

# The Residences at 130 CambridgePark Drive

Volume 1: Special Permit Application

The McKinnon Company on behalf of BRE/CPD, LLC // Cambridge, MA // 21 February 2013





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CBA Landscape Architects LLC

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# **PROJECT TEAM**

# APPLICANT / DEVELOPER

The McKinnon Company on behalf of BRE/CPD, LLC 1 Leighton Street, #1905
Cambridge, MA 02141
phone: 617.354.4363

#### **ARCHITECT**

Arrowstreet 212 Elm Street Somerville, MA 02144 phone: 617.623.5555

#### **LEGAL**

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#### **CIVIL ENGINEER**

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# TRANSPORTATION ENGINEER

Vanasse Hangen Brustlin 99 High Street, 10th floor Boston, MA 02110 phone: 617.728.7777

#### LANDSCAPE ARCHITECT

CBA Landscape Architects LLC 24 Thornkike Street Cambridge, MA 02141 phone: 617.945.9760

# STRUCTURAL ENGINEER

McNamara/Salvia 160 Federal Street, 5th floor Boston, MA 02110 phone: 617.737.0040



February 21, 2013

Hugh Russell
Chairman
And Members of the Planning Board
Cambridge Planning Board
344 Broadway
Cambridge, MA 02139

Dear Mr. Russell,

I am pleased to submit this application to the Board on behalf of BRE/CPD LLC. This is the second project I will help develop on their behalf and gives us a chance to continue to realize the goals of the district. 130 CambridgePark Drive is a 220 unit residential building with a 456 space structured garage.

It appears that finally, the goal of a mixed use district here in the Triangle by the Alewife T Station is about to be realized. For many years, the Archstone building across from the T stood as the sole residential building. That is about to change.

In the past year, I developed a 398 unit residential complex at 160 CambridgePark Drive, which Equity then sold to the Hanover Company. That project is now under construction. The Hines residential project across the street has received Planning Board approval. And now this project, a 220 unit residential building with a structured parking facility comes before the Board. These two projects that I have developed with Equity will replace acres of paved surface parking with key parts of an emerging neighborhood.

The Planning Board made it clear when we last met that they hoped to vary the types of architecture found in the Alewife area. I believe Arrowstreet has done that for us and for the City. The Project is a very residential building within a modern industrial concept. It varies from our previous project but varies as well from the well-received design of DiMella Shaffer at 165 CambridgePark Drive. We have taken a lot of care to present a striking garage even though it is not visible from the public way. We feel, as does your staff, that the design is now ready to come before you for your review.

One Leighton St. Unit 1905, Cambridge, MA.02141 Email: McKinnoncompany@comcast.net Tel: 617.354.4363 Fax: 617.354.6811



The funds have been appropriated for the study of the long awaited pedestrian/bicycle bridge. This bridge will provide a safe and easy connection between the Quadrangle, the Highlands neighborhood and the Alewife T Station. Because it seems like a logical and geometrically simpler solution, our garage has been designed to receive the bridge should the City elect it as the Triangle landing pad.

Finally, I note that the goals of the District, each and every one as drafted in the Ordinance, are met by this project. I believe a quick review of them will lead the Board to the same conclusion.

I speak for the entire team in saying that we look forward to coming before you on the evening of April 2<sup>nd</sup>.

Richard McKinnon

Developer

Best

On behalf of BRE/CPD, LLC, Owner



#### 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, 130, 150 and 180 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 20.95.11 - 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

ction 19.20 - Project Re

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

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



Project Address: 125 CambridgePark Drive Application Date: 2.21.13

	Existing	Allowed or Required (max/min)	Proposed	Permitted
Lot Area (sq ft)	126,595 sq ft	5,000 sq ft	Unchanged	
Lot Width (ft)	300 +/- ft	50 ft	Unchanged	
Total Gross Floor Area (sq ft)	184,000 sq ft	158,244 sq ft	Unchanged	
Residential Base	N/A	N/A	N/A	
Non-Residential Base	184,000 sq ft	158,244 sq ft	Unchanged	
Inclusionary Housing Bonus	N/A	N/A	N/A	
Total Floor Area Ratio	1.45	1.25	Unchanged	
Residential Base	N/A	N/A	N/A	
Non-Residential Base	1.45	1.25	Unchanged	
Inclusionary Housing Bonus	N/A	N/A	N/A	
Total Dwelling Units	N/A	N/A	N/A	
Base Units	N/A	N/A	N/A	
Inclusionary Bonus Units	N/A	N/A	N/A	
Base Lot Area / Unit (sq ft)	N/A	N/A	N/A	
Total Lot Area / Unit (sq ft)	N/A	N/A	N/A	
Building Height(s) (ft)	85 ft	85 ft	Unchanged	
Front Yard Setback (ft)	5.85 +/- ft	(H+L)/4 =74 +/- ft	Unchanged	
Side Yard Setback – Right (ft)	23.10 +/- ft	(H+L)/5 = 49 +/- ft	Unchanged	
Side Yard Setback – Left (ft)	23.10 +/- ft	(H+L)/5 = 49 +/- ft	Unchanged	
Rear Yard Setback (ft)	205.72 +/- ft	(H+L)/4 = 74 +/- ft	Unchanged	
Open Space (% of Lot Area)	16.2 +/- %	15%	Unchanged	
Private Open Space	N/A	N/A	N/A	
Permeable Open Space	16.2 +/- %	25%	Unchanged	
Other Open Space (Specify)	N/A	N/A	N/A	
Off-Street Parking Spaces	379 (shared) *	230 to 460	379 (additional sharing)	
Bicycle Parking Spaces	N/A	N/A	N/A	
Loading Bays	1	1	Unchanged	

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

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<sup>\*</sup> Approximately 168 spaces on 125 CambridgePark Drive and approximately 211 spaces on 150 and 180R CambridgePark Drive

# DIMENSIONAL FORM

Project Address: 130 Cambridge Park Drive Application Date: 2.21.13

	Existing	Allowed or Required (max/min)	Proposed	Permitted
Lot Area (sq ft)	NA	5,000 sf (min.)	102,013+/- sf	
Lot Width (ft)	NA	50 ft (min.)	163.15+/- ft	
Total Gross Floor Area (sq ft)	N/A	265,233 sq. ft.	213,321	
Residential Base	N/A	204,026 sq. ft.	204,026 sq. ft.	
Non-Residential Base	N/A	N/A	N/A	
Inclusionary Housing Bonus	N/A	61,207 sq. ft.	9,295 sq. ft.	
Total Floor Area Ratio	N/A	2.6	2.1	
Residential Base	N/A	2.0	2.0	
Non-Residential Base	N/A	N/A	N/A	
Inclusionary Housing Bonus	N/A	.6	.1	
Total Dwelling Units	N/A	220	220	
Base Units	N/A	170	170	
Inclusionary Bonus Units	N/A	50	50	
Base Lot Area / Unit (sq ft)	N/A	600 sq. ft.	600 sq. ft.	
Total Lot Area / Unit (sq ft)	N/A	464 sq. ft.	464 sq. ft.	
Building Height(s) (ft)	N/A	85'/105'	69'-11"	
Front Yard Setback (ft)	N/A	64+/- ft	51.8 +/- ft	
Side Yard Setback – Side? (ft)	N/A	79.5+/- ft(north)	5.4+/- ft(north)	
Side Yard Setback – Side? (ft)	N/A	95.2+/- ft(south)	21.8+/- ft(south)	
Rear Yard Setback (ft)	N/A	51.5+/- ft	O-ft	
Open Space (% of Lot Area)	NA	15%	26.3%	
Private Open Space	NA	N/A	9%	AME INTO
Permeable Open Space	NA	25%	17.3%	
Other Open Space (Specify)	NA	N/A	N/A	
Off-Street Parking Spaces	N/A	1 per 1 d.u	212-220 *	
Bicycle Parking Spaces	N/A	1 per 2 d.u.	220	
Loading Bays	N/A	N/A	N/A	AL CONTROL OF THE PARTY OF THE

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

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<sup>\*</sup> Off-Street parking spaces are shared with 150 CambridgePark Drive

Project Address: 150 Cambridge Park Drive

Application Date: 2.21.13

	Existing	Allowed or Required (max/min)	Proposed	Permitted
Lot Area (sq ft)	201,496 sf	5,000 sf (min.)	125,089+/- sf	1
Lot Width (ft)	249 +/- FT	50 ft (min.)	249 +/- ft	
Total Gross Floor Area (sq ft)	250,000 sf	250,000 sf	250,000 sf	
Residential Base	N/A	N/A	N/A	
Non-Residential Base	250,000 sf	250,000 sf	250,000 sf	
Inclusionary Housing Bonus	N/A	N/A	N/A	
Total Floor Area Ratio	1.24	2.0	1.99	
Residential Base	N/A	N/A	N/A	
Non-Residential Base	1.24	2.0	1.99	
Inclusionary Housing Bonus	N/A	N/A	N/A	
Total Dwelling Units	N/A	N/A	N/A	
Base Units	N/A	N/A	N/A	
Inclusionary Bonus Units	N/A	N/A	N/A	
Base Lot Area / Unit (sq ft)	N/A	N/A	N/A	
Total Lot Area / Unit (sq ft)	N/A	N/A	N/A	
Building Height(s) (ft)	132 ft (variance)	85'	132 ft	
Front Yard Setback (ft)	15.1 +/- ft	55+/- ft	15.1+/- ft	
Side Yard Setback – Side? (ft)	29.8 +/- ft(west)	54+/- ft(west)	21.2+/- ft(west)	
Side Yard Setback – Side? (ft)	54.8 +/- ft(east)	54+/- ft(east)	0 ft(east)	
Rear Yard Setback (ft)	176.2 +/- ft	55+/- ft	20.2 +/- ft	
Open Space (% of Lot Area)	23.2%	15%	23.2%	
Private Open Space	N/A	N/A	N/A	AND THE STATE OF T
Permeable Open Space	23.2%	25%	23.2%	
Other Open Space (Specify)	N/A	N/A	N/A	
Off-Street Parking Spaces	515 (shared)*	313 TO 625	515 (additional sharing)	
Bicycle Parking Spaces	N/A	N/A	N/A	
Loading Bays	2	2	2	

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

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<sup>\*</sup> Up to 150 spaces on 160 CambridgePark Drive may be used by 125 and 150 CambridgePark Drive (approximately 80 spaces) and by 200 CambridgePark Drive (approximately 70 spaces). Up to 40 spaces on 150/180R CambridgePark Drive can be used by 200 CambridgePark Drive.

# PAGE NOT USED



Project Address: 130 CambridgePark Drive Application Date: 02.21.13

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

	The McKinnon Company
at the following address:	One Leighton St., Unit 1905, Cambridge, MA 02141
to apply for special permits for:	A building composed of 220 residential units to be known as 130 CambridgePark Drive, an above- grade structured parking garage of 456 spaces, 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 180R 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 (Mauthorized Trustee, (	
	officer of Agent, so identify)
To be completed by Notary Public:	Suffolk
To be completed by Notary Public:	Suffolk
To be completed by Notary Public:  Commonwealth of Massachusetts, County of	Suffolk
To be completed by Notary Public:  Commonwealth of Massachusetts, County of  The above named  John F. Conley	personally appeared before me,

Project Address: 130 CambridgePark Drive Application Date: 02.21.13

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

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

-	-			
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New or Substantially Rehabilitated	Gross Floor Area (SF): 402,255	× \$0.10 = \$40,225
Flood Plain Special Permit	Enter \$1,000.00 if applicable:	
Other Special Permit	Enter \$150.00 if no other fee is applicable:	
TOTAL SPECIAL PERMIT FEE	Enter Larger of the Above Amounts: \$40,22	

CITY OF CAMBRIDGE, MA . PLANNING BOARD . SPECIAL PERMIT APPLICATION



#### 125, 130, 150 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: (i) construct a new multifamily residential building on an approximately 102,000 square foot site (the "Site") located on a portion of the existing 150 CambridgePark Drive property and a portion of the existing 180R CambridgePark Drive property; (ii) construct a new six-story and approximately 456-car parking structure (the "Parking Structure") on another portion of the existing 150 CambridgePark Drive property; and (iii) reconfigure the existing 150 and 180R CambridgePark Drive parcels per the subdivision plan included in the Application materials (the "Subdivision Plan"), and to make certain site improvements in connection with the foregoing. We refer to the Site created by the Subdivision Plan as 130 CambridgePark Drive in this Application. The Parking Structure is designed to incorporate a pedestrian and bicycle bridge landing that will enable the future construction of a pedestrian and bicycle bridge across the railroad right of way connecting the Alewife Overlay District's Quadrangle and Triangle Districts. All of the affected property is in the Office 2-A District, the Alewife Overlay District 6 and the Flood Plain Overlay District. The Site and the proposed location of the Parking Structure are currently improved by a surface parking lot, serving the existing buildings at 100, 125, 150, 160 and 200 CambridgePark Drive pursuant to the terms of various recorded special permits and easement agreements. BRE/CPD is the current owner of 125, 150 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 125 CPD Special Permit"). The Existing 125 CPD Special Permit was most recently amended by the Planning Board in a decision filed with the City Clerk on July 11, 2012, and recorded with the Middlesex County Registry of Deeds on October 17, 2012, at Book 60269, Page 56, to (among other things) reduce parking requirements to permit shared parking arrangements. 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, the "Existing 150 CPD Special Permit"). The Existing 150 CPD Special Permit was most recently amended by the Planning Board in a decision filed with the City Clerk on July 11, 2012, and recorded with the Middlesex County Registry of Deeds on October 17, 2012, at Book 60269, Page 76, to (among other things) create the existing 150 and 180R CambridgePark Drive parcels, reduce certain required setbacks and reduce parking requirements to permit shared parking arrangements.

The Applicant proposes to construct a first class, six-story, multifamily building (the "Residential Building") at the Site, containing 220 units of rental housing, including five first-floor apartments directly accessible from the outside, a clubhouse and pool for residents and an at-grade parking facility beneath the Residential Building. The Residential Building, together with the Parking Structure and the related site improvements are referred to collectively in this Application as the "Project." The Residential Building will provide a variety of unit types. Approximately 48% of the units will be one-bedroom units and approximately 30% of the units will be two-bedroom units. The remainder of the units will be studios, with a limited number of micro-units. The parking facility beneath the Residential Building will contain approximately 116 vehicular parking spaces, with four additional parking spaces located at the exterior of the Residential Building. Approximately 220 bicycle parking spaces will be provided in three areas distributed along the ground floor of the Residential Building. The Parking Structure

will contain approximately 456 vehicular parking spaces, approximately 100 of which will be available for use by the Residential Building (approximately 29 dedicated parking spaces and between 63 and 71 parking spaces on a shared basis). Access to and egress from the Residential Building and the Parking Structure will be provided through two shared access drives, one of which is located in part on the 150 CambridgePark Drive parcel and in part on the 160 CambridgePark Drive parcel and the other of which is located in part on the 150 CambridgePark Drive parcel and in part on the 180R CambridgePark Drive parcel, in each case pursuant to the terms of recorded easement agreements. A new "street," with associated hardscape and landscape improvements, on the north side of the Site will connect those two access drives, giving the Site and the surrounding area a cohesive neighborhood feel. Per the site plan included in the Application materials, 130 CambridgePark Drive and 180R CambridgePark Drive will have a right of access over the new "street" and a the portion of the new "street" will be a private way open to public use (thereby providing 130 CambridgePark Drive and 180R CambridgePark Drive with the required street frontage). The design and quality of those hardscape and landscape improvements will create an inviting new pedestrian area.

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 continue to implement the previously approved creative shared parking arrangement between office and residential users that allows for the construction of approximately 220 units of residential housing, with the creation of only 149 new parking spaces (and the elimination of an existing surface parking lot). A total of 1,177 parking spaces are currently approved on the Existing Property, 998 of those spaces are currently located on 150 CambridgePark Drive and 180R CambridgePark Drive and the remaining 179 of those spaces are currently located on 125 CambridgePark Drive. As noted above, the Residential Building's parking facility will contain only approximately 120 new parking spaces, including four exterior parking spaces. The Parking Structure will be used primarily by neighboring office users. However, in order to reduce the number of parking spaces created in connection with the Residential Building, the Residential Building will have a right to use approximately 100 spaces within the Parking Structure, pursuant to a recorded easement agreement. Upon completion of the Project, there will be a total of 1,326 parking spaces on the Existing Property, including the Site and the Parking Structure. Accordingly, the Project will create 220 new units of rental housing, but will create only 149 net new parking spaces.

#### **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 125 CPD Special Permit and the Existing 150 CPD Special Permit, 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 an increased Floor Area Ratio ("FAR") of approximately 2.1 at the Site.





- Special Permit under Section 20.95.1 and Section 20.95.11 of the Ordinance, to allow an increased FAR of approximately 2.0 at 150 CambridgePark Drive.
- 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, 130, 150, 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 and the Parking Structure 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 new common driveway located partially on 130 CambridgePark Drive and partially on the amended 150 CambridgePark Drive and 180R CambridgePark Drive parcels.
- 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 19, 2013, was prepared in accordance with the City's guidelines for TIS and responds to the TP&T scoping determination.

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.

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 the 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. Also, the Project will create a pedestrian and bicycle bridge landing, enabling the future construction of a pedestrian/bicycle bridge across the railroad right of way connecting the Alewife Overlay District's Quadrangle and Triangle Districts, which will significantly reduce vehicle trips to the Quadrangle District by finally providing easy access to the Red Line at Alewife Station.

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, and enable the future construction of a pedestrian and bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts. 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 and enable the future construction of a pedestrian and bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts, 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 though nearby arterial and neighborhood streets. In addition, the Project will take advantage of shared parking opportunities, resulting in an increase of only 149 parking spaces even with the addition of 220 residential units. 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 Order of Conditions by unanimous vote on February 25, 2013 (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) and the Parking Structure 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 and the Parking Structure 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 unanimous approval of the Project, 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 Massachusetts Department of Environmental Protection performance standards for work within a Bordering Land Subject to Flooding (BLSF). The Project's certified Flood Report, submitted in connection with the 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 and the Parking Structure 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 Existing Property 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 Existing Property or abutters. The flood water retention system is located underneath the Residential Building and the Parking Structure, 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 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; Toward 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, potential reuse of the stormwater for irrigation, and increased groundwater infiltration. The Residential Building will offer open space amenities along the newly created neighborhood street and at the Residential Building's northeast corner, as well as three private courtyards and a swimming pool area open to the residents, thereby providing more open space and outdoor recreational facilities to residents of Cambridge. 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 the newly created neighborhood street through the thoughtful placement of key building support spaces and residential living areas. The Residential Building's bicycle storage areas front directly on the newly created neighborhood street and activate that street with large glass areas and a bicycle common area, for bicycle repair and informal gathering. On the second through sixth levels, the Residential Building is organized around three intimate courtyard spaces that provide a variety of outdoor amenities to residents, such as a swimming pool and children's play area. The primary building entry is located at the intersection of the access road and new neighborhood street, and graceful landscaped areas provide shade and public seating areas. Five residential units have been located at the ground floor, further reinforcing the pedestrian nature of the street edge and providing direct sidewalk access. The Project also anticipates the use of the nearby Alewife Reservation trail system. In the wider transportation context, the Project will create a pedestrian and bicycle bridge landing, enabling the future construction of a pedestrian bridge connecting the Alewife Overlay District's Quadrangle and Triangle District. The Project also benefits from excellent pedestrian/ bicycle access to Alewife MBTA station, thereby reducing vehicular trips to and from the Residential Building.

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 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 structured parking and a residential redevelopment of a scale similar to that found in other areas of Cambridge, and will complement the surrounding buildings. The nearby residential buildings include the existing 30 CambridgePark Drive with 311 units, the under construction 160 CambridgePark Drive with 398 units, the proposed 165 CambridgePark Drive with 224 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. The Residential Building will create a new new "street" with associated hardscape and landscape improvements, 220 residential units and an active bicycle storage area located at the ground floor, together reinforcing the pedestrian nature of the street edge. This vibrant, active street edge will create a pleasant, walkable pedestrian experience. The Parking Structure consolidates the existing surface parking lots into a compact building that contributes to a more pedestrian friendly development. The Parking Structure has been designed with six levels and is screened from adjacent buildings and streets with a series of colorful fins which create a dynamic, three-dimensional façade from both the pedestrian and vehicular approaches.

(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 69 feet and 11 inches, well below the height of 105 feet that could be allowed. The Parking Structure is set at a height (as defined in the Ordinance) of approximately 61 feet and 2 inches, well below the height of 85 feet that could





be allowed. The Project's design incorporates varied setbacks, thereby creating a rhythm along the new neighborhood street, eliminates existing surface parking and utilizes material changes and diverse roof lines to reduce the scale of the Residential Building and the Parking Structure. The Residential Building's and the Parking Structure's heights are set off from the greater heights of the adjacent office buildings.

(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 the new neighborhood street to animate the streetscape and activate the district. These uses include the main entry lobby, leasing office, bicycle storage area and lounge at the ground level, as well as the clubhouse amenity area on the first residential floor. The Residential Building also introduces five residential units with private entries at the ground floor to further enhance the streetscape. The Residential Building's 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 the new neighborhood street. The street level façades have been designed to provide a pedestrian friendly scale, through the use of material change and building setbacks. The Parking Structure facilitates eliminating existing surface parking and includes a pedestrian and bicycle bridge landing that will enable the future construction of a pedestrian/bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts.

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

The ground level entrance is marked with a canopy, to create a presence for the lobby and Residential Building at the street level. This canopy also helps make the Residential Building, and associated activity, more visible from CambridgePark Drive.

(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 five residential units that front the new neighborhood street will complement the streetscape with direct entries and landscaping. The Residential Building's 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 the new neighborhood street, thereby creating a pedestrian-friendly environment.

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

The Residential Building will seek Silver certification under the Energy Star Home program, the US Green Building Standard and LEED for Homes Mid-rise. 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, porous pavement to 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 Parking Structure includes a pedestrian and bicycle bridge landing that will enable the future construction of a pedestrian and bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts. 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 create a new neighborhood street and improve the access drive to the existing surface parking areas, which drive will serve as the primarily means of access to the Residential Building. In addition to the streetscape improvements on site, the Project proposes several landscaping improvements along the access drive connecting CambridgePark Drive to the main entrance of the Residential Building and on the northern side of the new neighborhood street, on 100 CambridgePark Drive. These improvements include low landscaped berms, north of the new neighborhood street, to help create a more natural environment and pedestrian friendly boundary between the office, daycare and residential uses as well as new trees and plantings along the access drive connecting CambridgePark Drive to the main entrance of the Residential Building, to create a more pleasant walking experience for everyone in the neighborhood.

(j) Screen service areas from CambridgePark Drive.

The Residential Building's service areas will not be visible 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 Residential Building's ground-level parking facility will be hidden from view by the entry lobby, leasing offices, five 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 Parking





Structure will provide visual and acoustical screening between the railroad tracks and the rest of the area, and will incorporate a pedestrian and bicycle bridge landing that will enable the future construction of a pedestrian and bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts.

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

Design of outdoor lighting will feature street lighting along the new neighborhood street and safety illumination on all other building facades. There will also be feature lighting around the Residential Building's entrance and residential units to enhance the nighttime streetscape and building appearance. 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 parking garage and a residential redevelopment of a scale similar to that found in other areas of Cambridge, and 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. The Parking Structure includes a pedestrian and bicycle bridge landing that will enable the future construction of a pedestrian and bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts. As described in this Application, the Project represents an opportunity to create a true mixed use area in the District with only a modest increase in the existing number of parking spaces.

(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 and the Parking Structure (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 new neighborhood street will enhance the area. Residents will be able to take advantage of pedestrian and bicycle connections to 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 parking garage and 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) The Planning Board may grant a special permit under Section 20.95.11 of the Ordinance to increase the Project's FAR by 0.25 where the proposed development incorporates structural elements into a building's design that includes or would permit future construction of a pedestrian connection across the railroad right of way between the Quadrangle Northeast District and the Triangle District, as well as the conveyance (in a form acceptable to the City) of the necessary fee or easement property interests in land that would permit access to such a connection, all in a manner and to an extent determined to be sufficient to significantly advance the objectives of the Concord-Alewife Plan.

The design of the Parking Structure includes a pedestrian and bicycle bridge landing that will enable the future construction of a pedestrian and bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts, which significantly advances the objectives of the Concord-Alewife Plan. The Applicant will grant easement rights to the City that permit the City to tie a pedestrian and bicycle bridge into the Parking Structure, and for users of that bridge to pass through the Parking Structure and the Existing Property to and from CambridgePark Drive.

- 4) 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 the new neighborhood street (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 allows for better screening 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 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 provide for more efficient development of the Existing Property, facilitate a more logical pattern of buildings, streets, parks and open space, and enhance 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 a new neighborhood street and provides setbacks from that neighborhood street for open spaces and to screen service and parking areas. 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 such as a bike commons area.

- 5) 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 shared parking arrangement allows the introduction of 220 new residential units that will enliven CambridgePark Drive by introducing additional residences (convenient for employees of the surrounding office buildings) with an increase of only 149 parking spaces to the Existing Property's registered parking spaces, and the Parking Structure includes a pedestrian and bicycle bridge landing that will enable the future construction of a pedestrian and bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts. 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 220 new units of rental housing, while resulting in an increase of only 149 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, 220 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 Parking Structure includes a pedestrian and bicycle bridge landing that will enable the future construction of a pedestrian and bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts and 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 approximately 100 parking spaces in the Parking Structure. At the same time, the Parking Structure and the other parking spaces on the Existing Property will continue to be used by the existing buildings at 100, 125, 150, 160 and 200 CambridgePark Drive, which are in close proximately.

(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 parking garage and 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, five first-floor residential units, bicycle storage facilities and accompanying landscaping measures. The Parking Structure includes a pedestrian and bicycle bridge landing that will enable the future construction of a pedestrian and bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts. 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 Parking Structure and the Residential Building have 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 their abutters or the public realm. As noted above, the Applicant has intentionally maintained the Parking Structure and Residential Building at under the 70 feet permitted by right (well under the 85 feet and 105 feet, respectively, permitted by special permit). The Residential Building's massing and scale are minimized through varied façade heights and the placement of considerable emphasis on the design of the entry corner, which is visible from CambridgePark Drive. The main entrances for both the Residential Building and Parking Structure are emphasized through the use of color and form, which creates a visual cue for pedestrians and vehicles approaching the Site from CambridgePark Drive.

(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, and the Parking Structure will replace existing surface parking, thereby increasing the opportunity for permeable green spaces on the Site. The green spaces provided allow for natural runoff infiltration.

#### 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.<sup>1</sup> 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 Existing Property 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). Moreover, the Project will create 220 new units of rental housing, while resulting in an increase of only 149 parking spaces, which is made possible by the Residential Building's shared parking with the surrounding office buildings, close proximity to the Alewife MBTA station, 220 bicycle parking spaces and Transportation Demand Management program. Finally, the Parking Structure includes a pedestrian and bicycle bridge landing that will enable the future construction of a pedestrian and bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts, and 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 Existing Property and construction of the Residential Building, the remaining portions of 125, 150 and 180R CambridgePark Drive will contain 1,326 parking spaces, and the Residential Building will contain approximately 120 parking spaces (including including four exterior parking spaces). The Residential Building will have a right to use approximately 100 parking spaces in the Parking Structure, pursuant to a recorded easement agreement. The availability of shared parking in the Parking Structure 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

<sup>&</sup>lt;sup>1</sup> 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."

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 220 residential units require 220 parking spaces under the Ordinance, far less than the parking required in connection with the existing office buildings at 100, 125 and 150 CambridgePark Drive. The proposed shared parking will involve only approximately 100 parking spaces in the Parking Structure, which represents less than 75% of the Residential Building's 220 required parking spaces (but, nevertheless, allows the construction of 220 residential units with the creation of only 149 new parking spaces).

- 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 Existing Property to fulfill its legal obligations under existing easement agreements, and to provide adequate parking for the Residential Building's 220 residential units as well as the required shared parking for the existing office buildings at 100, 125 and 150 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). As discussed elsewhere in this Application, the Project is consistent with the City's urban design objectives 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 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 180R CambridgePark Drive that establishes mutual easements in and obligations to maintain the new neighborhood street, including its extension to CambridgePark Drive. Evidence of the recording of such easement agreement will be provided to the Cambridge Community Development Department. An easement granting rights in the access drive located between 150 and 160 CambridgePark Drive was recorded with the Southern Middlesex County Registry of Deeds on October 17, 2012, at Book 60269, Page 145.

#### 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 new neighborhood street, the common driveways 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 feet of the Site's property lines 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 Existing Property is accordingly constrained, whereas the 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 feet of the Site's property lines primarily abut an existing 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 19, 2013, 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.
- 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 Parking Structure and the Residential Building are complementary to the surrounding buildings and similar to the residential uses within the Triangle District. The nearest residential uses are 30 CambridgePark Drive which contains approximately 311 units and 160 CambridgePark Drive which will contain approximately 398 units. The Residential Building's moderate height of approximately 69 feet and 11 inches is allowed as-of-right at the Site and well below the 105-foot height permitted by special permit. The Parking Structure's moderate height of approximately 61 feet and 2 inches is allowed as-of-right at 150 CambridgePark Drive and well below the 85-foot height permitted by special permit. 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 will activate the street edge for the length of the building along the new neighborhood street through the thoughtful placement of key building support spaces and residential living areas. The entrance sequence to the Residential Building is consistent with, and complements, the scale of the urban street network. When approaching on CambridgePark Drive, the pedestrian and vehicular entrance is marked through the form and massing of the Residential Building's corner, clad with colorful metal panels. The entry sequence terminates at a landscaped urban plaza, supporting vehicular drop-off for residents, visitors and a potential car-sharing program, as well as a series of smaller open spaces for pedestrian activity. A bike common area, with room for bicycle repair and informal gathering is located near the building entrance and will promote further activation of the streetscape. Five residential units have been located at the ground floor directly on the new neighborhood street. These units will further reinforce the pedestrian nature of this street edge, and provide direct sidewalk access to their entry doors. The Residential Building's façade has been designed with a variation of setbacks and parapet heights to create a pedestrian scaled streetscape. The Parking Structure will replace existing surface parking and will enable the future construction of a pedestrian and bicycle bridge connecting the Alewife Overlay District's Quadrangle and Triangle Districts.

(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 Parking Structure and 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 view of the Residential Building's main entry from CambridgePark Drive that includes both the lobby and leasing offices as well as a bike commons room, along with extensive landscaping to activate the entry area and provide an improved streetscape. The five first-floor residential units will further reinforce the pedestrian nature of the





new neighborhood street. 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 create a focal point from the CambridgePark Drive approach and anchor the pedestrian activity envisioned for the Site. Residential units have been located at the ground floor directly on the new neighborhood street. 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, 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 Project 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, 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 the new neighborhood street. No surface parking spaces are provided in the front of the Residential Building along the new neighborhood street, although four temporary parking spaces for visitors are provided in close proximity to the Residential Building's lobby and leasing office. At the

Parking Garage, due to the existing dimensional restraints, governing the depth of the site, it is not feasible to eliminate the parking spaces immediately adjacent to the new neighborhood and within the ground level of the Parking Structure. These spaces will be designated as accessible parking spaces and screened from the pedestrian sidewalk through a low stone wall.

(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 the new neighborhood street is approximately 35% glass, which consists of a portion of the enclosed entry vestibule, adjacent leasing office and bicycle storage space. The eastern side of the Residential Building will include a portion of the enclosed entry vestibule and additional bicycle storage space.

(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 30 feet from the face of the Residential Building closest to the new neighborhood street. Crosswalks are located immediately adjacent to this entrance and will provide an accessible pedestrian connection to the surrounding sidewalks. 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. The Parking Structure will enable the future construction of a pedestrian and bicycle bridge between the Alewife Overlay District's Quadrangle and Triangle Districts. 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 been Alewife Brook Parkway and Alewife Station Access Road, at 100 CambridgePark Drive and at 150 Cambridgepark Drive.

The Residential Building provides enclosed, secure, on-site parking for 220 bicycles inside the parking facility. Three bicycle storage facilities are located within the Residential Building's parking area 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 and a parking structure. Minimal mechanical equipment will be located on the roof of the Residential Building 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 south side of the Residential Building, across from the railroad tracks and away from the publicly accessible areas of the Site.

(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 are 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 for resident move ins/outs is provided along, but off of, the access drive on the south of the Residential Building. 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 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 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 system designed to promote groundwater recharge and reduce peak stormwater flow rates exiting the Site. As described above, the stormwater management design for the Project has been approved by the Cambridge Conservation Commission in connection with the 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, porous pavement along the rear access drive, landscape islands, a vegetative upper level building courtyard, and underground stormwater detention systems working together as part of a stormwater management system to reduce the rate and volume of stormwater runoff.

(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, a new neighborhood street and 100 CambridgePark Drive to the north and the residential building at 160 CambridgePark Drive to the west. The Residential Building is set at a height (as defined in the Ordinance) of approximately 69 feet and 11 inches, well below the height of 105 feet that could be allowed by special





permit. The Parking Structure is set at a height (as defined in the Ordinance) of approximately 61 feet and 2 inches, well below the height of 85 feet that could be allowed by special permit. Shadow modeling has illustrated that shadows from the Project will not impact the uses of the abutting properties during the summer months. During the winter months, for example the month of December, the Project will cast shadows north of the Residential Building onto the lawn of 100 CambridgePark Drive. However, these shadows do not impact operation of a Registered Solar Energy System and would be typical of any building constructed on site.

(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. A small wall is required along the rear property line along the MBTA tracks, but the wall is minimal in height.

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

The Residential Building's scale is broken down carefully to address the pedestrian scale along the new neighborhood street 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 and residential buildings. Juliet balconies are proposed along the main building facades to activate the streetscape at the upper levels.

(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 the new neighborhood street 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 18, 2013. The Project will remove a total of 304 caliper inches of trees deemed to be significant on the Existing Property, but new trees will be planted on site in connection with the Project to replace the 304 caliper inches of trees lost. 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 277 bedrooms, resulting in 30,470 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 below the 50,000 gpd threshold, the Project will not 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 (121,880 gallons) from the existing City of Cambridge Sewer System. The Applicant is working with the City's Department of Public Works to identify 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 Parking Garage and the Residential Building's sewerage will be collected and discharged via an 8-inch sewer service line exiting the Site's northern side. The proposed sewer will ultimately connect to the existing 48-inch City sewer main located on the property.

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 on the east side, provides approximately 8-hours of storage with a safety factor, which equates to a 15,240 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 30,470 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 Silver certification under the Energy Star Home program, the US Green Building Standard and LEED for Homes Mid-rise. 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. Indictors 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 220 additional residential dwelling units to the housing inventory of the City. A range of unit types are provided, of which approximately 38% will be two-bedroom units or one bedroom/den 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 the new neighborhood street. Also, the Applicant has received permission from the owner of 100 CambridgePark Drive to make landscape improvements to the side and rear of the 100 CambridgePark Drive lot, which allows for the creation of strong streetscape on both sides of the new street. 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. All irrigated planting areas will employ efficient drip tubing. Although the Site will have less than the 25% permeable area required under Section 20.96.1 of the Ordinance, the Applicant will certify to the Superintendent by the City Engineer that the Site and the Residential Building meet the Department of Public Works' standards for water quality management and the retention/detention of the difference between the 2-year 24-hour pre-construction runoff hydrograph and the post-construction 25-year 24-hour runoff hydrograph, and requests a finding by the Planning Board that the permeable area provided advances the purposes of Section 20.96 of the Ordinance.

### 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. Beyond that, by providing a bridge landing in our garage, the Project should improve traffic conditions beyond the Alewife Overlay District 6. Finally, the Project will replace an existing surface parking lot with parking structure and a thoughtfully designed and landscaped, first class, residential building, with only a modest increase in the number of parking spaces that currently exists. 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 the Existing 125 CPD Special Permit and the Existing 150 CPD Special Permit.





#### **Sewer Service Infrastructure Narrative**

### Sanitary

The sanitary sewage from the proposed residential building will be collected and discharged into the existing 48-inch sewer system that runs through the property from Wheeler Street to CambridgePark Drive. The proposed service connection from parking garage will be a 6-inch pipe and for the residential building will be an 8-inch pipe to carry the anticipated waste. Both the garage 6-inch and residential 8-inch services will be connected to a common new sewer manhole prior to connecting to the City sewer line with a single 10-inch pipe. 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 Flows<sup>1</sup>:

Use	GPD/Unit	Unit	GPD
Residential	110 per bedroom	277 bedrooms	30,470 gpd
Parking Garage	none	-	negligible
		Total Proposed Sanitary Flows	30,470 gpd

<sup>1</sup> 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 of the residential building, provides approximately 8-hour storage with a factor of safety, which equates to a 16,000 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 not 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 121,880 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 Project will be collected by a series of catch basins and roof drains prior to being detained and discharged to the City drainage infrastructure in the east. The detention system consist of a pre-cast concrete chambers located under the parking garage and under the residential building. Due to high ground water onsite and the detention requirements, the drainage tanks will be watertight and will be required to **be pumped**.

Each tank has been designed to have two submersible pumps that will alternate pumping during low frequent rainfall events. During larger rainfall events in excess of the 25-year event both pumps will engage to drain the tanks. The stormwater tanks and pumps have been designed to provide a reduction in the proposed 25-year runoff to be comparable with the existing 2-year runoff The stormwater will then be conveyed, via gravity, to an existing City drain manhole to the east on the property. All of the proposed catch basins have been designed with sumps and hoods, consistent with the Guidelines.

#### **Water Runoff Rates**

The proposed project provides attenuation required to reduce offsite peak runoff rates that are less than the predevelopment conditions. Attenuation is achieved through the use of precast stormwater detention tanks located under the parking garage and residential building.

The subsurface detention system provides adequate detention to reduce peak flows from the site during the 2, 10, 25 and 100-year storms as follows:

Peak Flow Rates Summary – 160 CambridgePark Drive Residences

	Existing Flows(cfs)	Proposed Flows(cfs)	Peak Runoff Decrease (cfs)
2-year Peak Runoff	11.0	6.5	4.4
10-year Peak Runoff	18.7	10.1	8.6
25-year Peak Runoff	20.7	10.9	9.8
100-year Peak Runoff	29.8	16.9	12.9

### 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 (6-foot) and Hooded Catch Basins (per City of Cambridge standard)
- StormCeptor Water Quality Units

### **Groundwater Recharge**

Groundwater recharge is provided with the reduction of impervious surface on site.

#### 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.





#### **Water Service Infrastructure Narrative**

The Project will require approximately 30,470 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 new 8-inch water main that the project will install through the project site connecting the City's new 12-inch main that runs from CambridgePark Drive to Fawcett Street to an existing 8-inch water stub located in the rear of 54 CambridgPark Drive. All domestic water services and fire services required for the Project will be connected to this new 8-inch looped water main.

The capacity and condition of the existing water supply infrastructure is currently under investigation. Hydrant flow tests will be performed to determine the capacity area. 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. All connections will be fully coordinated with the City Water Department.

The fire protection system design will be coordinated with the City Fire Chief along with the installation and location of new fire hydrants to be located on the new looped 8-inch water main.

#### **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.



February 27, 2013

BSC Project No. 2.175.02

DAVID P.

15 Elkins Street Boston, MA 02127

Tel: 617-896-4300 800-288-8123 Fax: 617-896-4301

www.bscgroup.com

Mr. Hugh Russell, Chairman Cambridge Planning Board City Hall Annex 344 Broadway Cambridge, MA 02139

RE: 130 CambridgePark Drive Residences and 150 and 180R Improvements Flood Storage Mitigation Certification

Dear Mr. Russell and Members of the Board:

As required by Section 20.75 of the Cambridge Zoning Ordinance and by the Massachusetts Wetlands Protection Act (WPA), the project site's flood storage capacity was evaluated for storm events up to and including the 100-year storm to determine if the proposed improvements would reduce the available flood storage capacity at the site.

We determined that the construction of the residences at 130 CambridgePark Drive and the associated improvements to 150 and 180R CambridgePark Drive as proposed would result in a net loss of the site's available flood storage for certain incremental flood elevations. Therefore, in accordance with the Zoning Ordinance and the WPA, the flood loss will need to be compensated, or mitigated, for the loss of flood storage for those incremental elevations where the loss took place.

To compensate for this lost available flood storage the proposed under the building parking and under the first floor of the proposed parking garage will be elevated such that the area under the parking will mitigate the lost available flood storage at the exact flood elevations where the loss will take place for the site improvements.

The Flood Report and associated design drawings highlights the evaluation results and provides in detail the incremental and cumulative available flood storage calculations for the proposed project. The attached Flood Report has been submitted as part of a Notice of Intent Application to the Cambridge Conservation Commission. At their February 25, 2013, regularly scheduled meeting the Commission unanimously voted to approve the Project and the proposed flood plain impacts and mitigation measures.

In accordance with Section 20.75 of the Zoning Ordinance and with the requirements of the Wetlands Protection Act, BSC Group certifies that the 130 CambridgePark Drive Residences project and the associated improvements at 150 and 180R CambridgePark Drive (as presented in the Special Permit package) provide the required compensation for the flood storage losses due to the construction of the proposed building, parking garage, and infrastructure. The site's flood storage capabilities will not be adversely affected by the construction of said improvements.

Sincerely,

David P. Biancavilla, PE

BSC GROUP, INC.

Senior Associate, MA Registration Number: 47846

Engineers

Environmental

Scientists

**GIS Consultants** 

Landscape

Architects

**Planners** 

Surveyors





## FLOOD REPORT

130 CambridgePark Drive Residences CAMBRIDGE, MASSACHUSETTS

January 24, 2013 **Revised February 27, 2013** 

## Applicant/Developer:



The McKinnon Company 1 Leighton St. Unit 1905 Cambridge, MA 02141

## Owner:

BRE/CDP, LLC 125 Summer Street 17<sup>th</sup> Floor Boston, MA 02110

BSC Job Number: 2-3175.02

## Prepared by:



15 Elkins Street Boston, MA 02127



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- FLOOD VOLUME MITIGATION CALCULATIONS

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# **SECTION 1.0**

## PROJECT NARRATIVE



### 1.01 EXISTING SITE FLOOD PLAIN CONDITIONS

Portions of the existing properties at 150 and 180R (the Project) are located within the outer limits of the 100-year floodplain as shown on the current FEMA Map dated June 4, 2010. A 100-year flood elevation of 6.8 NAVD 1988, as shown on Cross Section "12P" in the Study, was taken at a section across the river to the north of the project to define the 100-year flood elevation.

The existing conditions survey provided as part of this project and all calculations and supporting documentation has been prepared on Cambridge City Base. As such, the 100-year flood elevation conversion is required as follows;

FEMA Flood Elevation = 6.8' NAVD 1988 +0.8' = 7.6 NVGD 1929 Conversion to NVGD 1929 Conversion to Cambridge City Base +10.84 = 18.44 CCB

The existing site elevations within the limits of the work vary from a low point of 16.85' CCB to elevation 21'+/-CCB. This relatively flat site consists of low areas separated from higher areas, some above the 100-year elevation of 18.44' CCB and others slightly below. Generally, the center of the existing parking lot on lot 150 and the center of the parking on lot 180R are depressed and within the 100-year flood elevation and the surrounding areas are above the 100-year flood elevations.

The onsite depressed areas on lot 180R on the far eastern portion of the site (parking areas) are isolated and not hydraulically connected to the larger floodplain area, while the western portions and the area in the rear of 150 CambridgePark Drive are only hydraulically connected through the existing parking lot entrances to the west of 150 CambridgePark Drive and the rear railroad property. The lowest elevation connecting the site areas to the larger Alewife floodplain is elevation 18.2'CCB at the first driveway entrance just to the west of 150 CambridgePark Drive.

### 1.02 POST-DEVELOPMENT FLOOD PLAIN CONDITIONS

The post development site condition has been designed to lessen the impact to the existing floodplain and to provide additional flood storage onsite. A total of 216,474 square feet and 5,087 cubic yards (137,349 cubic feet) of the 100year flood plain area exists on the two properties. The project proposes to mitigate the impacts from the development by constructing the proposed residential building and parking above the existing 100-year flood plain such that available flood storage is provided under the footprints of the residential building and parking garage and additional storage surrounding the connecting areas. The following is a summary of the proposed impacts to the 100-year flood plain;

	Existing Conditions	Post-Development Conditions
100-year Flood Plain Area	216,474 sf	200,503 sf
100-year Flood Plain Volume	5,087 cy (137,349 cf)	5,516 cy (148,932 cf)

As required by the Cambridge Department of Public Works, the flood mitigation area has been designed such that after flooding events the area under the slabs of the parking garage and residential building can be cleaned of sediments and debris left from receding flood waters. This area is to be paved and sloped such that building maintenance staff will be able to wash debris from access covers located in the slab out the building and garage to the south. Debris can then be collected and disposed.







# **SECTION 2.0**

## FLOOD VOLUME MITIGATION CALCULATIONS



## 2.0 FLOOD VOLUME MITIGATION CALCULATIONS

The majority of the project site lies within Bordering Land Subject to Flooding (i.e. the flood plain), as defined by the Massachusetts Wetlands Protection Act (the "Act"). A Flood Insurance Study of the City of Cambridge was performed and dated June 4, 2010. This Study provided elevations for the 10-, 50-, 100- and 500-year floods in the area of Little River behind to the north of CambridgePark Drive.

Specifically, Cross Section "12P" in the Study was taken at a section across the river approximately to the north of the project. The flood elevations for this cross section are as follows:

Table 1 Current FEMA Flood Elevations\*

	10-year	50-year	100-year	500-year
Cross Section "12P"	3.1 NAVD 1988	4.9 NAVD 1988	6.8 NAVD 1988	10.7 NAVD 1988
(Little River)	14.7 CCB**	16.5 CCB**	18.44 CCB**	22.3 CCB**

<sup>\*</sup> Reference: June 4, 2010 FEMA Flood Insurance Study

Datum: North American Vertical Datum (NAVD)

## Flood Storage Volumes

The Act requires that no project shall displace more flood volume than what currently exists at that site. The Act further requires that any loss in flood storage shall be compensated, or mitigated, for any project that results in a loss of flood storage for each incremental elevation where the loss took place. With the construction of residential building and parking garage, flood storage has been mitigated by site grading and by providing flood storage within the crawl space under the proposed residential building and parking garage.

Calculations to determine the amount of available flood storage due to the construction of this project have been performed for each elevation increment between existing grade and the current flood elevation of 18.44' CCB. The proposed condition available flood storage volume was then compared to the existing condition available flood storage provided for the same elevation increments.

Using Autodesk Civil 3D design software, the available flood storage volumes for the existing site were determined and the results are provided herein. The software compared the existing contours of the site to each incremental (per foot) flood elevation up to the Project's proposed 100-year flood elevation, 18.44' CCB. The total volume per increment was calculated and tabulated (see Table 1 below). The same process was performed for the proposed grading of the site along with separate manual calculations for the area under the proposed residential building and parking garage.







<sup>\*\*</sup> CCB = City of Cambridge Base

Table 1: Existing Available Flood Storage

	Existing	Existing	
	Incremental	Cumulative	
	Available	Available Flood	
Elevation	Flood	Storage	
	Storage	(CY)	
	(CY)		
Up to 16.44	0	0	
16.44 to 17.44	242	242	
17.44 to 18.44	4,845	5,087	

Table 2: Proposed (Post-Development) Available Flood Storage

	Proposed	Proposed	Total Proposed	Proposed Cumulative
	Incremental	Incremental	Incremental	Available Flood Storage
	Available Flood	Available Flood	Available Flood	
	Storage	Storage	Storage	
	(outside garage	(under garage and		
Elevation	and building)	building)		
	(CY)	(CY)	(CY)	(CY)
	a	b	a+b	
Up to 16.44	0	0	0	0
Up to 17.44	344	309	653	653
17.44 to 18.44	2,964	1,899	4,863	5,516

To determine the total loss (or gain) of available flood storage for the post-development conditions, the total available storage volume for the post-development was compared to the total available storage volume for the pre-development condition for *each incremental elevation*. The net result was determined and the findings are as follows (see Table 3 below):

Table 3: Net Incremental Available Flood Storage

	Existing	Proposed	
	Incremental	Incremental	Net Unadjusted
	Available	Available	Incremental
	Flood Storage	Flood Storage	Available Flood
Elevation	(Table 1)	(Table 2)	Storage
	(CY)	(CY)	(CY)
	a	b	b-a
Up to 16.44	0	0	0
Up to 17.44	242	653	411
17.44 to 18.44	4,845	4,863	18



As shown in Table 3, the proposed site improvements result in a net increase in available flood storage for the site. The increase in available flood storage can be attributed to the site re-grading and the compensatory storage area provided under the proposed residential building and parking garage.

The proposed crawl spaces under the building and parking garage provides additional flood storage volumes on site to help mitigate the project impacts. Flood waters will be able to flow unrestricted in and out of the crawl space by large inlets that consist of a vertical grates on the west side and along the south sides. Calculations for the available flood storage under the building are based on providing incremental storage under the building on an incremental basis only. No credit is taken for any elevations above or below the given elevation the project seeks to mitigate. This approach allows an unrestricted flow of flood waters for both increasing and receding to flow through the vertical grates to be installed.

### Conclusion

In accordance with the Wetlands Protection Act, the proposed improvements provide the required compensation to the flood storage loss due to the construction of the proposed buildings and infrastructure.







## **APPENDICES**

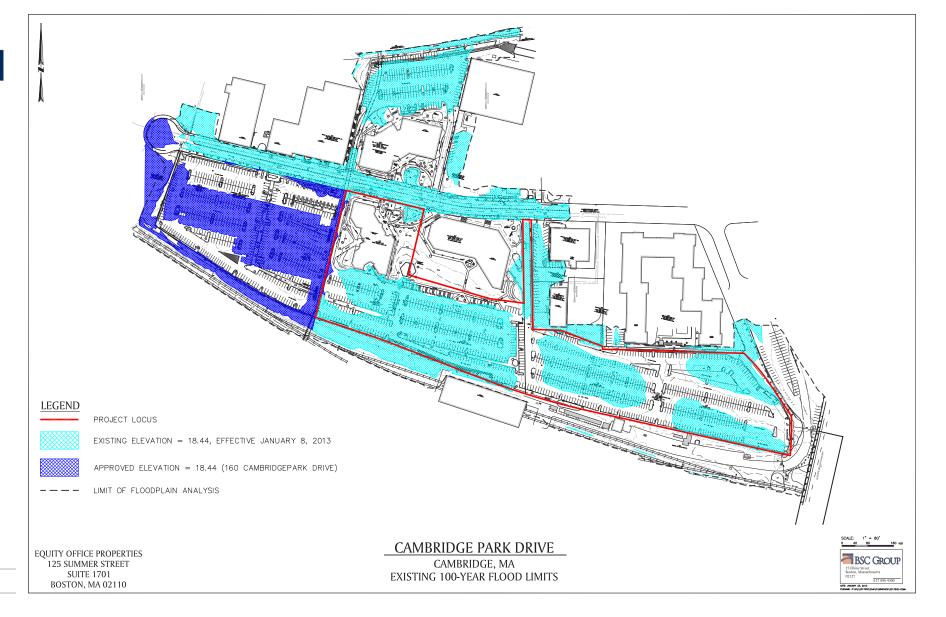






PRE-DEVELOPMENT FLOOD PLAIN MAP

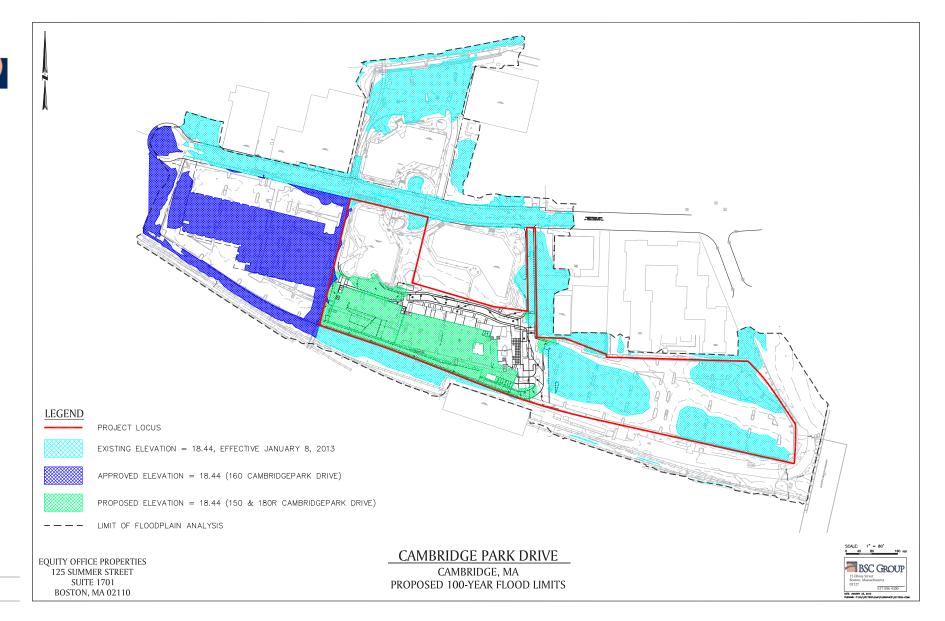




POST-DEVELOPMENT FLOOD PLAIN MAP







## FEMA FLOOD PLAIN DATA



FLOODING SOURCE		FLOODWAY		BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)				
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Aberjona River North Spur								
A	130 <sup>1</sup>	33	148	0.9	64.3	64.3	64.3	0.0
В	2,260 <sup>1</sup>	68	324	0.6	68.1	68.1	68.1	0.0
С	2,860 <sup>1</sup>	152	203	0.9	68.2	68.2	68.2	0.0
D	4,400 <sup>1</sup>	124	713	0.5	75.8	75.8	75.8	0.0
E	6,500 <sup>1</sup>	18	15	2.1	78.3	78.3	78.3	0.0
F	7,880 <sup>1</sup>	47	68	1.1	81.5	81.5	81.5	0.0
G	9,410 <sup>1</sup>	18*	27	0.5	83.0	83.0	83.0	0.0
Alewife Brook (Little River)								
A	100 <sup>2</sup>	77 <sup>*</sup>	427	1.1	6.7	3.9 <sup>4</sup>	4.1	0.2
В	250 <sup>2</sup>	101°	399	1.2	6.7	3.9 <sup>4</sup>	4.1	0.2
С	2,960 <sup>2</sup>	74	381	1.2	6.7	4.14	4.3	0.2
D	3,970 <sup>2</sup>	56	372	1.5	6.7	4.5 <sup>4</sup>	4.7	0.2
E	5,220 <sup>2</sup>	84	327	1.2	6.7	4.6 <sup>4</sup>	4.9	0.3
F	7,330 <sup>2</sup>	500°	1,135	0.3	6.8	4.94	5.3	0.4
G	7,7702	1,556	2,294	0.2	6.8	5.0 <sup>4</sup>	5.3	0.3
Н	8,010 <sup>2</sup>	1,675	3,477	0.1	6.8	5.0 <sup>4</sup>	5.4	0.4
1	11,625 <sup>2</sup>	70	569	0.8	7.4	6.44	7.2	0.8
Angelica Brook								
Α	500 <sup>3</sup>	16	23	6.9	190.1	190.1	190.1	0.0
В	1,360 <sup>3</sup>	8	25	6.4	207.1	207.1	207.9	0.8
С	2,770 <sup>3</sup>	100	525	0.3	223.4	223.4	223.4	0.0

Feet above confluence with Aberjona River

FEDERAL EMERGENCY MANAGEMENT AGENCY

MIDDLESEX COUNTY, MA
(ALL JURISDICTIONS)

## **FLOODWAY DATA**

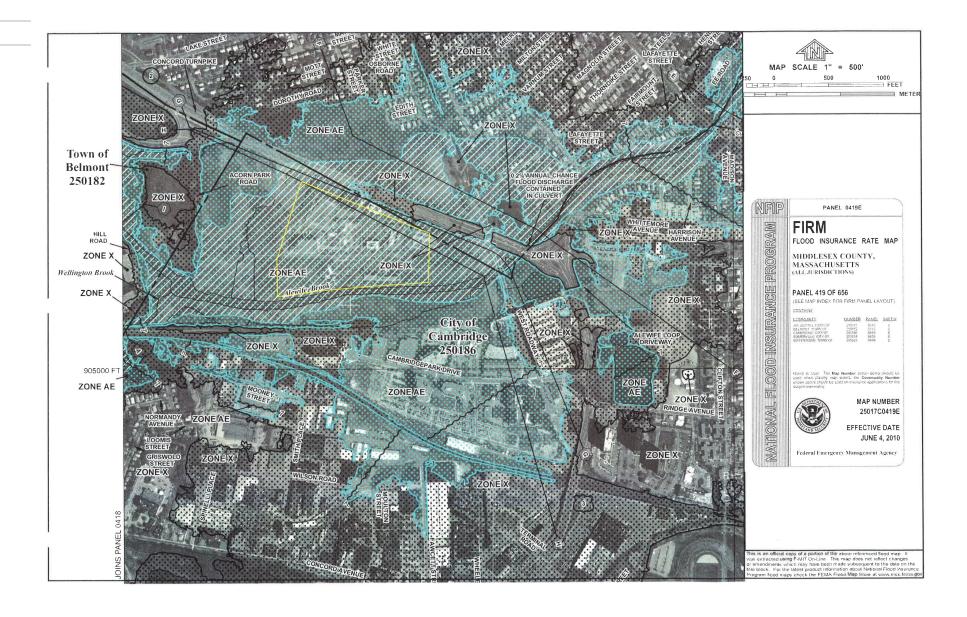
ABERJONA RIVER NORTH SPUR – ALEWIFE BROOK (LITTLE RIVER) – ANGELICA BROOK

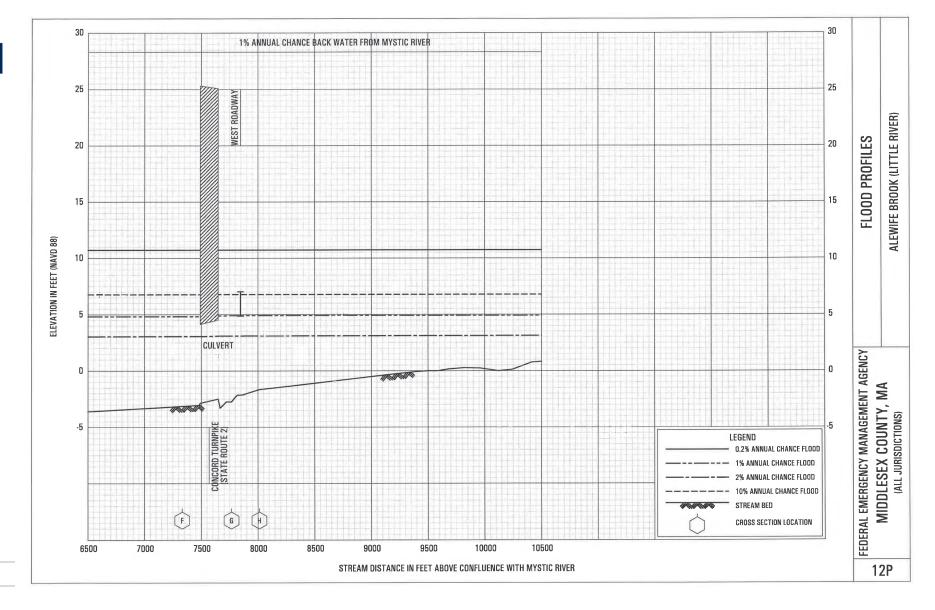
<sup>&</sup>lt;sup>3</sup> Feet above confluence with Reservoir No. 3

<sup>&</sup>lt;sup>2</sup> Feet above confluence with Mystic River

<sup>&</sup>lt;sup>4</sup> Elevation computed without consideration of backwater effects from Mystic River

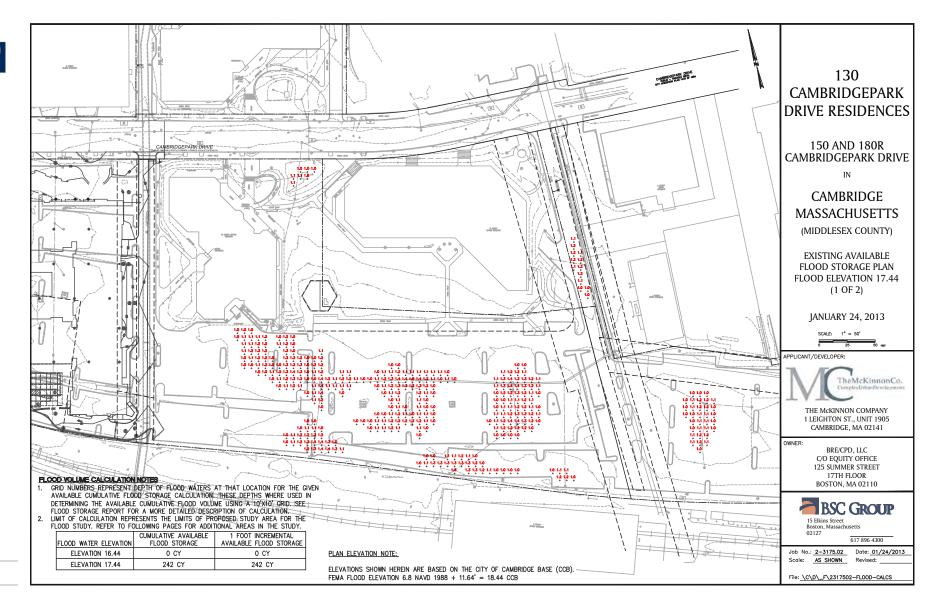
<sup>\*</sup> The measured top width on the FIRM may differ due to the effects of ineffective flow, the exclusion of small pocket areas due to map scale limitations, or is estimated due to HEC-RAS modeling limitations



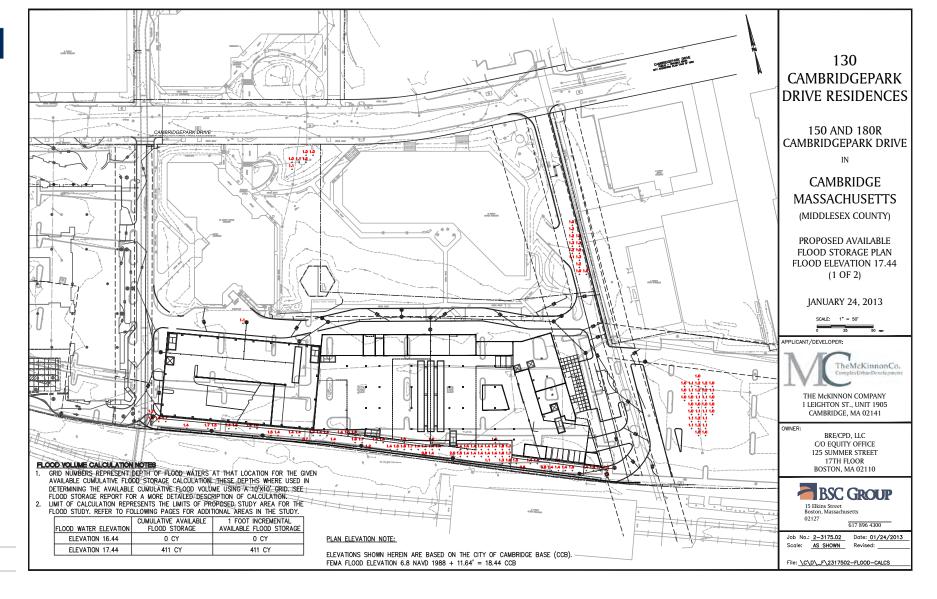


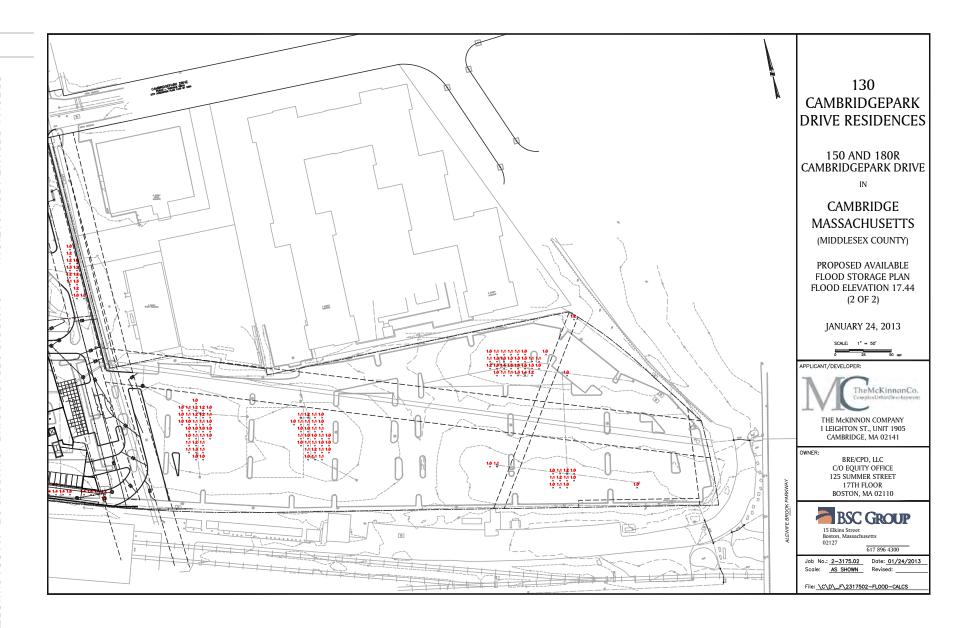
AVAILABLE FLOOD STORAGE PLANS

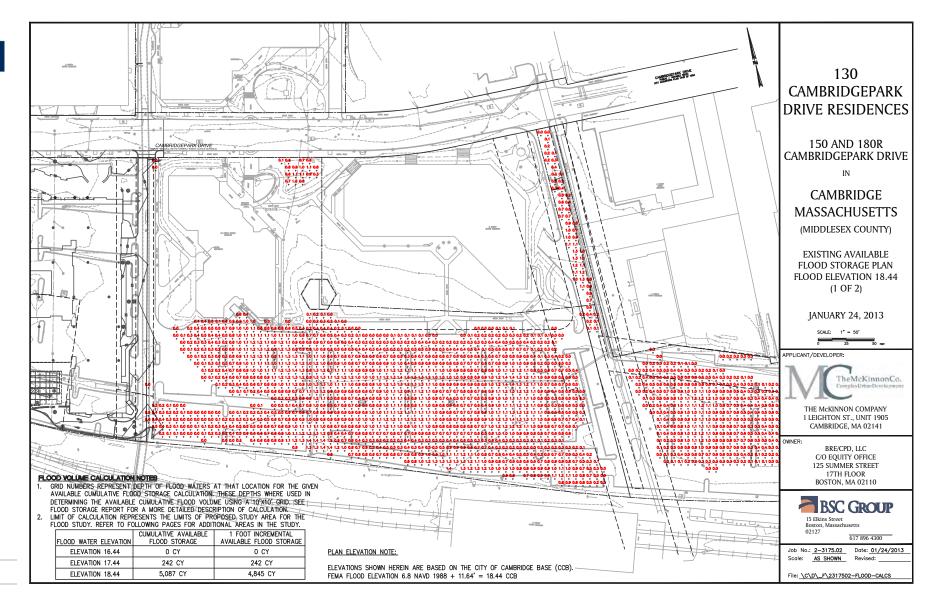






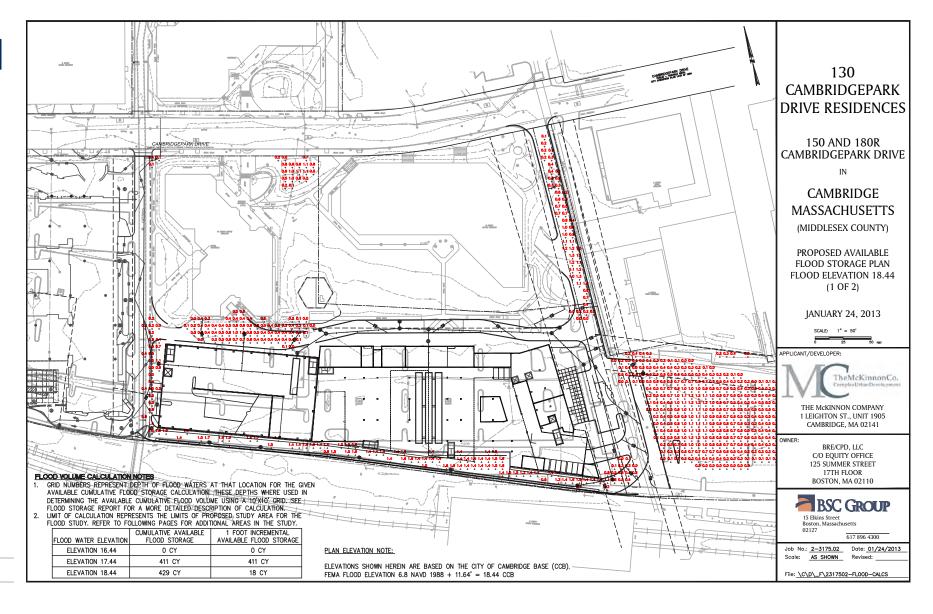












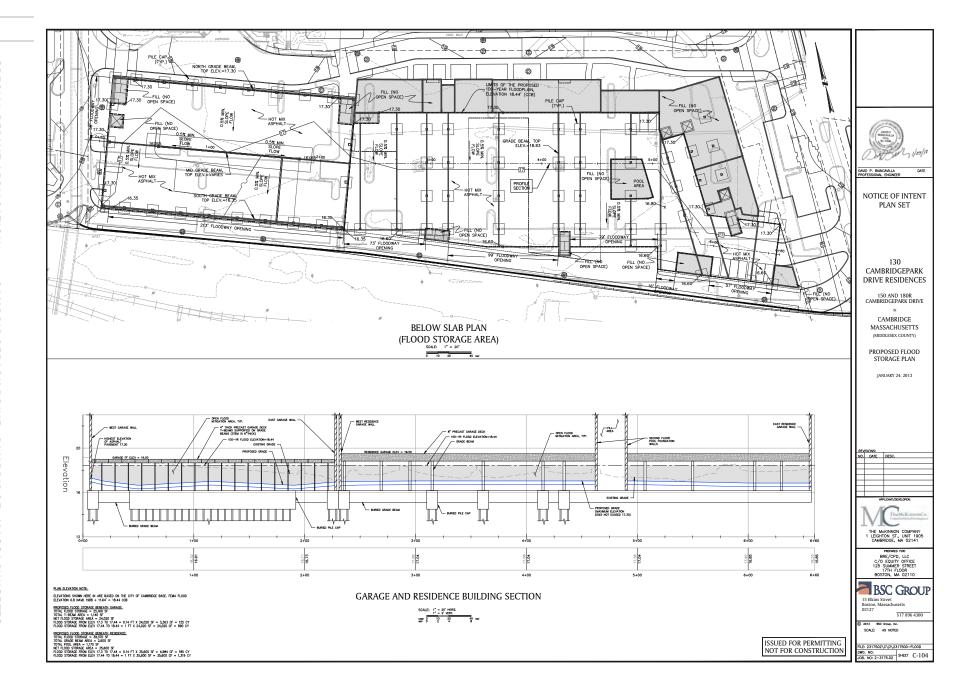


## FLOOD STORAGE BUILDING CROSS-SECTION









#### ARROWSTREET

Architecture Urban Design Planning Graphics and Interiors

February 19, 2013

Iram Farooq Project Planner Community Development Department 344 Broadway Cambridge, MA 02139

Project / No. / File 130 CambridgePark Drive Residences / 13002 / A1

Subject LEED Narrative and Project Checklist

Dear Ms. Farooq:

Enclosed, please find our summary of the proposed LEED approach for the 130 CambridgePark Drive Residences. Per Zoning Ordinance Article 22, we are submitting a completed LEED Project Checklist and brief narrative, prior to our special permit submission, describing how, to the best of our knowledge, the proposed building at 130 CambridgePark Drive will be designed to meet the LEED for Homes Mid-Rise rating system at the 'Silver' level.

Sincerely,

ARROWSTREET INC.

Senior Associate

Amy Korté, AIA, LEED AP BD+C

cc: John Bolduc, City of Cambridge
Elaine Thorne, City of Cambridge
Liza Paden, City of Cambridge
Paul Filtzer, BRE/CPD, LLC
Richard McKinnon, The McKinnon Co.
Jim Batchelor, Arrowstreet

Attachments: LEED Narrative & LEED for Homes Project Checklist

P:\13\13002\_130\_CPark\_Drive\ADMIN\13002g06-LEEDCoverLetter.doc.docx

212 Elm Street Somerville MA 02144 617.623.5555 fax:617.625.4646 www.arrowstreet.com



// ARROWSTREET

## LEED Narrative: 130 CambridgePark Drive

The Project Team believes an integrated approach to the design process is important to the success of sustainable design. As part of our Schematic Design phase, we have identified a number of sustainable strategies within the LEED for Homes Mid-rise rating system that will be developed and refined during the design of 130 CambridgePark Drive. As we are early within the design process, some of these strategies are expected to evolve and change with the design of the building. Ultimately, the Project Team will meet the City of Cambridge's Green Building Standards so as to ensure a LEED Silver rating is possible for the residential building.

The LEED for Homes Mid-rise Rating System measures the overall performance of a building through the accumulation of points within eight categories. It utilizes an adjusted point system for measuring building performance. This point system is based on the average unit size in relation to the total number of units within the building. Because the average size of the units within the proposed Residential Building is smaller than the national average, the number of points to achieve a Silver rating is reduced by 6.5 points. Therefore, the adjusted certification threshold for LEED Silver is 53.5 points. A brief description of what points the Residential Building will be seeking, within each category, is outlined below along with the completed Project Checklist.

## **Innovation and Design Process (ID)**

## ID 1. Integrated Project Planning in Mid-rise Buildings

- 1.1 Preliminary Rating (prerequisite): This prerequisite requires the design team to identify, early in the design phase, the targeted LEED rating and the credits that will be pursued to meet the rating. The Project Team will be seeking LEED level (Silver), and the attached checklist identifies the credits to be pursued.
- **1.2** Energy Expertise for MID-RISE (prerequisite): The Project Team includes individuals with expertise in midrise energy systems and components and experience with performing energy modeling per ASHRAE Standard 90.1, Appendix G.
- **1.4 Design Charrette:** A full-day design workshop with the project team will be held early on in the design process to integrate green strategies across all aspects of the building design and site planning and will include the Architect, Mechanical Engineer, Energy Modeler and Civil Engineer. The workshop will highlight the green aspects of the project and help us implement the sustainable strategies during construction.
- **1.6 Trades Training for MID-RISE**: Prior to construction, a total of 8 hours of training, focusing on the green aspects of the project, including each LEED for Homes prerequisite, will be held for the plumbing, mechanical systems and insulation trades.

#### **ID 2. Durability Management Process**

- **2.1 Durability Planning (prerequisite):** Durability, within the building enclosure and its components and systems will be sought through appropriate materials selection and construction practices. Prior to construction the project team will complete a durability risk evaluation form. This evaluation includes assessing the building enclosure and design for moderate and high-risk durability issues (such as moisture control) and incorporating measures to address these issues as part of the building design.
- **2.2 Durability Management (prerequisite):** During construction the builder will implement a quality management process to ensure the appropriate installation of the durability measures

**2.3 Third-Party Durability Management Verification:** A third-party inspector will be sought to verify the proper installation of each measure.

## Location & Linkages (LL)

- **LL 3.2 Infill** The building is situated on an "infill" lot; a lot where at least 75% of the perimeter immediately borders previously developed land.
- **LL 4. Existing Infrastructure**: The proposed building will replace a surface parking lot and is located within an existing development with ready access to infrastructure and utilities. The building lot is within a ½ mile of existing water and sewer service lines.
- LL 5. Extensive Community Resources for MID-RISE: The building is located within a 1/4 mile of seven basic community resources and ½ mile within 11 basic community resources.
- **LL 6. Access to Open Space**: The building is located within  $\frac{1}{2}$  mile of the Alewife Reservation, a publicly accessible open space that is at least  $\frac{3}{4}$  acre in size.

### **Sustainable Sites (SS)**

Sustainability begins with the site. The 130 CambridgePark Drive site is well connected with multiple transportation networks that will serve to reduce the reliance on cars for people who will live there while also connecting them to an existing pedestrian network of parks and other amenities. The proposed residential building also helps create a mixed-use neighborhood within the existing office park, enhancing the potential for people to live within walking distance of where they work.

#### SS 1. Site Stewardship

- **SS 1.1 Erosion Controls During Construction**: Long-term environmental damage to the building site and surroundings will be minimized through a series of erosion control and soil stabilization measures during construction. Erosion controls will be put in place during construction to control the path and velocity of runoff and protect existing streams and sewer inlets.
- **SS1.2 Minimize Disturbed Area of Site for MID-RISE**: Since the project's density exceeds the minimum LEED requirement of 40 residential units per acre, we anticipate receiving one point under this category.

#### SS 2. Landscaping

- SS 2.1 No Invasive Plants (prerequisite): The project will not use any invasive plants.
- SS 2.2 Basic Landscape Design: Turf will not be used in densely shaded areas and in areas with a slope of 25%. Where turf is used, it will be drought-tolerant. Mulch or soil amendments will be used as appropriate and all compacted soil will be tilled to at least six inches.
- SS 2.3 Limit Conventional Turf for MID-RISE: Out of all the plantings, less than 20% will be conventional turf.
- **SS2.4** Drought Tolerant Plants for MID-RISE: The landscape is designed to minimize demand for water with drought-tolerant plant species. Native vegetation such as bayberry, viburnum and clethra, known for their ability to withstand adverse conditions, will be used throughout the project.

#### SS 3. Local Heat Island Effects



**SS 3.1 Reduce Local Heat Island Effects** (1 point): Light-colored, high-albedo materials will be used on at least 75% of the roof and will be maximized on the ground level to reduce the heat island effect. Within the courtyard, a combination of a high albedo surfaces will be used.

## SS 4. Surface Water Management

**SS 4. Storm Water Quality Control for MID-RISE:** The site drainage, including the runoff from the proposed residence and garage will be collected, detained, and treated in accordance with the Massachusetts's Stormwater Handbook and the City of Cambridge Stormwater Management through the use of underground stormwater tanks and water quality units. The system has been designed by a professional engineer such that 100% of all water runoff from the building is managed through an on-site design element. The flood mitigation and drainage improvements were approved by a unanimous vote at the Cambridge Conservation Commission on February 25, 2013.

## **SS 5. Nontoxic Pest Control**

**SS 5. Pest Control** Alternatives: To meet this credit, the building design will hold all wood at least 12 inches above the soil; seal external cracks, joints, and penetrations; and install landscaping at least 24" away from the building. The elevation of the building, on a concrete podium will also contribute to this credit.

#### **SS 6. Compact Development**

**SS 6.3 Very High Density for MID-RISE**: The project has a density of 94 units per acre, exceeding the 80 units per acre of "Very High Density" compact development, as defined under LEED.

#### SS 7. Alternative Transportation

**SS 7.1 Public Transit for MID-RISE**: The residents of the proposed housing building have multiple transportation options, due to the building's close proximity to the Alewife MBTA station and the ample bicycle parking spaces that will be provided within the ground floor of the building.

**SS 7.2 Bicycle Storage for MID-RISE**: The Project far exceeds the bicycle storage requirements of LEED, which requires covered storage facilities for 15% or more of the building occupants. The Project provides 220 covered bicycle spaces. Per LEED, 72 bicycle spaces are required. Our occupant and bicycle calculation is below. Please note, this occupant calculation is specific to LEED, which requires 2 people per studio and 1-Bedroom and 3 people for each 2-Bedroom residence.

Total Occupants		480 occupants
<u>2-BR</u>	57 units	171 occupants
1-BR & 1-BR + Den	101 units	202 occupants
Studio	45 units	90 occupants
Micro-Units	17 units	17 occupants

Total Required Bicycle Spaces 72 Bicycle Spaces (15% of 480 occupants)
Total Provided Bicycle Spaces 220 Bicycle Spaces Provided

**SS 7.3 Parking Capacity/Low-Emitting Vehicles for MID-RISE:** The parking is sized to not exceed the minimum local zoning requirements and a location for a carpool drop-off is provided at the building entrance. Beyond that, the Project will use an innovative shared parking system with the nearby office buildings based upon

differing times of day for peak demand with each use.

## Water Efficiency (WE)

WE 3.1 High-Efficiency Fixtures and Fittings: Water-efficient fixtures, fittings, and appliances will further the project's reduction of water use. To meet this credit, toilets will have an average flow rate of less than or equal to 1.30 gpf or will meet the U.S. EPA WaterSense specification and be certified and labeled accordingly.

WE 3.2 Very High-Efficiency Fixtures and Fittings: Lavatory faucets will have a very high efficiency rating, with an average flow rate of less than or equal to 1.50 gpm.

WE 3.3 Water Efficient Appliances for MID-RISE: Energy Star dishwashers using less 6 gallons or less per cycle will be specified within the residential units and public spaces of the building.

#### **Energy and Atmosphere (EA)**

## **EA1. Optimize Energy Performance**

EA 1.1 Minimum Energy Performance for MID-RISE: The project team will develop an energy model for the building, to evaluate and demonstrate the energy savings and reduced environmental impacts of the Residential building design. A 15% improvement in the building performance rating, compared with Appendix G of ASHRAE Standard 90.1-2007, will be sought to achieve the one of the prerequisites of this category.

EA 1.2 Testing and Verification for MID-RISE (prerequisite): Testing and verification per the EPA Multifamily High-rise Program will be performed to meet this prerequisite.

EA 1.3 Optimize Energy Performance for MID-RISE: To achieve additional points under this credit, the project team will strive to optimize energy performance within the building, demonstrating further improvement beyond the standard 15%.

## **EA7. Water Heating**

EA 7.2 Pipe Insulation: The Project Team will evaluate adding R-4 insulation on all domestic hot water piping and elbows to reduce energy consumption and improve the efficiency of the system design.

#### EA11. Residential Refrigerant Management

EA 11.1 Refrigerant Charge Test (prerequisite): Proof of proper refrigerant charge of the air-conditioning system will be provided to meet this prerequisite.

EA 11.2 Appropriate HVAC Refrigerants: An HVAC system with non-HCFC refrigerant will be selected to minimize contributions to ozone depletion and global warming.

#### Materials and Resources (MR)

#### MR 1. Material-Efficient Framing

MR 1.1 Framing Order Waste Factor Limit (prerequisite): The project team will seek to limit the amount of waste to 10% or less.

MR 1.2 Detailed Framing Documents: Prior to construction, detailed framing plans and accompanying architectural details will be created that indicate 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, a detailed cut list and lumber order, corresponding to the framing plans, will be created to further minimize waste.

MR 1.4 Framing Efficiencies: Additional framing efficiencies will be sought during the construction document phase such as using open-web floor trusses; precut framing packages such as panelized trusses and walls; stud, ceiling joist and roof rafter spacing greater than 16" o.c.; sizing headers for actual loads; and two stud corners.

## MR 2. Environmentally Preferable Products

**MR 2.1 FSC Certified Tropical Wood** (prerequisite): All wood product suppliers will be provided with a notice to purchase products containing tropical wood only if it is FSC-certified; a request for the country of manufacture of each product supplied; and a request for a list of FSC-certified tropical wood products the vendor can supply.

MR 2.2 Environmentally Preferable Products: Building materials that are FSC-certified, use recycled content, have low emissions, and are locally produced will be specified as much as possible.

### MR 3. Waste Management

**MR 3.1 Construction Waste Management** Planning (prerequisite): The Project Team will investigate local options for recycling and reusing construction waste and document the diversion rate during the demolition and construction process. This documentation will occur prior to the demolition/construction phase.

MR 3.2 Construction Waste Reduction: The Project Team will seek to reduce or divert construction waste from landfills and incinerators to a level below the industry norm through either reduced construction waste (2.5 pounds or less of net waste per square foot of conditioned floor area) or increased waste diversion (25% or more of the total materials taken off the construction site from landfills and incinerators). Waste will be tracked and calculations will be completed during the construction phase.

## Indoor Environmental Quality (IEQ)

**EQ 2. Basic Combustion Venting** Measures (prerequisite): No unvented combustion appliances will be used and Carbon Monoxide monitors will be installed within each unit. Water heating equipment will be designed and installed with power-vented exhaust.

**EQ 4.1 Basic Outdoor Air Ventilation for MID-RISE** (prerequisite): A whole-unit ventilation system for each individual dwelling unit that complies with the requirements of ASHRAE Standard 62.2-2007 will be designed and installed for the Project.

**EQ 5.1 Basic Local Exhaust** (prerequisite): For each individual dwelling unit: a local exhaust system will designed and installed in all bathrooms and kitchens to meet the requirements of Section 5 of ASHRAE Standard 62.2-2007 and fans and ducts will be installed to meet the requirements of Section 7 of ASHRAE Standard 62.2-2007. Air will be exhausted to the outdoors, Energy Star labeled bathroom exhaust fans will be utilized and for all spaces outside of dwelling units, the requirements for local exhaust from ASHRAE Standard 62.1-2007 will be met.

**EQ 5.2 Enhanced Local Exhaust**: An automatic timer, operating bathroom fans for 20 minutes after the occupant leaves the room, will provide enhanced local exhaust for all bathrooms.

- EQ 6.1 Room-by-Room Load Calculations (prerequisite): Design calculations using ACCA Manuals J & D, the ASHRAE Handbook of Fundamentals, or an equivalent computation procedure will be performed with ducts installed accordingly.
- EQ 6.2 Return Air Flow: Rooms will be designed to have adequate return air flow through the use of multiple returns, transfer grilles or jump ducts.
- EQ 7.1 Good Filters (prerequisite): Air filters with a minimum efficiency reporting value (MERV) greater than or equal to 8 will be installed to reduce particulate patter from the air supply system.
- EQ 8.1 Indoor Contaminant Control During Construction: The residents' and construction workers' exposure to indoor airborne contaminants will be reduced through sealing all permanently installed ducts and vents to minimize contamination during construction.
- EQ 8.3 Preoccupancy Flush: Prior to occupancy, each unit will be flushed with fresh air per the LEED guidelines of this credit.
- EQ 9.2 Radon-Resistant Construction in Moderate-Risk Areas: Exposure to radon gas will be reduced by designing the building with radon-resistant construction techniques such as sealing and caulking all openings, cracks, and penetrations in the concrete foundation floor and walls. The site is not in a high-risk area, so the prerequisite is not applicable.
- EQ 10.1 No HVAC in Garage (Prerequisite): All air-handling equipment and ductwork will be located outside the garage.
- EQ 11. Environmental Tobacco Smoke Reduction for MID-RISE: Smoking will be prohibited in the residential building.
- EQ 12.1 Compartmentalization of Units: Each unit will be compartmentalized to prevent excessive leakage between units. This will be accomplished through weather-stripping all exterior doors and operable windows, sealing penetrations in walls, ceilings and floors in units and sealing vertical chases. Doors leading to common hallways will also be weather-stripped to minimize air leakage into the hallway. A blower door test will be used to demonstrate the acceptable sealing of residential units.

## Awareness and Education (AE)

- AE 1.1 Basic Operations Training (prerequisite): Each tenant will be provided with general information on the building's use of energy, water and natural resources along with a completed LEED checklist and product manuals for all appliances and equipment within their unit.
- AE 1.2: Enhanced Training: Two hours of additional training will be provided to the occupants, per the requirements of the LEED credit.
- AE 1.3 Public Awareness: The Owner will promote general public awareness about the building's sustainable features through a public open house, information on the building's website, and generation of a newspaper article on how the design complies with the LEED for Homes credits.
- AE 2. Education of Building Manager: A building owner's manual will be provided to the manager and will include operations and maintenance guidance for all critical equipment, guidance on tenant activities and choices, and copies of the product manufacturer's manuals for all installed equipment, fixtures, appliances.





## for Homes

## **LEED for Homes Mid-rise Pilot Simplified Project Checklist**

Builder Name:	The McKinnon Company
Project Team Leader (if different):	
Home Address (Street/City/State):	130 CambridgePark Drive, Cambridge, MA

Project Description: Adjusted Certification Thresholds

Building type: *Mid-rise multi-family* # of stories: 5 Certified: 38.5 Gold: 68.5 # of units: 220 Avg. Home Size Adjustment: -6.5 Silver: 53.5 Platinum: 83.5

Project Point Total
Prelim: 60 + 21 maybe pts
Final: 4

Certification Level
Prelim: Silver
Final: Not Certified

Final Credit Category Total Points

ID: 0 SS: 4 EA: 0 EQ: 0

EQ: 0

MR: 0 AE: 0

Minimum Point Thresholds Not Met for Final Rating

date last updated last updated by				Max Pts	Project Poi	nts Final
Innovation and Design		(ID) (No Minimum Points Required)	Max	Y/Pts Maybe N		
1. Integrated Project Planning	1.1			Prereq	Υ	T
3	1.2	, ,		Prereq	Υ	
	1.3			1	0 1	0
	1.4	Design Charrette		1	1 0	0
	1.5	Building Orientation for Solar Design		1	0 0	0
	1.6	Trades Training for MID-RISE		1	1 0	0
2. Durability Management	2.1	Durability Planning		Prereq	Υ	
Process	2.2			Prereq	Υ	
	2.3	Third-Party Durability Management Verification		3	3 0	0
3.Innovative or Regional	≥ 3.′	Innovation #1		1	0 1	0
Design	≥ 3.2			1	0 1	0
	≥ 3.3			1	0 1	0
	≥ 3.4	Innovation #4		1	0 0	0
		Sub-Total for ID	Category:	11	5 4	0
Location and Linkages	(11)	(No Minimum Points Required)	OR	Max	Y/Pts Maybe N	o Y/Pts
1. LEED ND	1	LEED for Neighborhood Development	LL2-6	10	0 0	0
2. Site Selection	≥ 2	Site Selection	_	2	0 0 N	
3. Preferred Locations	3.1			1	0 0	0
o. I referred Educations	3.2	9 1	LL 3.1	2	2 0	0
	3.3		LL 5.1	1	0 0	0
4. Infrastructure	4	Existing Infrastructure	1	1 0	0	
5. Community Resources/	5.1			1	0 0	0
Transit	5.2	•	2	2 0	0	
Transit	5.3	Extensive Community Resources for MID-RISE LL 5.1, 5.3  Outstanding Community Resources for MID-RISE LL 5.1, 5.2			0 0	0
6. Access to Open Space	6	Access to Open Space	2 0.1, 0.2	3 1	1 0	0
отпосос не орон оросо		Sub-Total for LL	Category:	10	6 0	0
Sustainable Sites (SS)		(Minimum of 5 SS Points Required)	OR	Max	Y/Pts Maybe N	
1. Site Stewardship	1.1		ON	Prerequisite	Y	1/1 (3
1. One otewardship	1.2	•		1	1 0	0
2 Landasanina				Prerequisite	Y	- 0
2. Landscaping	≥ 2.1 ≥ 2.2		SS 2.5	1	1 0	0
		3	SS 2.5 SS 2.5	2	2 0	0
			SS 2.5 SS 2.5	1	1 0	0
	≥ 2.4 ≥ 2.5			3	1 0	0
3. Local Heat Island Effects			-	1		0
3. LUCAI MEAT ISIANG ETTECTS	≥ 3.°			1	0 1	0
A Cumface Mater	<u> </u>			· ·		
4. Surface Water	≥ 4.°	Permeable Lot for MID-RISE		2 1	0 0	0
Management	4.2 Ss. 4.3			2	2 0	0
5. Nontoxic Pest Control	<u> </u>	Pest Control Alternatives		2	2 0	0
6. Compact Development	5 6.1			2	0 0	0
o. Compact Development	6.2		S 6.1, 6.3	3	0 0	0
	6.3		S 6.1, 6.2	3 4	4 0	4
7. Alternative Transportation	7.1	, ,	J U. 1, U.Z	2	2 0	0
7. Alternative Transportation	7.2			1	1 0	0
	7.3			1	1 0	0
	7.0	Sub-Total for SS	Category	22	18 1	4
		Sub-Total for 33	oulegury.		10 1	7

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

1-2   Testing and Verification for MID-RISE					Max	Project Po	
Water Rouse	144 - 500 1 (1415)						
2. Irrigation System				OR			
2							
Indoor Water Use	2. Irrigation System						
Sub-Total for WE Category:   15				ISE			
Sub-Total for WE Category	3. Indoor Water Use						
Energy and Atmosphere (EA)			, , , ,			2 4	
Contact   Cont		3.3				1 1	
Dylimize Energy Performance   1.1   Minimum Energy Performance for MID-RISE   Press   Y				/E Category:	15	4 9	0
12 Testing and Verification for MID-RISE   Presq   7   3   0   0   1   0   0   1   0   1   0   1   0   1   0   0	Energy and Atmosphere	(EA)	(Minimum of 0 EA Points Required)	OR	Max	Y/Pts Maybe N	lo Y/Pts
1.3   Optimize Energy Performance for MID-RISE   34   7   3   0   0	1. Optimize Energy Performance	1.1	Minimum Energy Performance for MID-RISE		Prereq	Υ	
Figure   Heating		1.2	Testing and Verification for MID-RISE			Υ	
11. Residential Refrigerant   11. Residential Refrigerant   11. Residential Refrigerant   11. Residential Refrigerant   11. Reprint   11. Residential Refrigerant   11. Residential Refrigerant   11. Reprint   11. Residential Refrigerant   11. Reprint		1.3	Optimize Energy Performance for MID-RISE		34	7 3	0
1. Residential Refrigerant   11.1   Refrigerant Charge Test	7. Water Heating	≥ 7.1	Efficient Hot Water Distribution		2	0 0	0
Materials and Resources   MR		7.2	Pipe Insulation		1	1 0	0
Materials and Resources	11. Residential Refrigerant	11.1			Prereq	Υ	
Materials and Resources   Mix   (Minimum of 2 MR Points Required)	Management	11.2	Appropriate HVAC Refrigerants		1	1 0	0
Material-Efficient Framing			Sub-Total for E	A Category:	38	9 3	0
Material-Efficient Framing	Materials and Resources	(MR	(Minimum of 2 MR Points Required)	OR	May	V/Pts Maybe N	In V/Pts
1			, , , , , , , , , , , , , , , , , , , ,	OIL		•	1/1 (3
Detailed Cut List and Lumber Order				MR 1.5			0
1.4   Framing Efficiencies   MR 1.5   3   3   3   0   0     1.5   Off-site Fabrication				-			
2. Environmentally Preferable   2.1   FSC Certified Tropical Wood   Preferable   Products   2.2   Environmentally Preferable Products   8   3   0   0   0   0   0   0   0   0   0		1.4					
Products   2		1.5			4	0 0	0
Products   2	2. Environmentally Preferable	≥ 2.1	FSC Certified Tropical Wood		Prereq	Υ	
3.2   Construction Waste Reduction   Sub-Total for MR Category: 16   9   0   0		≥ 2.2			8	3 0	0
3.2   Construction Waste Reduction   Sub-Total for MR Category: 16   9   0   0	3. Waste Management	3.1	Construction Waste Management Planning		Prereq	Υ	
Indoor Environmental Quality (EQ)						1 0	0
Indoor Environmental Quality (EQ)			Sub-Total for M	IR Category:	16	9 0	0
2. Combustion Venting   2   Basic Combustion Venting Measures   Prereq   Y	Indeer Environmental O	uality (					
Moisture Control   3				UK		T/PIS Maybe N	io t/Pis
Author Air Ventilation						Υ	
4.2   Enhanced Outdoor Air Ventilation for MID-RISE		3			1		0
4.3 Third-Party Performance Testing for MID-RISE	4. Outdoor Air Ventilation						
Section							
5.2   Enhanced Local Exhaust   1   7   0   0   0							0
5.3   Third-Party Performance Testing   1   0   1   0   1   0   1   0   1   0   1   0   1   0   1   0   1   0   1   0   0	5. Local Exhaust						
Solistribution of Space   Heating and Cooling   Heating Performance Test / Multiple Zones   Third-Party Performance Test / Multiple Zone							_
Heating and Cooling							0
6.3 Third-Party Performance Test / Multiple Zones   2	•						
7.1   Good Filters   Prereq   Y	Heating and Cooling						_
7.2   Better Filters			· · · · · · · · · · · · · · · · · · ·				0
7.3   Best Filters   2   0   0   0   0	7. Air Filtering						
8. Contaminant Control  8. Indoor Contaminant Control during Construction  8. Indoor Contaminant Control during Construction  8. Indoor Contaminant Control for MID-RISE  9. Indoor Control for Control for MID-RISE  10. Indoor Control for M				EQ 7.3			_
Radon Protection   9.1   Radon-Resistant Construction in High-Risk Areas   Prereq   N/A   1   0   0   0							
8.3 Preoccupancy Flush  9.1 Radon-Resistant Construction in High-Risk Areas 9.2 Radon-Resistant Construction in Moderate-Risk Areas 1 1 0 0 0  10. Garage Pollutant Protection 10.1 No HVAC in Garage for MID-RISE 10.2 Minimize Pollutants from Garage for MID-RISE 10.3 Detached Garage or No Garage for MID-RISE 10.4 Minimize Pollutants from Garage for MID-RISE 10.5 Detached Garage or No Garage for MID-RISE 10.6 LEUcation of Units 10.6 Garage Pollutants From Garage for MID-RISE 10.7 Detached Garage or No Garage for MID-RISE 10.8 Detached Garage or No Garage for MID-RISE 10.9 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8. Contaminant Control						
9. Radon Protection 9.1 Radon-Resistant Construction in High-Risk Areas 9.2 Radon-Resistant Construction in Moderate-Risk Areas 1 1 0 0 0  10. Garage Pollutant Protection 10.1 No HVAC in Garage for MID-RISE 10.2 Minimize Pollutants from Garage for MID-RISE 10.3 Detached Garage or No Garage for MID-RISE 10.3 Detached Garage or No Garage for MID-RISE 11. Environnmental Tobacco Smoke Reduction for MID-RISE 12. Compartmentalization of Units 12.1 Compartmentalization of Units 12.2 Enhanced Compartmentalization of Units 12.2 Enhanced Compartmentalization of Units 12.3 Enhanced Training 1.4 Max 1.5 May V/Pts Maybe No V/Pts 1.6 Leducation of Building 1.7 Manager 1.8 Education of Building 1.9 Manager 1.1 Do D  1.1 Do D  1.1 Do D  1.1 Do D  1.2 Education of Building Manager							
Section of Building Manager   Section   Sect	O. Davidara Brastanti						U
10. Garage Pollutant Protection 10.1 No HVAC in Garage for MID-RISE 10.2 Minimize Pollutants from Garage for MID-RISE 10.3 Detached Garage or No Garage for MID-RISE 10.3 Detached Garage or No Garage for MID-RISE 11. ETS Control 11 Environnmental Tobacco Smoke Reduction for MID-RISE 11 1 0 0 0 12. Compartmentalization of Units 12.1 Compartmentalization of Units 12.2 Enhanced Compartmentalization of Units 12.3 Enhanced Compartmentalization of Units 12.4 Enhanced Compartmentalization of Units 12.5 Enhanced Compartmentalization of Units 12.6 (Minimum of 0 AE Points Required) 13.6 A 0 14.7 Prereq 14.7 V 15. Education of the 15. In Basic Operations Training 15. Enhanced Training 16. Education of Building 17. August Angel A	9. Radon Protection		3				
10.2   Minimize Pollutants from Garage for MID-RISE   EQ 10.3   2   0   0   0   0     10.3   Detached Garage or No Garage for MID-RISE   3   0   0   0     11. ETS Control   11   Environnmental Tobacco Smoke Reduction for MID-RISE   1   1   0   0     12. Compartmentalization of Units   12.1   Compartmentalization of Units   12.2   Enhanced Compartmentalization of Units   1   0   0   0     12. Education of the   1.1   Basic Operations Training   Prereq   1   0   0   0     13. Public Awareness   1   1   0   0   0     14. Education of Building   2   Education of Building Manager   2   Education of Building Manager   1   1   0   0     15. Education of Building   2   Education of Building Manager   1   1   0   0     16. Education of Building   2   Education of Building Manager   1   1   0   0     17. Education of Building   2   Education of Building Manager   1   1   0   0     18. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0   0     19. Education of Building   2   Education of Building Manager   1   1   0   0   0     19.						1 0	0
10.3 Detached Garage or No Garage for MID-RISE  11. ETS Control  11 Environnmental Tobacco Smoke Reduction for MID-RISE  11 1 0 0 0  12. Compartmentalization of Units of Units  12.1 Compartmentalization of Units 12.2 Enhanced Compartmentalization of Units Sub-Total for EQ Category:  12.1 Compartmentalization of Units 1 0 0 0 0  12.2 Enhanced Compartmentalization of Units Sub-Total for EQ Category: 1 6 4 0  1 6 4 0  1 6 4 0  1 7 0 0 7 0  1 7 0 0 0  1 8 0 0 0 0  1 0 0 0 0  1 0 0 0 0  1 0 0 0 0	10. Garage Pollutant Protection			EQ 40.0		Y	_
Intersection   Inte				EQ 10.3			
2. Compartmentalization of Units 12.1 Compartmentalization of Units 12.2 Enhanced Compartmentalization of Units 12.2 Enhanced Compartmentalization of Units  Sub-Total for EQ Category: 21 6 4 0  Awareness and Education (AE) (Minimum of 0 AE Points Required)  Max Y/Pts Maybe No Y/Pts Homeowner or Tenant 1.1 Basic Operations Training Homeowner or Tenant 1.2 Enhanced Training 1 1 0 0 0 2. Education of Building Manager 2 Education of Building Manager	11 FTS Control						
Awareness and Education (AE) (Minimum of 0 AE Points Required)  I. 2 Enhanced Compartmentalization of Units  Sub-Total for EQ Category:  Awareness and Education (AE) (Minimum of 0 AE Points Required)  Basic Operations Training Homeowner or Tenant  1.1 Basic Operations Training Prereq Homeowner or Tenant  1.2 Enhanced Training 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							U
Sub-Total for EQ Category: 21 6 4 0  Awareness and Education (AE) (Minimum of 0 AE Points Required) Max Y/Pts Maybe No Y/Pts  I. Education of the Solid Individual In							0
Awareness and Education (AE) (Minimum of 0 AE Points Required) Max V/Pts Maybe No V/Pts  I. Education of the 1.1 Basic Operations Training Prereq Y Homeowner or Tenant 1.2 Enhanced Training 1 1 0 0 1.3 Public Awareness 1 1 1 0 0 0  2. Education of Building Manager 2 Education of Building Manager 1 1 0 0	o. omio	12.2		O Cotoros			
Homeowner or Tenant  Leducation of the Homeowner or Tenant  Leducation of				u Category:			
Homeowner or Tenant  1.2 Enhanced Training 1.3 Public Awareness 1.4 I 0 0 1.5 Public Awareness 1.5 Education of Building Manager 1.6 Education of Building Manager 1.7 Education of Building Manager 1.8 Education of Building Manager 1.9 Education of Building Manager 1.0 O 1.1 O 0.0 O		n (AE)	1 /		Max	Y/Pts Maybe N	lo Y/Pts
1.3 Public Awareness 1 1 0 0  2. Education of Building Manager 2 Education of Building Manager 1 1 0 0	1. Education of the	Sk 1.1	Basic Operations Training		Prereq	Y	
2. Education of Building Manager 2 Education of Building Manager 1 1 0 0	Homeowner or Tenant	≥ 1.2	Enhanced Training		1	1 0	0
Manager 2 Education of Building Manager 1 1 0 0		1.3	Public Awareness		1	1 0	0
Manager 2 Education of Building Manager 1 1 0 0	2. Education of Building						
	_	≥ 2	Education of Building Manager		1	1 0	0



## **Parking Analysis**

A total of 1,575 parking spaces are currently registered at the parcels owned by Equity Office (125, 150 and 180R Cambridgepark Drive) and at 160 Cambridgepark Drive, allocated as follows:

323 spaces allocated to 100 Cambridgepark Drive
379 spaces allocated to 125 Cambridgepark Drive
515 spaces allocated to 150 Cambridgepark Drive, including 80 shared spaces
398 spaces allocated to 160 Cambridgepark Drive, including 150 shared spaces
110 spaces allocated to 200 Cambridgepark Drive, including 70 shared spaces

Pursuant to a recorded easement in favor of 100 Cambridgepark Drive, the owners of 150, 160 and 180R Cambridgepark Drive are required to provide a total of 339 spaces for 100 Cambridgepark Drive. Nonetheless, since only 323 are registered with the City, the Applicant is using 323 as the number of required parking spaces for 100 Cambridgepark Drive.

The existing registered parking supply, allocated by building demand, is presented in Table A.

Table A Existing Registered Parking Supply

		Supply	Building KSF	Ratio			
Demand	#125	#160	#150	#180R	Total		
#100 CPD	0	0	323	Combined	323	130	2.48
#125 CPD	179	0	200	Combined	379	184	2.06
#150 CPD	0	<i>80</i> <sup>1</sup>	435	Combined	515	250	2.06
#160 CPD	0	398	0	0	398	398 Units	1.0 per unit
#200 CPD	0	<i>70</i> <sup>1</sup>	40	0	110	n/a	n/a
Total	179	398	361	637	1575 <sup>2</sup>		

<sup>&</sup>lt;sup>1</sup>Shared Spaces

The parking plan for the proposed project will limit the addition of parking through sharing of some of the spaces by the residential and office uses. As a result, although the project will add 220 new residential units, the net increase in new parking spaces is limited to 149 spaces. The proposed Project's parking supply allocated by building demand is summarized in Table B (found on the next page).

<sup>&</sup>lt;sup>2</sup> 150 Shared Spaces /1425 Full Time Spaces

## Parking Analysis (continued)

Table B Future Parking Demand and Supply

	Supply / Lot Location							- Building KSF	Ratio	
Demand	#125	#160	#150	#180R	#150 Garage	#130 Garage (116), Lot (4)	Total	building KSI	Natio	
#100 CPD	0	0	0		323 Co	ombined	323	130	2.48	
#125 CPD	179	0	0		200 Combined (ir	ncluding 64 shared)	379	184	2.06	
#150 CPD	0	80 <sup>1</sup>	0		435 Combined (i	ncluding 7shared)	515	250	2.06	
#160 CPD	0	398	0	0	0	0	398	398 Units	1.0 per unit	
#200 CPD	0	70 <sup>1</sup>	0	0	40	0	110	n/a		
#130 CPD	0	0	0	0	100	120	220	220 Units	1.0 per unit	
						Less shared spaces	-71			
Total	179	398	0	571	456	120	1724		=	
							221	Shared		
Net Increas	se over E	xisting	149	Spaces			1503	Full Time		

<sup>&</sup>lt;sup>1</sup> Shared Spaces

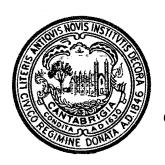
## **Community Outreach**

Over the past months we have made a point to let our neighbors on CambridgePark Drive understand and view our plans. They have been kind enough to give us the chance to do so. Included among these companies are:

- Pfizer Inc.
- Vecna Technologies
- Hines Interests
- The Hanover Company
- Roy Papalia for the Summer Shack property

We have also written to the North Cambridge Stabilization Committee asking for a chance to come before them and show them our plans prior to our Planning Board Hearing. We expect to hear from them. We did the same with the President of the Cambridge Highlands Neighborhood Committee.





## CITY OF CAMBRIDGE, MASSACHUSETTS

## PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

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

### City Department/Office:

Project Address:

130 CambridgePark Drive

**Applicant Name:** 

The McKinnon Company on behalf of BRE/CPD, LLC

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

Signature of City Department/Office Representative

Date

sent to TP&T on 2/19/13

CITY OF CAMBRIDGE, MA • PLANNING BOARD • SPECIAL PERMIT APPLICATION



## CITY OF CAMBRIDGE, MASSACHUSETTS

## PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

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

## City Department/Office:

Project Address: 130 CambridgePark Drive

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

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

Signature of City Department/Office Representative

Date

CITY OF CAMBRIDGE, MA . PLANNING BOARD . SPECIAL PERMIT APPLICATION



// ARROWSTREET

## CITY OF CAMBRIDGE, MASSACHUSETTS

## PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

## CERTIFICATION OF RECEIPT OF PLANS BY CITY OF CAMBRIDGE TREE ARBORIST

## **City Department/Office:**

**Project Address:** 

130 CambridgePark Drive

**Applicant Name:** 

The McKinnon Company on behalf of BRE/CPD, LLC

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

Signature of City Department/Office Representative

Date

Plans submitted on 2/18/13

CITY OF CAMBRIDGE, MA • PLANNING BOARD • SPECIAL PERMIT APPLICATION

# CERTIFICATION OF RECEIPT OF PLANS BY CITY OF CAMBRIDGE WATER DEPARTMENT

## City Department/Office:

Project Address: 130 CambridgePark Drive

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

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

Signature of City Department/Office Representative

Date

CITY OF CAMBRIDGE, MA . PLANNING BOARD . SPECIAL PERMIT APPLICATION



// ARROWSTREET

# CERTIFICATION OF RECEIPT OF PLANS BY CITY OF CAMBRIDGE LEED SPECIALIST

City Department/Office: Community Planning Division

Project Address: 130 CambridgePark Drive

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

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

Signature of City Department/Office Representative

Date

LEED Narrative & Project Checklist emailed to Iram Faroog on 2/19/13

CITY OF CAMBRIDGE, MA • PLANNING BOARD • SPECIAL PERMIT APPLICATION