

**Special Permit Application
Frank J. Manning Apartments
240 Green Street
Cambridge, MA 02139**

**Submitted by the Cambridge Housing Authority
October 2015**

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October 14, 2015

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

RE: Special Permit Application for Frank J. Manning Apartments, 240 Green St., Cambridge, MA 02139

Dear Board Members:

The Cambridge Housing Authority (CHA) is pleased to submit, in accordance with Chapter 40A of the Massachusetts General Laws and the Cambridge Zoning Ordinance (20.304.3.2), a Special Permit application for 240 Green Street (Map 106, Lot 122), located in the Cambridgeport neighborhood near Central Square. The CHA is seeking a Special Permit for an increased FAR of 2.88 since the parcel is subject to the requirements of the Central Square Overlay District.

The increased FAR is resulting from CHA's proposed plans for a comprehensive revitalization of Frank J. Manning Apartments, a 19-story, 199-unit public housing building, which shares the 240 Green Street parcel with the Central Square Public Library and Green Street Municipal Parking Garage. These plans result in an FAR increase of 0.09, raising it from 2.79 to 2.88.

The following documents are attached in support of this application:

- Special Permit Application
- Ownership Certificate
- Dimensional Form
- Green Building Checklist
- Site Context Maps
- Photographs of the existing site and renderings of the proposed revitalized building and site
- Drawings and Site Development Plans
- Evidence and Schedule of Community Outreach

Background:

Manning Apartments is a 19-story, 199-unit high-rise development located between Green Street and Franklin Street one block from the heart of Central Square. It sits on a City-owned parcel of land shared with the Green Street Garage and the Central Square Branch of the Cambridge Public Library. The site was originally developed in the 1970s as a partnership between the City and the CHA to include the parking garage, the library, and public housing for the elderly. The CHA completed the construction of Manning Apartments in 1976 as a state public housing development and converted it to its federal public housing portfolio in 2010.

The building has received only limited improvements over the years and now requires comprehensive renovations to its façade, core systems, apartment interiors, and common spaces. The cast concrete

construction style was efficient and cost-effective when built but has since become inefficient and obsolete. The planned scope of improvements includes a dramatic transformation of the building’s energy consumption to provide a healthier living environment for both the residents and the surrounding community.

The CHA and the residents of Manning Apartments, in conjunction with Bargmann, Hendrie + Archetype, Inc. Architects (BH+A), designed the proposed renovation to Manning Apartments for the preservation of this site as a location of high quality affordable housing for our community. The CHA is nationally recognized as an innovator in the management and development of affordable housing. BH+A has a strong track record of successful, attractive, and environmentally responsible multifamily and elderly housing development and was originally contracted in 2008 to assess capital needs for Manning Apartments. Planning resumed in 2014 with a financing plan able to address the full scope of necessary improvements. The team has worked closely and consistently with Manning residents, Manning Tenant Council, and the advocacy community over the years to develop a proposal that is responsive to the concerns of current residents while addressing long-term needs of the building to serve low-income residents in the decades to come. The ongoing outreach process with a wide range of City and neighborhood stakeholders has improved the quality of the proposal for the wider Cambridge community.

Proposed Renovations:

The CHA is planning comprehensive renovations to the building’s façade and core systems as well as significant improvements to unit interiors and common spaces. Current office space on the second floor will be converted into four new one-bedroom apartments and two new two-bedroom apartments. Below is a breakdown of the existing and proposed unit mix for the building:

	<i>Existing</i>	<i>Proposed</i>
Studio	1	1
1 Bedroom	179	182
1 Bedroom Accessible	10	10
2 Bedroom	8	10
2 Bedroom Accessible	0	2
3 Bedroom	1	0
Total	199	205

Planned renovation work includes:

- Interior Apartment Improvements: Plans include the full replacement of kitchens and bathrooms as well as interior finishes including cabinetry, appliances, flooring and lighting. Many of these finishes are original to the 1976 construction.
- Common Area Improvements: The proposal includes substantial increased common space for residents including a renovation of the existing first-floor community room, two additional first-floor community program spaces, expansion of second floor outdoor patio to accommodate gardening and other outdoor activities, and new multi-use community rooms.
- Exterior and Public Space Improvements: The renovation will introduce an area for cars to pull off of Franklin Street when picking up or dropping off Manning residents or library patrons to address current safety and traffic concerns, and include a redesign of the adjacent Dr. Martin Luther King plaza.
- Core Building System Improvements: The renovation work will include the installation of a high-performance window wall system and exterior insulating cladding, greatly improving building

performance and comfort and eliminating persistent water and air infiltration. Plans also include improvements to the ventilation system with enhanced fresh air intake and the addition of heat recovery systems, replacement of the plumbing and electrical within the entire building and each apartment, and the replacement of the existing electrical baseboard heating systems with a highly efficient gas-fired vertical fan-coil heating and cooling system.

Current Manning annual utility costs exceed \$500,000 annually. Upon completion the project is estimated to achieve a 30% site energy reduction, over \$260,000 in annual savings in energy costs, and a 50% reduction in water consumption. When completed Manning Apartments will be a certified Enterprise Green Communities development at a level equal to or in excess of LEED Gold, and will meet the requirements specified in Section 22.20 of the Zoning Ordinance.

Zoning Analysis:

As detailed on the Dimensional Form (see attached), the plan proposed by CHA keeps the parcel, including the component leased to the CHA containing Manning Apartments, within the current ordinance requirements on all counts except Ratio of Total Floor Area to Lot Area (FAR). The parcel falls under the C-3 District, which specifies a maximum of 3.0 FAR, as well as the Central Square Overlay District, which specifies a maximum of 2.0 FAR or 3.0 with a Special Permit. The existing parcel has a total FAR of 2.79 and the proposal raises that slightly to 2.88. Therefore, CHA seeks relief from the Planning Board for the required FAR and hopes the Board will consider our design and existing conditions when weighing its decision.

The proposal does not seek relief for any of the following requirements: Total Gross Floor Area, Size of Lot, Size of Building, Lot Area per Dwelling Unit, Minimum Setbacks, Ratio of Usable Open Space to Lot Area, Number of Dwelling Units, Number of Car Parking Spaces, Number of Bicycle Parking Spaces, Distance to Nearest Building. The CHA has reviewed each of these requirements at length with its legal counsel and relevant City representatives and confirmed project compliance given any changes are either permissible under the Ordinance or existing non-conforming conditions are not changed.

Domestic Water Usage:

The subject property has an existing 6-inch domestic water service that connects to a 20-inch main in Green Street. The domestic service is original to the building, which was constructed in the mid-1970s.

All apartment and common area plumbing fixtures will be specified to meet water conservation goals at Manning Apartments. The Plumbing Engineer has verified that the existing 6-inch pipe can accommodate the increased demand, and it has been calculated that the post-construction daily water savings will 7,783 gallons per day (50.9% reduction in water use).

Sewer Service Infrastructure:

Manning Apartments has an existing six-inch cast iron service, which changes to an eight-inch vitrified clay pipe beginning at ten feet from the building that connects to a twelve-inch main in Green Street. The service is original to the building. Additionally, the building's sanitary sewerage accepts discharge from a trench drain at the bottom of the driveway to the sub-surface garage that collects stormwater runoff from the rear, or west side, of the building. The trench drain discharge is combined with the floor drains in the sub-surface garage, routed through an oil/grit separator, and then pumped to discharge by gravity through the sanitary service. The City's DPW is aware of and will direct the project team as to whether the re-routing of the stormwater, prior to it being combined with the garage floor drainage, will be required. The existing service will be video-inspected to

verify that its condition is acceptable for re-use. There are no known capacity issues with the 12-inch sanitary main in Green Street.

The proposed project will add six new apartment units on the second floor in place of the existing Elder Service Plan (ESP) space. The ESP program is currently located in former CHA office space on the first and second floor of Manning Apartments, and includes a health clinic staffed with various medical professionals, as well as office personnel and staff operating an adult day care program. The ESP program is scheduled to leave the site in December 2015. Services will still be provided by ESP to Manning residents, but from another location in the community. Without ESP in the building, the site's overall load amount into the City's Sewer System will decrease.

Stormwater Infrastructure:

Manning Apartments has three existing storm drain services: (1) an eight-inch cast iron pipe, (2) an eight-inch reinforced concrete pipe (RCP), both of which connect to a fifteen-inch storm drain in Franklin Street, and (3) a twelve-inch PVC storm drain in Green Street.

The Franklin Street service catchment area includes roughly one-third of the building's roof as well as the ground level courtyard shared by the adjacent library. The eight-inch cast iron pipe discharges only clean stormwater that is collected on the roof of the southern third of the building. The eight-inch RCP discharges runoff collected in the courtyard by a series of catch basins.

The Green Street service catchment area includes roughly two-thirds of the building's roof, as well as the ground level courtyard between the building and Green Street. The roof drain pipe from the building combines with the ground level drainage piping prior to connecting to the 12-inch RCP storm drain in Green Street. Stormwater in the courtyard is collected by a series of catch basins.

The proposed project will mostly maintain the existing hydrology. The roof drains will be re-routed and ground level structures will be replaced so that all collected stormwater is routed through a groundwater recharge system prior to discharging to the municipal storm drain. This not only helps maintain natural groundwater levels, but also treats and reduces the stormwater entering the municipal system in both volume and rate. The existing catchment areas will be maintained. The 8-inch cast iron pipe that connects the southern third of the building directly to the municipal storm drain in Franklin Street will be cut and capped, leaving only one connection location in both Franklin and Green Street.

The project team is currently working with the City's DPW to provide a design that meets the City requirements in full, or to the maximum extent practicable where necessary.

Current and Proposed Land Use:

The CHA proposes to maintain the existing land use of Manning Apartments after the rehabilitation, consistent with Table 4.31 (Table of Use Regulations) of the Cambridge Zoning Ordinance.

Funding:

Funding for the \$58 million construction project is made possible through the planned conversion of Manning Apartments to project-based vouchers under HUD's Rental Assistance Demonstration Program (RAD). The project-based vouchers will allow the Cambridge Housing Authority (CHA) to obtain a mortgage to help fund the renovations at Manning Apartments, which is a critical project in CHA's portfolio-wide conversion to the RAD

program. Additional funds will be provided through the Low Income Housing Tax Credit Program and a CHA loan program. Bond financing during construction will be provided by MassDevelopment.

Planning Process:

Planning efforts first began in 2008 when the CHA, along with the Manning residents, procured BH+A as the project architect. The initial design and resident process was conducted up to the schematics phase, and was subsequently put on hold due to a lack of funding in 2010. The project was re-started in 2014 with the opportunity to participate in the HUD RAD program.

With a re-mobilized project, the CHA began having monthly meetings with residents in February 2014 to discuss design, construction, and relocation decisions and concerns relating to the renovation project. A monthly newsletter goes out to residents, including those who have moved off-site, with updates about the planning, development, and construction process. CHA staff along with architects from BH+A also held a Green Charrette with residents on March 24, 2015.

The CHA is engaged in an ongoing public outreach process to its abutters and neighbors. CHA staff, along with representatives from BH+A Architects, Manning Tenant Council, and the Alliance of Cambridge Tenants (ACT), discussed the project with the City Council Housing Sub-Committee on October 8th. The first of three meetings with direct abutters is scheduled for October 15th at the Central Square Branch of the Cambridge Public Library. CHA is meeting individually with the Franklin Street Church and Green Street Grill in advance of the meeting with the abutters. CHA will also be discussing the project at the Board meeting of the Central Square Business Association on October 15th and with the Central Square Advisory Committee on October 26th. CHA has also made contact with the Cambridgeport Neighborhood Association and will be presenting to them in late October.

In addition to an extensive resident and public planning process, the CHA team has worked very closely with the architect and the construction manager, Shawmut Design and Construction, to create a detailed staging and logistics plan that ensures access to the library entrance, garage, breezeway, and all key building functions throughout the construction period for the continued benefit of the residents, library users, and general public. Construction is planned to occur in five phases over the course of approximately three years. Manning Apartments will remain roughly 70% occupied and fully operational throughout the process. CHA has two full-time relocation coordinators working closely with residents to accommodate the ongoing required relocation and ensure that everyone's needs are met.

Request for Fee Waiver:

The CHA, a public agency whose mission is to provide and manage affordable housing for low and moderate income individuals and families in our community, requests that the Planning Board waive the Special Permit fee of \$16,058 (160,058 GSF @ \$0.10) due to the substantial improvements to the adjacent Dr. Martin L. King Plaza as part of this proposed construction project. This plaza is City property, and as such the funds raised and spent by the CHA on this public space will benefit not only the Manning residents but the community at-large. Our current estimate for the plaza landscape upgrades is approximately \$2.0 million.

Conclusion:

The CHA, Manning residents, and BH+A Architects have put extensive efforts designing the planned comprehensive renovation of Manning Apartments. The team has worked closely and consistently with Manning residents, Manning Tenant Council, and the advocacy community to develop a proposal that is responsive to the needs and concerns of current residents while addressing long-term needs of the building to serve residents in the decades to come. The proposal also makes significant investments to improve the Martin Luther King Plaza

on Franklin Street and the small entry plaza on Green Street for the benefit of the neighbors and public library users. The ongoing outreach process with a wide range of City and neighborhood stakeholders has improved the quality of the proposal for the wider Cambridge community.

The CHA seeks relief from the Planning Board for the 2.0 FAR maximum as specified in the Central Square Overlay to accommodate the increase from the existing 2.79 to 2.88 FAR for the proposed renovation. We hope you will support this request in order to move forward with the preservation of a critical and scarce resource for some of the City's most vulnerable elderly residents and preserves an important affordable housing asset to the CHA and wider Cambridge community in perpetuity.

Sincerely,

A handwritten signature in dark ink, appearing to read "Gregory P. Russ", followed by a long horizontal flourish.

Gregory P. Russ
Executive Director

OWNERSHIP CERTIFICATE

Project Address: 240 Green Street, Cambridge

Application Date:

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

I hereby authorize the following Applicant: Cambridge Housing Authority

at the following address: 362 Green Street, Cambridge, MA 02139

to apply for a special permit for: 240 Green Street (Parcel 106-122)

on premises located at: 240 Green Street

for which the record title stands in the name of: City of Cambridge

whose address is: 795 Massachusetts Ave, Cambridge, MA 02139

by a deed duly recorded in the:

Registry of Deeds of County: Middlesex Book: 54269 Page: 179

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

Richard C. Rossi
Signature of Land Owner (If authorized Trustee, Officer or Agent, so identify)

To be completed by Notary Public:

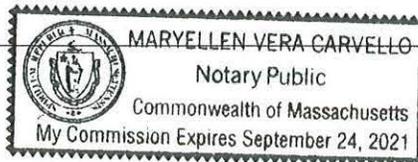
Commonwealth of Massachusetts, County of Middlesex

The above named Richard C. Rossi personally appeared before me,

on the month, day and year 10/19/15 and made oath that the above statement is true.

Notary: *Maryellen Vera Carvello*

My Commission expires: _____



DIMENSIONAL FORM

Project Address: 240 Green Street

Application Date: October 14, 2015

	Existing	Allowed or Required (max/min)	Proposed	Permitted
Lot Area (sq ft)	55,828	5,000/30,750	55,828	
Lot Width (ft)	200'	50'	200'	
Total Gross Floor Area (sq ft)	155,971	10,000/167,484	160,580	
Residential Base	140,222		144,831	
Non-Residential Base	15,749		15,749	
Inclusionary Housing Bonus	N/A	N/A	N/A	
Total Floor Area Ratio	2.794	2.0	2.876	
Residential Base	2.512	2.0	2.594	
Non-Residential Base	0.282		0.282	
Inclusionary Housing Bonus	N/A	N/A	N/A	
Total Dwelling Units	199	1,116	205	
Base Units	199	1,116	205	
Inclusionary Bonus Units	0	0	0	
Base Lot Area / Unit (sq ft)	281	150	272	
Total Lot Area / Unit (sq ft)	281	150	272	
Building Height(s) (ft)	177	55'/120'	177	
Front Yard Setback (ft)	206' @ Pearl St	67' @ Pearl St	206' @ Pearl St	
Side Yard Setback (ft)	see attached	see attached	see attached	
Side Yard Setback (ft)	see attached	see attached	see attached	
Rear Yard Setback (ft)	see attached	see attached	see attached	
Open Space (% of Lot Area)	18%	10%	14%	
Private Open Space	18%	10%	14%	
Permeable Open Space				
Other Open Space (Specify)				
Off-Street Parking Spaces	269	269	269	
Long-Term Bicycle Parking	30	N/A	40	
Short-Term Bicycle Parking	29	NA	41	
Loading Bays	0	N/A	0	

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

Please refer to attachment for further information on set-backs, open space, and parking.

Attachment to Dimensional Form

240 Green Street Special Permit Variance Request

Below is additional information as it relates to the setback requirements. Since the parcel fronts three streets the information does not easily inputs into the dimensional form.

Setbacks

	Existing Conditions	Current Ordinance Requirements	Requested Condition
Setbacks (in feet) Rear Front Left Side Front Right Side	206' @ Pearl St 20' @ Franklin Plane 1: 44' Plane 2: 5' Plane 3: 36' Hypothetical Average of 33'	67' @ Pearl St 44' @ Franklin St 56'/Hypothetical Average of all 3 Planes is 33'	206' @ Pearl St 20' @ Franklin Plane 1: 44' Plane 2: 5' Plane 3: 36' Hypothetical Average of 33

Open Space

There is no private open space on the parcel.

Parking

The CHA's ground lease with the City of Cambridge currently allows for up to 50 Manning residents to have a parking spot in the adjacent garage. Typically less than 40 residents park in the garage. The amended and restated lease will increase this allotment from 50 to 52 spaces.



for Homes

LEED for Homes Mid-rise Project Checklist

Builder Name:	Cambridge Housing Authority
Project Team Leader:	Kyle Sullivan, Cambridge Housing Authority
Home Address (Street/City/State):	240 Green Street, Cambridge, MA

Project Description

Building Type: *Mid-rise multi-family*

of stories: 19

of Units: 205

Avg. Home Size Adjustment: **-10.0**

Adjusted Certification Thresholds

Certified: **35.0** Gold: **65.0**

Silver: **50.0** Platinum: **80.0**

Project Point Total		Final Credit Category Point Totals			
Prelim: 75 + 3 <i>maybe pts</i>	Final: 20.5	ID: 0	SS: 4	EA: 14	EQ: 0
Certification Level		LL: 0	WE: 0	MR: 2.5	AE: 0
Prelim: Gold	Final: Not Certified	<i>Minimum Point Thresholds Not Met for Final Rating</i>			
Date Most Recently Updated:	10/8/2015	Updated by:	Ann John		

⚡ Indicates that an Accountability Form is required.

Max Pts. Available	Preliminary Rating			Project Points
	Y / Pts	Maybe	No	

Innovation & Design Process (ID)	(Minimum 0 ID Points Required)	Max: 11	Y:9	M:0	Notes	Final: 0
1. Integrated Project Planning						
1.1 Preliminary Rating		Prereq.	Y			
Target performance tier:	<input type="text" value="Gold"/>					
1.2 Energy Expertise for MID-RISE		Prereq.	Y			
1.3 Professional Credentialed with Respect to LEED for Homes		1	1	0	<i>please see ID 01-06 for details</i>	0
1.4 Design Charrette		1	1	0		0
1.5 Building Orientation for Solar Design (<i>meet all of the following</i>)		1	0	0		0
<input type="checkbox"/> a) Glazing area on north/south walls 50% greater than on east/west walls		<input type="checkbox"/>			c) At least 450 sq. ft. of south-facing roof area, oriented for solar applications	
<input type="checkbox"/> b) East-west axis is within 15 degrees of due east-west		<input type="checkbox"/>			d) 90% of south-facing glazing is shaded in summer, unshaded in winter	
1.6 Trades Training for MID-RISE		1	0	0		0
2. Quality Management for Durability						
2.1 Durability Planning (<i>meet all of the following</i>)		Prereq.	Y			
<input checked="" type="checkbox"/> a) Durability evaluation completed		<input checked="" type="checkbox"/>			d) Durability strategies incorporated into project documentation	
<input checked="" type="checkbox"/> b) Strategies developed to address durability issues		<input checked="" type="checkbox"/>			e) Durability measures listed in durability inspection checklist	
<input checked="" type="checkbox"/> c) Moisture control measures from Table 1 incorporated						
2.2 Durability Management (<i>meet one of the following</i>)		Prereq.	Y			
<input checked="" type="checkbox"/> Builder has a quality management process in place		<input checked="" type="checkbox"/>			Builder conducted inspection using durability inspection checklist	
2.3 Third-Party Durability Management Verification		3	3	0		0

3. Innovative or Regional Design						
3.1	☞ Innovation 1 (ruling #):	Advanced Utility Tracking-EApc38	1	1	0	WegoWise and Portfolio Manager 0
3.2	☞ Innovation 2 (ruling #):	Exemplary LL 5.3 Community Reso	1	1	0	Over 28 Community Resources 0
3.3	☞ Innovation 3 (ruling #):	Exemplary LL 7.1 Transit	1	1	0	Over 250 Weekday Rides 0
3.4	☞ Innovation 4 (ruling #):	Enhanced Commissioning EA	1	1	0	0
Location & Linkages (LL) (Minimum 0 LL Points Required)			Max: 10	Y:9	M:0	Notes Final: 0
1. LEED for Neighborhood Development						
1	LEED for Neighborhood Development		10	0	0	0
2. Site Selection						
2	☞ Site Selection (meet all of the following)		2	2	0	0
	<input checked="" type="checkbox"/>	a) Built above 100-year floodplain defined by FEMA	<input checked="" type="checkbox"/>	d) Not built on land that was public parkland prior to acquisition		
	<input checked="" type="checkbox"/>	b) Not built on habitat for threatened or endangered species	<input checked="" type="checkbox"/>	e) Not built on land with prime soils, unique soils, or soils of state significance		
	<input checked="" type="checkbox"/>	c) Not built within 100 ft of water, including wetlands				
3. Preferred Locations						
3.1	Edge Development		1	1	0	0
OR	3.2	Infill	2	2	0	0
AND/OR	3.3	Brownfield Redevelopment for MID-RISE	1	0	0	0
	<input type="checkbox"/>	a) Site meets criteria as "contaminated" by ASTM E1903-97 Phase II	<input type="checkbox"/>	b) Site defined as "brownfield" by local, state, or federal government agency		
4. Infrastructure						
4	Existing Infrastructure		1	1	0	0
5. Community Resources / Transit						
5.1	Basic Community Resources for MID-RISE (meet one of the following)		1	0	0	0
	<input type="checkbox"/>	a) Within 1/4 mile of 4 basic community resources	<input type="checkbox"/>	b) Within 1/2 mile of 7 basic community resources		
OR	5.2	Extensive Community Resources for MID-RISE (meet one of the following)	2	0	0	0
	<input type="checkbox"/>	a) Within 1/4 mile of 7 basic community resources	<input type="checkbox"/>	b) Within 1/2 mile of 11 basic community resources		
OR	5.3	Outstanding Community Resources for MID-RISE (meet one of the following)	3	3	0	<i>Exemplary Performance in addition</i> 0
	<input type="checkbox"/>	a) Within 1/4 mile of 11 basic community resources	<input checked="" type="checkbox"/>	b) Within 1/2 mile of 14 basic community resource		
6. Access to Open Space						
6	Access to Open Space		1	1	0	0

Sustainable Sites (SS) (Minimum 5 SS Points Required)		Max: 22 Y:13.5 M:2			Notes	Final: 4
1. Site Stewardship						
1.1	Erosion Controls During Construction (meet all of the following)	Prereq.	Y			
<input checked="" type="checkbox"/>	a) Stockpile and protect disturbed topsoil from erosion.	<input checked="" type="checkbox"/>		d) Provide swales to divert surface water from hillsides		
<input checked="" type="checkbox"/>	b) Control the path and velocity of runoff with silt fencing or equivalent.	<input checked="" type="checkbox"/>		e) Use tiers, erosion blankets, compost blankets, etc. on sloped areas.		
<input checked="" type="checkbox"/>	c) Protect sewer inlets, streams, and lakes with straw bales, silt fencing, etc.					
1.2	Minimize Disturbed Area for MID-RISE (meet appropriate requirements)	1	1	0		0
	Where the site is not previously developed, meet all the following:					
<input type="checkbox"/>	a) Develop tree / plant preservation plan with "no-disturbance" zones					
<input type="checkbox"/>	b) Leave 40% of buildable lot area, not including area under roof, undisturbed					
	OR Where the site is previously developed, meet all the following:					
<input type="checkbox"/>	c) Develop tree / plant preservation plan with "no-disturbance" zones AND					
<input type="checkbox"/>	Rehabilitate lot; undo soil compaction and remove invasive plants AND					
<input type="checkbox"/>	Meet the requirements of SS 2.2					
OR	<input checked="" type="checkbox"/> d) Build on a lot to achieve a density of 40 units per acre.					
2. Landscaping						
2.1	☒ No Invasive Plants	Prereq.	Y			
2.2	☒ Basic Landscaping Design (meet all of the following)	1	0	1		0
<input checked="" type="checkbox"/>	a) Any turf must be drought-tolerant.	<input checked="" type="checkbox"/>		d) Add mulch or soil amendments as appropriate.		
<input checked="" type="checkbox"/>	b) Do not use turf in densely shaded areas.	<input checked="" type="checkbox"/>		e) All compacted soil must be filled to at least 6 inches.		
<input checked="" type="checkbox"/>	c) Do not use turf in areas with slope of 25%					
AND/OR	2.3 ☒ Limit Conventional Turf for MID-RISE	2	0	0		0
	<input type="text" value=""/> Percentage of designed landscape softscape area that is turf					
AND/OR	2.4 ☒ Drought-Tolerant Plants for MID-RISE	1	0	1	<i>Maybe?</i>	0
	<input type="text" value="90%"/> Percentage of installed plants that are drought-tolerant	<input type="checkbox"/>		Both points in SS 2.3 are met (≤ 20% turf)		
OR	2.5 ☒ Reduce Overall Irrigation Demand by at Least 20% for MID-RISE	3	0	0		0
	<input type="text" value=""/> Percentage reduction in estimated irrigation water demand	<i>(calculate)</i>				
3. Reduce Local Heat Island Effects						
3.1	☒ Reduce Site Heat Island Effects for MID-RISE (meet one)	1	0	0		0
<input type="checkbox"/>	a) Locate trees / plantings to provide shade for 50% of hardscapes	<input type="checkbox"/>		b) Install light-colored, high-albedo materials for 50% of sidewalks, patios, and driveways		
3.2	☒ Reduce Roof Heat Island Effects for MID-RISE (meet one)	1	1	0		0
<input checked="" type="checkbox"/>	a) Install roof with high albedo materials on 75% of roof area	<input type="checkbox"/>		c) Install combination of high albedo and vegetated roof		
<input type="checkbox"/>	b) Install a vegetated roof for at least 50% of roof area					

4. Surface Water Management			
4.1	≥ Permeable Lot for MID-RISE	2	0 0 0
	<input type="text"/> vegetative landscape		
	<input type="text"/> permeable paving		
	<input type="text"/> impermeable surfaces directed to on-site infiltration features		
	<input type="text"/> other impermeable surfaces		
4.2	Permanent Erosion Controls (<i>meet one of the following</i>)	1	1 0 0
	<input type="checkbox"/> a) For portions of lot on steep slope, use terracing and retaining walls	<input checked="" type="checkbox"/>	b) Plant trees, shrubs, or groundcover
4.3	≥ Stormwater Quality Control for MID-RISE (<i>meet one of the following</i>)	2	2 0 0
	<input checked="" type="checkbox"/> a) Stormwater mgmt plan designed in accordance with state or local program	<input type="checkbox"/>	b) In-field performance monitoring data to demonstrate compliance
5. Nontoxic Pest Control			
5	Pest Control Alternatives (<i>meet any of the following, 1/2 pt each</i>)	2	1.5 0 0
	<input type="checkbox"/> a) Keep all exterior wood at least 12" above soil		e) In 'moderate' to 'very heavy' termite risk areas:
	<input checked="" type="checkbox"/> b) Seal external cracks, joints, etc. with caulking and install pest-proof screens		<input type="checkbox"/> i) Treat all cellulosic material with borate product to 3' above foundation
	<input checked="" type="checkbox"/> c) Include no wood-to-concrete connections, or separate connections with dividers		<input type="checkbox"/> ii) Install sand or diatomaceous earth barrier
	<input type="checkbox"/> d) Install landscaping so mature plants are 24" from home		<input type="checkbox"/> iii) Install steel mesh barrier termite control system
			<input type="checkbox"/> iv) Install non-toxic termite bait system
			<input type="checkbox"/> v) Use noncellulosic wall structure
			<input checked="" type="checkbox"/> vi) Use solid concrete foundation walls or pest-proof masonry wall design
6. Compact Development			
6.1	Moderate Density for MID-RISE	2	0 0 0
	<input type="text"/> # of total units on the lot	<input type="text"/> lot size (acres)	<input type="text"/> density (units/acre)
	205	0.4	512.5
OR	6.2 High Density for MID-RISE	3	0 0 0
OR	6.3 Very High Density for MID-RISE	4	4 0 4
7. Alternative Transportation			
7.1	Public Transit for MID-RISE (<i>meet one of the following</i>)	2	2 0 0
	<input type="checkbox"/> a) Within 1/2 mile of transit services providing 30 rides per weekday	<input checked="" type="checkbox"/>	b) Within 1/2 mile of transit services providing 60 rides per weekday
7.2	Bicycle Storage for MID-RISE	1	0 0 0
	<input type="text"/> secure, covered storage capacity (# of bicycles)		
7.3	Parking Capacity/Low-Emitting Vehicles for MID-RISE (<i>meet one</i>)	1	1 0 0
	<input type="checkbox"/> a) Provide low-emitting, fuel-efficient vehicles for 3% of the total parking capacity	<input type="checkbox"/>	d) Size parking to not exceed min zoning req'ts, AND
	<input type="checkbox"/> b) 5% of total capacity is preferred parking spots for low-emitting vehicles	<input type="checkbox"/>	Provide infrastructure to facilitate shared vehicle usage
	<input type="checkbox"/> c) Alternative-fuel refueling stations for 3% of total vehicle capacity	<input checked="" type="checkbox"/>	e) Provide no new parking

Water Efficiency (WE) (Minimum 3 WE Points Required)		Max: 15	Y:10	M:0	Notes	Final: 0
1. Water Reuse						
1	Water Reuse for MID-RISE	5	0	0		0
	<input type="text" value=""/> of total water demand offset by water reuse strategies (mark any/all strategies adopted)	<input type="checkbox"/>			Rainwater harvesting	
		<input type="checkbox"/>			Graywater reuse	
		<input type="checkbox"/>			Municipal recycled water	
2. Irrigation System						
2.1	High-Efficiency Irrigation System for MID-RISE (meet any, 0.5 pt each)	2	2	0		0
	<input type="checkbox"/> a) Irrigation system designed by EPA Water Sense certified professional	<input type="checkbox"/>			g) Install timer or controller for each watering zone	
	<input checked="" type="checkbox"/> b) Irrigation system with head-to-head coverage	<input type="checkbox"/>			h) Install pressure-regulating devices	
	<input checked="" type="checkbox"/> c) Install central shut-off valve	<input type="checkbox"/>			i) High-efficiency nozzles with distribution uniformity of at least 0.70.	
	<input type="checkbox"/> d) Install submeter for the irrigation system	<input type="checkbox"/>			j) Install check valves in heads	
	<input checked="" type="checkbox"/> e) Use drip irrigation for 50% of planting beds	<input type="checkbox"/>			k) Install moisture sensor or rain delay controller	
	<input checked="" type="checkbox"/> f) Create separate zones for each type of bedding	<input type="checkbox"/>			l) Third-party inspection of irrigation system	
OR	2.2 Reduce Overall Irrigation Demand by at Least 45% for MID-RISE	2	0	0		0
	<input type="text" value="0%"/> Percentage reduction in estimated irrigation water demand (see SS 2.5)					
3. Indoor Water Use						
3.1	High-Efficiency Fixtures and Fittings (meet any of the following, 1 pt each)	3	0	0		0
	<input type="checkbox"/> a) Average flow rate of lavatory faucets is ≤ 2.00 gpm	<input type="checkbox"/>			c) Average flow rate for all toilets is ≤ 1.30 gpf; OR	
	<input type="checkbox"/> b) Average flow rate for all showers is ≤ 2.00 gpm per stall	<input type="checkbox"/>			Toilets are dual-flush; OR	
		<input type="checkbox"/>			Toilets meet the EPA Water Sense specification	
3.2	Very High-Efficiency Fixtures and Fittings (meet any, 2 pts each)	6	6	0		0
	<input checked="" type="checkbox"/> a) Average flow rate of lavatory faucets is ≤ 1.50 gpm; OR	<input checked="" type="checkbox"/>			b) Average flow rate for all showers ≤ 1.75 gpm per stall	
	<input type="checkbox"/> Lavatory faucets meet the EPA Water Sense specification	<input checked="" type="checkbox"/>			c) Average flow rate for all toilets is ≤ 1.10 gpf	
3.3	Water Efficient Appliances for MID-RISE (meet any of following, 1 pt each)	2	2	0		0
	<input checked="" type="checkbox"/> a) Water-efficient clothes washers with MEF ≥ 2.0 and WF < 5.5	<input checked="" type="checkbox"/>			b) ENERGY STAR dishwasher(s) that use ≤ 6.0 gallons per cycle	

Energy & Atmosphere (EA) (Minimum 0 EA Points Required)		Max: 38	Y:15	M:1	Notes	Final: 14
1. Optimize Energy Performance in Mid-rise Buildings						
1.1	Minimum Energy Performance for MID-RISE (<i>meet all of the following</i>)	Prereq.	Y			
<input checked="" type="checkbox"/>	Meets mandatory prov. of ASHRAE Std. 90.1-2004, Sec. 5.4, 6.4, 7.4, 8.4, 9.4, 10.4	<input checked="" type="checkbox"/>			Achieve 15% energy cost savings compared to ASHRAE Std. 90.1-2007, Appendix G	
<input checked="" type="checkbox"/>	EPA Multifamily Simulation Guidelines incorporated into modeling methodology	<input checked="" type="checkbox"/>			Energy model submitted and reviewed by USGBC	
1.2	Testing and Verification for MID-RISE	Prereq.	Y			
1.3	Optimize Energy Performance for MID-RISE	34	14	0		14
	27.0% % energy cost savings compared with ASHRAE 90.1-2007					
7. Water Heating						
7.1	Efficient Hot Water Distribution System (<i>meet one of the following</i>)	2	0	0		0
<input type="checkbox"/>	a) Structured plumbing system	<input type="checkbox"/>			c) Compact design of conventional system	
<input type="checkbox"/>	b) Central manifold distribution system					
7.2	Pipe Insulation	1	0	1	Maybe?	0
11. Residential Refrigerant Management						
11.1	Refrigerant Charge Test	Prereq.	Y			
11.2	Appropriate HVAC Refrigerants (<i>meet one of the following</i>)	1	1	0		0
<input type="checkbox"/>	a) Use no refrigerants	<input type="checkbox"/>			c) Use refrigerants that complies with global warming potential equation	
<input checked="" type="checkbox"/>	b) Use non-HCFC refrigerants					
Materials & Resources (MR) (Minimum 2 MR Points Required)		Max: 16	Y:7.5	M:0	Notes	Final: 2.5
1. Material-Efficient Framing						
1.1	Framing Order Waste Factor	Prereq.	Y			
1.2	Detailed Framing Documents	1	0	0		0
AND/OR	1.3 Detailed Cut List and Lumber Order	1	0	0		0
<input type="checkbox"/>	Requirements of MR 1.2 have been met	<input type="checkbox"/>			Detailed cut list and lumber order corresponding to framing plans or scopes	
AND/OR	1.4 Framing Efficiencies (<i>meet any of the following, see Rating System for pts</i>)	3	0	0		0
<input type="checkbox"/>	Precut framing packages	<input type="checkbox"/>			Stud spacing greater than 16" on center	
<input type="checkbox"/>	Open-web floor trusses	<input type="checkbox"/>			Ceiling joist spacing greater than 16" on center	
<input type="checkbox"/>	Structural insulated panel walls	<input type="checkbox"/>			Floor joist spacing greater than 16" on center	
<input type="checkbox"/>	Structural insulated panel roof	<input type="checkbox"/>			Roof rafter spacing greater than 16" on center	
<input type="checkbox"/>	Structural insulated panel floors	<input type="checkbox"/>			Two of the following: Size headers for loads; ladder blocking; drywall clips; 2-stud	
OR	1.5 Off-site Fabrication (<i>meet one of the following</i>)	4	0	0		0
<input type="checkbox"/>	a) Panelized construction	<input type="checkbox"/>			b) Modular, prefabricated construction	

2. Environmentally Preferable Products

2.1	≤ FSC Certified Tropical Wood (meet all of the following)	Prereq.	Y		
<input checked="" type="checkbox"/>	a) Provide suppliers with a notice of preference for FSC products; AND	<input checked="" type="checkbox"/>	b) No tropical wood installed (exceptions for FSC-certified or reclaimed wood)		
<input type="checkbox"/>	Request country of manufacture for each wood product				
2.2	≤ Environmentally Preferable Products (meet any, 1/2 pt each)	8	5	0	0

Assembly : component	(a) EPP	(b) Low emission	(c) Local production
Exterior wall: framing	<input checked="" type="checkbox"/> type: Existing		<input checked="" type="checkbox"/>
Exterior wall: siding or masonry	<input checked="" type="checkbox"/> type: Existing		<input checked="" type="checkbox"/>
Floor: flooring	<input type="checkbox"/> (45%) type: _____	<input checked="" type="checkbox"/> 90% hard flooring	<input type="checkbox"/> (45%)
Floor: flooring	<input type="checkbox"/> (90%) type: _____	<input type="checkbox"/> SCS FloorScore	<input type="checkbox"/> (90%)
Floor: flooring		<input type="checkbox"/> Green Label Plus	<input type="checkbox"/>
Floor: framing	<input type="checkbox"/> type: _____		
Foundation: aggregate	<input type="checkbox"/> type: _____		<input checked="" type="checkbox"/>
Foundation: cement	<input checked="" type="checkbox"/> type: Fly Ash		<input checked="" type="checkbox"/>
Interior wall: framing	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Interior wall, ceiling: gypsum board	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Interior wall, ceiling, millwork: paint	<input type="checkbox"/> type: _____	<input checked="" type="checkbox"/> type: VOC _____	<input type="checkbox"/>
Landscape: decking and patio	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Other: cabinet	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Other: counter	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Other: door	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Other : interior trim	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Other : adhesive, sealant		<input checked="" type="checkbox"/> type: VOC _____	<input type="checkbox"/>
Other : window frame	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Roof: framing	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Roof: roofing	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Roof, floor, wall: cavity insulation		<input type="checkbox"/> type: _____	<input type="checkbox"/>
Roof, floor, wall (2 of 3): sheathing	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Other: water supply piping	<input type="checkbox"/> type: _____		<input type="checkbox"/>
Other: driveway	<input type="checkbox"/> type: _____		<input type="checkbox"/>

3. Waste Management

3.1	Construction Waste Management Planning (meet both of the following)	Prereq.	Y		
<input checked="" type="checkbox"/>	a) Investigate local options for waste diversion	<input checked="" type="checkbox"/>	b) Document diversion rate for construction waste		
3.2	Construction Waste Reduction (use one of the following methods)	3	2.5	0	2.5
<input type="text"/>	a) pounds waste / square foot				
<input type="text"/>	cubic yards waste / 1,000 square feet				
<input type="text" value="75%"/>	b) percentage of waste diverted				

Indoor Environmental Quality (EQ) (Minimum 6 EQ Points Required)		Max: 21	Y:10	M:0	Notes	Final: 0
2. Combustion Venting						
2	Basic Combustion Venting Measures for MID-RISE (meet all the following)	Prereq.	Y			
<input checked="" type="checkbox"/>	a) no unvented combustion appliances	<input checked="" type="checkbox"/>			d) space, water heating equipment designed with closed combustion; OR	
<input checked="" type="checkbox"/>	b) carbon monoxide monitors on each floor of each unit	<input type="checkbox"/>			space and water heating equipment has power-vented exhaust; OR	
<input checked="" type="checkbox"/>	c) no fireplace installed, OR	<input type="checkbox"/>			space and water heating equipment located in detached or open-air facility; OR	
<input type="checkbox"/>	all fireplaces and woodstoves have doors	<input type="checkbox"/>			no space- or water-heating equipment with combustion	
3. Moisture Control						
3	Moisture Load Control (meet one of the following)	1	0	0		0
<input type="checkbox"/>	a) Additional dehumidification system	<input type="checkbox"/>			b) HVAC system equipped with additional dehumidification mode	
4. Outdoor Air Ventilation						
4.1	Basic Outdoor Air Ventilation for MID-RISE (meet all of the following)	Prereq.	Y			
<input type="checkbox"/>	a) ASHRAE 62.2-2007 met for all in-unit spaces	<input checked="" type="checkbox"/>			b) ASHRAE 62.1-2007, Sections 4 through 7 met for residential-associated spaces	
4.2	Enhanced Outdoor Air Ventilation for MID-RISE	2	2	0	<i>HRV</i>	0
4.3	Third-Party Performance Testing for MID-RISE	1	1	0		0
5. Local Exhaust						
5.1	Basic Local Exhaust for MID-RISE (meet all of the following)	Prereq.	Y			
<input checked="" type="checkbox"/>	a) In-unit bathrooms and kitchens meet ASHRAE 62.2-2007 air flow requirements	<input checked="" type="checkbox"/>			d) ENERGY STAR labeled bathroom exhaust fans OR	
<input checked="" type="checkbox"/>	b) Fans and ducts designed and installed to ASHRAE Std. 62.2	<input type="checkbox"/>			Multi-port bathroom exhaust systems installed	
<input checked="" type="checkbox"/>	c) Air exhausted to outdoors through roof or outside wall	<input checked="" type="checkbox"/>			e) Common bathrooms and kitchens meet ASHRAE 62.1-2007 air flow requirements	
5.2	Enhanced Local Exhaust (meet one of the following)	1	1	0		0
<input type="checkbox"/>	a) Occupancy sensor	<input type="checkbox"/>			c) Automatic timer tied to switch to operate fan for 20+ minutes post-occupancy	
<input type="checkbox"/>	b) Automatic humidistat controller	<input checked="" type="checkbox"/>			d) Continuously operating exhaust fan	
5.3	Third-Party Performance Testing for MID-RISE	1	1	0	<i>ES Testing and Verification</i>	0

6. Distribution of Space Heating and Cooling				
6.1	<input checked="" type="checkbox"/> Room-by-Room Load Calculations	Prereq.	Y	
6.2	Return Air Flow / Room-by-Room Controls (<i>meet one of the following</i>)	1	0	0
	A. Forced-Air Systems			
	<input type="checkbox"/> a) Return air opening of 1 sq. inch per cfm of supply			
	<input type="checkbox"/> b) Limited pressure differential between closed room and adjacent spaces			
	B. Nonducted HVAC Systems			
	<input type="checkbox"/> Flow control valves on every radiator			
	<input type="checkbox"/> Radiant floor system with thermostatic controls in every room			
6.3	Third-Party Performance Test / Multiple Zones (<i>meet one of the following</i>)	2	0	0
	A. Forced-Air Systems			
	<input type="checkbox"/> Have supply air flow rates in each room tested and confirmed			
	B. Nonducted HVAC Systems			
	<input type="checkbox"/> Install at least two distinct zones with independent thermostat control			
7. Air Filtering				
7.1	Good Filters	Prereq.	Y	
7.2	Better Filters	1	0	0
OR	7.3 Best Filters	2	0	0
8. Contaminant Control				
8.1	<input checked="" type="checkbox"/> Indoor Contaminant Control during Construction	1	1	0
8.2	Indoor Contaminant Control for MID-RISE (<i>meet any of following, 1 pt each</i>)	2	0	0
	<input type="checkbox"/> a) Install permanent walk-off mats for each unit			
	<input type="checkbox"/> Install central entryway system			
	<input type="checkbox"/> b) In each unit, design shoe removal and storage space near primary entryway			
	<input type="checkbox"/> c) In each unit, install central vacuum system with exhaust to outdoors			
8.3	<input checked="" type="checkbox"/> Preoccupancy Flush	1	0	0
9. Radon Protection				
9.1	<input checked="" type="checkbox"/> Radon-Resistant Construction in High-Risk Areas	Prereq.	N/A	
9.2	<input checked="" type="checkbox"/> Radon-Resistant Construction in Moderate-Risk Areas	1	0	0
10. Garage Pollutant Protection				
10.1	No HVAC in Garage	Prereq.	Y	
10.2	Minimize Pollutants from Garage for MID-RISE (<i>meet all of the following</i>)	2	0	0
	a) In conditioned spaces above garage:			
	<input type="checkbox"/> Seal all penetrations and connecting floor and ceiling joist bays			
	<input type="checkbox"/> c) Vestibule to provide airlock between garage and adjacent spaces; OR			
	<input type="checkbox"/> Provide self-closing doors and deck-to-deck partitions			
	b) In conditioned spaces next to garage			
	<input type="checkbox"/> Weather-strip all doors			
	<input type="checkbox"/> Carbon monoxide detectors in rooms that share a door with garage			
	<input type="checkbox"/> Seal all penetrations and cracks at the base of walls			
	<input type="checkbox"/> d) Continuous exhaust in garage			
OR	10.3 Detached Garage or No Garage	3	3	0

11. Environmental Tobacco Smoke Control					
11	Env. Tobacco Smoke Reduction for MID-RISE (meet part (a) or (b) below)	1	1	0	0
	a) Reduce smoke exposure and transfer (1/2 point)				b) Prohibit smoking throughout the building (1 points)
<input checked="" type="checkbox"/>	Prohibit smoking in all common areas	<input checked="" type="checkbox"/>			Prohibit smoking within living units
<input checked="" type="checkbox"/>	Any exterior smoking areas are > 25 ft from entries, air intakes, windows	<input checked="" type="checkbox"/>			Prohibit smoking in all common areas of the building
<input checked="" type="checkbox"/>	Prohibit on-property smoking within 25 feet of entries, intakes, windows	<input checked="" type="checkbox"/>			Any exterior smoking areas are > 25 ft from entries, air intakes, windows
<input checked="" type="checkbox"/>	Prohibitions communicated through lease agreements, CC&Rs, signage	<input checked="" type="checkbox"/>			Prohibitions communicated through lease agreements, CC&Rs, signage
12. Compartmentalization of Units					
12.1	Compartmentalization of Units (<i>meet both of the following</i>)	<i>Prereq.</i>	Y		<i>ES Testing and Verification</i>
<input checked="" type="checkbox"/>	a) Air-seal and/or weather-strip all walls, chases, doors, windows, etc.	<input checked="" type="checkbox"/>			b) Demonstrate minimal leakage of 0.30 CFM50 per square foot of enclosure
12.2	Enhanced Compartmentalization of Units	1	0	0	0
Awareness & Education (AE) (Minimum 0 AE Points Required)		Max: 3	Y:1	M:0	Notes
Final: 0					
1. Education of the Homeowner or Tenant					
1.1	Basic Operations Training (<i>meet both of the following</i>)	<i>Prereq.</i>	Y		
<input checked="" type="checkbox"/>	a) Operations and training manual	<input checked="" type="checkbox"/>			b) One-hour walkthrough with occupant(s)
1.2	Enhanced Training	1	0	0	0
1.3	Public Awareness (<i>meet three of the following</i>)	1	0	0	0
<input type="checkbox"/>	a) Open house on at least four weekends	<input type="checkbox"/>			c) Newspaper article on the project
<input type="checkbox"/>	b) Website about features and benefits of LEED homes	<input type="checkbox"/>			d) Display LEED signage on the exterior of the home
2. Education of the Building Manager					
2	Education of the Building Manager (<i>meet both of the following</i>)	1	1	0	0
<input checked="" type="checkbox"/>	a) Operations and training manual	<input checked="" type="checkbox"/>			b) One-hour walkthrough with building manager



FRANK J MANNING APARTMENTS ENTERPRISE GREEN COMMUNITIES NARRATIVE

I. PROJECT DESCRIPTION

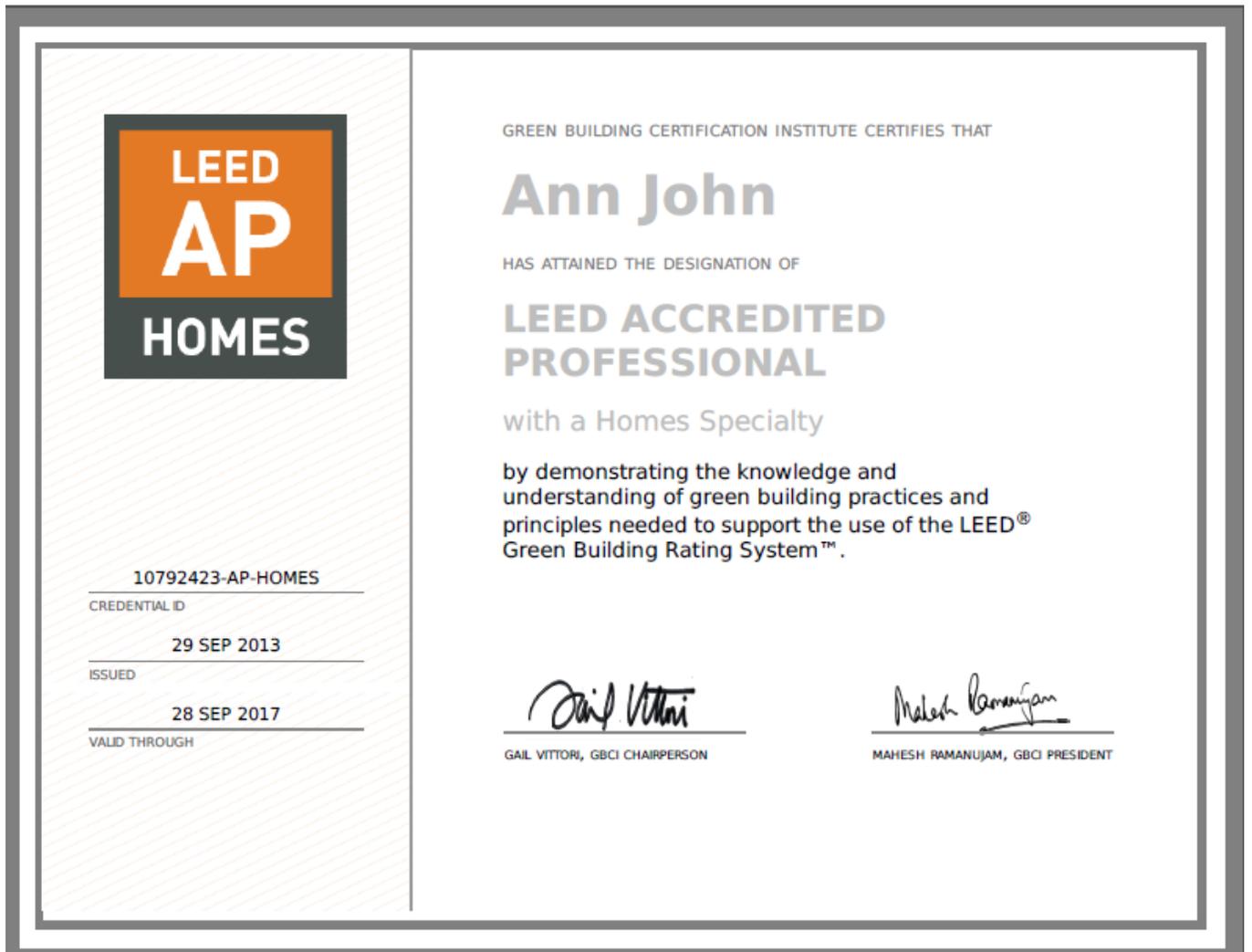
The Frank J Manning Apartments is meeting the Special Permit application requirement via the Enterprise Green Communities (EGC) Certification Process. EGC is a building construction rating and verification system designed exclusively for the multi-family affordable housing program. The EGC Criteria are the framework for the two-step Certification process. To achieve Enterprise Green Communities Certification, all projects must achieve compliance with the Criteria mandatory measures applicable to that construction type. Additionally, Substantial Rehab projects must achieve 30 optional points. Frank J Manning Apartments has completed the Step 1 approval from EGC.

Both LEED Midrise and EGC cover roughly the same categories and both standards produce truly green buildings. The EGC program has more mandatory measures than the comparable LEED-H Midrise program. While EGC requirements satisfy the LEED – H criteria, LEED –H does not satisfy all the requirements of the EGC program. An EGC certified project at baseline likely meets the Silver tier of LEED-H MR, and depending on the additional points selected can also meet LEED Gold or Platinum certification. All the applicable mandatory items in the EGC criteria are being met for Frank J Manning Apartments and the project is currently tracking 66 optional points. In comparison, these optional credits are allowing the project to achieve the LEED Gold or greater threshold.

II. AFFIDAVIT

I,  do hereby affirm that I have thoroughly reviewed the supporting documents for the Enterprise Green Communities certification program and confirm that the Frank J Manning meets the requirements of the Enterprise Green Communities Certification Program. Frank J Manning Apartments, 240 Green Street, Cambridge MA has been designed to meet the green building requirements under Article 22.20 of the Cambridge Zoning Ordinance.

I, Ann John , Enterprise Green Communities Administrator and Project Manager do hereby affirm that I have thoroughly reviewed the supporting documents for the Enterprise Green Communities certification program and confirm that the Frank J Manning meets the requirements of the Enterprise Green Communities Certification Program. Frank J Manning Apartments, 240 Green Street, Cambridge MA has been designed to meet the green building requirements under Article 22.20 of the Cambridge Zoning Ordinance.



III. 2011 Enterprise Green Communities

CHECKLIST

A. Please see attached Enterprise Green Communities Checklist for Manning Apartments

B. The project will meet the EGC certification process achieving all mandatory components and a minimum of 66 additional points. The EGC program baseline for substantial renovation requires all mandatory points and an additional 30 optional points.

Integrative Design	Mandatory Points
Location & Neighborhood Fabric	16 Optional Points
Site Improvements	Mandatory Points
Water Conservation	4 Optional Points
Energy Efficiency	15 Optional Points
Materials Beneficial to the Environment	10 Optional Points
Healthy Living Environment	9 Optional Points
Operations and Maintenance	12 Optional Points
<hr/>	
Total Points	66 Optional Points

IV. NARRATIVE FOR ENTERPRISE GREEN COMMUNITIES CREDITS

Frank J Manning Apartments fulfills all the prerequisites for all categories.

INTEGRATIVE DESIGN

1.1a Green Development Plan: Integrative Design Meetings: **(Mandatory)**

- CLEAResult formerly Conservation Services Group led the project team through the Enterprise Green Communities process with an integrative charrette on March 24, 2014. The four hour charrette consisted of the developer, residents, architects, mechanical, electrical engineers and landscape architect to fulfill the Integrative Design Meeting criteria.
- Numerous design workshops were held with the consultants, architects, owner and residents to engage resident feedback and all workshops were documented.
- The project team submitted a Green Development plan to EGC.

1.1b Green Development Plan: Criteria Documentation: **(Mandatory)**

- An EGC checklist and tracking method was created to monitor EGC components into the project plans and specs.

LOCATION + NEIGHBORHOOD FABRIC

2.4 Compact Development : **(5 Points)**

- A calculation of density from 205 units on a lot of .4 acres (19,226 sq. ft) is 512 units/acre, surpassing the density requirement of 15 units per acre.

2.8 Access to Public Transportation : **(5 Points)**

- The project is in an urban setting with several modes of public transportation which are available within 0.2 mile walking distance of the project.
- MBTA redline and buses on Mass Avenue provide ample transportation. Proximity to Central Square Station, 0.2 mile walking distance, offers train and bus rides providing over 300 weekday and weekend rides. Bus lines 1,47,64,70, and 70A are also located within .5 mile walking distance.
- The project also has easy access to HUBWAY rental bikes.
- THE RIDE is available to the residents of Manning Apartments providing door-to door, shared-ride transportation to eligible people who cannot use fixed transit all or some of the time because of physical, cognitive or mental disability.

2.12 Access to Fresh, Local Foods: **(6 Points)**

- The project will comply with proximity to farmers markets to fulfill this criterion.
- The Central Square Farmers Market Norfolk & Bishop Allen lasts from 5/20 to 11/25 and Cambridge Winter Farmers Market 5 Calendar St Saturday 10-2pm 1/4 to 4/26 provide access to fresh foods from local vendors. They are located within a 0.5 mile walking distance of the project site.

SITE IMPROVEMENTS

3.1 Environmental Remediation: **(Mandatory)**

- The project site has passed Phase I Environmental Site Assessment.

3.2 Erosion and Sedimentation Control (Except for infill sites with buildable area smaller than one acre): **(Mandatory)**

- The project is less than one acre but will use City of Cambridge Erosion and Sedimentation Control measures.

3.4 Landscaping: **(Mandatory)**

- The Landscape Architect will provide certified tree or plant list showing at least 50% of the site area available for landscaping is planted with native or adaptive species.

3.5 Efficient Irrigation and Water Reuse: **(Mandatory)**

- The project will have very little irrigation and will provide a permanent drip irrigation system to accommodate the needs of all proposed trees, shrubs, and ground covers on the project.

WATER CONSERVATION

4.1 Water-Conserving Fixtures: **(Mandatory)**

- The project will provide toilets that are 0.8 gallons per flush ultra-low flow style, bath faucets will be 1. GPM aerating spray outlet, shower heads will be 1.5 GPM flow rate restrictor, and kitchen faucets will be 1.5 GPM.

4.2 Advanced Water-Conserving Appliances and Fixtures: **(4 Points)**

- The project will provide toilets that are 0.8 gallons per flush ultra-low flow style and shower heads will be 1.5 GPM.

ENERGY EFFICIENCY

5.1d Building Performance Standard: Multifamily, 4 stories or more (Substantial and Moderate Rehab): **(4 Points)**

- The project will demonstrate energy performance equivalent or better than ASHRAE 90.1-2007 using an energy model created by Andelman and Lelek Engineering.

5.2 Additional Reductions in Energy Use: **(15 Points)**

- The as designed building achieves 27% site energy savings over a comparable baseline building that meets the requirements of the Chapter 11 of ASHRAE 90.1-2007 Standard.

5.3 Sizing of Heating and Cooling Equipment and Ducts: **(Mandatory)**

- Heating and cooling equipment will be sized in accordance with the ACCA manual, Parts J and S, or ASHRAE handbooks.

5.4 ENERGY STAR Appliances: **(Mandatory)**

- All unit appliances will be ENERGY STAR rated, as well as clothes washers in the common laundry room.

5.5a Efficient Lighting: Interior Units: **(Mandatory)**

- Installed lighting fixtures within units will meet ENERGY STAR efficiency levels.

5.5b Efficient Lighting: Common Areas and Emergency Lighting: **(Mandatory)**

- Lighting fixtures and bulbs in all commons areas and emergency lighting will meet ENERGY STAR efficiency levels. The majority of the purposed lighting is LED fixtures.

5.5c Efficient Lighting: Exterior: **(Mandatory)**

- Outdoor lighting fixtures will meet ENERGY STAR efficiency levels with LED fixtures.

MATERIALS BENEFICIAL TO THE ENVIRONMENT

6.1 Low / No VOC Paints and Primers: **(Mandatory)**

- All interior paints and primers will meet the MPI and Green Seal standards for VOCs.

6.2 Low / No VOC Adhesives and Sealants: **(Mandatory)**

- All adhesives will comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants will comply with Regulation 8, Rule 51 of the Bay Area Air Quality Management District (BAAQMD)

6.3 Construction Waste Management: **(Mandatory)**

- The project will commit to following a waste management plan which reduces waste by at least 25% by weight through recycling, salvaging, or diversion strategies.

6.4 Construction Waste Management Optional: **(5 Points)**

- The project goal is to recycle and or salvage at least 75% of construction and demo waste.

6.6 Recycled Content Material: **(1 Point)**

- The project will reuse and retain exterior building materials reducing demand for virgin materials and to reduce waste.

6.7 Regional Material Selection Content Material: **(1 Point)**

- The project will reuse and retain exterior building materials which are already on site.

6.9a Reducing Heat-Island Effect: Roofing **(3 Points)**

- The existing roof will be replaced with a cool roof system.

HEALTHY LIVING ENVIRONMENT

7.1 Composite Wood Products that Emit Low / No Formaldehyde **(Mandatory)**

- Chain-of-custody certificates indicating that products specified to be made from certified wood comply with forest certification requirements. Documentation that manufacturer is certified for chain of custody by an FSC-accredited certification body and will include statement indicating cost for each certified wood product

7.2 Environmentally Preferable Flooring: **(Mandatory)**

- The project will use all EPP hard flooring.

7.4a Exhaust Fans: Bathroom: **(Mandatory)**

- The project will install a central ventilation system to meet ASHRAE requirements with rooftop fans that meet the 7.4a efficiency requirements

7.5a Exhaust Fans: Kitchen **(Mandatory)**

- The range hood will be model: 24 Hood -Air King; ESZ 308ADA which will be 120 cfm and is ENERGY STAR certified. Range Hood, Exhaust Fans, and Dryer Vents: Vent directly to the building exterior via rooftop ERV system.

7.6a Ventilation: **(Mandatory)**

- The project will install a ventilation system that will satisfy the fresh air requirements of ASHRAE 62.2-2010 for all dwelling units and ASHRAE 62.1-2010 for all hallways and common spaces
- 2 Rooftop ERVs will provide mechanical ventilation to satisfy ASHRAE requirements.

7.7 Clothes Dryer Exhaust: **(Mandatory)**

- All clothes dryers will exhaust directly to the outdoors using rigid-type duct work

7.8 Combustion Equipment: **(Mandatory)**

- Project will not use combustion equipment in the conditioned space and does not have any attached garages.

7.9a Mold Prevention: Water Heaters: **(Mandatory)**

- Water heaters will be located in rooms with non-water sensitive flooring. Drain pans will be sloped and corrosion resistant (eg. stainless or plastic) with drains at the low point. Condensate lines will be drained to a drainage system, and not deposited under the slab.

7.9b Mold Prevention: Surfaces: **(Mandatory)**

- All surfaces in bathrooms, kitchens, and laundry rooms will use materials that have durable and cleanable surfaces

7.9c Mold Prevention: Tub and Shower Enclosures: **(Mandatory)**

- Moisture and mold resistant cement board is specified.

7.14 Integrated Pest Management: **(Mandatory)**

- All wall, floor, and joint penetrations will be sealed - external cracks, joints, penetrations, edges and entry points will be sealed with low VOC sealant.

7.15 Lead-Safe Work Practices: **(Mandatory)**

- The project was built before 1978 and will use lead-safe work practices per the EPA's RRP 40 CFR 745 and applicable HUD requirements at 24 CFR 35
- Lead Safe work practices outlines in specs

7.16 Smoke Free Building **(9 Points)**

- The no smoking policy will be communicated in the lease and signs will be around the property.

OPERATIONS + MAINTENANCE

8.1 Building Maintenance Manual: **(Mandatory)**

- CLEARresult works with the owner and GC to provide an O&M manual for the facility, providing instructions for operating and maintaining the building and its mechanical, electrical, and plumbing systems which focuses on the interaction of various systems, on calibration and settings of building controls, and on recommended practice for maintaining efficiency over the many decades of the buildings lifetime.

8.2 Resident's Manual: **(Mandatory)**

- CLEARresult, the owner, and GC will work together to provide a resident manual to review the projects green features, operations and maintenance procedures.

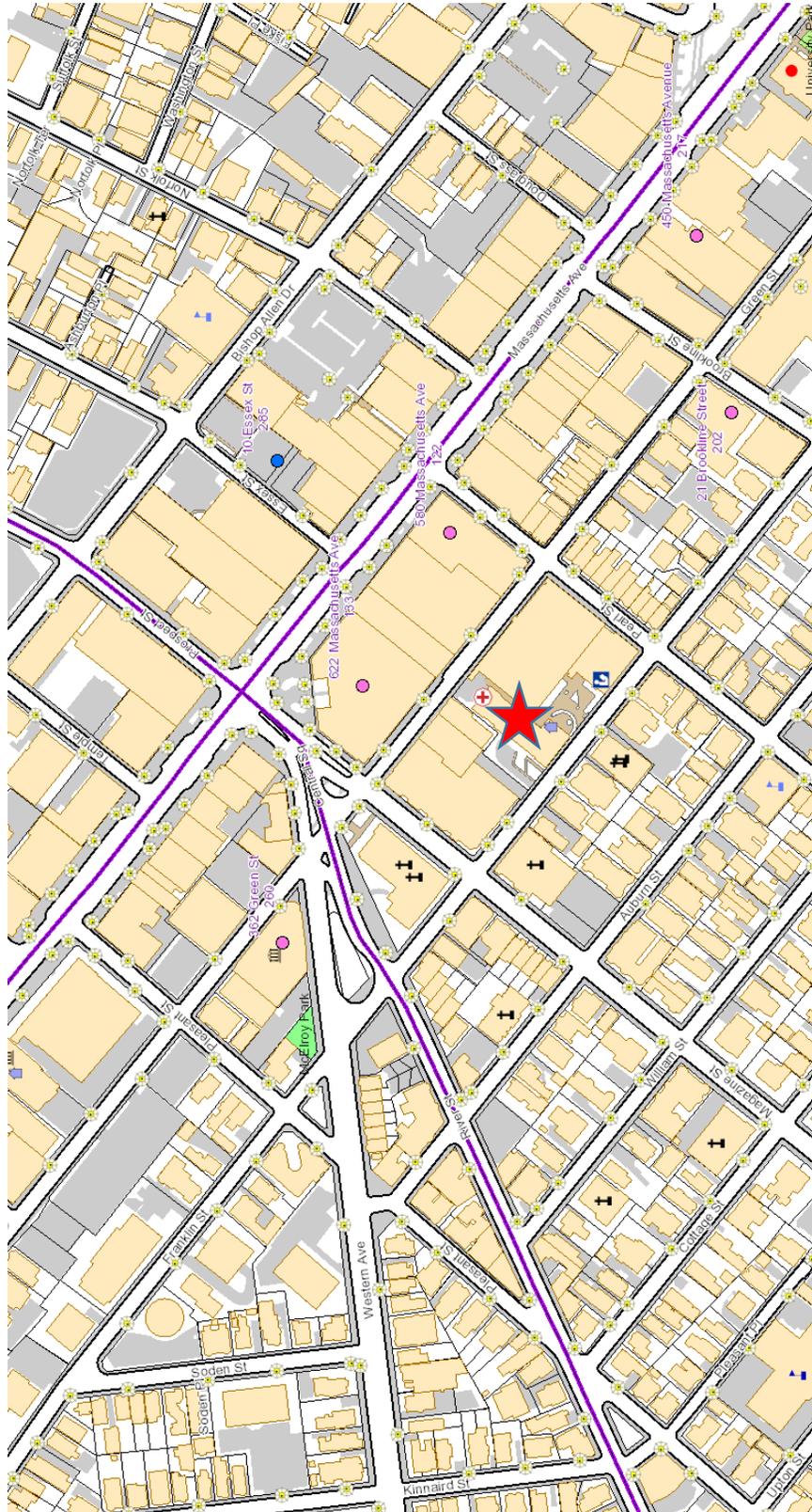
8.3 Resident and Property Manager Orientation: **(Mandatory)**

- Resident and Property Manager presentation will be made to educate managers and residents using the manuals provided.

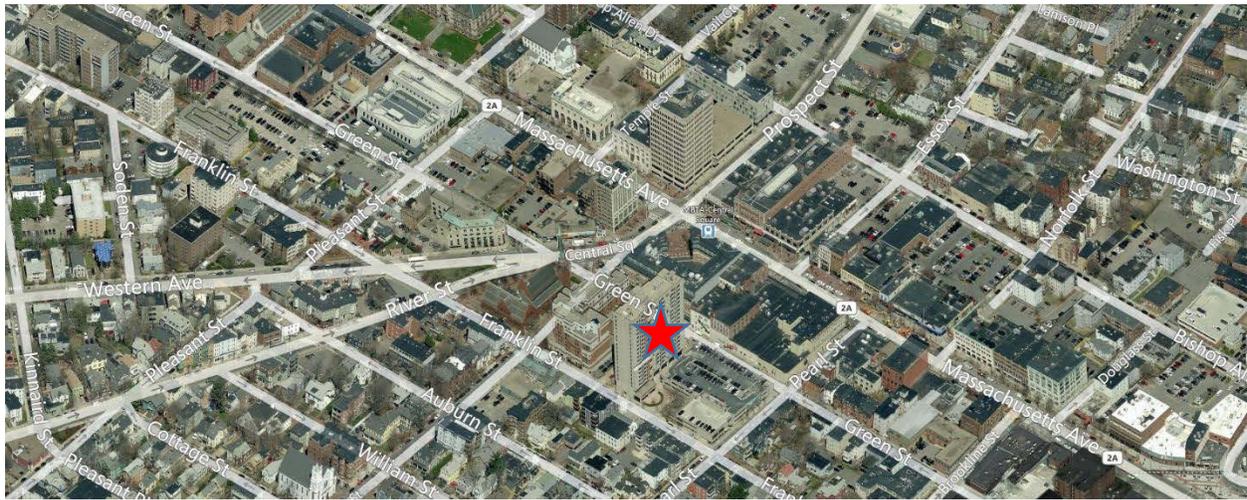
8.4 Project Data Collection and Monitoring System: **(12 Points)**

- The project will work with Enterprise to collect and monitor energy, water, and if possible healthy living environments data for a minimum of 5 years
- CHA uses both Wego Wise and Energy Star Portfolio manager and will collect and monitor performance for at least 5 years.

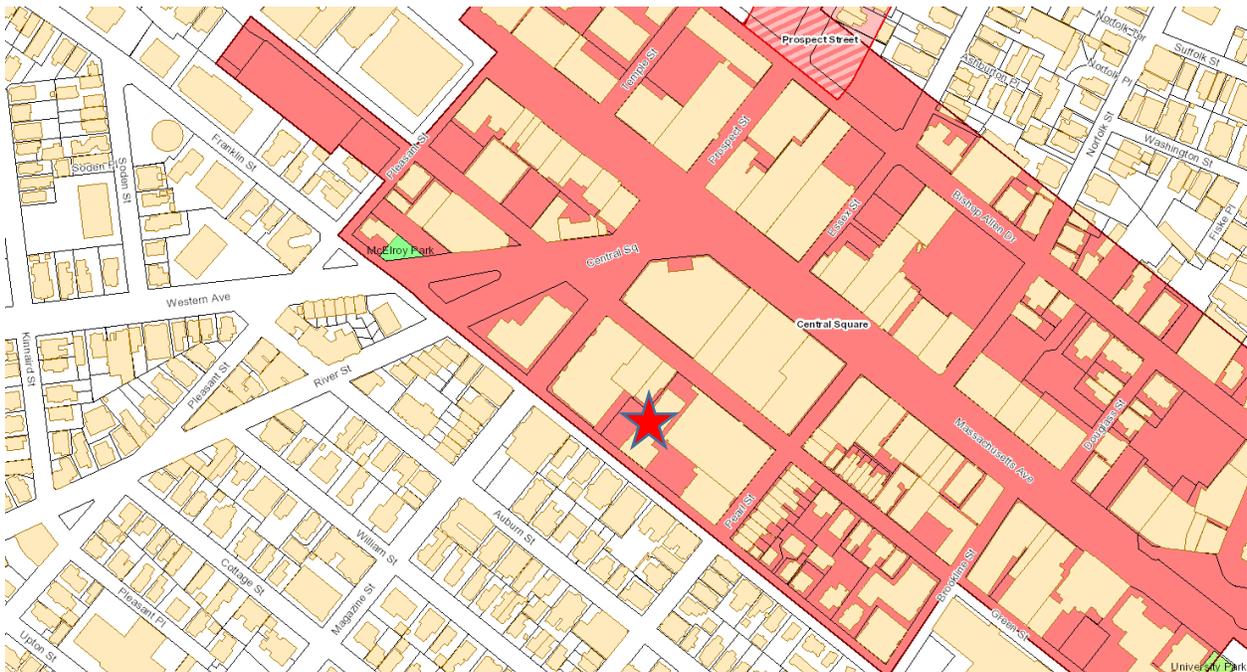
Site Context Maps
Special Permit Application
Frank J. Manning Apartments
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Cambridge, MA 02139



Site Context Maps
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Above: Aerial via City of Cambridge showing Frank J. Manning Apartments in Central Square



Above: Frank J. Manning Apartments location within the Central Square Overlay District

Existing Site Photographs and Proposed Development Renderings
Special Permit Application
Frank J. Manning Apartments
240 Franklin Street
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Existing Condition: View from Franklin Street

Existing Site Photographs and Proposed Development Renderings
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Existing Condition: View from Green Street

Existing Site Photographs and Proposed Development Renderings
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Existing Condition: View from Franklin Street showing Manning Apts, the MLK Plaza, and the Central Square Library



Existing Condition: Franklin Street sidewalk and neighboring properties

Existing Site Photographs and Proposed Development Renderings
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Existing Condition: View up existing ramp from MLK Plaza toward Manning Apts main entrance

Existing Site Photographs and Proposed Development Renderings
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Existing Condition: Building rear from Franklin Street at the existing ramp curb cut

Existing Site Photographs and Proposed Development Renderings
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Existing Condition: Southeast-facing façade view from MLK Plaza ramp showing existing balconies

Existing Site Photographs and Proposed Development Renderings
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Existing Condition: Northwest-facing façade view from Franklin Street

Existing Site Photographs and Proposed Development Renderings
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Existing Condition: pathway arcade between Manning Apts and Green Street Garage

Existing Site Photographs and Proposed Development Renderings

Special Permit Application
Frank J. Manning Apartments
240 Franklin Street
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Proposed Condition: Proposed southeast-facing façade elevation with new metal panel curtain wall system including new windows; enclosed balcony spaces to create additional community rooms and activity spaces as well as three laundry rooms. A new mechanical penthouse is being located on the roof with appropriate screening screening.

Existing Site Photographs and Proposed Development Renderings

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Proposed Condition: Proposed façade elevation along Franklin Street

Existing Site Photographs and Proposed Development Renderings

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Proposed Condition: Rear façade elevation from Franklin Street with new accessible ramp and new commercial kitchen addition

Existing Site Photographs and Proposed Development Renderings

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Proposed Condition: New pull-off driveway along Franklin Street with renovated MLK Plaza, new canopy addition to Manning Apartments, which includes below-canopy waiting area for rides, and a new 2nd floor resident deck.

Existing Site Photographs and Proposed Development Renderings

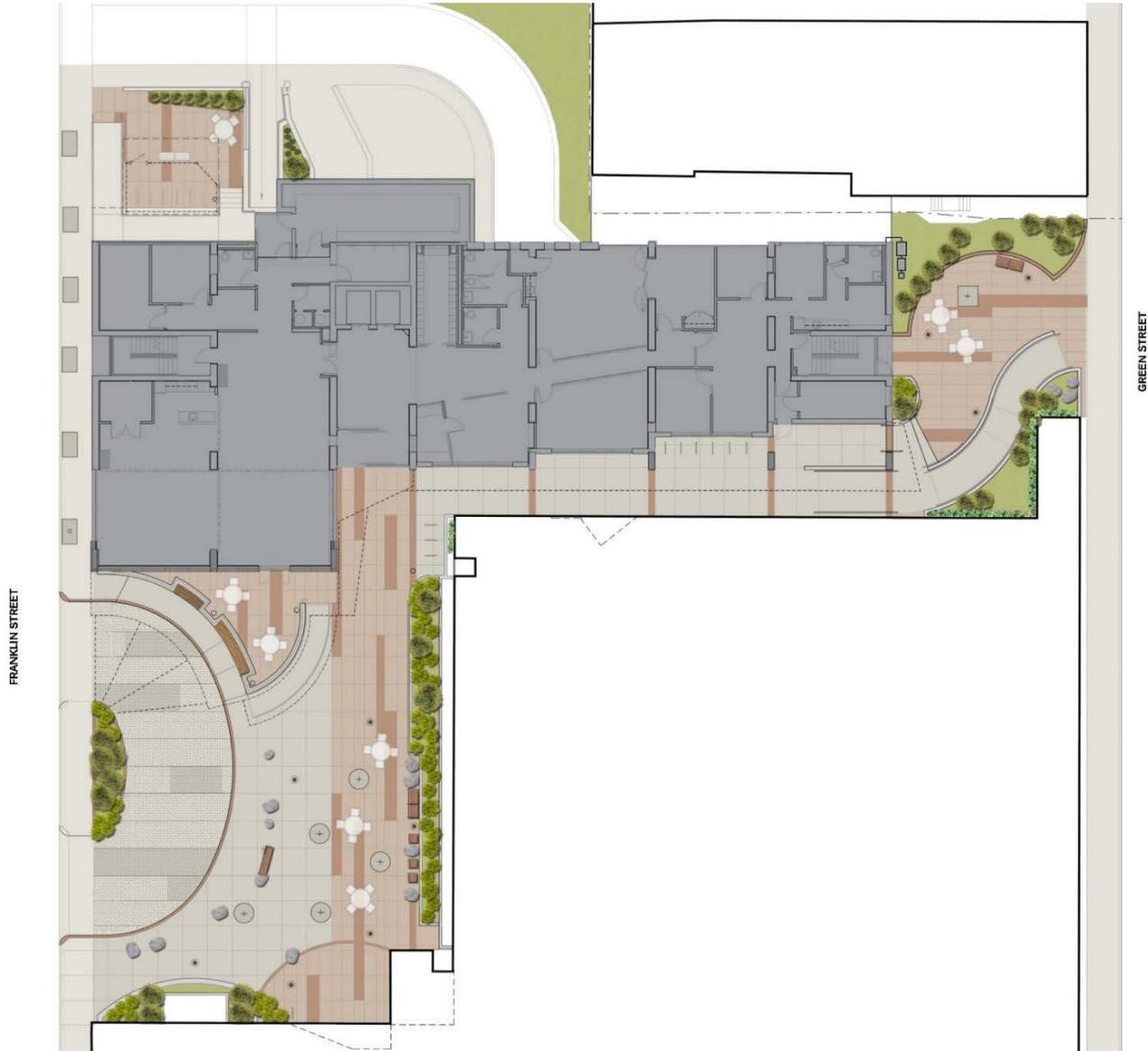
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Proposed Condition: View within a renovated MLK Plaza toward Manning Apartments with new and existing trees shown, along with new canopy and pedestrian ramp in the background. This rendering omits loose furniture and bench seating that will be part of the renovation.

Existing Site Photographs and Proposed Development Renderings

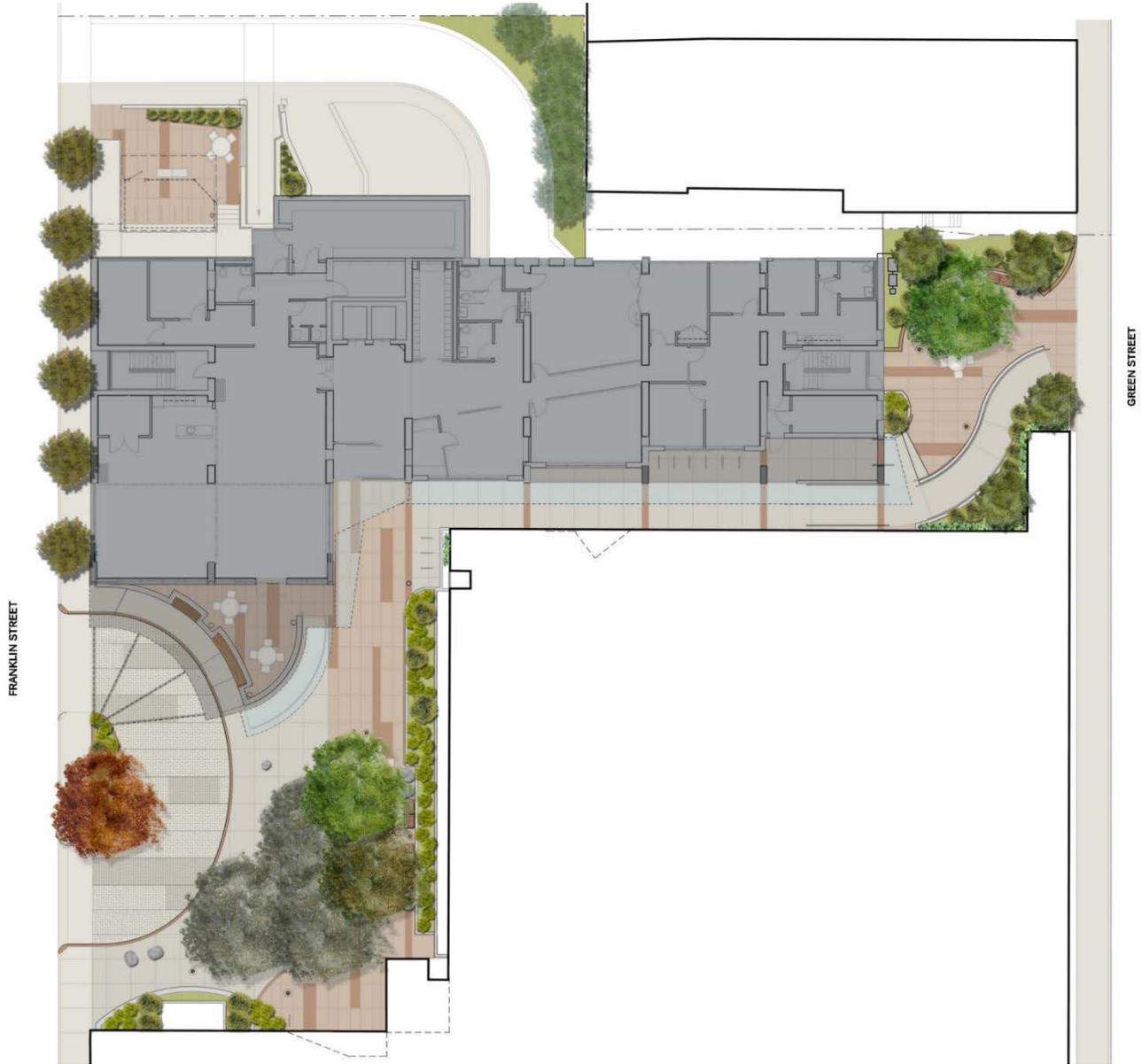
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Proposed Condition: Overall upgraded and renovated landscape on CHA leasehold as well as at the city-owned MLK Plaza, including new pull-off driveway along Franklin Street with new canopy/waiting area for Manning residents and library patrons; new paving, both new bench and movable seating, and new trees and shrubs throughout (see next site rendering for site trees); new pedestrian ramp at Green Street; new long-term and short-term bicycle parking.
More detail in added later rendering images.

Existing Site Photographs and Proposed Development Renderings

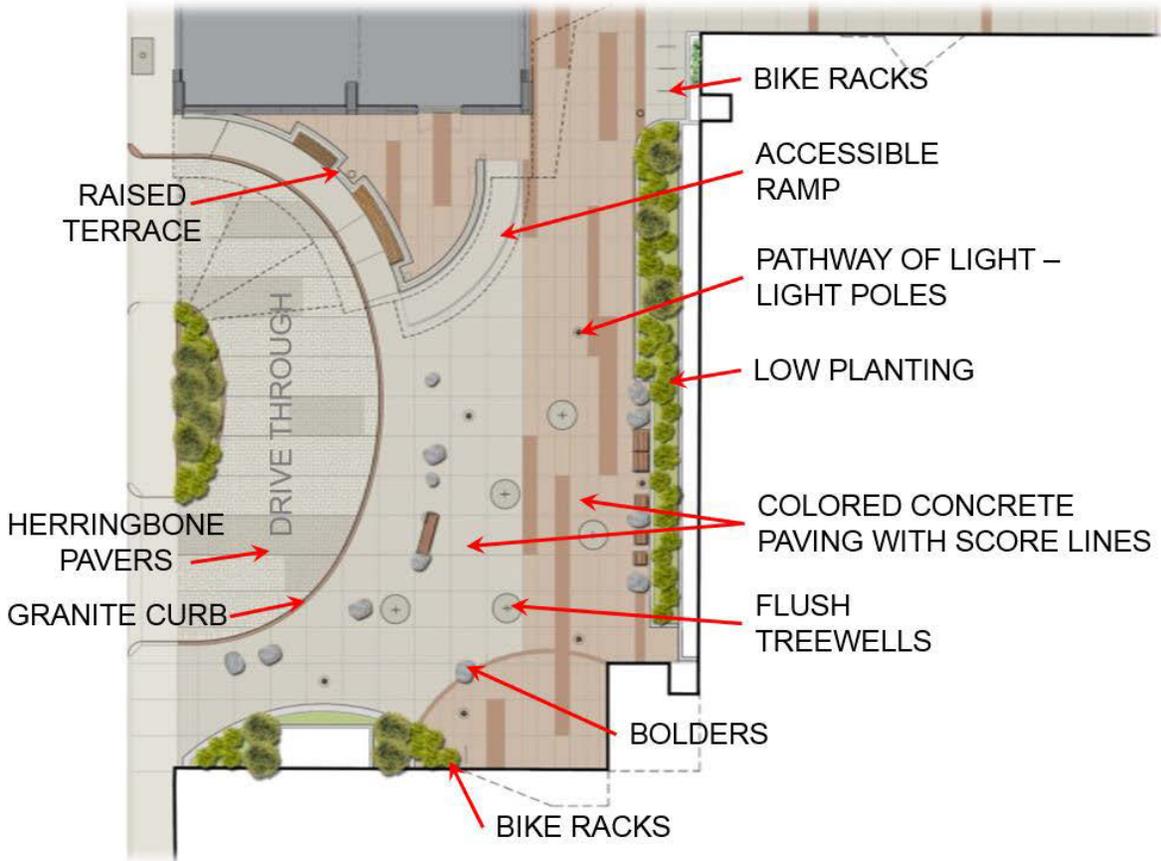
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Proposed Condition: Duplicate from previous image but with trees added to show planned tree canopy over the new landscaped areas.

Existing Site Photographs and Proposed Development Renderings

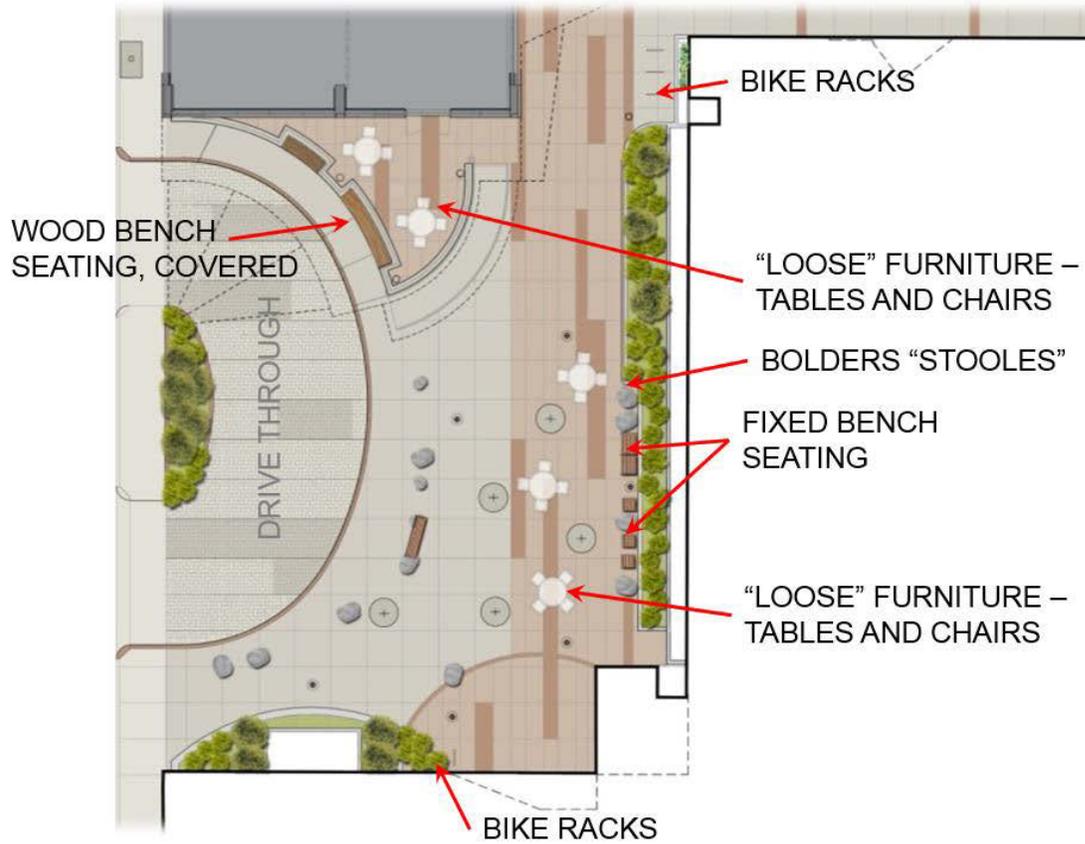
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Proposed Condition: Details on proposed paving materials, curbs, bike racks, plantings, and the accessible pedestrian ramp at the MLK Plaza

Existing Site Photographs and Proposed Development Renderings

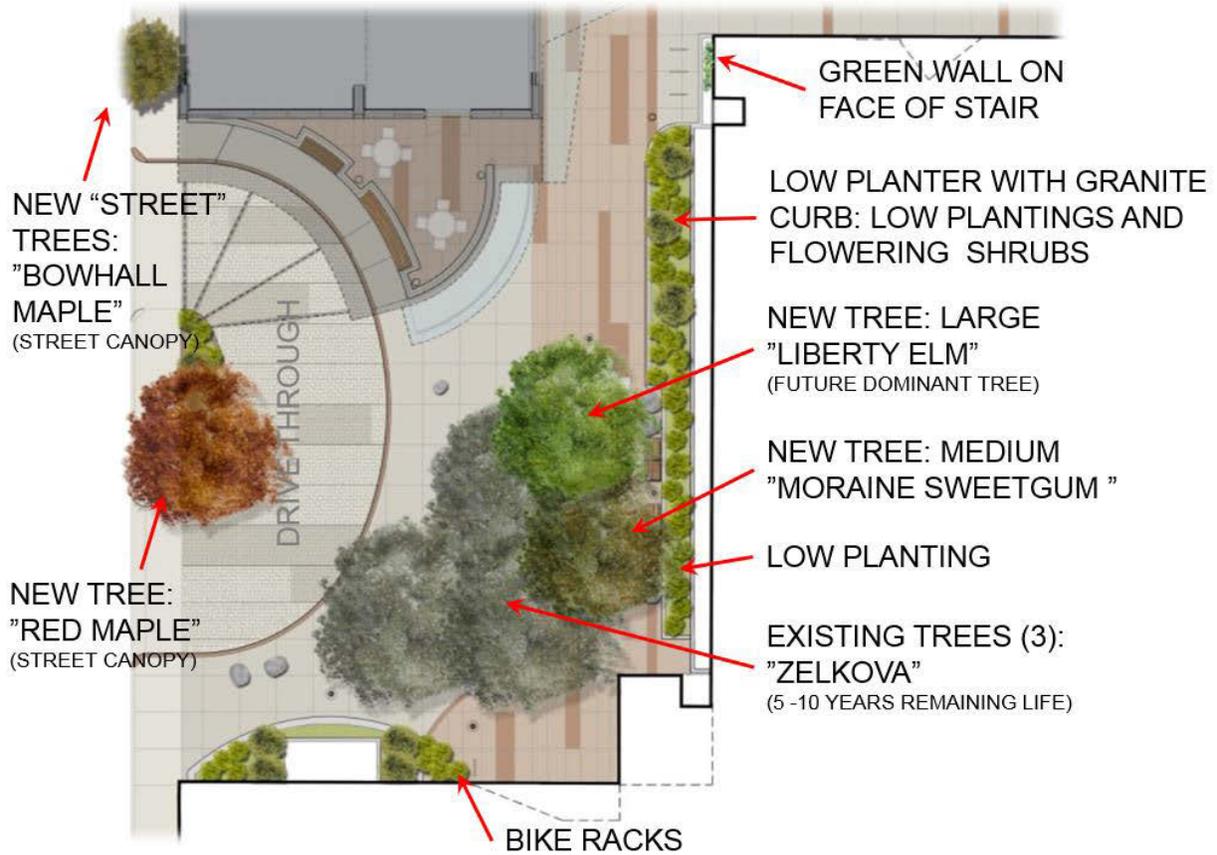
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Proposed Condition: Details on proposed seating including loose furniture, bench seating, boulders, and bike racks at the MLK Plaza.

Existing Site Photographs and Proposed Development Renderings

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Proposed Condition: Details on proposed trees at the MLK Plaza, including the three trees (existing Zelkova trees) that will be preserved within the existing plaza. The MLK Plaza will receive a new Liberty Elm, Moraine Sweetgum, and Red Maple, along with new plantings along the Green Street Garage.

Existing Site Photographs and Proposed Development Renderings

Special Permit Application
Frank J. Manning Apartments
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Green Street Plaza



Proposed Condition: Details on the proposed new trees and landscape a new Green Street Plaza, including new loose furniture, bench seating, new pedestrian ramp, new green wall attached to the Green Street garage, along with new trees.

Existing Site Photographs and Proposed Development Renderings

Special Permit Application
Frank J. Manning Apartments
240 Franklin Street
Cambridge, MA 02139



Proposed Condition: New Manning Apts resident patio deck as part of the construction of the new canopy at the proposed pull-off driveway. This new deck will be off the 2nd floor near the new Tenant Council office and additional activity spaces.

Existing Site Photographs and Proposed Development Renderings
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Green Street Plaza



Proposed Condition: Rendering of the proposed Green Street plaza, including new pedestrian ramp, seating, landscape, as well as the existing curb cut at this location will be removed.

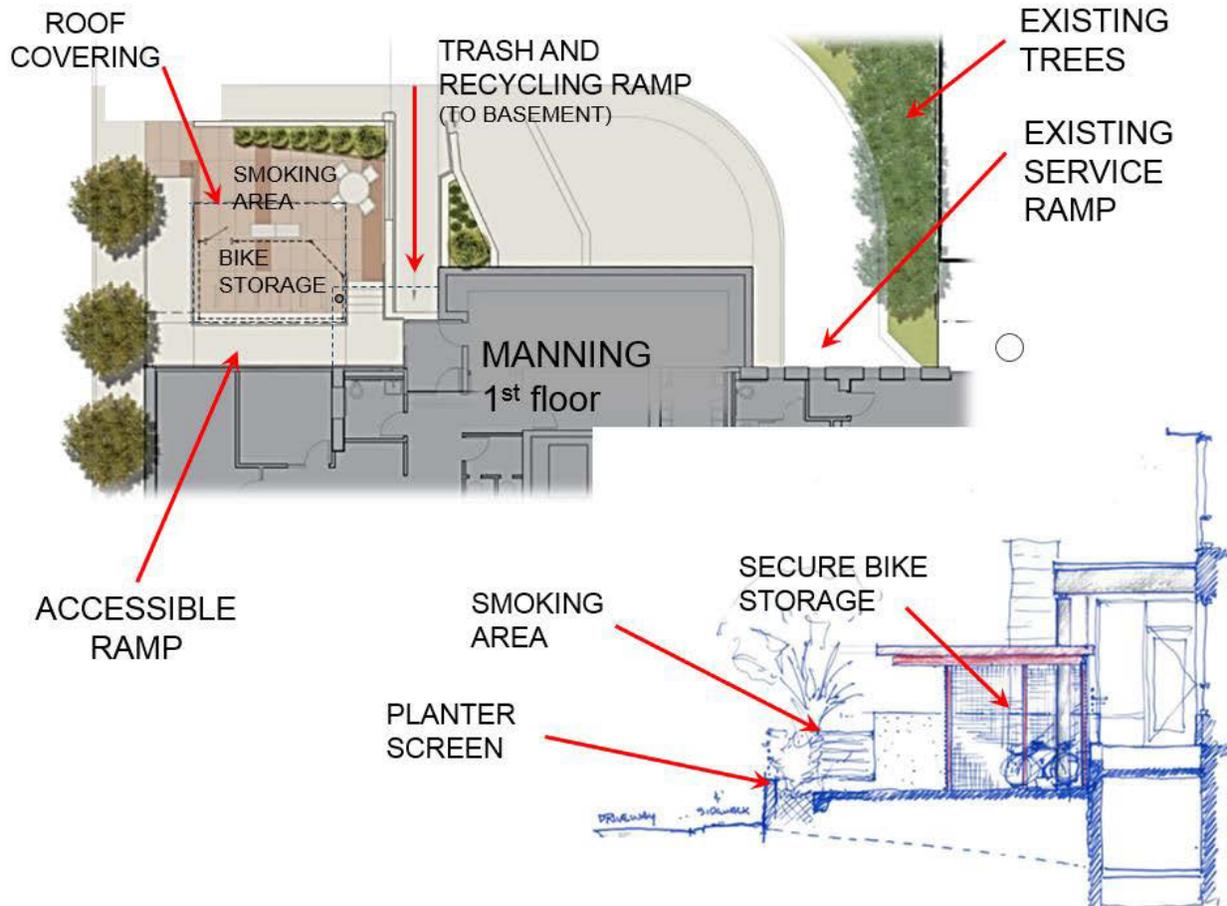
Existing Site Photographs and Proposed Development Renderings
Special Permit Application
Frank J. Manning Apartments
240 Franklin Street
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Proposed Condition: New Pedestrian ramp at pathway between Manning Apts and Green Street Garage, which includes new glass canopy overhead and a new green wall at the Green Street garage.

Existing Site Photographs and Proposed Development Renderings

Special Permit Application
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Proposed Condition: New long-term bicycle storage building at the rear near Franklin Street, along with a newly-designated smoking area, new accessible ramp from bike and smoking area into the building, and a new ramp into a trash/recycling room in the basement.

Revitalization of Frank J. Manning Apartments Public Outreach Schedule

- Thursday, October 15 **Abutters and Neighbors Meeting #1**
7 PM, Central Square Library Meeting Room
- Thursday, October 15 **Central Square Business Association**
CSBA Board Meeting
- TBD **Meet with Cambridgeport Neighborhood Association**
- Monday, October 26 **Meet with Central Square Advisory Committee**
5:30 PM, Manning Apartments Terrace Room
- Wednesday, October 28 **Abutter and Neighbors Meeting #2**
7 PM, CHA's Main Offices, 362 Green St
- Tuesday, November 10 Tentative, if needed, **Abutters and Neighbors Meeting #3**
7 PM, CHA's Main Offices, 362 Green Street
- Tuesday, December 1 **Planning Board** (tentative)



October 7, 2015

Re: Abutters/Neighbors Meeting regarding Revitalization of Frank J. Manning Apartments

Dear Neighbor,

The Cambridge Housing Authority would like to invite you to a meeting to provide information on the upcoming revitalization of Frank J. Manning Apartments. Manning Apartments is a nineteen-story residential building with 199 apartments located at 237 Franklin Street. It is operated by the Cambridge Housing Authority.

Please join us on **Thursday, October 15 at 7pm at the Central Square Public Library community meeting room**. Representatives from the CHA's Planning and Development Department and BH+A Architects will give a short presentation until approximately 7:45pm about the proposed renovation plans and will be available to answer any questions afterwards.

About the proposed renovation: The Cambridge Housing Authority, residents of Manning Apartments, and BH+A Architects have been working to develop plans for a comprehensive renovation of the building exterior, core building systems such as heating and ventilation, as well as significant improvements to unit interiors and common spaces. The planned scope of improvements at Manning Apartments includes a dramatic transformation of the building's energy consumption to provide a healthier living environment for both the residents and the surrounding community. A summary of the proposed work is detailed in the attached handout.

The renovation will also include redesigning the public plaza between Manning Apartments and the Central Square Public Library and an improved entryway along Green Street. Initial site preparation work is anticipated to begin in November 2015 with full construction anticipated for February 2016. Financing is available through a combination of Low Income Housing Tax Credits, CHA's Program Loan, and private financing supported through a conversion to HUD's Rental Assistance Demonstration (RAD) program.

We encourage you to attend the meeting to learn more about our plans and provide feedback. If you are unable to attend and would like more information, please call or email Kyle Sullivan in the Planning and Development Department at the Cambridge Housing Authority.

Sincerely,

Kyle Sullivan
Planning and Development Department
Cambridge Housing Authority
ksullivan@cambridge-housing.org
617-520-6239

Meeting with Abutters and Neighbors
Revitalization of Manning Apartments
Thursday, October 15
7-7:45 pm presentation followed by Q&A
Central Square Public Library