site location, the Project presents no opportunity for additional pedestrian or bicycle links to Alewife Reservation or other adjacent areas, but will introduce additional residential living, convenient for employees of (and sharing parking with) the surrounding office buildings, thereby facilitating walking, biking and transit use, and likely increasing recreational use, adding to the security, and increasing appreciation of the Alewife Reservation.

(i) Improve existing streets to meet City standards, including streetscape improvements.

The Project will improve existing streets to meet City standards as required and improve the streetscape by providing on-grade landscaping and an entry plaza along CambridgePark Drive.

(j) Screen service areas from CambridgePark Drive.

The Residential Building's service areas are screened from CambridgePark Drive as shown on the plans submitted with this Application.

(k) 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-ground structured parking with active uses (shops, cafés, lobbies) along important public ways; use parking structures to provide visual and acoustical screening between the railroad tracks and the rest of the area.

Below grade parking is not possible at the Site, because of the Site's location within the Flood Plain. The ground-level parking facility will be hidden from view by the entry lobby, leasing offices, clubhouse fitness center, four first-floor residential units, bicycle storage facilities and accompanying landscaping measures. The Residential Building's parking facility complies with the requirements for an open parking structure, which requires careful location of the openings along the sides and rear of the building. The openings located on the eastern side of the Residential Building will be treated with an architectural screening to fit with the building's design.

(1) Design and locate lighting and signage to support the district's pedestrian-friendly quality.

Design of outdoor lighting will feature street lighting along CambridgePark Drive and safety illumination on all other building facades. There will also be feature lighting around the building entrance and residential units to enhance the nighttime streetscape and building appearance. The Residential Building will also have some low level lighting by the way of bollards within the urban plaza. The lighting will be designed to minimize light spilling onto adjacent properties.

2) The regulations contained in Section 20.90 are intended to harness the opportunities presented with the redevelopment of private property in ways that will:

(a) Encourage forms of development, mix of uses, and range of improvements that will facilitate and encourage walking, biking and transit use and reduce the growth of auto trips in an area already burdened with regional vehicular traffic passing through to other destinations in the metropolitan region.

The Project will replace an existing surface parking lot with a residential redevelopment of a scale similar to that found in other areas of Cambridge, and will enliven CambridgePark Drive and introduce additional residential living, convenient for employees of (and sharing parking with) the surrounding office buildings, thereby facilitating walking, biking and transit use and reducing the growth of auto trips and minimizing negative impacts on surrounding neighborhoods. As described in this Application, the Project represents an opportunity to create a true mixed use area in the District while reducing the number of parking spaces from what currently exists, thereby reducing the number of potential vehicular trips.

(b) Preserve and enhance the capacity to store floodwater, recharge groundwater and manage the collection and disposal of stormwater in ways that add to the quality and visual appeal of the built environment as well as to the quality of the water itself.

As discussed in more detail above, the Project's compensatory flood storage has been designed to ensure no decrease in the Site's flood storage capacity, and is located underneath the Residential Building (thereby creating a safe, healthful and pleasing environment for the occupants of the Project and abutters).

(c) Minimize the negative impact of new development on the adjacent Cambridge Highlands residential neighborhood while introducing new amenities and services that will benefit the residents of that neighborhood.

The Project will introduce additional residential living, convenient for employees of (and sharing parking with) the surrounding office buildings, thereby facilitating walking, biking and transit use and reducing the growth of auto trips and minimizing negative impacts on nearby residential neighborhoods.

(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 and beyond

to the Cambridge Highlands, North Cambridge and Neighborhood Nine neighborhoods and the Fresh Pond Reservation.

The Project enhances and expands open space amenities in the City. The outdoor courtyard spaces and pool area will provide outdoor recreation areas for the residents, and the on-grade landscaping and urban plaza enhance CambridgePark Drive. Residents will be able to take advantage of pedestrian and bicycle connections to these other areas of Cambridge as well to Arlington and Watertown.

(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 introduce additional residential living, convenient for employees of (and sharing parking with) the surrounding office buildings.

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

The Project will restore areas that are currently paved to active and more appropriate urban uses, by replacing the existing surface parking lot with a residential redevelopment conforming to best practices for mitigation of impacts and preservation of the natural environment. The Project will create an identity and sense of place that parallels the development of the historic urban centers that characterize much of Cambridge.

3) In granting a special permit under Section 20.95.34 of the Ordinance to reduce the yard requirements otherwise applicable in the Office 2-A District, the Planning Board shall consider the following:

(a) The objectives of the Concord-Alewife Plan continue to be met.

As discussed in more detail above, the Project forwards the objectives of the Concord-Alewife Plan. In particular, the requested yard reductions provide necessary design flexibility that allows the Residential Building to concentrate active uses along CambridgePark Drive (thereby animating the streetscape and activating the district) and facilitates street level façades that provide a pedestrian friendly scale. Moreover, the location of access drives around the perimeter of the Site (including the access drive to be shared with 150 CambridgePark Drive) allows for better screening from CambridgePark Drive of the Residential Building's service and parking areas.

(b) The stormwater management objectives for the area continue to be met both on the site and as the site may be a part of a larger system for managing stormwater runoff.

As evidenced by the Cambridge Conservation Commission's approval of the amendment to Order of Conditions, the Project's stormwater management system has been designed in accordance with the Concord-Alewife Plan and reduces the rate of stormwater discharge from the Site.

(c) The reduction or waiver of yard requirements provides for more efficient development of land; encourages or facilitates a more logical pattern of buildings, streets, parks and open space; or enhances the urban, pedestrian character of the area as envisioned in the Concord-Alewife Plan.

The requested yard reductions provides for more efficient development of the Existing Property, facilitates a more logical pattern of buildings, streets, parks and open space, and enhances the urban, pedestrian character of the area as envisioned in the Concord-Alewife Plan. In particular, the Project will create a pedestrian-friendly environment along CambridgePark Drive and provides setbacks from the right-of-way for open spaces and to screen service and parking areas from CambridgePark Drive. Moreover, the Residential Building has been designed to provide vibrancy at the street level with the placement of public amenity spaces at the ground floor.

4) In granting a special permit under Section 20.97.2 and 20.97.3 of the Ordinance, to permit pooled parking, the Planning Board shall consider the following:

(a) The facility advances the objective of the Concord-Alewife Plan.

As discussed in more detail above, the Project forwards the objectives of the Concord-Alewife Plan. In particular, the pooled parking arrangement allows the introduction of 398 new residential units that will enliven CambridgePark Drive by introducing additional residences (convenient for employees of the surrounding office buildings) with a net reduction in the Existing Property's registered parking spaces. The Residential Building's close proximity to Alewife Station, area parks and trails, and retail shopping facilitates walking, biking and transit use and minimizes negative impacts on surrounding neighborhoods.

(b) A shared facility is established that aids in implementation of effective Transportation Demand Management measures to reduce dependence on the single occupancy automobile.

The Project will create 398 new units of rental housing, while resulting in a net reduction of 30 parking spaces, which is made possible only by the Residential Building's shared parking with the surrounding office buildings, close proximity to the Alewife MBTA station, 204 bicycle parking spaces and a Transportation Demand Management program that includes potential car sharing opportunities, joining a local transportation management association, designating a Transportation Coordinator, providing transit information, providing a coupon for an MBTA pass for new residents and charging for parking separately from apartment rent. Moreover, the Project will introduce additional residential living, convenient for employees of (and sharing parking with) the surrounding office buildings, thereby facilitating walking, biking and transit use and reducing the growth of auto trips and minimizing negative impacts on surrounding neighborhoods.

(c) The facility is appropriately located to serve the development it serves.

The Residential Building's parking facility will be located primarily under the Residential Building, and the Residential Building will have a right to use 100 parking spaces on a nearby portion of the amended 150 CambridgePark Drive parcel. At the same time, 70 spaces on the Site must continue to be available to 200 CambridgePark Drive and up to an additional 80 spaces on the Site will be shared with the adjacent office buildings at 125 and 150 CambridgePark Drive. The other parking spaces on the Existing Property will continue to be used by the existing office buildings at 100, 125, 150 and 200 CambridgePark Drive, which are in close proximity.

(d) The facility is well designed, does not diminish the pedestrian-friendly quality of the area around it, and is otherwise consistent with the urban design objective of the Concord-Alewife Plan.

The Project will replace an existing surface parking lot with a residential redevelopment that will enliven CambridgePark Drive and introduce additional residential living, thereby facilitating walking, biking and transit use. The Residential Building's parking facility and service areas will be hidden from view by the entry lobby, leasing offices, clubhouse fitness center, four first-floor one-bedroom residential units, bicycle storage facilities and accompanying landscaping measures. As described throughout this Application, far from diminishing the existing pedestrian friendly quality of the area around it, the Project will employ a combination of architectural and site design measures to turn a quite un-friendly area into a very pedestrian friendly area.

(e) The additional bulk of building above grade is well designed and does not have an unreasonably negative impact on its abutters or the public realm.

The Residential Building has been designed in accordance with the Concord-Alewife Design Guidelines as it relates to building mass and scale and will not have a negative impact on its abutters or the public realm. The height of the Residential Building actually will reduce the average height of the buildings located along CambridgePark Drive. As noted above, the Applicant has intentionally maintained the Residential Building at under the 70 feet permitted by right and well under the 105 feet permitted by special permit.

(f) The extent to which the construction of an above grade parking structure facilitates the creation of at grade soil permeability.

The majority of the Residential Building's parking needs are satisfied through above grade parking under the Residential Building, thereby increasing the opportunity for permeable green spaces on the Site. The green spaces provided allow for natural runoff infiltration and the creation of a bioretention/rain garden on the east side of the Residential Building.

D. 6.35 Criteria for Approval of Special Permit for Reduction of Required Parking

Any minimum required amount of parking may be reduced only upon issuance of a special permit from the Board of Zoning Appeals.¹ A special permit shall be granted only if the Board determines and cites evidence in its decision that the lesser amount of parking will not cause excessive congestion, endanger public safety, substantially reduce parking availability for other uses or otherwise adversely impact the neighborhood, or that such lesser amount of parking will provide positive environmental or other benefits to the users of the lot and the neighborhood, including specifically, among other benefits, assisting in the provision of affordable housing units.

The proposed pooled/shared parking arrangement will not cause excessive congestion, endanger public safety, substantially reduce parking availability for other uses or otherwise adversely impact the neighborhood. In fact, the proposed pooled/shared parking arrangement will provide positive benefits to the users of the lot and the neighborhood. Specifically, the proposed pooled/shared parking arrangement allows the Site to fulfill its legal obligations under existing easement agreements, and to provide adequate parking for the Residential Building, while minimizing the Residential Building's scale and maximizing the Site's green space, all without the use of an underground parking facility (which is not technically feasible given the existing site topography and the applicable Flood Plain Overlay District requirements) and without constructing the previously approved parking garage structure. Moreover, the Project will create 398 new units of rental housing, while resulting in a net reduction of 30 parking spaces, which is made possible only by the Residential Building's shared parking with the surrounding office buildings, close proximity to the Alewife MBTA station, 204 bicycle parking spaces and a Transportation Demand Management program. Finally, the Project will introduce additional residential living, convenient for employees of (and sharing parking with) the surrounding office buildings, thereby facilitating walking, biking and transit use and reducing the growth of auto trips and minimizing negative impacts on surrounding neighborhoods.

In making such a determination the Board shall also consider whether or not less off street parking is reasonable in light of the following:

- 1) The availability of surplus off street parking in the vicinity of the use being served and/or the proximity of an MBTA transit station.

The Site is located less than a quarter mile from the Alewife MBTA station.

- 2) The availability of public or commercial parking facilities in the vicinity of the use being served provided the requirements of Section 6.23 are satisfied.

The proposed shared parking arrangement will adequately serve the relevant residential and office uses. After subdivision of the Site and construction of the Residential Building, the remaining portions of 125, 150, 180, and 180R CambridgePark Drive will contain

¹ Per Section 10.45 of the Ordinance, any "application requiring a special permit from the Planning Board that contains elements requiring a special permit from the Board of Zoning Appeal may be allowed by the Planning Board within the scope of the Planning Board special permit and shall not require a separate application to the Board of Zoning Appeal."

1,195 parking spaces, and the Residential Building's parking facility will contain 398 parking spaces. 150 spaces within the Residential Building's parking facility will continue to be shared with the existing office buildings at 125, 150 and 200 CambridgePark Drive, pursuant to recorded easement agreements, and the Site will have a right use 100 parking spaces on 150 CambridgePark Drive during nights and weekends, pursuant to a recorded easement agreement. The availability of shared parking on the adjacent 150 CambridgePark Drive during nights and weekends provides adequate "contingency" parking if it is needed during the busiest times for residential parking.

- 3) Shared use of off street parking spaces serving other uses having peak user demands at different times, provided that no more than seventy-five (75) percent of the lesser minimum parking requirements for each use shall be satisfied with such shared spaces and that the requirements of Subsection 6.23 are satisfied.

The relevant residential and commercial uses have peak user demands at different times. The Residential Building's 398 residential units require 398 parking spaces under the Ordinance, far less than the parking required in connection with the existing office buildings at 125, 150 and 200 CambridgePark Drive. The proposed shared parking will involve only 150 parking spaces on the Site, which represents less than 75% of the Residential Building's 398 parking spaces (but, nevertheless, allows the construction of 398 residential units with a net reduction of 30 parking spaces on the Existing Property). It also permits the parking for the Residential Building to work without constructing the previously approved parking garage structure.

- 4) Age or other occupancy restrictions which are likely to result in a lower level of auto usage.

The Residential Building is an Inclusionary Project under the Ordinance. It is likely that, given the Site's proximity to public transportation, the building will be very attractive to residents of the Affordable Units who do not have automobiles.

- 5) Impact of the parking requirement on the physical environment of the affected lot or the adjacent lots including reduction in green space, destruction of significant existing trees and other vegetation, destruction of existing dwelling units, significant negative impact on the historic resources on the lot, impairment of the urban design objectives of the city as set forth in Section 19.30 of the Zoning Ordinance, or loss of pedestrian amenities along public ways.

The proposed shared parking allows the Site to fulfill its legal obligations under existing easement agreements, and to provide adequate parking for the Residential Building's 398 residential units as well as the required shared parking for the existing office buildings at 125, 150 and 200 CambridgePark Drive, while minimizing the Residential Building's scale and maximizing the Site's green space, all without the use of an underground parking facility (which is not technically feasible given the existing site topography and the applicable Flood Plain Overlay District requirements). The shared parking also allows the Applicant to do so without having to construct the previously approved

parking garage structure. As discussed elsewhere in this Application, the Project is consistent with the urban design objectives of the city as set forth in Section 19.30 of the Zoning Ordinance.

- 6) The provision of required parking for developments containing affordable housing units, and especially for developments employing the increased FAR and Dwelling unit density provisions of Section 11.200, will increase the cost of the development, will require variance relief from other zoning requirements applicable to the development because of limitations of space on the lot, or will significantly diminish the environmental quality for all residents of the development.

The Residential Building will provide affordable housing as required under the Ordinance, and will employ the increased FAR and Dwelling unit density provisions of Section 11.200 of the Ordinance. The proposed shared parking will decrease the Project's cost associated with the Residential Building's parking requirements, thereby facilitating the provision of affordable housing.

- 7) For a project seeking a reduction in required off-street parking for residential uses, a Parking Analysis shall be required as part of the Special Permit Application as set forth in Section 6.35.3.

A Parking Analysis was submitted with the TIS.

E. 6.43.6 Criteria for Approval of Special Permit Regarding Common Driveways

The Board of Zoning Appeal may grant a special permit authorizing owners of adjacent properties to establish common driveways under mutual easements but such special permit shall not become effective until an appropriate easement has been duly recorded at the Middlesex County Registry of Deeds.

Upon the recording of a subdivision plan substantially as shown on the Lot Subdivision Plan submitted with this Application, the Applicant shall also cause to be duly recorded with the Middlesex County Registry of Deeds an easement agreement between the Site and the remainder of 150 and 180 CambridgePark Drive that establishes mutual easements in and obligations to maintain the common driveway. Evidence of the recording of such easement agreement will be provided to the Cambridge Community Development Department.

F. 6.44.1 Criteria for Approval of Special Permit Modifying Side/Rear Property Line Requirements

Under Section 6.44.1(b), no on grade open parking space or driveway shall be located within five (5) feet of any side or rear property line. The Board of Zoning Appeal may grant a special permit to allow for modification of the requirements in 6.44.1(b) if site specific factors favor such modification.

The common driveway referenced above and the fire lane/access drive that circles the Site, along with various of the Project's parking spaces, will be located within five (5)

feet of the side or rear property lines of the Site and of the remaining portion of the Existing Property as shown on the plans submitted with this Application. Because the Project is located entirely within the Flood Plain, an underground parking facility is not feasible and the Site is accordingly constrained, whereas Project's parking spaces and access drives are designed to comply with the Ordinance's minimum design criteria for parking facilities. The portions of the drives and parking spaces located within five (5) feet of side or rear property lines primarily about a 200 CambridgePark Drive access drive, an active train track or other property of BRE/CPD and, in any case, are appropriately screened.

G. 19.25 Project Review Special Permit

In granting a Project Review Special Permit under Section 19.20 of the Ordinance, the Planning Board is required to make the following findings:

- 1) The Project will have no substantial adverse impact on city traffic within the study area as analyzed in the required traffic study.

As described in the Project's TIS submitted to TP&T on February 21, 2012, the Project is expected to have minimal impact on traffic and will not cause congestion, hazard, or substantial change to the established neighborhood character. The TIS indicates that the project is expected to have 9 exceedences of Planning Board Criteria out of 89 data entries. The traffic generated by the Project will be significantly less than that associated with the office/research and development project on 150, 180 and 180R CambridgePark Drive for which entitlements currently exist under special permit PB#236. By contrast, the TIS for that project yielded 22 exceedences out of 113 data entries.

- 2) The Project is consistent with the urban design objectives of the city as set forth in Section 19.30 of the Ordinance.

As described below, the Project conforms with the Citywide Urban Design Objectives set forth in Section 19.30 of the Ordinance.

H. 19.30 Citywide Urban Design Objectives

- 1) Pursuant to Section 19.31 of the Ordinance, new projects should be responsive to the existing or anticipated pattern of development. Indicators include:

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

The heights and setbacks of the Residential Building are complementary to the surrounding buildings and similar to the residential uses within the Triangle District. The nearest residential use is 30 CambridgePark Drive which contains approximately 311 units. The Residential Building's moderate height of approximately 70' is allowed as-of-right at the Site and well below the 105' height permitted by special permit. The Residential Building has been designed with a minimum 15' setback from CambridgePark Drive, and with a 50' setback within the urban plaza. The Residential

Building is distinct in character and design and of a lesser height than the surrounding office buildings.

(b) 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 Residential Building is oriented on the Site so as to be consistent with, in fact, to improve the existing streetscape of CambridgePark Drive. The Residential Building will activate the street edge for the length of the building along CambridgePark Drive through the thoughtful placement of key building support spaces and residential living areas. The plaza provides not only an active public space for pedestrian and bicyclists, but also allows for the bicycle storage area to directly front the public space with large glass areas, bicycle repair stands, and informal seating and gathering areas. On the second level, the clubhouse also provides strong visible presence on the plaza, with a large glass area and active uses. Four residential units have been located at the ground floor directly on CambridgePark Drive beyond the main entry plaza. These units will further reinforce the pedestrian nature of this street edge, and provide direct sidewalk access to their entry doors.

(c) In mixed-use projects, uses are to be located carefully to respect the context, e.g. retail should front onto a street, new housing should relate to any adjacent existing residential use, etc.

The Residential Building is not a mixed-use project. Nonetheless, the orientation of the Residential Building balances the needs of residents with the visual and safety concerns of passersby. The Residential Building is thoughtfully located to present an animated CambridgePark Drive elevation that includes both the lobby and leasing offices as well as clubhouse fitness facilities and four first-floor residential units, along with extensive landscaping to activate the entry courtyard and provide an improved streetscape. Outdoor amenities for residents are located in above-grade courtyards.

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

There are no neighboring historic buildings or buildings that are preferably preserved on or adjacent to the Site.

2) Pursuant to Section 19.32 of the Ordinance, development should be pedestrian and bicycle-friendly, with a positive relationship to its surroundings. Indicators include:

(a) Ground floors, particularly where they face public streets, public parks, and publicly accessible pathways, consist of spaces that are actively inhabited by people, such as retail stores, consumer service businesses and restaurants where they are allowed, or general office, educational or residential uses and building lobbies. Windows and doors that normally serve such inhabited spaces are encouraged to be a prominent aspect of the relevant building facades. Where a mix of activities are accommodated in a building, the more active uses are encouraged facing public streets, parks and pathways.

The ground floor of the Residential Building will include active residential uses. The main entrance to the Residential Building will be a large curving canopy that draws pedestrians from the urban plaza into an expansive glass vestibule, facing CambridgePark Drive. The urban plaza provides not only an active public space for pedestrian and bicyclists, but also allows for the bicycle storage area to directly front this space with large glass areas, bicycle repair stands, and informal seating and gathering areas. Residential units have also been located at the ground floor directly on CambridgePark Drive beyond the main entry plaza. These units will further reinforce the pedestrian nature of this street edge, and provide direct sidewalk access to their entry doors. The ground-level parking facility will be hidden from view by the entry lobby, leasing offices, clubhouse fitness center, four first-floor residential units, bicycle storage facilities and accompanying landscaping measures.

In commercial districts, such active space consists of retail and consumer service stores and building lobbies that are oriented toward the street and encourage pedestrian activity on the sidewalk. However, in all cases such ground floor spaces should be occupied by uses (a) permitted in the zoning district within which the building is located, (b) consistent with the general character of the environment within which the structure is located, and (c) compatible with the principal use for which the building is designed.

The ground floor of the Residential Building will be occupied by uses that are permitted at the Site, that are consistent with the neighboring environment and that are compatible with the principal residential use. Such ground floor uses include a lobby, a leasing office, four first-floor residential units and bicycle storage and repair facilities.

(b) 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 Residential Building is designed with an enclosed, on-grade parking facility because the Site is located within the Flood Plain Overlay District. The parking facility is designed to minimize the visibility of the parking area from CambridgePark Drive. No surface parking spaces are provided in the front of the Residential Building along CambridgePark Drive.

(c) 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 architectural treatment of the ground floor facing CambridgePark Drive is approximately 40% glass, which consists of the enclosed entry vestibule, adjacent leasing office, bicycle storage and lounge space. The eastern side of the Residential Building will include architectural screening and landscaping, while the western and southern sides will be screened with landscaping.

(d) 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. Relating building entries as directly as possible to crosswalks and to pathways that lead to bus stops and transit stations is encouraged; siting buildings on a lot and developing site plans that reinforce expected pedestrian pathways over the lot and through the district is also encouraged.

The main entrance to the Residential Building is located in an entry courtyard recessed about 40 feet from the face of the Residential Building closest to CambridgePark Drive. The Project is in close proximity to the Alewife Reservation and to the Alewife MBTA station, which will provide alternate commuting and recreational options for the residents. As described in more detail below, pedestrian movement to and through the site will be provided for in a safe manner.

(e) Pedestrians and bicyclists are able to access the site safely and conveniently; bicyclists should have, secure storage facilities conveniently located on-site and out of the weather. If bicycle parking is provided in a garage, special attention must be [p]aid to providing safe access to the facilities from the outside.

Pedestrians and bicyclists will be able to access the Project safely and conveniently. The Site is located in close proximity to the Alewife Reservation, and has ready access to the extensive bicycle and pedestrian trails in Cambridge, Arlington, and Watertown. Signalized crosswalks are located at the intersections of Cambridgepark Drive with Alewife Station Access Road and with Alewife Brook Parkway. There are three unsignalized crosswalks across Cambridgepark Drive, midway between Alewife Brook Parkway and Alewife Station Access Road, at 100 CambridgePark Drive and at 150 Cambridgepark Drive. The Residential Building setbacks along CambridgePark Drive will facilitate significantly widened sidewalks along the Cambridgepark Drive frontage, further enhancing safe access to the Project.

The Residential Building provides enclosed, secure, on-site parking for 204 bicycles inside the parking facility. (The Applicant is exploring opportunities to provide additional bicycle storage beyond the requirements of the Ordinance.) Two bicycle storage facilities are located near the Residential Building's front entry to provide convenient bicycle access for all residents and encourage non-automotive transportation. The bicycle storage facilities are separate from the automobile parking area and have safe, direct access to the outside. Bicycle pump and repair facilities will also be provided for resident use. Additionally, several outdoor racks are provided near the entries to the Residential Building for short-term bicycle parking to encourage the use of bicycles for multiple trips throughout the day.

(f) Alternate means of serving this policy objective 19.32 through special building design, siting, or site design can be anticipated where the building form or use is distinctive such as freestanding parking structures, large institutional buildings such as churches and auditoriums, freestanding service buildings, power plants, athletic facilities, manufacturing plants, etc.

The Project complies with the policy objective 19.32.

- 3) Pursuant to Section 19.33 of the Ordinance, the building and site design should mitigate adverse environmental impacts of a development upon its neighbors. Indicators include:
- (a) Mechanical equipment that is carefully designed, well organized or visually screened from its surroundings and is acoustically buffered from neighbors. Consideration is given to the size, complexity and appearance of the equipment, its proximity to residential areas, and its impact on the existing streetscape and skyline. The extent to which screening can bring order, lessen negative visual impacts, and enhance the overall appearance of the equipment should be taken into account. More specifically:
 - (i) Reasonable attempts have been made to avoid exposing rooftop mechanical equipment to public view from city streets. Among the techniques that might be considered is the inclusion of screens or a parapet around the roof of the building to shield low ducts and other equipment on the roof from view.
 - (ii) Treatment of the mechanical equipment (including design and massing of screening devices as well as exposed mechanical elements) that relates well to the overall design, massing, scale and character of the building.
 - (iii) Placement of mechanical equipment at locations on the site other than on the rooftop (such as in the basement), which reduces the bulk of elements located on the roof; however, at-grade locations external to the building should not be viewed as desirable alternatives.
 - (iv) Tall elements, such as chimneys and air exhaust stacks, which are typically carried above screening devices for functioning reasons, are carefully designed as features of the building, thus creating interest on the skyline.
 - (v) All aspects of the mechanical equipment have been designed with attention to their visual impact on adjacent areas, particularly with regard to residential neighborhoods and views and vistas.

The Project is designed to minimize negative impacts on its surroundings and enhance the overall appearance of the existing streetscape and skyline. First and foremost, the Project significantly improves the appearance of the Site by replacing an existing surface parking lot with a thoughtfully designed and landscaped first class, residential building. Minimal mechanical equipment will be located on the roof and will be located out of sight line to the maximum extent possible. All unit HVAC is provided by mechanical equipment located within the units with the exception of the low-profile rooftop air-conditioning units which are located in the center of the Residential Building wings, out of view from the street and nearby open spaces. Several pieces of mechanical equipment are located in enclosed, out of sight, at-grade rooms and wall-mounted gas meters are appropriately located on the west and east sides of the Residential Building, away from the publicly accessible areas of the Site along CambridgePark Drive.

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

The trash/recycling storage and handling for the Residential Building is contained within the Residential Building to avoid noise, odor, and visual impacts on the neighbors and

Residential Building residents. Centralized trash and recycling rooms are provided on each floor of the Residential Building, with chutes connecting to a main trash/recycling room at the parking level. In compliance with the Ordinance, no refuse storage areas are located in the front yard or anywhere on-grade outside of the Residential Building.

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

The Residential Building is 100% residential and does not require, or provide, a loading facility. A generous loading/unloading area is provided along, but off of, the access drive toward the rear of the Residential Building for staging of resident move ins/outs. This provides a secure area that will not block traffic circulation, with direct access to a building entry and elevator core.

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

The Project implements stormwater Best Management Practices and other measures to minimize runoff and improve water quality in accordance with the Massachusetts Stormwater Handbook for both water quality and quantity. Stormwater quality requirements are anticipated to be achieved with the use of an onsite bioretention area, deep sump and hooded catchbasins and water quality units. Additionally, the Project has been designed in accordance with the Alewife Area Stormwater Management Guidelines, May 2006. As such, the Project provides detention/infiltration of the difference between the 2-year 24-hour pre-construction runoff and the post-construction 25-year 24-hour runoff. This is anticipated to be accomplished with a pre-cast underground detention/infiltration system designed to promote groundwater recharge and reduce peak stormwater flow rates exiting the Site. In addition, stormwater management improvements will be made to the Existing Property's remaining surface parking lots. As described above, the stormwater management design for the Project has been approved by the Cambridge Conservation Commission in connection with the amendment to Order of Conditions.

(e) 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 Project incorporates Low Impact Development (LID) design features into the overall stormwater management design of the Residential Building, including natural, landscape stormwater treatment options such as a bio-retention area, landscape islands a vegetative upper level building courtyard, and an underground stormwater infiltration system working together as part of a stormwater management system to reduce the rate and volume of stormwater runoff. As described above, the stormwater management design for the Project has been approved by the Cambridge Conservation Commission in connection with the amendment to Order of Conditions.

(f) 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 enjoyment of adjacent open space and shadows that might impact the operation of a Registered Solar Energy System as defined in Section 22.60 of the Ordinance.

The Project is surrounded by railroad tracks to the south, a surface parking lot to the east and west along with 150 CambridgePark Drive, a ten story office building. The Residential Building will be six stories in height which is less than currently approved for the parcel (and 35 feet less than the maximum height allowed by special permit). Shadow modeling has illustrated that shadows from the project will not impact the uses of the abutting properties.

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

The Project minimizes changes in grade across the relevant property. There are no retaining walls close to property lines.

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

There are no existing residential uses on adjacent lots. Nonetheless, as described in this Application, the Residential Building's scale is broken down carefully to address the pedestrian scale along CambridgePark Drive and complement the surrounding architecture. In addition, window position, scale and wall treatment have been carefully considered in the existing context to ensure compatibility for both expected residents and users of the adjacent office buildings.

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

Architectural lighting will be designed to provide the minimum lighting necessary to ensure adequate safety, night vision and comfort as well as to minimize light pollution. The Residential Building entrance fronting on CambridgePark Drive will provide a soft "glow" to the entry courtyard, accenting the safety and pedestrian friendly lighting around the Residential Building. Architectural lighting will be used to illuminate key features of the Residential Building roofline. The lighting for the Residential Building will comply with the City's lighting ordinances.

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

The Project is a redevelopment of an existing site which is currently almost entirely covered with a parking lot. A Tree Study and Plans were submitted to the City of Cambridge Arborist on February 8, 2012. The Project will remove a total of 43 trees deemed to be significant on the Existing Property, but 117 new trees will be planted on

site in connection with the Project. The new tree plantings will provide greater variation and density of trees on site.

- 4) Pursuant to Section 19.34 of the Ordinance, projects should not overburden the City infrastructure services, including neighborhood roads, city water supply system, and sewer system. Indicators include:

(a) 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.

As described above, the Project's stormwater management system has been designed to incorporate best management practices and has been approved by the Cambridge Conservation Commission. Water-conserving plumbing fixtures will be installed in each residence, and potable water will be submetered so that residents are aware of their own usage.

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

Sanitary Sewer Service Infrastructure

The Residential Building contains a total of up to 501 bedrooms, resulting in 55,110 gallons per day (gpd) of sewer flows, per calculations performed as required under Title 5 of the State Environmental Code and related regulations at 310 CMR 15. Because sewer flows will be above the 50,000 gpd threshold, the Project will require a Sewer Connection Permit from the Massachusetts Department of Environmental Protection. Additionally, the Project will be required to reduce stormwater inflow and infiltration (I/I) at a 4:1 ratio (220,440 gallons) from the existing City of Cambridge Sewer System. The Applicant is working with the City's Department of Public Works to indentify existing I/I issues in the vicinity of the Site that can be corrected in connection with the Project to meet the 4:1 reduction requirement.

The Residential Building's sewerage will be discharged via an 8-inch sewer service line exiting the Site's northern side. The proposed sewer will ultimately connect to the existing 10-inch City sewer main in CambridgePark Drive.

In addition to the typical sanitary sewer connection, the City of Cambridge requires developments in this area to provide an on-site sewerage storage tank for use during significant rainfall storm events. The Residential Building's storage tank, located under the front plaza area along CambridgePark Drive, provides approximately 8-hours of storage with a safety factor, which equates to a 27,600 gallon tank. This system will be connected to the City's remote monitoring system that will activate when the CSO pump activates at the pumping station. When the peak subsides, the wastewater will be released by the City. In the event of an unusually long storm event in which the tank capacity is exceeded, the system is also equipped with an overflow.

The Cambridge Department of Public Works has indicated that the City's existing sanitary system has the capacity to handle the Project's sewerage discharge, and will be required to remove I/I, as described above, at a ratio of 4 gallons of I/I for every 1 gallon of Project sanitary flow.

Water Service Infrastructure

The Project will require approximately 55,110 gallons per day for its domestic water demands. The Cambridge Department of Public Works has indicated that the existing water supply system has the capacity to handle the Project's proposed domestic and fire protection services. Flow tests with the Cambridge Department of Public Works will be performed to confirm the system capacity.

(c) 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 adjacent lots to do the same. Compliance with Leadership in Energy and Environmental Design (LEED) certification standards and other evolving environmental efficiency standards is encouraged.

The Residential Building will seek certification under the Energy Star Home program, the US Green Building Standard and LEED-Homes. An overview of the Project's LEED compliance is contained in the LEED Narrative and LEED Checklist submitted with this Application.

- 5) Pursuant to Section 19.35 of the Ordinance, new construction should reinforce and enhance the complex urban aspects of Cambridge as it has developed historically. Indicators include:

(a) New educational institutional construction that is focused within the existing campuses.

N/A to the Project.

(b) Where institutional construction occurs in commercial areas, retail, consumer service enterprises, and other uses that are accessible to the general public are provided at the ground (or lower) floors of buildings. Where such uses are not suitable for programmatic reasons, institutional uses that encourage active pedestrian traffic to and from the site.

N/A to the Project.

(c) In large, multiple-building non-institutional developments, a mix of uses, including publicly accessible retail activity, is provided where such uses are permitted and where the mix of uses extends the period of time the area remains active throughout the day.

N/A to the Project.

(d) Historic structures and environments are preserved.

N/A to the Project.

(e) Preservation or provision of facilities for start-up companies and appropriately scaled manufacturing activities that provide a wide diversity of employment paths for Cambridge residents as a component of the development; however, activities heavily dependent on trucking for supply and distribution are not encouraged.

The Project will be a complementary use to the existing, and future, commercial use in the area, introducing additional residential living, convenient for employees of the surrounding office buildings.

6) Pursuant to Section 19.36 of the Ordinance, expansion of the inventory of housing in the city is encouraged. Indicators include:

(a) Housing is a component of any large, multiple building commercial development. Where such development abuts residential zoning districts substantially developed to low-scale residential uses, placement of housing within the development such that it acts as a transition/buffer between uses within and without the development.

(b) Where housing is constructed, providing affordable units exceeding that mandated by the Ordinance. Targeting larger family-sized middle income units is encouraged.

The Residential Building is 100% residential, and will add 398 additional residential dwelling units to the housing inventory of the City. A range of unit types are provided, of which approximately 26% will be two-bedroom units. The Residential Building will include affordable units in compliance with the Ordinance.

7) Pursuant to Section 19.37 of the Ordinance, enhancement and expansion of open space amenities in the city should be incorporated into new development in the city. Indicators include:

(a) On large-parcel commercial developments, publicly beneficial open space is provided.

(b) Open space facilities are designed to enhance or expand existing facilities or to expand networks of pedestrian and bicycle movement within the vicinity of the development.

(c) A wider range of open space activities than presently found in the abutting area is provided.

The Project enhances and expands open space amenities in the City. The outdoor courtyard spaces and pool area will provide new outdoor recreation areas for residents, and on-grade landscaping enhances CambridgePark Drive. The large urban plaza at the street edge will provide more attractive, useful and accessible open space than is currently available along CambridgePark Drive. The plaza has been designed to support

the anticipated bicycle traffic generated by the Residential Building, and therefore includes seating areas and allows for pedestrian travel and excellent access to bicycle storage areas. The planting strategy for the Site utilizes drought tolerant native or adapted species along the perimeter of the Site and transitions to a blend of native and hardy ornamental materials closer to the Residential Building. The plaza will be planted with primarily ornamental grasses and flowering perennials as the understory layer, with a few shade trees and flowering trees comprising the canopy layer. All irrigated planting areas will employ efficient drip tubing.

IV. CONCLUSION

As described above, the Project is appropriate to the Site and surroundings. It provides needed additional housing, including affordable housing, to the City's housing stock. The Project has a minimal transportation impact on the area roadways and enhances adjacent properties. Finally, the Project will replace an existing surface parking lot with a thoughtfully designed and landscaped, first class, residential building, while at the same time reducing the number of parking spaces below that which currently exists. In addition, as noted throughout the Application, the Project compares favorably in many respects to the office/lab building and parking garage development that is currently permitted for the Site. In short, the Project furthers the objectives of the Zoning Ordinance and applicable planning studies of the area in several significant ways. Accordingly, for the reasons set forth above, the Applicant respectfully requests that the Board find that the Project satisfies all applicable requirements of the Ordinance in connection with the granting of the requested Special Permits and amendments to Existing Special Permits.

Sewer Service Infrastructure Narrative

Sanitary

The sanitary sewage from the proposed residential building will be collected and discharged into the existing 10-inch sewer system in CambridgePark Drive. The proposed service connection from the will be an 8-inch pipe to carry the anticipated 55,110 gallons of daily waste anticipated. The Project is working with the City to coordinate the new sanitary and stormwater connections. The existing site is currently comprised of a parking lot and there is no sanitary flow credit for the existing use of the site. A breakdown of the project's sewer design flow rates are as follows:

Proposed Sanitary Sewer Flows¹:

Use	GPD/Unit	Unit	GPD
Residential	110 per bedroom	501 bedrooms	55,110 gpd

Total Existing Sanitary Flows 55,110 gpd

1. Proposed Sanitary flow calculations per 310 CMR 15.203

In addition to the typical sanitary sewer connection, the City of Cambridge requires developments in this area to provide an on-site sewerage storage tank for use during significant rainfall storm events. The storage tank, located in the front plaza area along CambridgePark Drive, provides approximately 8-hour storage with a factor of safety, which equates to a 27,600 gallon tank. This system will be connected to the City's remote monitoring system that will activate when the CSO pump activates at the pumping station. When the peak subsides, the wastewater will be released, by the City.

The amount of discharge anticipated for the project will trigger a sewer connection permit with the Massachusetts Department of Environmental Protection. Additional sewer improvement requirements imposed by DEP and the City to the existing system will be required. Inflow and Infiltration (I/I) mitigation will be required at a removal rate of 4:1 at locations to be determined by the City Engineer. The anticipated I/I removal is 220,440 gpd for the project.

Stormwater

The proposed storm water management system has been designed in a manner that will exceed the provisions of the Department of Environmental Protection (DEP) Stormwater Management Policy (hereinafter, the "Policy") for a new construction project. The design is also in conformance with the City of Cambridge stormwater management guidelines, as outlined in the document "Wastewater and Stormwater Management Guidance" dated May 2008 and the Concord-Alewife Area Stormwater Management Guidelines.

The stormwater generated by the residential project will be collected by a series of catch basins prior to being detained and infiltrated in the rear of the property. The infiltration/detention system consist of a pre-cast concrete chamber system which will provide a reduction in the proposed 25-year runoff to be comparable with the existing 2-year runoff. The stormwater will then be conveyed to an existing drain manhole on CambridgePark Drive. All of the proposed catch basins have been designed with sumps and hoods, consistent with the Guidelines.

The stormwater generated within the limits of work on the existing parking lots is to be mitigated with the creation of an underground detention system consisting of 36” ADS piping. The system has been design to mitigate the 2-year predevelopment and the 25-year post drainage runoffs for within the limits of work for the improvements. Unfortunately, due to high ground water in this area, infiltration is not practicable.

Water Runoff Rates

The proposed project provides attenuation required to reduce offsite peak runoff rates that are less than the pre-development conditions. Attenuation is achieved through the use of a subsurface infiltration/detention system on the residential portion of the project and a detention system for the parking lot improvements to the east. Captured runoff that is discharged from the systems is then routed to the City’s drainage infrastructure at two design points. The first is CambridgePark Drive for the residential portion and the second is the existing City infrastructure located in the rear of 30 CambridgePark Drive.

The subsurface infiltration system provides adequate detention to reduce peak flows from the site during the 2, 25 and 100-year storms as follows:

Peak Flow Rates Summary – Residential Portion

	Existing Flows (cfs)	Proposed Flows (cfs)	Peak Runoff Decrease (cfs)
2-year Peak Runoff	11.4	4.9	6.5
25-year Peak Runoff	22.4	11.3	11.1
100-year Peak Runoff	32.6	20.4	12.2

Peak Flow Rates Summary – Parking Improvements

	Existing Flows (cfs)	Proposed Flows (cfs)	Peak Runoff Decrease (cfs)
2-year Peak Runoff	7.0	3.6	3.4
25-year Peak Runoff	13.9	6.3	7.6
100-year Peak Runoff	20.4	11.6	8.8

Water Quality

The proposed drainage system has been designed to exceed the recommended 80% TSS removal goal with the implementation of the following:

- Deep Sump (4-foot) and Hooded Catch Basins
- StormCeptor Water Quality Units
- Infiltration and Detention Systems

Groundwater Recharge

Groundwater recharge is provided in a subsurface infiltration system located in the rear of the proposed residential building. The infiltration system consists of a pre-cast concrete chamber system set on a crushed stone base. The required groundwater recharge has been provided to the extent practical due to the poorly draining soils on site combined with a high water table. The Stormwater Management Guidelines require groundwater recharge to the maximum extent practicable.

Approximately 9,930 cf of infiltration for the annual rainfall is provided

Conclusions

The project has been designed to meet, and in some cases exceed, the applicable provisions of the Stormwater Management Standards and the City of Cambridge Stormwater Management Guidelines. Through the incorporation of subsurface detention and infiltration structures, the Project will provide storage and infiltrate the required recharge volume while simultaneously mitigating the peak runoff rates up to and including the 100-year storm.

Water Service Infrastructure Narrative

The Project will require approximately **55,110** gallons per day for its domestic water demands, based on the sanitary flow calculations per 310 CMR 15.203. It is anticipated that the site's service connections will be from the existing 10-inch water line in CambridgePark Drive for domestic and fire service water.

The capacity and condition of the existing water supply infrastructure is currently under investigation. Hydrant flow tests will be performed to determine the capacity of the line in CambridgePark Drive. Should it be determined that there is inadequate pressure to provide the required flows for the potable water, a booster pump will be added to the project to handle the deficiency. The connections to the existing main is proposed to be a wet taps and will be fully coordinated with the City Water Department. Additionally, the Project is working with the City Water Department for potential improvements to the existing 10" water main located on the western edge of the site.

The fire protection system design will be coordinated with the City Fire Chief.

160 CambridgePark Drive

Noise Narrative

The Project will comply with the requirements of the Noise Control Ordinance of the City of Cambridge (Chapter 8.16).

The proposed building is entirely residential and is not anticipated to generate any noise disturbances to abutting properties.

We are currently studying the potential noise generated from the MBTA Commuter Railroad line adjacent to the property; we will take the appropriate steps to mitigate the disturbance to the residence which could include the modification of wall and window assemblies to improve the STC ratings. Some steps that we have taken in the past have included the installation of RC Channel on the outside wall behind the drywall, using a double layer of drywall, using quiet rock drywall (sound engineered drywall) and installing laminated glass windows. Once the testing is completed, our sound consultant will be able to provide a detail design for the proper sound mitigation within the units.

All rooftop equipment proposed for the building will be designed to mitigate any noise from transmitting into the residential units below by locating them above corridors. Noise generated by construction will be consistent with typical urban redevelopments and construction. The Project will conform to all local, state and federal requirements for controlling noise during construction.

Memorandum

DATE: FEBRUARY 23, 2012

Project: 160 CambridgePark Drive Residences - Cambridge, MA

To: Richard McKinnon
The McKinnon Co.
One Leighton Street, Number 1905
Cambridge, MA 02141

From: Chris Poles
Project Manager
CUBE 3 Studio, LLC

Mr. McKinnon:

This Memo is intended to be a summary of the approach to LEED for the project team for the 160 CambridgePark Drive Residences, using the LEED for Homes Multifamily Mid-rise rating system.

Background

LEED for homes is an initiative designed to promote the transformation of the mainstream homebuilding industry toward more sustainable practices. By recognizing sustainable design and construction in homes nationwide, LEED for Homes helps home builders differentiate their homes as some of the best homes in their markets, using a recognized national brand.

The LEED for Homes Rating System was originally designed for single family and low rise multi-family residential development. As the program has grown, residential projects in the 4 to 6-story category have shown an interest in using the LEED for Homes criteria. In order to address this market sector, USGBC developed LEED for Homes Multifamily Midrise Guidance, to better address this project type.

Rating System

The LEED for Homes Rating System measures the overall performance of a home in eight categories:

1. **Innovation & Design Process.** Special design methods, unique regional credits, measures not currently addressed in the Rating System and exemplary performance levels.
2. **Location and Linkages.** The placement of homes in socially and environmentally responsible ways in relation to the larger community.
3. **Sustainable Sites.** The use of the entire property so as to minimize the project's impact on the site.
4. **Water Efficiency.** Water-efficient practices, both indoor and outdoor.

5. **Energy and Atmosphere.** Energy efficiency, particularly in the building envelope and heating and cooling system.
6. **Materials and Resources.** Efficient utilization of materials, selection of environmentally preferable materials, and minimization of waste during construction.
7. **Indoor Environmental Quality.** Improvement of indoor air quality by reducing the creation of and exposure to pollutants.
8. **Awareness and Education.** The education of a homeowner, tenant, and/or building manager about the operation and maintenance of the green features of a LEED home.

The checklist for LEED for Homes Mid-rise Projects is much more extensive than in past iterations, taking into account much more of the surrounding site and neighborhood context. This approach makes sense, as a LEED certified project that is an island of green development with no connectivity on a pristine, undeveloped site is not very green.

Categories of compliance for LEED for Homes Mid-rise (Note that these numbers have been adjusted to account for the average unit size of the project; the smaller the average Unit SF, the fewer points are needed to achieve each level of certification. The 160 CambridgePark Drive Residences achieved a home size adjustment of -2 points, meaning that all categories below have been reduced by two points from the base certification number).

- **Certified** – 43.0 Points
- **Silver** – 58.0 Points
- **Gold** – 73.0 Points
- **Platinum** – 88.0 Points

Initial Assessment by Category

Note: The assessment below of each potential *Required* or *Yes* Points is our preliminary assessment of each point. As the project is presently in the Conceptual Design Phase, we believe that there will be some evolution of the points as the design moves into the Schematic and Design Development Phases. Some points may eventually prove to be impractical, but if that is the case, other LEED points will take their place. We will work with The McKinnon Co., the entire design team, and the City of Cambridge to track each point as the project progresses and make sure that the Silver rating is ultimately achieved.

1. Innovation & Design Process (ID)

- **ID 1.1 - Preliminary Rating:** The LEED target for the 160 CambridgePark Drive Residences is Silver. The initial review of LEED for Homes MID-RISE has taken place and each point has been assigned to the appropriate consultant responsible for each point.
- **ID 1.2 – Energy Expertise for MID-RISE:** Each team must include an individual familiar with mid-rise energy systems and components, including mechanical equipment, envelope upgrades, energy modeling per ASHRAE Standard 90.1, Appendix G. The 160 CambridgePark Drive Residences team has extensive experience with mid-rise design and construction, most recently having completed a project very similar in scale to the proposed project in Medford.
- **ID 1.4 – Design Charrette:** The Design Team for the 160 CambridgePark Drive Residences intends to hold a one-day Design Charrette early in Schematic Design to

develop an integrated and cost-effective approach to green design and construction. Representatives from Civil, Landscape, Architecture, Planning, Construction, MEP/FP, and construction testing and services professions will participate in the charrette.

- **ID 1.6 – Trades Training for MID-RISE:** The Design Team for the CambridgePark Drive Residences intends to hold training for the Plumbing, Mechanical Systems and Insulation trades prior to the beginning of construction focusing on the green or otherwise unusual aspects of the project, including each LEED for Homes relevant prerequisite, and the expectations for ensuring certification.
- **ID 2.1 – Durability Planning:** Prior to Construction, the project team will:
 - Complete the Durability Risk Form.
 - Develop specific measures to respond to these issues.
 - Identify and incorporate all applicable moisture control measures listed in Tab. 1.
 - Incorporate measures from above into the project specifications.
 - List all durability measures and their location in the project specifications via a durability checklist.
- **ID 2.2 – Durability Management:** During Construction, the Construction Manager will have a Quality Management process in place to ensure proper installation of all durability measures from the Checklist.
- **ID 2.3 – Third Party Durability Management Verification:** A key member of the project team during both design and construction will be the owner's construction representative, who will often be present on-site to provide quality control and will oversee all Third-Party reviews, including the Durability issues.

2. Location and Linkages (LL)

- **LL 3.2 - Infill:** The 160 CambridgePark Drive Residences qualifies for Credit 3.2 Infill with at least 75% of the perimeter immediately bordering previously developed land.
- **LL 4 - Existing Infrastructure:** To achieve this point, the project needs to be located within a 1/2 mile of existing water service and sewer lines, both of which are closely present on the proposed site. The project will further extend and improve the existing municipal service lines, including constructing a looped water main and replacing existing aged sewer services, to improve and extend service to the area making future investment in the area feasible.
- **LL 5.1 - Basic Community Resources for MID-RISE:**

The 160 CambridgePark Drive Residences project meets the overall intent of this credit because the project creates a multi-use pathway to connect its residents with the diverse transit and community resources located near the Alewife MBTA Station. The project is located within a 1/4 mile distance of the Alewife Reservation area, residents have access to numerous banking, retail and restaurant uses, as well as a full-service transportation center. The Alewife MBTA station hosts the MBTA Red Line stop at Alewife, numerous MBTA bus lines and private transportation operations for local residents.

Since the project is being designed and will be marketed as a pedestrian friendly facility and environment that does not require residents to own a vehicle, given its location and pathway linkage. The Project intends to apply for these credits should full certification be sought.

LL 6 – Access to Open Space: The requirements of Credit LL 6 are to “select a location within ½ mile of a publicly accessible or community-based open space that is at least ¾ acre in size. The open space requirement can be met by either one large open space or two smaller spaces totaling ¾ acre”. The 160 CambridgePark Drive Residences residents will have access to the Alewife Reservation which is located along CambridgePark Drive.

3. Sustainable Sites (SS)

- **SS 1.1 - Erosion Controls During Construction:** The 160 CambridgePark Drive Residences qualifies for Credit SS 1.1 as the design plans include a full Erosion and Sediment Control Plan. Erosion and Sediment Control Plans will be included in the Notice of Intent (NOI) filing with the City of Cambridge Conservation Commission. The plans will outline erosion control measures such as tree protection, stabilized construction exit, fiber roll, linear sediment trench, catch basin inlet protection, stockpile management, temporary stabilization measures including seeding and mulch and concrete wash out areas. The Erosion and Sediment Control, as well as the Operation and Maintenance Plan to be submitted with the NOI, fulfill the prerequisite for Credit SS 1.1.
- **SS 1.2 - Minimize Disturbed Area of Site for MID-RISE:** The project housing density that is equal to or greater than 40 units per acre. The 398 units divided by the lot size in acres (184,273 SF = 4.2303 acres) = 94.8 Units/Acre.
- **SS 2.1 - No Invasive Plants (prerequisite):** The project will specify primarily native materials but also drought tolerant adapted species which are non invasive.
- **SS 2.2 – Basic Landscape Design:**
 - **a. Any turf must be drought tolerant:** The project will specify a turf grass seed mix which can survive without the aid of irrigation. We assume you will want irrigation in many areas however, given aesthetic concerns.
 - **b. Do not use turf in densely shaded areas:** The project will not propose turf in areas of dense shade and will install in areas that receive at least 3 hours of sun light. These areas will be determined with a shade study.
 - **c. Do not use turf in areas with a slope of 25:** The project will not install turf in areas where the slope exceeds 25%.
 - **d. Add mulch or soil amendments as appropriate:** Mulch and soil amendments will be added to the planting mix as required based on soil testing results. The finished planting soil after amendment will be classified as a “sandy loam” for tree, shrub, groundcover plantings or a “loamy sand” for turf areas per USDA soil classification system.

- **e.** All compacted soil must be tilled to at least 6 inches: Compacted subgrade soils will be mechanically loosened down to a maximum depth of 36 minimum and tested for percolation prior to the placement of planting soils.

- **SS 3.1 - Reduce Site Heat Island Effects for MID-RISE:** The project intends to install light-colored, high-albedo materials for 50% of the site hardscapes to meet the required LEED criteria.

- **SS 3.2 - Reduce Roof Heat Island Effects for MID-RISE:** The project intends to install a high-albedo roof at the building roof over the units and vegetated roof over the parking garage/courtyards that, in combination, meet the required LEED criteria.

- **SS 4.3 - Stormwater Quality Control for MID-RISE:** The 160 CambridgePark Drive Residences qualifies for Credit SS 4.3 Stormwater Quality control by complying with DEP's Stormwater Management Handbook. Stormwater runoff is captured and treated. The project stormwater management design includes street sweeping, deep sump hooded catch basins, a water quality unit, subsurface infiltration systems, a rain garden and outlet control structures.

- **SS 5 - Pest Control Alternatives:** The project team intends to comply with this point by utilizing the following approaches:
 - 1) Keep all wood (i.e., siding, trim, structure) at least 12 inches above soil (code typically requires 8 inches). Since the project is a wood frame structure sitting on top of a concrete podium approximately 11 feet above grade, we do not expect much, if any wood structure or finished product to be within 12 inches of grade. What little of the proposed building hits the ground will be primarily metal, glass, concrete or fiber-cement board finishes.
 - 2.) Sealing all external cracks, joints, penetrations, edges, and entry points with caulking.
 - 3.) Install landscaping such that all parts of mature plants will be at least 24 inches from the building. Again here, the building design is helping this issue because there are no housing units at the ground floor - only parking and entry/building services.
 - 4.) Use solid concrete foundation walls or masonry wall with top course of solid block bond beam or concrete-filled block.

- **SS 6.3 - Very High Density for MID-RISE:** The project will comply with the 80 or more dwelling units per acre of buildable land requirement. The entire property is 184,273 SF or 4.2303 acres; the buildable land divided by 398 Units = 94.8 Units per Buildable acre.

- **SS 7.1 - Public Transit for MID-RISE:** The project is located within 1/2 mile of Alewife Red Line Station, which offers well above the required 60 transit rides per day. The MBTA Red Line operates approximately 100 trains per day (every 9 minutes in rush hours, every 13 minutes midday, every 12 minutes evening and late night).

- **SS 7.2 - Bicycle Storage for MID-RISE:** Due primarily to Cambridge's very progressive bicycle requirements of 1 bicycle space per 2 units, the project is providing a total of 204 covered bicycle spaces, far above the LEED requirement for a bicycle space for 15% of the building occupants. The proposed project assumes a

total of 501 persons based on 1 person per bedroom for 1-BR and 2-BR and 2 persons/Studio. 15% of 586 persons = 76 bicycle spaces. Note that the project is providing additional outdoor (uncovered) bicycle spaces at the major building entrance along CambridgePark Drive.

- **SS 7.3 - Parking Capacity/Low-Emitting Vehicles for MID-RISE:** The project will provide preferred parking for low-emitting and fuel-efficient vehicles for 5% of the 398 car total vehicle parking capacity of the site, or 20 spaces. In addition, the project does not exceed the minimum Cambridge zoning requirements and we will investigate the potential for car-share services such as Zipcar, ride boards, and shuttle services to mass transit.

4. Water Efficiency (WE)

- **WE 2.1 - High-Efficiency Irrigation System for MID-RISE:** The project will design and install a high-efficiency irrigation system to comply with these points by utilizing the following approaches:
 - 1) Install a central shut-off valve
 - 2) Install a submeter for the irrigation system
 - 3) Use drip irrigation for at least 50% of landscape planting beds to minimize evaporation.
 - 4) Install moisture sensor or rain delay controller
- **WE 3.1 - High Efficiency Fixtures and Fittings:** The project will specify toilets that have an average flow rate of less than 1.3 gpf (will meet ASME A112.19.14 or the US EPA WaterSense specification and be labeled accordingly) in all units and public spaces.
- **WE 3.2 - Very High Efficient Fixtures and Fittings:** The project will specify lavatory faucets at 1.5gpm max and low-water use shower heads (1.75 gpm max) in all units and public spaces.
- **WE 3.3 - Water Efficient Appliance for MID-RISE:** The project will specify ENERGY STAR labeled dishwashers that use 6.0 gallons or less per cycle.

5. Energy and Atmosphere (EA)

- **EA 1.1 - Minimize Energy Performance for MID-RISE:** The project will demonstrate a 15% improvement building performance rating compared to ASHRAE Standard 90.1-2007 using a computer simulation model for the whole building project. The architecture and MEP/FP design teams will work together to develop the simulation model to include all aspects of the project from equipment and lighting, exterior skin, glazing, HVAC systems, appliances, and any other energy-related system in the project.
- **EA 1.2 - Testing and Verification for MID-RISE:** The project will meet all of the EPA Multifamily High-rise Program Testing and Verification Protocols requirements.
- **EA 1.3 - Optimize energy Performance for MID-RISE:** This point builds on EA 1.1, in that it requires an increased building performance rating compared to ASHRAE

Standard 90.1-2007 using a computer simulation model for the whole building project. The higher the performance, the greater the number of LEED points awarded.

- **EA 7.2 - Pipe Insulation:** The project will investigate specifying and installing all domestic hot water piping with R-4 insulation, including on all piping elbows to adequately insulate the 90-degree bend.
- **EA 11.1 - Refrigerant Charge Test:** The Construction Manager will provide proof of proper refrigerant charge of the air-conditioning system used in the project.
- **EA 11.2 - Appropriate HVAC Refrigerants:** The project will specify and install a non-HCFC refrigerant or a refrigerant that complies with LEED standards set forth in EA 11.2.

6. Materials and Resources (MR)

- **MR 1.1 - Framing Order Waste Factor Limit:** The project will be designed to limit the overall estimated waste factor to 10% or less.
- **MR 1.2 - Detailed Framing Documents:** Prior to construction, the project will documents will create detailed framing plans or scopes of work and accompanying architectural details for use on the job site, indicating the specific locations, spacing, and sizes of all framing members in the floors, walls, roof, and ceiling.
- **MR 1.3 - Detailed Cut List and Lumber Order:** Prior to construction, in addition to MR 1.2, the project will create a detailed cut list and lumber order that corresponds directly to the framing plans and/or scopes of work.
- **MR 1.4 - Framing Efficiencies:** Project will implement Framing Efficiencies from Table 23. , including precut framing packages, open-web floor trusses, and roof rafter spacing greater than 16" o.c., sizing headers for actual loads, and 2-stud corners (Note: these will be confirmed during design phase by the project structural engineer).

(Project will comply with MR 1.2, 1.3 & 1.4 OR MR 1.5 below, not both)

- **MR 1.5 - Off-Site Fabrication:** The project will utilize off-site fabrication, utilizing panelized construction. We anticipate that wall, roof and floor components will be delivered to the site preframed. The floors and roofs will be prefabricated wood trusses and the exterior walls will be panelized wood framed components.
- **MR 2.1 - Certified Tropical Wood:** The project will provide all wood product suppliers with a notice to:
 - only purchase FSC-certified wood products;
 - a request for the country of manufacture of each wood product supplied;
 - request a list of FSC-certified tropical wood products the vendor can supply.Also, if tropical wood is used, only FSC-certified tropical wood products.
- **MR 2.2 - Environmentally Preferable Products:** The project anticipates using environmentally preferable products from Table 24, including Flooring (mostly carpet), foundation concrete, recycled decking material, counters. The exact point composition of this category will be determined early in the schematic design process.

- **MR 3.1 - Construction Waste Management Planning:** The project Construction Manager will investigate and document local options for recycling and reuse of cardboard packaging, beverage containers and other recyclable items on-site, and document the diversion rate for construction waste.

7. Indoor Environmental Quality (EQ)

- **EQ 2 – Basic Combustion Venting Measures:** The 160 CambridgePark Drive Residences will comply with this point's requirements by: providing no unvented combustion appliances, installing a Carbon Monoxide (CO) monitor at each unit. If there is a fireplace, it will be vented and have a door. Water heating equipment will be gas-fired with sealed ducting and power vented to the exterior.
- **EQ 4.1 – Basic Outdoor Ventilation for MID-RISE:** The 160 CambridgePark Drive Residences project anticipates utilizing an HVAC system that is provided directly from the outdoors. All units have a system that serve only that unit and are compliant with the ASHRAE standards listed in the credit description. No make-up air will be provided via the corridors or any other non-unit space, and air inlets will be located at least 10 feet from stacks, vents, or any exhaust vents,
- **EQ 5.1 – Basic Local Exhaust:** The design of the 160 CambridgePark Drive Residences will provide a local exhaust system at each unit kitchen and bathrooms, which will be Energy-Star Rated.
- **EQ 5.2 – Enhanced Local Exhaust:** The design of the 160 CambridgePark Drive Residences will provide an automatic timer to operate the fan for 20+ minutes –post-occupancy.
- **EQ 7.1 – Good Filters:** The project will be designed and built using good air filters with a minimum efficiency reporting value (MERV) greater than or equal to 8.
- **EQ 9.1 – Radon Resistant Construction in High-Risk Areas:** The 160 CambridgePark Drive Residences will be designed and built with standard radon-resisting construction techniques. These radon-resistant measures will include a vapor-retarder below the slab; sealing and caulking all openings, cracks, and crevices in the concrete foundation floor (including the slab perimeter crack) and walls with polyurethane caulk to prevent radon and other soil gases from entering the home; a layer of gravel below the slab to allow movement of radon (the detailed foundation design for the project has not begun yet), and a vent pipe. The vast majority of the project is sitting above a level of parking, minimizing the radon leakage potential into the project spaces.
- **EQ 10.1 – No HVAC in Garage for MID-RISE:** The intent of this point is to reduce occupant exposure to indoor pollutants originating from an adjacent garage by placing all air-handling equipment and ductwork outside the fire-rated envelope of the garage.
- **EQ 11 – Environmental Tobacco Smoke Reduction for MID-RISE:** The 160 CambridgePark Drive Residences will be a 100% smoke-free building and this will be communicated in the building rental/lease agreements, for both units and common spaces. Exterior designated smoking areas will be located at least 25 feet from all entries, operable windows and outdoor air intakes.

- **EQ 12.1 – Compartmentalization of Units:** The project team intends to ensure that each unit is compartmentalized to minimize leakage between units by sealing any wall or ceiling penetrations in the unit and at adjacent chases. While the intent of this point is to minimize indoor air pollutants, we also do this to minimize noise between units. A blower door test will be utilized to demonstrate the compartmentalization of units, using .30 cfm50 per square foot of enclosure (all surfaces of the unit).

8. Awareness and Education (AE)

- **AE 1.1 - Basic Operations Training:** The project owner will provide all new owners at the 160 CambridgePark Drive Residences with a binder with the following: a completed LEED checklist, the Accountability Form, Durability inspection checklist, product manufacturers' manuals for equipment, fixtures and appliances, general information on efficient use of energy, water and natural resources, O&M guidance for any LEED-related equipment, guidance on the occupant choices, educational information on "green power" and a 1-hour walk-through with users to identify, instruct, operate and maintain the equipment.
- **AE 1.3 – Public Awareness:** To promote general awareness about LEED For Homes the project owners will do three of the following:
 - Hold an advertised, attended public open house that lasts at least four hours per day on at least four weekends, or participate in a green building exhibition or tour. The 160 CambridgePark Drive Residences will display at least four informational signs about the LEED for Homes features. Or the project will offer guided tours that highlight at least four LEED for Homes features.
 - The owner will publish a website with at least two pages that provides detailed information about the features and benefits of LEED homes.
 - The owner will generate a newspaper article on the 160 CambridgePark Drive Residences LEED for Homes project.
 - The project will display LEED for Homes signage, measuring six square feet or more, on the exterior of the 160 CambridgePark Drive Residences.
- **AE 2 – Education of Building Manager:** The project owner will provide the building manager of the 160 CambridgePark Drive Residences with a binder with the following: a completed LEED checklist, the Accountability Form, Durability inspection checklist, product manufacturers' manuals for equipment, fixtures and appliances, general information on efficient use of energy, water and natural resources, O&M guidance for any LEED-related equipment, guidance on the occupant choices, educational information on "green power" and a 1-hour walk-through to identify, instruct, operate and maintain the equipment (this is the same list as each resident will receive).

The required goal for Cambridge is **Silver Certified**, or 58.0 points total. The initial checklist review positions the project as being able to achieve a Silver rating. We are early in the design process and our understanding of exactly which points are achievable will become clearer as the design process moves beyond master planning and conceptual into Design Development.

We look forward to working with all project stakeholders to achieve the Silver Rating and make this project as environmentally responsible as possible.

Regards,

Chris Poles

Project Manager
CUBE3 Studio, LLC
360 Merrimack Street
Building 5, Floor 3
Lawrence, MA 01843

Email: cpoles@cube3studio.com
Direct: 978.379.8729

cc: LEED for Homes Mid-Rise Draft Checklist

DRAFT



for Homes

LEED for Homes Mid-rise Pilot Simplified Project Checklist

Builder Name:
Project Team Leader (if different):
Home Address (Street/City/State):

Project Description:

Building type: **Mid-rise multi-family** # of stories: **5**
 # of units: **398** Avg. Home Size Adjustment: **-2**

Adjusted Certification Thresholds

Certified: **43.0** Gold: **73.0**
 Silver: **58.0** Platinum: **88.0**

Project Point Total	Final Credit Category Total Points				
Prelim: 58 + 18 maybe pts	Final: 4	ID: 0	SS: 4	EA: 0	EQ: 0
Certification Level		LL: 0	WE: 0	MR: 0	AE: 0
Prelim: Not Certified	Final: Not Certified	Min. Point Thresholds Not Met for Prelim. OR Final Rating			

date last updated :
 last updated by :

				Max Pts	Project Points				
					Preliminary	Maybe	Final		
Innovation and Design Process (ID) (No Minimum Points Required)				Max	Y/Pts	Maybe	No	Y/Pts	
1. Integrated Project Planning	1.1	Preliminary Rating		Prereq					
	1.2	Energy Expertise for MID-RISE		Prereq					
	1.3	Professional Credentialed with Respect to LEED for Homes		1	0	0	0	0	
	1.4	Design Charrette		1	1	0	0	0	
	1.5	Building Orientation for Solar Design		1	0	0	0	0	
	1.6	Trades Training for MID-RISE		1	1	0	0	0	
2. Durability Management Process	2.1	Durability Planning		Prereq					
	2.2	Durability Management		Prereq					
	2.3	Third-Party Durability Management Verification		3	3	0	0	0	
3. Innovative or Regional Design	3.1	Innovation #1 _____		1	1	0	0	0	
	3.2	Innovation #2 _____		1	1	0	0	0	
	3.3	Innovation #3 _____		1	0	1	0	0	
	3.4	Innovation #4 _____		1	0	1	0	0	
<i>Sub-Total for ID Category:</i>				11	7	2	0	0	
Location and Linkages (LL) (No Minimum Points Required)				OR	Max	Y/Pts	Maybe	No	Y/Pts
1. LEED ND	1	LEED for Neighborhood Development	LL2-6	10	0	0	0	0	
2. Site Selection	2	Site Selection		2	0	0	0	0	
3. Preferred Locations	3.1	Edge Development		1	0	0	0	0	
	3.2	Infill	LL 3.1	2	2	0	0	0	
	3.3	Brownfield Redevelopment for MID-RISE		1	0	0	0	0	
4. Infrastructure	4	Existing Infrastructure		1	1	0	0	0	
5. Community Resources/ Transit	5.1	Basic Community Resources for MID-RISE		1	1	0	0	0	
	5.2	Extensive Community Resources for MID-RISE	LL 5.1, 5.3	2	0	2	0	0	
	5.3	Outstanding Community Resources for MID-RISE	LL 5.1, 5.2	3	0	0	0	0	
6. Access to Open Space	6	Access to Open Space		1	1	0	0	0	
<i>Sub-Total for LL Category:</i>				10	5	2	0	0	
Sustainable Sites (SS) (Minimum of 5 SS Points Required)				OR	Max	Y/Pts	Maybe	No	Y/Pts
1. Site Stewardship	1.1	Erosion Controls During Construction		Prerequisite					
	1.2	Minimize Disturbed Area of Site for MID-RISE		1	1	0	0	0	
2. Landscaping	2.1	No Invasive Plants		Prerequisite					
	2.2	Basic Landscape Design		1	1	0	0	0	
	2.3	Limit Conventional Turf for MID-RISE	SS 2.4	2	1	0	0	0	
	2.4	Drought Tolerant Plants for MID-RISE	SS 2.4	1	0	1	0	0	
	2.5	Reduce Overall Irrigation Demand by at Least 20% for MID-RISE		3	0	0	0	0	
3. Local Heat Island Effects	3.1	Reduce Site Heat Island Effects for MID-RISE		1	1	0	0	0	
	3.2	Reduce Roof Heat Island Effects for MID-RISE		1	1	0	0	0	
4. Surface Water Management	4.1	Permeable Lot for MID-RISE		2	0	0	0	0	
	4.2	Permanent Erosion Controls		1	0	0	0	0	
	4.3	Stormwater Quality Control for MID-RISE		2	2	0	0	0	
5. Nontoxic Pest Control	5	Pest Control Alternatives		2	2	0	0	0	
6. Compact Development	6.1	Moderate Density for MID-RISE		2	0	0	0	0	
	6.2	High Density for MID-RISE	SS 6.1, 6.3	3	0	0	0	0	
	6.3	Very High Density for MID-RISE	SS 6.1, 6.2	4	4	0	0	4	
7. Alternative Transportation	7.1	Public Transit for MID-RISE		2	2	0	0	0	
	7.2	Bicycle Storage for MID-RISE		1	1	0	0	0	
	7.3	Parking Capacity/Low-Emitting Vehicles for MID-RISE		1	1	0	0	0	
<i>Sub-Total for SS Category:</i>				22	17	1	4	4	

LEED for Homes Mid-rise Pilot Simplified Project Checklist (continued)

				Max Pts	Project Points			
					Preliminary			Final
				Max	Y/Pts	Maybe	No	Y/Pts
Water Efficiency (WE) (Minimum of 3 WE Points Required) OR								
1. Water Reuse	✓	1	Water Reuse for MID-RISE	5	0	0	0	0
2. Irrigation System	✓	2.1	High Efficiency Irrigation System for MID-RISE	2	2	0	0	0
		2.2	Reduce Overall Irrigation Demand by at Least 45% for MID-RISE	2	0	0	0	0
3. Indoor Water Use		3.1	High-Efficiency Fixtures and Fittings	3	1	0	0	0
		3.2	Very High Efficiency Fixtures and Fittings	6	4	0	0	0
		3.3	Water Efficient Appliances for MID-RISE	2	1	1	0	0
<i>Sub-Total for WE Category:</i>				15	8	1	0	0
Energy and Atmosphere (EA) (Minimum of 0 EA Points Required) OR								
1. Optimize Energy Performance		1.1	Minimum Energy Performance for MID-RISE	Prereq				
		1.2	Testing and Verification for MID-RISE	Prereq				
		1.3	Optimize Energy Performance for MID-RISE	34	7	3	0	0
7. Water Heating	✓	7.1	Efficient Hot Water Distribution	2	0	0	0	0
		7.2	Pipe Insulation	1	1	0	0	0
11. Residential Refrigerant Management		11.1	Refrigerant Charge Test	Prereq				
		11.2	Appropriate HVAC Refrigerants	1	1	0	0	0
<i>Sub-Total for EA Category:</i>				38	9	3	0	0
Materials and Resources (MR) (Minimum of 2 MR Points Required) OR								
1. Material-Efficient Framing		1.1	Framing Order Waste Factor Limit	Prereq				
		1.2	Detailed Framing Documents	1	0	0	0	0
		1.3	Detailed Cut List and Lumber Order	1	0	0	0	0
		1.4	Framing Efficiencies	3	0	0	0	0
		1.5	Off-site Fabrication	4	4	0	0	0
2. Environmentally Preferable Products	✓	2.1	FSC Certified Tropical Wood	Prereq				
	✓	2.2	Environmentally Preferable Products	8	3	1	0	0
3. Waste Management		3.1	Construction Waste Management Planning	Prereq				
		3.2	Construction Waste Reduction	3	1	1	0	0
<i>Sub-Total for MR Category:</i>				16	8	2	0	0
Indoor Environmental Quality (EQ) (Minimum of 6 EQ Points Required) OR								
2. Combustion Venting		2	Basic Combustion Venting Measures	Prereq				
3. Moisture Control		3	Moisture Load Control	1	0	0	0	0
4. Outdoor Air Ventilation	✓	4.1	Basic Outdoor Air Ventilation for MID-RISE	Prereq				
		4.2	Enhanced Outdoor Air Ventilation for MID-RISE	2	0	0	0	0
		4.3	Third-Party Performance Testing for MID-RISE	1	0	1	0	0
5. Local Exhaust	✓	5.1	Basic Local Exhaust	Prerequisite				
		5.2	Enhanced Local Exhaust	1	1	0	0	0
		5.3	Third-Party Performance Testing	1	0	1	0	0
6. Distribution of Space Heating and Cooling	✓	6.1	Room-by-Room Load Calculations	Prereq				
		6.2	Return Air Flow / Room by Room Controls	1	0	0	0	0
		6.3	Third-Party Performance Test / Multiple Zones	2	0	0	0	0
7. Air Filtering		7.1	Good Filters	Prereq				
		7.2	Better Filters	1	0	1	0	0
		7.3	Best Filters	2	0	0	0	0
8. Contaminant Control	✓	8.1	Indoor Contaminant Control during Construction	1	0	0	0	0
		8.2	Indoor Contaminant Control for MID-RISE	2	0	1	0	0
	✓	8.3	Preoccupancy Flush	1	0	1	0	0
9. Radon Protection	✓	9.1	Radon-Resistant Construction in High-Risk Areas	Prereq				
	✓	9.2	Radon-Resistant Construction in Moderate-Risk Areas	1	0	1	0	0
10. Garage Pollutant Protection		10.1	No HVAC in Garage for MID-RISE	Prereq				
		10.2	Minimize Pollutants from Garage for MID-RISE	2	0	0	0	0
		10.3	Detached Garage or No Garage for MID-RISE	3	0	0	0	0
11. ETS Control		11	Environmental Tobacco Smoke Reduction for MID-RISE	1	1	0	0	0
12. Compartmentalization of Units		12.1	Compartmentalization of Units	Prereq				
		12.2	Enhanced Compartmentalization of Units	1	0	0	0	0
<i>Sub-Total for EQ Category:</i>				21	2	6	0	0
Awareness and Education (AE) (Minimum of 0 AE Points Required)								
1. Education of the Homeowner or Tenant	✓	1.1	Basic Operations Training	Prereq				
	✓	1.2	Enhanced Training	1	0	1	0	0
		1.3	Public Awareness	1	1	0	0	0
2. Education of Building Manager	✓	2	Education of Building Manager	1	1	0	0	0
<i>Sub-Total for AE Category:</i>				3	2	1	0	0



February 21, 2012

Hugh Russell
Chairman
Cambridge Planning Board
344 Broadway
Cambridge, MA 02139

Re: NEIGHBORHOOD OUTREACH

Dear Mr. Russell and Members of the Board,

As a prelude to our Planning Board Public Hearing on March 20, 2012, we have tried to do a significant amount of community outreach. This has taken two forms, first, sharing information, and second, face to face meetings. We have done our best to be upfront, clear, transparent and direct with our neighbors.

Sharing Information:

The North Cambridge Stabilization Committee has been kind enough to act as a clearing house for the sharing of information about our project. We have posted the following information on the NCSC's website:

- Advance notice of upcoming meetings and submission dates of materials for the Cambridge Conservation Commission and the Cambridge Planning Board.
- Sharing the Notice of Intent once submitted to Con Com.
- Correspondence between the Applicant and the Traffic Department concerning the TIS.
- Sharing this application with NCSC.
- Copy of the PowerPoint presented to the neighborhood on January 11, 2012.
- Other materials as may be requested prior to March 20, 2012.

Meeting:

On January 11th, the development team was extended the full agenda time for the North Cambridge Stabilization meeting. It was a well-attended meeting with time for a substantial number of questions after the presentation. The applicant promised to return to the neighborhood for a second meeting. A request for that meeting has been made by the developer and we expect it to be scheduled shortly.

The development team has made itself available to State and local elected officials as well as any individuals asking for face to face meetings. We are keenly aware of the fact that the Alewife Reservation and activities near it are of interest to a wider environmental constituency than just the residents of North Cambridge. In fact, the interest goes beyond our City. Working with Ingeborg Hegemann and David Biancavilla of BSC, the applicant has made a concerted effort to stay in touch with this wider group.