

co-developed by

**AbodeZ +
Acorn Holdings**

PARK
New Street,
Cambridge **77**

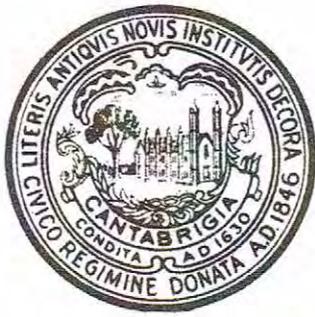


in association with:
Piatt Associates
Hope Legal Law Office
Adams & Rafferty
Vanasse Hangen Brustlin
PFS Land Surveying, inc.
EBI Consulting
Han Design Studio

Special Permit Submission

17 October 2013

Package prepared by:
AbodeZ



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: 75 New Street

Zoning District: Industrial A-1, (IA-1)

Applicant Name: Abodez Acorn 75 New Street LLC

Applicant Address: 277 Broadway, Cambridge, MA

Contact Information: (617) 945-8100 ptertzis@abodez.com NA
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.*

19.23 Project Review Special Permit.
4.26.3 Special Permit for Multifamily in Industrial A-1 District.
5.34.2(b) Special Permit for Reduction of Side and Rear Yard Setbacks.
6.44.1(a)(b)(g) and 10.45 Special Permit for Setback Reduction of On-Grade Parking, and Special Permit for On-Grade Parking Space within 10' of Building.
6.47.8 Waiver of Parking Screening Requirements.

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

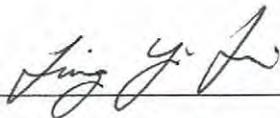
Text Documents Include:

Text Submittal Cover Sheet
Special Permit Application Cover Sheet
Ownership Certificate
Fee Schedule
Dimensional Form
Special Permit Application Narratives
Preliminary LEED Checklist and Narrative.

Drawing Documents Include:

Drawing Submittal Cover Sheet
Table of Contents
EC-1 Vicinity Map
EC-2 Aerial Photographs
EC-3 Bird's Eye Photographs
EC-4 Existing Conditions Photographs
EC-5 Existing Site Survey
EC-6 Zoning Diagram
C-1 Site Plan
C-2 Grading and Drainage Plan
C-3 Utility Plan
L-1 Rendered Landscape Plan
L-2 Landscape Key Plan
L-3 Tree Images
L-4 Shrubs, Grasses and Perennials Images
A-1 Basement Level Parking Plan
A-2 Ground Floor Plan
A-3 Typical Upper Floor Plan
A-4 Roof Plan
A-5 East Elevation
A-6 North and South Elevations
A-7 West Elevation
A-8 Northeast Perspective
A-9 East (Front) and West (Rear) Entry Perspectives
A-10 Shadow Studies

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

OWNERSHIP CERTIFICATE

Project Address:

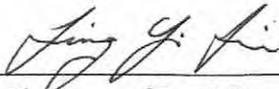
Application Date: OCTOBER 17, 2013

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

I hereby authorize the following Applicant: Abodez Acorn 75 New Street LLC
at the following address: 277 Broadway, Cambridge, MA
to apply for a special permit for: Construction of 93 dwelling units and an underground parking garage.
on premises located at: 75 New Street
for which the record title stands in the name of: Abodez Acorn 75 New Street LLC and New Street Residences LLC and J. & C. Adams Company, Inc.
whose address is: 277 Broadway, Cambridge and 75 New St., Cambridge.

by a deed duly recorded in the:

Registry of Deeds of County:	(J.C. Adams)	Book:	11587	Page:	368
	(87 New St.)	Book:	53336	Page:	334
	(75 New St.)	Book:	61788	Page:	87



Signature of Land Owner (If authorized Trustee, Officer or Agent, so identify)

To be completed by Notary Public:

Commonwealth of Massachusetts, County of MIDDLESEX

The above named Linh Yi Liu personally appeared before me,

on the month, day and year OCT 15 2013 and made oath that the above statement is true.

Notary: [Signature], Notary M. Durkin

My Commission expires: JANUARY 5, 2014

FEE SCHEDULE

Project Address:

Application Date: October 17,
2013

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

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

Fee Calculation

New or Substantially Rehabilitated Gross Floor Area (SF): 96,049 × \$0.10 = \$9,604.90

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

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

TOTAL SPECIAL PERMIT FEE Enter Larger of the Above Amounts: **\$9,604.90**



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: Traffic, Parking and Transportation Department

Project Address: 75 New Street

Applicant Name: Abodez Acorn 75 New Street 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" x 17" or the equivalent and (c) Certified Traffic Study. The Department understands that the receipt of these documents does not obligate it to take any action related thereto.

Signature of City Department/Office Representative

Date



CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

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

City Department/Office: Department of Public Works

Project Address: 75 New Street

Applicant Name: Abodez Acorn 75 New Street 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, 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: Tree Arborist

Project Address: 75 New Street

Applicant Name: Abodez Acorn 75 New Street 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



CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

CERTIFICATION OF RECEIPT OF PLANS BY CITY OF CAMBRIDGE WATER DEPARTMENT

City Department/Office: Water Department

Project Address: 75 New Street

Applicant Name: Abodez Acorn 75 New Street 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, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

CERTIFICATION OF RECEIPT OF PLANS BY CITY OF CAMBRIDGE LEED SPECIALIST

City Department/Office: LEED Specialist

Project Address: 75 New Street

Applicant Name: Abodez Acorn 75 New Street 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

Dimensional Form

Project Address: 75 New Street, Cambridge MA

Application Date: October 17, 2013

	Existing- Phase I (87 New St.)	Proposed- Phase II (75 New St.)	Proposed Total, Phases I and II	Allowed or Required (max/min)	Permitted	Notes
Lot Area, (sq ft)	30,000	49,256	79,256	79,256		
Lot Width (ft)	260'-3"	428'-3"	688'-6"			Width of lots measured parallel to New Street
Total Gross Floor Area (sq ft)	58,474 *	96,049	154,523	154,549		*58,500 sf allowed in Phase I, only 58,474 built.
Residential Base	44,980 *	73,884	118,864	118,884		* 45,000 sf allowed in Phase I, only 44,980 built.
Non-Residential Base	0	0	0	0		
Inclusionary Housing Bonus	13,494 *	22,165	35,659	35,665		*13,500 sf allowed in Phase I, only 13,494 built.
Total Floor Area Ratio	1.95	1.95	1.95	1.95		
Residential Base	1.5	1.5	1.5	1.5		
Non-Residential Base	NA	NA	NA	NA		
Inclusionary Housing Bonus	0.45	0.45	0.45	0.45		
Total Dwelling Units	54 *	93	147	147		*55 Units allowed in Phase I, only 54 were built, hence unit added to Phase II
Base Units	42	71	113	113		
Inclusionary Bonus Units	12	22	34	34		
Base Lot Area/Unit (sq ft)	714	694	701	700		
Total Lot Area/Unit (sq ft)	556	530	539	538		
Building Height(s) (ft)	45'	45'		45'		
Front Yard Setback (ft)	NA	NA		Not Req'd		
Side Yard Setback- South (ft)	Varies	42'		(H+L)/7 or 10'		
Rear Yard Setback- West (ft)	Varies	10'		(H+L)/5 or 10'		Special Permit req'd for setback relief per Zoning Article 5.34.2, Table 5-4 note (b)
Side Yard Setback- North (ft)	Varies	10'		(H+L)/7 or 10'		Special Permit req'd for setback relief per Zoning Article 5.34.2, Table 5-4 note (b)
Distance Between Buildings			32'-0"	(H+H)/6 or 10'		(45'+45')/6=15', Complies with Zoning Article 5.13
Open Space (% of Lot Area)	27%	NA	NA	Not Req'd		
Private Open Space	8,082	NA	NA	Not Req'd		
Permeable Open Space	NA	NA	NA	Not Req'd		
Other Open Space (Specify)	NA	NA	NA	Not Req'd		
Off-Street Parking Spaces	54	94	148	147 min.		
Bicycle Parking- Residents	25	98	123	123		Bicycle Parking reqm'ts have changed since Phase I; Phase II complies with new reqm'ts.
Bicycle Parking-Guests	2	10	12	11		Bicycle Parking reqm'ts have changed since Phase I; Phase II complies with new reqm'ts.
Loading Bays	0	0	0	Not Req'd		

Narrative for Special Permit Application

I. General Project Description:

Abodez Acorn 75 New Street LLC proposes to construct 75 New Street, a new multifamily residential development sited on a 49,256 sf lot at 75 New Street, (the “Site”). Currently the site is occupied by a window and door manufacturing and warehouse facility known as the J. and C. Adams Company. The site is in the Industrial A-1 zone, and is bordered on the west by an abandoned railroad line which is in the Pathway Overlay District. Danehy Park is directly across New Street, in the Open Space District.

The proposed redevelopment of 75 New Street, (the “Project”) represents Phase II of our development along New Street. Phase I is an existing 54-unit apartment building at 87 New Street that was completed in 2010, (also known as “Park 87”). We propose that the two sites will be merged together and that the combined development will comply with the overall floor area, building height and unit count requirements of Cambridge Zoning regulations. Both Phase I and Phase II are in the Industrial A-1 zone.

We propose to demolish the existing warehouse building on the 75 New Street site and build a 93-unit apartment building on 4 levels above a single-level underground parking garage. There will be a total of 94 parking spaces provided in the Project: 69 indoor garage spaces and 25 on-grade surface parking spaces. There will also be 108 bicycle spaces in the Project: 98 secure, covered spaces for residents and 10 uncovered spaces for guests, (the Phase II site is being designed to comply with bicycle parking regulations that have changed since the construction of Phase I). The proposed Project will provide a variety of unit types: approximately 66% of the units will be one-bedroom units, and 34% will be two-bedroom units. There will be a main residential lobby, gathering space and outdoor terraces on the ground floor. There will also be a roof deck on top of the 4th floor accessible to all residents in the building. All levels from the basement parking to the roof will be served by a pair of elevators.

Currently the site is served by two existing curb cuts. We propose to reduce the size of these existing curb cuts and reuse them in the new development. The proposed Phase II building is being designed to visually and functionally complement the existing Phase I building. The facades will be similar in scale and color, but different enough to lend variety to the streetscape. The Phase II building will share the existing driveway of Phase I (87 New Street), and will add a much needed pedestrian drop off area for taxis and handicapped vans that has been sorely lacking in the Phase I project. We believe that this feature will increase pedestrian and vehicular safety for both Phases of the project.

The site is currently completely covered by the existing warehouse building and non-permeable pavement. There are no existing trees within the site's boundaries. We propose that the site will be upgraded with more permeable soil area and dense plantings of drought-tolerant trees, shrubs, perennials and annuals.

II. Zoning Approvals Requested:

We are requesting approval for the Project under the Zoning Ordinance as indicated below:

- The proposed new construction and additional Gross Floor Area exceeds 50,000 sf, therefore requiring a Project Review Special Permit pursuant to the Land Use threshold Section 19.23.
- The Project is located in the Industrial A-1 District, and therefore requires a Special Permit for Multifamily in the Industrial A-1 District pursuant to Section 4.26.3.
- A Special Permit pursuant to Section 5.34.2(b) to allow for the reduction of side and rear yard setbacks to a minimum of 10'.
- A Special Permit pursuant to Sections 6.44.1(a), (b) and (g) and Section 10.45 to allow the reduction of setback of on-grade parking within 5' of a side or rear property line, and a Special Permit to allow on-grade parking spaces within 10' of a building wall.
- Waiver of parking screening requirements, pursuant to Section 6.47.8.

III. 10.43 Special Permit General Criteria:

Section 10.43 of the ordinance contains criteria concerning the granting of a special permit. Set forth below are the instructions as set forth in Section 10.43, together with a narrative response in italics that describes why none of the conditions that might be regarded as cause for denial of a special permit applies in the case of this project.

Special Permits will normally be granted where specific provisions of this 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 a permit to be to the detriment of the public interest because:

- (a) It appears that requirements of this Ordinance cannot or will not be met

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

- (b) traffic generated or patterns of access or egress would cause congestion, hazard, or substantial change in established neighborhood character

This Project itself is not located in an established Cambridge residential neighborhood. We have completed a detailed analysis of the potential traffic impacts associated with the Project as evidenced in the Transportation Impact Study (the "TIS") prepared by Vanasse, Hangen and Brustlin, Inc. and submitted with this application.

The TIS was prepared in accordance with the City's guidelines for TIS, complies with the scoping determination dated July 9, 2013, and was Certified by the Cambridge Traffic, Parking and Transportation Department on August 26, 2013.

The TIS identifies no (0) exceedences of Planning Board Special Permit Criteria, thereby indicating that the project would not cause congestion, hazard or change in established neighborhood character.

- (c) the continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance would be adversely affected by the nature of the proposed use

The Project will not affect continued operation or future development of adjacent uses. The Project replaces an existing manufacturing facility with new housing that will complement and support the existing residential, retail and office uses in the area. Additionally, the new development will enhance the streetscape along New Street with active ground-floor amenities, common and private outdoor terraces and landscaping.

- (d) 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 or welfare of the occupants of the Project nor the Citizens of the City. In fact, the Project will likely increase safety along New Street by providing more 24-hour occupants to help monitor activity along the street and in the adjacent Danehy Park. The reduction in the length of the existing curb cuts will also make pedestrians safer along the sidewalk on New Street, as will the reduction of truck traffic when the site's use changes from industrial to residential. The Project will be designed to meet the standards of the Americans with Disabilities Act and LEED to ensure safe access and healthy indoor air quality for all building occupants.

This Project is consistent with Cambridge's goals of health, safety and welfare as set forth in Section 19.30 (Citywide Urban Design Objectives) of the Ordinance to foster development which is responsive to the existing or anticipated patterns of development.

- (e) 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 the district or the adjoining Open Space and Pathway Overlay Districts. The Project will not derogate from the intent and purpose of this Ordinance. When complete, the Project will further the goals of the Ordinance and of the Concord-Alewife Study, (although it is not specifically in the study area, the site does abut the study area). The Project will help create higher densities near the Alewife T station, increase open space and permeable landscape, and improve the public pedestrian environment. The new buildings will present active, transparent facades facing the Open Space and Pathway Overlay districts, replacing the current blank, windowless facades of the existing warehouse building. The project will have strong pedestrian connections from the street to the Pathway Overlay district, which will foster active use of the Pathway District if a trail is constructed in the future.

- (f) The new use or building construction is inconsistent with the Urban Design Objectives set forth in section 19.30

The Project is consistent with and will advance the implementation of the Urban Design Objectives set forth in Section 19.30. Refer to the description of compliance with Section 19.30 later in this text.

IV. 19.25 Project Review Special Permit Criteria:

Pursuant to Section 19.25 of the Ordinance: in granting a Special Permit under Section 19.20 the Planning Board shall make the following findings:

1. The project will have no substantial adverse impact on city traffic within the study area as analyzed in the Traffic Study.

We have completed a detailed analysis of the potential traffic impacts associated with the Project as evidenced in the Transportation Impact Study (the "TIS") prepared by Vanasse, Hangen and Brustlin, Inc. and submitted with this application.

The TIS was prepared in accordance with the City's guidelines for TIS, complies with the scoping determination dated July 9, 2013, and was Certified by the Cambridge Traffic, Parking and Transportation Department on August 26, 2013.

The TIS identifies no (0) exceedences of Planning Board Special Permit Criteria, thereby indicating that the project would have no adverse impact on City traffic within the study

area.

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

A narrative description describing the consistency with the Urban Design Objectives, as set forth in Section 19.31 through 19.37 of the Ordinance, is provided below in Section V of this application.

V. Urban Design Narrative, Section 19.31 Through 19.37:

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

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

The Project, at 4 stories, will provide a suitable transition between future mid- to high-rise development in the Alewife Overlay District to the west of the site and the surrounding lower-scale residential neighborhoods in the C-IA District to the East of the site. The building will not significantly shadow the existing buildings or Danehy Park across the street, as shown in the attached Shadow Studies.

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

The Project will enhance the streetscape along New Street, as well as any future development of a linear park that may be planned for the Parkway Overlay District (railroad land) to the west. The direct abutter to the north is 87 New Street, the existing Phase I of our development on New Street. The proposed Project will be similar in height to the existing building, but due to site topography it will be a few feet lower in actual elevation at the roof. The existing warehouse building on the site has little or no setbacks on 3 sides; the proposed new building will have more generous setbacks along New Street which will be landscaped with mature trees and other plantings to provide a visual connection to the parkland across the street. The setbacks, entrances and landscape along the west side of the site are being designed to connect and blend seamlessly into the future development of the adjacent railway land in the Pathway Overlay District if it becomes a linear park. The building has been carefully sited away from the existing autobody repair business to the south, and dwelling units at the south

end of the building are being designed so that their major views are directed away from that facility.

3. 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 Project is not a mixed-use project, but it is being designed to improve the existing context and provide visual connections to the public realm. Common gathering spaces for building residents will be located on the ground floor with large expanses of glass and doors to large terraces facing New Street, Danehy Park and the Pathway Overlay District to the west. Ground floor dwelling units will also feature glass doors and terraces to provide a more intimate scale element which will also help to activate the streetscape.

4. Where relevant, historical context are 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 that are preferably preserved on or adjacent to the site.

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

1. 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 Project is being designed to maximize visual connections between ground-floor common spaces and the public realm. The main lobby will feature major glazed entrances at New Street and the Pathway Overlay District. There will be common spaces and terraces adjacent to these entrances which will also be transparent and open to residents at all hours. These entrances will be designed to be completely ADA accessible, and welcoming to pedestrians and bicyclists. Bicycle parking for guests will be located directly adjacent to the main building entrance.

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 uses are compatible with the use of the building, and will encourage pedestrian activity on the sidewalk. All of the proposed uses are permitted in the Industrial A-1 zoning district. The design of the ground floor spaces and landscape will greatly enhance the character of the streetscape.

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

Most of the covered parking will be located below-grade in an underground parking garage, or behind the building away from the street. There will be only 4 short-term parking spaces, (one for a handicapped van), in the front of the building, along a driveway that will be separated from the sidewalk by a generous planting area with mature trees, shrubs and ornamental grasses.

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

The common areas of the ground floor will be over 50% transparent. Ground floor residential units will also be nearly 50% transparent.

4. Entries to buildings are located so as to ensure safe pedestrian movement across streets, encourage walking as a preferred mode of travel within the city and to encourage the use of public transit for employment and other trips. 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 building lobby will feature a grand entrance directly on the sidewalk of New Street, and a handicapped accessible ramp that connects directly to a handicapped van parking spot at the auto drop-off area. The lobby will also have a second entrance that

will connect directly to the Pathway Overlay district parcel at the west side of the site. The site is with walking distance of the Alewife MBTA station and City bus stops.

5. 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 aid to providing safe access to the facilities from the outside.

Secure, covered bicycle parking for residents will be located in the parking garage, accessible either by the parking ramp, the elevator, or an access door located next to the parking ramp. Visitor bicycle parking will be located directly adjacent to the main entrance to the building on New Street.

6. 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.

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:

1. 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.

Mechanical equipment will be located on the roof, visually and acoustically shielded behind parapet walls. The equipment will not be readily visible or audible from the ground surrounding the site, or from neighboring buildings. The equipment is being designed to meet the requirements of the Cambridge Noise Ordinance, (Chapter 8.16).

2. 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.

There will be individual mechanically-ventilated trash rooms on each floor. Trash will be removed by maintenance staff into an enclosed dumpster located in the rear parking area. The dumpster is not near any residential neighbors.

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

The Project will be multifamily residential use only, therefore no loading dock is required.

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

The existing Site is developed and predominantly covered by impervious surfaces consisting of an existing building and a paved parking lot with generally flat topography. Runoff from the existing Site flows overland and untreated directly to the Boston and Maine Railroad right-of-way (ROW) to the west and to the existing City of Cambridge drainage system in New Street to the east. The existing parking lot captures runoff with catch basins which are directly connected to the City of Cambridge drainage system in New Street.

The Project provides a new stormwater management system that includes water quality and quantity controls, and reduces the peak runoff rates and volumes. The proposed Site generally maintains the existing drainage patterns, discharging stormwater runoff to New Street to the east, and the railroad right-of-way to the west.

Low Impact Development (LID) techniques, including reduction of impervious surfaces, have been incorporated in the Site. Additionally, water quality units will provide treatment of runoff prior to discharging into the municipal system. The rooftop area of the building has been designed to provide stormwater detention to reduce the peak rates of runoff, and drains the clean runoff directly to the municipal system. The design includes Best Management Practices for maintaining stormwater runoff quality both during and after construction, and is designed to protect downstream and underlying receiving waters from stormwater related impacts

The stormwater management system designed for the Site has been prepared in accordance with applicable local, state, and federal regulations, including the City of Cambridge Department of Public Works Stormwater Management Guidelines and Massachusetts Department of Environmental Protection (DEP) Stormwater Standards.

Per the Stormwater Management Guidelines, the Cambridge Department of Public Works (DPW) requires development/redevelopment projects to provide on-site detention storage for the difference between the 2-year, 24-hour pre-construction runoff hydrograph and the post construction 25-year, 24-hour runoff hydrograph, which will be attained on-site. The project is designed to treat a water quality volume of 1/2" of runoff over the proposed impervious area.

The Project will provide a substantial improvement in stormwater management on-site by increasing permeable areas as well as improving the quality and quantity of stormwater introduced in the Municipal systems.

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

The existing site is almost completely covered with buildings and pavement. The proposed Project will incorporate Low Impact Development design features into the overall Stormwater Management design of the site, including an increase in permeable surfaces, rooftop rainwater detention, natural landscape features and grading.

6. The structure is designed and sited to minimize shadow impacts on neighboring lots, especially shadows that would have a significant impact on the use and 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 this Zoning Ordinance.

Refer to the attached shadow studies. The building will cast minimal shadows on our existing residential building at 87 New Street. It will not have a significant impact on adjacent open space, and will not impact the operation of any Registered Solar Energy System as defined in Section 22.60 of the Zoning Ordinance.

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

The site grading has been design to minimize the need for structural retaining walls close to property lines. Where retaining walls are required along the west side of the property, we have designed the grading to minimize the height of the retaining walls to the extent possible. There will be a safety guardrail/fence installed at the top of the retaining wall to provide visual screening and to prevent falls.

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

The building scale, wall treatment and windows are being designed to complement our existing residential building at 87 New Street. There are no other nearby residential buildings.

9. 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 shield lamps from view, minimize light pollution and comply with the “dark sky” goals of the Ordinance. Pedestrian lighting around the building and along New Street will provide low but adequate levels of lighting to enhance the landscape and promote nighttime safety.

10. 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.

There are no existing trees within the site boundary. The new tree species being proposed are consistent with Ordinance requirements. We will submit a proposed landscape and planting plan to the City Arborist for review and approval concurrent with this application.

Pursuant to Section 19.34 of the Ordinance, the building and site design should mitigate adverse environmental impacts of a development upon its neighbors. Indicators include:

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

As described above, the Project’s stormwater management system has been designed to incorporate best management practices and is being reviewed by the Department of Public Works. Water-conserving plumbing fixtures and appliances will be specified in keeping with industry standards, and as required to achieve LEED Silver and Energy Star standards.

2. 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.

Water Service Infrastructure

Existing water infrastructure available to the Site includes an 8" water main within New Street and a 16" water main within an easement along the southerly side property line. According to the City of Cambridge, water service for the existing site is provided by a 1" domestic service that is connected to the 8" water main in New Street. Fire service to the existing building is provided by a 4" water service connected to the 16" water main along the southerly property line.

The proposed building includes a redundant domestic water service in accordance with the City of Cambridge requirements, which requires that buildings including more than fifty (50) residential units be served by two water line connections in the event a service line needs to be temporarily taken off line.

The proposed domestic water supply will be by a new 4" connection with a tapping sleeve and valve connecting to the existing 8" water main within New Street. Additionally, the redundant feed, comprised of a 4" pipe with tapping sleeve and valve, will be connected to the 16" water main within the easement along the southerly side property line. The proposed fire protection water supply will be provided by a new 6" connection with tapping sleeve and valve to the existing 8" water main within New Street. The existing water connections will capped and abandoned in accordance with the City of Cambridge requirements.

The proposed domestic water demand is anticipated to be approximately 15,250 gpd and the required sprinkler service for fire protection shall consist of a 450 gallons per minute (gpm) sprinkler system and 250 gpm hose connection flow rate, serviced by the 6" connection.

Flow tests conducted in June 2009, indicate sufficient system supply for the Project without needs for alternative supply enhancement measures for fire protection and domestic services. As such, a fire pump system and a domestic water booster pump system will not be installed to supplement the buildings systems. Per discussions with the Cambridge Water Department, there is sufficient capacity for the project service connections for both fire and domestic service.

Wastewater Infrastructure

The Project Site is currently served by a City of Cambridge 8" sewer main within New Street.

The Project generates approximately 13,860 gallons per day of wastewater. The Project proposes to connect by gravity into the existing sewer main in New Street with a new 8" PVC service connection. The proposed building is serviced by an 8" sewer lateral running parallel to the proposed building along the building face to allow for multiple building connection points while only requiring one connection into the City sewer main in New Street.

Snowmelt and ancillary runoff collected within the underground garage floor drains is routed through an oil/water separator into a pump, where the flows will be pumped to the 8" sewer lateral running along the face of the building. The flow will then confluence with the buildings residential sewer and will be conveyed via gravity to the existing main in New Street.

3. Buildings are designed to use natural resources and energy resources efficiently in construction, maintenance, and long-term operation of the building, including supporting mechanical systems that reduce the need for mechanical equipment generally and its location on the roof of a building specifically. The buildings are sited on the lot to allow construction on 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 Project is being designed to conform with LEED Silver, Energy Star, IECC 2009 and Cambridge Stretch Code requirements. Please see an overview of the Project's LEED compliance strategies in the attached LEED Checklist and Narrative.

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

1. New educational institutional construction that is focused within the existing campuses.

(Not applicable to the Project)

2. 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.

(Not applicable to the Project)

3. 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.

There will be no retail space in the proposed Project; however, common areas are located on the ground floor to help activate the street frontage and extend the period of time the area remains active throughout the day and evening.

4. Historic structures and environments are preserved.

(Not applicable to the Project)

5. 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.

(Not applicable to the Project)

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

1. 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.

The Project does not abut any residential zoning districts.

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

The Project will add 93 residential units to housing inventory of the City. A range of unit types will be provided, with approximately 66% of the units being one-bedroom units and 34% of them being two-bedroom units. The Project will include affordable units in compliance with Inclusionary Zoning requirements of the Ordinance.

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:

1. On large-parcel commercial developments, publicly beneficial open space is provided.

(Not applicable to the Project)

2. 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.

The Project will provide new landscaped areas, common and private outdoor terraces, and indoor and outdoor bicycle parking areas. The project is being planned to have strong connections to the potential future linear park in which may be built on former railroad land in the adjacent Pathway Overlay District.

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

The existing warehouse and parking lot which occupy the site offer little or no potential for open space activities. The new Project will provide numerous options for residents and guests to enjoy the outdoors, and new connections to the street and adjacent parkland.

VI. Conclusion:

The Project, as described above, is appropriate for the site and surroundings, providing additional housing and ground-floor amenities that will enliven the neighborhood and streetscape. The Project will further the goals of the Cambridge Zoning Ordinance by creating a transition into an increasingly residential neighborhood, providing opportunities for bicycle and pedestrian access, and decreasing hard surface areas, benefitting stormwater management. Accordingly, for the reasons set forth in this application, we respectfully request that the Planning Board find that the Project satisfies all applicable requirements of the Ordinance in connection with the granting of requested Special Permits and Waivers.

75 New Street: LEED Design and Construction Initiatives

I. PROJECT DESCRIPTION

The proposed 75 New Street project is being designed in accordance with the following environmental and energy conservation standards:

- **USGBC LEED**, Target: Silver
- **MassSave/Energy Star**
- **IECC 2009**
- **Stretch Code**: Energy Modeling will be provided as part of Building Permit submission.

The project site is ideally located close to existing urban infrastructure and public transportation lines. The site was previously a manufacturing facility and parking lot, which will require minor environmental remediation. The proposed building will be largely constructed of factory-built modular components, a construction system that has proven to be high-quality and energy-efficient while producing far less material waste than conventional stick-built construction methods. There will be many energy efficient features incorporated into the building's mechanical, electrical and plumbing systems.

Following is a synopsis of the LEED compliance measures being used in the design and construction of the project. Refer also to the attached LEED Checklist. We have been deliberately conservative in our assumptions- we believe that we will achieve more points once a contractor has been selected for the project and we can determine the Waste Management reduction measures for the project.

II. AFFIDAVIT

I, Phil Terzis, do hereby affirm that I have thoroughly reviewed the supporting documents for LEED for Homes Midrise and confirm that the proposed 75 New Street project meets the requirements for LEED Silver with 60 points, (6 above the 54 required after the “average home size adjustment”). 75 New Street, Cambridge has been designed to meet the green building requirement under article 22.20 of the Cambridge Zoning Ordinance.



Phil Terzis, AIA, LEED AP



III. SUMMARY OF LEED POINTS

Following is a summary of LEED points expected to be achieved in the project. Using the Average Home Size Adjustment, the LEED Silver target is 54 points. The project as designed is expected to achieve 60 points, (6 points above LEED Silver). Refer also to the LEED Checklist at the end of this document.

Innovation and Design Process	2
Location and Linkages	9
Sustainable Sites	17
Water Efficiency	6
Energy and Atmosphere	11
Materials and Resources	4
Indoor Environmental Quality	10
Awareness and Education	1
Total Points:	60

IV. NARRATIVE FOR LEED CREDITS

A. Innovation and Design Process (ID)

The project is being planned by LEED AP-credentialed professionals (Architectural, MEP, Civil and Construction). Sustainable Design Charrettes will be conducted to ensure targeted standards are met at each stage of the design process. Factory-built modular construction satisfies the requirements for Innovative Design.

ID Point Strategy:

- ID 1.1 Preliminary Rating: We have LEED Accredited Professionals on both our Architectural team and our Development team. We will conduct a meeting with all design and construction consultants to determine the strategy for obtaining the equivalent of LEED Silver for the project.
- ID 1.2 Energy Expertise for MID RISE: Our MEP Consultant is familiar with green midrise projects, and has extensive experience with Energy Star and Stretch Code requirements.
- ID 1.3 Professional Credentialed with Respect to LEED for Homes: We do not plan to obtain credits in this category.
- ID 1.4 Design Charrette: We will hold a one-day LEED Design Charrette during the Design Development phase of the project, to ensure that green design and building strategies are integrated across all disciplines.
- ID 1.5 Building Orientation for Solar Design: Due to site and zoning constraints, the building will not be oriented for maximum solar gain.
- ID 1.6 Trades Training for MID-RISE: We will hold a Trades Training seminar for Plumbing, Mechanical, Insulation and General Contractors.
- ID 2.1 Durability Planning: We do not plan to obtain credits in this category.
- ID 2.2 Durability Management: We do not plan to obtain credits in this category.
- ID 2.3 Third-Party Durability Management Verification: We do not plan to obtain credits in this category.
- ID 3.1 Innovative or Regional Design: We do not plan to obtain credits in this category.

B. Location and Linkages (LL)

The site's location, proximity to transportation and existing infrastructure, and brownfield status earn high ratings for this LEED category. Close proximity to Danehy Park satisfies the open space access component.

LL Point Strategy:

- LL 1.0 LEED ND (Neighborhood Development): We do not anticipate applying for LEED ND credits for this project.
- LL 2.0 Site Selection: The existing site is above the 100 year flood plain, has no threatened species habitat, is not within 100' of wetlands, is not public parkland, and has no unique or prime soils.
- LL 3.1 Edge Development: The site is bordered by over 25% developed land, however, we do not plan to obtain credits in this category, but are claiming credit under 3.2 instead.
- LL 3.2 Infill Location: The site is bordered by over 75% developed land.
- LL 3.3 Brownfield Redevelopment: The site is a former manufacturing facility and will undergo remediation under an ASTM E1903-97 Phase II Site Assessment.
- LL 4.0 Existing Infrastructure: The site is located within 1/2 mile of existing water and sewer lines.
- LL 5.2 Extensive Community Resources for MID-RISE: The project will be located within 1/4 mile from 7 community resources, and within 1/2 mile of 11 community resources.
- LL 6.0 Access to Open Space: The project is within 1/2 mile of a community open space greater than 3/4 acres in size, (Danehy Park).

C. Sustainable Sites (SS)

Sustainable site initiatives include draught-tolerant plantings, minimal turf grass, and a combination of green and high-albedo roofs. There will be no irrigation system required for the landscaping once it is established. The existing site is nearly completely paved over; the proposed site will meet the requirements of the DPW's Concord-Alewife stormwater management guidelines. There will be 93 units on the site, which qualifies for LEED's "very high density" designation. There is a bus stop nearby, and the Alewife T station is less than 1/2 mile away. There will be bike parking consisting of 1.05 spaces for every dwelling unit, as well as convenience bike parking for visitors.

SS Point Strategy:

- SS 1.1 Site Stewardship/Erosion Controls: The contractor will follow EPA and DPW guidelines to prevent erosion, control runoff, and protect existing watersheds from silt and sediment damage.
- SS 1.2 Minimize Disturbed Area: The building will have over 40 units per acre, to qualify for the points available in this category.
- SS 2.1 Invasive Plants: No invasive plant species will be introduced into this project.

- SS 2.2 Basic Landscaping Design: Turf grass will be drought-tolerant, will not be located in dense shade, and will not be placed on steeply sloped areas. Mulch will be added to amend soil as required, and compacted soil will be filled to at least 6" with screened loam.
- SS 2.3 Limit Conventional Turf: We do not plan to obtain credits in this category; however, any turf grass will be draught-tolerant and will not be irrigated once established.
- SS 2.4 Draught-Tolerant Plants: We intend to supply mainly draught-tolerant plants, but may not meet the 90% requirement to qualify for points in this category.
- SS 2.5 Reduce Overall Irrigation Demand: We intend to reduce overall irrigation demand by well over 45%. There will be no irrigation system installed in the project.
- SS 3.1 Reduce Site Heat Island Effect: We have located trees to provide shade for 50% of proposed hardscape when fully grown.
- SS 3.2 Reduce Roof Heat Island Effect: We will be installing a combination of high-albedo to satisfy this requirement
- SS 4.1 Permeable Lot for MID-RISE: We are not claiming credits in this category, however, we are following DPW guidelines for overall site permeability, as indicated in 4.3 below.
- SS 4.2 Permanent Erosion Controls: Water runoff will be controlled through careful grading. Surface water will be retained in underground detention basins.
- SS 4.3 Stormwater Quality Controls for MID-RISE: We have designed our stormwater management system in accordance with Best Management Practices (BMPs) and standards established by the Cambridge Department of Public Works' Concord-Alewife Stormwater Management Guidelines.
- SS 5 Pest Control Alternatives: We are not claiming credits in this category.
- SS 6.3 Compact Development/Very High Density for MID-RISE: We are building the equivalent of 82 units per acre of land, which far exceeds the LEED requirement of 60 units per acre for this category.
- SS 7.1 Alternative Transportation/Public Transit: The site is within 1/2 mile of transit providing 60 rides per weekday.
- SS 7.2 Alternative Transportation/Bicycle Storage: We are providing 98 secured, indoor spaces of bicycle parking, (over one per dwelling unit- twice the amount required by Zoning). We are also providing 10 outdoor bike parking spaces for visitor use
- SS 7.3 Alternative Transportation/Parking Capacity/LEVs: We are currently not claiming credits in this category, however, we are investigating the possibility of installing vehicle charging stations in the parking garage.

D. Water Efficiency (WE)

We propose to install WaterSense very low-flow plumbing fixtures and appliances in the project. We also will provide draught-tolerant native species, and are planning on having no irrigation system for plantings, once they are established.

WE Point Strategy:

WE 1 Water Reuse for MID-RISE: We are not claiming credits in this category.

WE 2.1 High Efficiency Irrigation: We propose to have no irrigation for the project.

WE 2.2 Reduce Overall Irrigation Demand by 45%: We plan to achieve this by installing draught-tolerant plantings which will require no irrigation.

WE 3.1 Indoor Water Use/High Efficiency Fixtures: Faucets and showers will use less than 2 GPM; toilets will be less than 1.3 GPF.

WE 3.3 Water Efficient Appliances for MID-RISE: We will install Energy Star rated dishwashers to achieve this credit

E. Energy and Atmosphere (EA)

Our mechanical engineers will design the mechanical systems for optimum efficiency. Dwelling units will be supplied with hydronic heating from a single central boiler, with short insulated piping runs to a fan-coil unit. Cooling will be provided by small condensers on the roof, supplying environmentally appropriate refrigerant to the same fan-coil unit. Units will have individual temperature controls for heating and cooling to encourage tenants' energy conservation.

EA Point Strategy:

WE 1.1 Optimize Energy Performance/Minimum Energy Performance: Concord-Wheeler will meet all prerequisites in this category. Energy savings are expected to be greater than the 15% threshold above ASHRAE 90.1-2007 standards.

WE 1.2 Testing and Verification: The project will be tested according to EPA and Energy Star guidelines.

WE 1.3 Optimize Energy Performance: Overall energy performance is expected to exceed ASHRAE 90.1-2007 standards by a minimum of 20%. This will be demonstrated by Energy Modeling for the project once design development is completed, and will be confirmed with air leakage/blower door tests of individual dwelling units, performed by Energy Star HERS Raters.

- Windows will have a U-value of 0.35 or better, in accordance with Energy Star requirements.

- Duct leakage to be less than 4 cfm/100 sf.
- Hot water pipes will be insulated to R-4.
- Ducts will be insulated to R-6.
- Air conditioners will be SEER 13 or better, with HSPF higher than 8.2.
- Boilers will be a minimum of 85% efficient.
- Light fixtures will be Energy Star approved, mostly LED and fluorescent fixtures.

WE 7 Efficient Hot Water Distribution System and Pipe Insulation: We are proposing to use a structured plumbing design for the hot water distribution system, with pipes insulated to a minimum R-value of 4.

WE 11 Residential Refrigerant Management: The refrigerant system will be certified for proper installation and charging, no HCFC refrigerants will be used in the residential units.

F. Materials and Resources (MR)

The proposed offsite modular construction will provide efficiency of framing, detailed framing documents, and a dramatic reduction of onsite material waste.

MR Point Strategy:

MR 1.1 Framing Waste Order Factor: Factory-built construction ensures that framing waste will be lower than 10% of total framing materials. Waste lumber is recycled into other products.

MR 1.2 Detailed Framing Documents: Shop drawings for modular components typically show every board used to complete the project, including all miscellaneous blocking and bracing.

MR 1.5 Off Site Fabrication: Modular construction earns all credits in this category.

MR 2 Environmentally Preferable Products: Although it is our intent to use environmentally preferable and recycled products where possible, we are not claiming any credits in this category.

MR 3.1 Waste Management/Construction Waste Management: The General Contractor will investigate local options for waste diversion and document the rate of waste diversion for the project. We believe that we will be able to claim credits in this category that we are not currently counting.

MR 3.2 Construction Waste Reduction: Modular construction will minimize on site waste disposal, the actual credits for this category will be dependent on amount of waste reduced. We plan to take advantage of these credits but cannot predict the amount until a contractor is selected.

G. Indoor Environmental Quality (EQ)

Indoor air quality will be assured through the use of heat recovery ventilators in every dwelling unit. All combustion appliances will be direct venting. Each unit will have individual thermostat controls and will be compartmentalized with respect to other units. The contractor will provide a pre-occupancy mechanical system flush prior to occupancy. The building will be constructed to be radon-resistant.

EQ Point Strategy:

- EQ 2 Basic Combustion Venting for MID-RISE: We will meet all requirements in this category. There will be no unvented combustion appliances. There will be carbon monoxide detectors in each unit. There will be no fireplaces. Space heating and water heating will be designed with closed-combustion systems.
- EQ 3 Moisture Control: We are not claiming any credits in this category.
- EQ 4 Outdoor Air Ventilation: The project is being designed to meet ASHRAE 62.2 standards for ventilation, with fresh outdoor air being supplied to each dwelling unit, (30 cfm/1 bedroom units, 45 cfm/2-3 bedroom units).
- EQ 5 Local Exhaust: We will provide exhaust fans in kitchens and bathrooms, ducted to the outdoors in compliance with ASHRAE 62.2. Bathroom fans will be Energy Star compliant, and an HRV will be installed in the line. All bathrooms and kitchens will meet ASHRAE 62.1-2007 air flow requirements. We do not propose to use enhanced local exhaust or third party testing at this time.
- EQ 6 Distribution of Space Heating and Cooling: Our mechanical engineers have conducted room-by-room load calculations. Return air will be provided at a rate of 1 sq. inch per CFM of supply air. Supply air flow rates will be tested and confirmed for each room under the Energy Star program.
- EQ 7 Air Filtering: The project will be furnished with MERV-10 air filters, (LEED "better").
- EQ 8 Indoor Contaminant Control: Ductwork will be sealed during construction to prevent contaminants from entering the system. We will schedule a preoccupancy flush prior to occupancy.
- EQ 9 Radon Protection: We will provide radon protection as required if radon is detected in levels that require remediation. We are not yet claiming credit for this category.
- EQ 10 Garage Pollutant Protection: There will be no HVAC ducts within the garage. All penetrations between the garage and first floor will be sealed and firestopped. Spaces adjacent to the garage will be sealed, weatherstripped and provided with carbon monoxide detectors. There will be a vestibule at the garage elevator, and doors will be self-closing. The garage will be furnished with a mechanical exhaust system controlled by carbon monoxide detectors.

- EQ 11 Environmental Tobacco Smoke Control: We propose to meet all requirements in part (a), Environmental Smoke Reduction. Smoking will be prohibited in common areas, exterior smoking areas will be greater than 25' from air intakes and windows, smoking will be prohibited within 25' of air intakes and windows. These prohibitions will be communicated through individual lease agreements and building signage.
- EQ 12 Compartmentalization of Units: All units will be air sealed and weather-stripped at all windows and doors. Units will be blower door tested in accordance with Energy Star standards for high-rise residential construction.

H. Awareness and Education (AE)

The contractor will provide enhanced training to the building occupants, and educate the building manager in operation of mechanical, electrical and plumbing systems to ensure future efficient operation.

AE Point Strategy:

- AE 1 Awareness and Education/Education of the Homeowner or Tenant: Tenants will be given a basic operations manual, and will be instructed on the efficient use of heating, cooling, hot water and ventilation systems. However, since we do not anticipate these sessions to last the required hour, we are not claiming credits in this category.
- AE 2 Education of the Building Manager: The building manager will be given all LEED documentation, test results and operating manuals for the building. The manager will be extensively trained in the efficient operation and maintenance for all HVAC, irrigation, water heating and plumbing systems for the building.



for Homes

LEED for Homes Mid-rise Pilot Simplified Project Checklist

Builder Name:	Abodez Development
Project Team Leader (if different):	Phil Terzis, Abodez Development
Home Address (Street/City/State):	75 New Street, Cambridge, MA

Project Description:

Adjusted Certification Thresholds

Building type: *Mid-rise multi-family* # of stories: **4** Certified: **39.0** Gold: **69.0**
 # of units: **93** Avg. Home Size Adjustment: **-6** Silver: **54.0** Platinum: **84.0**

Project Point Total	Final Credit Category Total Points			
Prelim: <i>60 + 0 maybe pts</i>	Final: 60	ID: 2	SS: 17	EA: 11 EQ: 10
Certification Level		LL: 9	WE: 6	MR: 4 AE: 1
Prelim: <i>Silver</i>	Final: <i>Silver</i>			

date last updated :
last updated by :

Max **Project Points**
Pts **Preliminary** **Final**

Innovation and Design Process (ID)		(No Minimum Points Required)		Max	Y/Pts	Maybe	No	Y/Pts	
1. Integrated Project Planning	1.1 Preliminary Rating			Prereq					
	1.2 Energy Expertise for MID-RISE			Prereq					
	1.3 Professional Credentialed with Respect to LEED for Homes			1	0	0		0	
	1.4 Design Charrette			1	1	0		1	
	1.5 Building Orientation for Solar Design			1	0	0		0	
	1.6 Trades Training for MID-RISE			1	1	0		1	
2. Durability Management Process	2.1 Durability Planning			Prereq					
	2.2 Durability Management			Prereq					
	2.3 Third-Party Durability Management Verification			3	0	0		0	
3. Innovative or Regional Design	<input checked="" type="checkbox"/> 3.1 Innovation #1 _____			1	0	0		0	
	<input checked="" type="checkbox"/> 3.2 Innovation #2 _____			1	0	0		0	
	<input checked="" type="checkbox"/> 3.3 Innovation #3 _____			1	0	0		0	
	<input checked="" type="checkbox"/> 3.4 Innovation #4 _____			1	0	0		0	
<i>Sub-Total for ID Category:</i>				11	2	0		2	
Location and Linkages (LL)		(No Minimum Points Required)		OR	Max	Y/Pts	Maybe	No	Y/Pts
1. LEED ND	1 LEED for Neighborhood Development	LL2-6			10	0	0		0
2. Site Selection	<input checked="" type="checkbox"/> 2 Site Selection				2	2	0		2
3. Preferred Locations	3.1 Edge Development				1	0	0		0
	3.2 Infill	LL 3.1			2	2	0		2
	3.3 Brownfield Redevelopment for MID-RISE				1	1	0		1
4. Infrastructure	4 Existing Infrastructure				1	1	0		1
5. Community Resources/ Transit	5.1 Basic Community Resources for MID-RISE				1	0	0		0
	5.2 Extensive Community Resources for MID-RISE	LL 5.1, 5.3			2	2	0		2
	5.3 Outstanding Community Resources for MID-RISE	LL 5.1, 5.2			3	0	0		0
6. Access to Open Space	6 Access to Open Space				1	1	0		1
<i>Sub-Total for LL Category:</i>				10	9	0		9	
Sustainable Sites (SS)		(Minimum of 5 SS Points Required)		OR	Max	Y/Pts	Maybe	No	Y/Pts
1. Site Stewardship	1.1 Erosion Controls During Construction			Prerequisite					
	1.2 Minimize Disturbed Area of Site for MID-RISE			1	1	0			1
2. Landscaping	<input checked="" type="checkbox"/> 2.1 No Invasive Plants			Prerequisite					
	<input checked="" type="checkbox"/> 2.2 Basic Landscape Design	SS 2.5		1	1	0			1
	<input checked="" type="checkbox"/> 2.3 Limit Conventional Turf for MID-RISE	SS 2.5		2	0	0			0
	<input checked="" type="checkbox"/> 2.4 Drought Tolerant Plants for MID-RISE	SS 2.5		1	0	0			0
	<input checked="" type="checkbox"/> 2.5 Reduce Overall Irrigation Demand by at Least 20% for MID-RISE			3	3	0			3
3. Local Heat Island Effects	<input checked="" type="checkbox"/> 3.1 Reduce Site Heat Island Effects for MID-RISE				1	1	0		1
	<input checked="" type="checkbox"/> 3.2 Reduce Roof Heat Island Effects for MID-RISE				1	1	0		1
4. Surface Water Management	<input checked="" type="checkbox"/> 4.1 Permeable Lot for MID-RISE				2	0	0		0
	<input checked="" type="checkbox"/> 4.2 Permanent Erosion Controls				1	1	0		1
	<input checked="" type="checkbox"/> 4.3 Stormwater Quality Control for MID-RISE				2	2	0		2
5. Nontoxic Pest Control	5 Pest Control Alternatives				2	0	0		0
6. Compact Development	6.1 Moderate Density for MID-RISE				2	0	0		0
	6.2 High Density for MID-RISE	SS 6.1, 6.3			3	0	0		0
	6.3 Very High Density for MID-RISE	SS 6.1, 6.2			4	4	0		4
7. Alternative Transportation	7.1 Public Transit for MID-RISE				2	2	0		2
	7.2 Bicycle Storage for MID-RISE				1	1	0		1
	7.3 Parking Capacity/Low-Emitting Vehicles for MID-RISE				1	0	0		0
<i>Sub-Total for SS Category:</i>				22	17	0		17	

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

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