



II – LEED Narrative and Somerville Sustainability Questionnaire



**Alta XMBLY
290 Revolution Drive
*Somerville, MA***

Wood Partners

**Green Building Report
LEED v4 Midrise**

July 2, 2018

Table of Contents

LEED FOR HOMES MULTIFAMILY MIDRISE VERSION 4.....	3
HOME SIZE ADJUSTMENT.....	3
INTEGRATIVE PROCESS.....	3
LOCATION AND TRANSPORTATION.....	3
SUSTAINABLE SITES.....	6
WATER EFFICIENCY.....	7
ENERGY AND ATMOSPHERE.....	8
MATERIALS AND RESOURCES.....	8
INDOOR ENVIRONMENTAL QUALITY.....	9
INNOVATION.....	11
REGIONAL PRIORITY.....	12
APPENDIX A: LEED CHECKLIST.....	13
APPENDIX B: LEED ACCREDITED PROFESSIONAL CERTIFICATE.....	14
APPENDIX C: MULTIFAMILY HOMESIZE ADJUSTMENT CALCULATOR.....	16

LEED FOR HOMES MULTIFAMILY MIDRISE VERSION 4

The Project Team will incorporate sustainable principles into its design, construction, and operation of the Alta XMBLY Project. The Project will meet its sustainability goals by achieving certifiability through the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Building Design and Construction (BD+C) for Multifamily Midrise Version 4 (LEED MR) rating system. Implementation of LEED certifiability ensures the Project design includes the following sustainability principles:

- An integrated team, members of which will be in constant communication throughout the design and construction process;
- Environmentally friendly site design and consideration of landscaping that benefits both residents and the surrounding habitats;
- Efficient water use that minimizes waste and maximizes applicable technology;
- Energy efficiency through installation of high-efficiency equipment and a right-sized system design;
- Healthy materials and finishes throughout all interior spaces, reducing health effects on residents; and
- Effective ventilation and exhaust systems design to ensure continued health and air quality throughout the life of each building.

The narrative below details the strategies by which the Project will meet various prerequisite and credit requirements under LEED MR.

HOME SIZE ADJUSTMENT

Using the Home Size Adjustment Calculator, the average home size point adjustment is +9.5 points. These points are added to the Annual Energy Use category on the LEED checklist.

INTEGRATIVE PROCESS

The design team includes an architect, mechanical engineer, and sustainable design consultant. The team members have met monthly throughout the LEED planning, preliminary design, and design development stages of the planning process.

LOCATION AND TRANSPORTATION

The Location and Transportation (LT) category addresses reduction of urban sprawl and rewards development on and near previously existing infrastructure, public transportation, and developed land.

LLp Floodplain Avoidance

The site has been previously developed and is exempt from this prerequisite.

LTc Site Selection (7 points)

Previously Developed Land (4 pts). The Project is located on a lot that is at least 75% previously developed

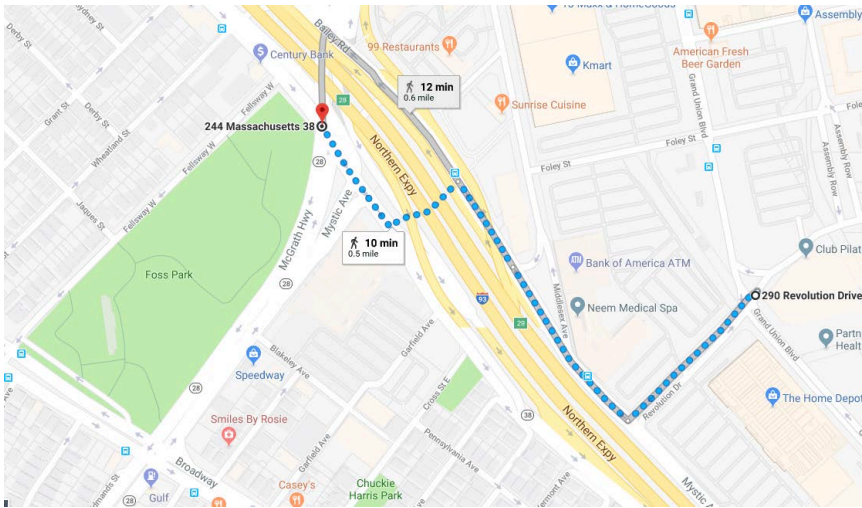
Infill Land (2 pts). The Project is located on a lot with a perimeter of >75% previously developed land; this qualifies as infill land.

Existing Conditions demonstrating compliance with Previous Develop and Infill requirements can be seen on the Aerial Maps, below.



LTc Site Selection. Aerial Map of Existing Conditions at Alta XMBLY.

Access to Open Space (1 pt). Alta XMBLY residents have nearby (within ½-mile walking distance) access to open space at least ¾ acre in size, at Foss Park, which is 15 acres in size – see walking distance maps below.



LTc Site Selection – 1/2-mile walking distance to Open Space at Foss Park.

LTc Compact Development (3 points)

The Project is designed with the following site density:

- 329 units within 1.65 acres for a density of 199 units per acre

LLc Community Resources (2 points)

The Project is located within 1/2-mile walking distance of the following Community Resources. Both buildings meet the credit threshold of 12 accessible resources, for two (2) points:

Services and Walking Distances to Alta XMBLY:

Services

1. Restaurant: Sunrise Cuisine – 0.1 mile
2. Restaurant: American Fresh Beer Garden – 0.3 mile
3. Gym/ health club: Club Pilates – 0.3 mile
4. Gym/ health club: TITLE Boxing Club – 0.3 mile
5. Hair Salon: SoMa Salon and Spa – 0.3 mile

Food Retail

6. Supermarket: Trader Joes – 0.4 mile
7. Supermarket: Stop & Shop – 0.3 mile

Community-Serving Retail

8. Clothing Store: TJ Maxx – 0.3 mile
9. Clothing Store: Nike Factory Store – 0.3 mile
10. Hardware Store: Home Depot – 0.2 mile

Civic and Community Facilities

11. AMC Assembly Row 12 – 0.3 mile
12. Sylvester Baxter Riverfront Park – 0.4 mile



LLc Access to Transit (2 points)

The Project is located 0.4-mile walking distance of the Assembly Square MBTA subway station. This station provides residents with 268 weekday trips and 214 weekend trips. The site is also 0.2 miles from the Grand Union Blvd @ Foley Street bus station which serves the 90 and 92 busses, which has 38 weekday and 26 weekend and 82 weekday and 54 weekend trips, respectively, qualifying for two (2) points via credit thresholds.

SUSTAINABLE SITES

The Sustainable Sites (SS) category addresses environmental issues related to landscape and site design, ensuring a seamless co-existence between the built environment and the natural environment.

SSp Construction Activity Pollution Prevention

The Project will provide a Stormwater Pollution Prevention Plan (SWPPP) to minimize runoff and wind erosion from the site throughout Construction. All members of the demolition and construction teams will adhere to the SWPPP. Daily, weekly, and monthly inspections will ensure that installed methodology is kept in good condition. Additionally, the plan will address the following requirements, as applicable:

1. Protection of stockpiles and disturbed soil during on-site storage for reuse,
2. Control of path and velocity of runoff from site,
3. Protection of on-site storm sewer inlets and water bodies,
4. Diversion of runoff from site hillsides,
5. Protection of erosion from site slopes 15%, or greater, and
6. Prevention of air pollution from dust and particulate matter.

SSp No Invasive Plants

The project team has committed to specifying no species listed on the National Association of Exotic Pest Plant Council's list of invasive plants for the state of Massachusetts.

SSc Nontoxic Pest Control (2 point)

The Project will include the following nontoxic pest-deterrent design methodology:

1. For below-grade walls, use solid concrete foundation walls, masonry walls with a course of solid block bond beam, or concrete-filled block.
2. Seal all external cracks, joints, penetrations, edges, and entry points with appropriate caulking. Install rodent- and corrosion-proof screens (e.g., copper or stainless steel mesh) on all openings greater than ¼ inch (6 millimeters), except where code prohibits their installation (e.g., dryer vents).
3. Design discharge points for rain gutters, air-conditioning condensation lines, steam vent lines, or any other moisture source such that discharge is at least 24 inches (600 millimeters) from the foundation
4. Design landscape features to provide a minimum 18-inch (450 millimeters) space between the exterior wall and any plantings.

At construction completion, the Project will also develop an integrated pest management policy for distribution to residents. This document will include information on the following:

1. Pesticide use,
2. Housekeeping, and
3. Prompt reporting of any observed pest problems within the building(s).

WATER EFFICIENCY

The Water Efficiency (WE) category addresses environmental degradation related to overuse of potable water within residential buildings and irrigation systems.

WEp Water Metering *LEED H and H Midrise*

The Project will include at least one whole-house water meter.

WEc Indoor Water Use (9 pts)

The Project will specify 1.0 gpm lavatory faucets, 1.5 gpm kitchen faucets, 1.5 gpm showerheads, 1.28 gpf toilets, and ENERGY STAR certified dishwashers and clothes washers to achieve a 45% reduction in water use.

ENERGY AND ATMOSPHERE

The Energy and Atmosphere (EA) category addresses ongoing energy usage and continued building performance.

EAp Minimum Energy Performance

The Project will meet all applicable requirements of the Massachusetts Stretch Energy Code. Energy modeling has not yet been completed but will be available at the receipt of building permit.

EAp Energy Metering

The Project will install individual electric and gas meters for each residential unit as well as a central meter for the building.

EAp Education of Homeowner, Tenant, or Building Manager

At construction completion, NEI will work with Wood Partners to develop an Operations Training Manual that describes the sustainable aspects of installed systems and assemblies. All operations staff will participate in a 1-hour training walk through to view and inspect installed equipment.

Additionally, NEI will work with Wood Partners to develop a Resident Green Guide to be distributed to applicable staff and/or residents at building occupancy. Distribution will be accompanied by copies of the LEED checklist as well as a 1-hour walk-through of the building and units to highlight installed LEED-related items.

EAc Annual Energy Use (5 pts)

The Project will meet all applicable requirements of the Massachusetts Stretch Energy Code. While Energy Modeling has not been completed at this time, we conservatively estimate a *minimum* 10% reduction in energy cost below the ASHRAE baseline.

MATERIALS AND RESOURCES

The Materials and Resources (MR) category addresses all installed materials, including framing and interior finishes, as well as diversion of waste from landfills.

MRp Certified Tropical Wood

The Project will utilize non-tropical wood products, or if necessary, Forestry Stewardship Council (FSC)-certificated products for necessary woods from tropical countries. The builder will provide a letter stating this preference to all relevant sub-contractors.

MRp Durability Management

Each building will meet the requirements of the ENERGY STAR for Certified Homes, version 3, Water Management System Builder Checklist. Additionally, the following interior water management measures will be installed:

1. Nonpaper-faced backer boards (or mold-resistant board) will be installed in all areas directly above the bathtub spa, or shower, as well as at any exposed wall or wall area behind fiberglass enclosures of tubs or showers – see specification excerpt below for more information.
2. Water-resistant flooring is specified in all kitchen, bathrooms, laundry, and spa areas and at all exterior doors.
3. Tankless gas-fired water heaters will be used for hot water heating
4. Install drain or drain pan under all clothes washers installed in, or over, living space, and
 - a. Drain pans will be installed under all clothes washers.
5. Exhaust all conventional clothes dryers directly to the outdoors
 - a. All dryers will be exhausted directly to the outdoors through rigid ductwork.

MRC Construction Waste Management (2 point)

The Project will implement a Construction Waste Management Plan which requires waste haulers to prioritize recycling of construction waste and diversion from landfills and incinerators to the greatest extent possible. The waste hauler shall provide documentation of all waste removed from the site at least monthly to show a diversion rate of 40% below the baseline or greater.

INDOOR ENVIRONMENTAL QUALITY

The Indoor Environmental Quality (IEQ) category addresses the exhaust and ventilation of all interior spaces within the building, ensuring a consistent healthy environment for building residents.

IEQp Ventilation

The Project will design and install a whole-unit ventilation system for each individual dwelling unit, complying with the mechanical ventilation requirements of ASHRAE 62.2-2010. Non-unit spaces will meet the minimum requirements of ASHRAE 62.1-2010.

This includes provision of direct exhaust air to each residential unit, and confirmation that all inlets are located at least 10-feet away from all known sources of contamination, including exhaust outlets.

IEQp Combustion Venting

The Project has designed the residential units without unvented combustion appliances, fireplaces, and with Carbon Monoxide (CO) monitors on each floor of all units.

IEQp Garage Pollutant Protection

The garage will be separated from the conditioned spaces with a monolithic concrete slab with all penetrations fully sealed. Stairwells and elevator lobbies shall have self-closing weather-stripped doors and shall be fully air sealed from the garage. Carbon monoxide detectors shall be installed in rooms adjacent to the garage.

IEQp Radon-Resistant Construction

The living spaces are separated from the ground with the garage, which will have active ventilation.

IEQp Air Filtering

All Project mechanical ventilation ductwork and equipment will include minimum MERV 8 filtration media to ensure that harmful particulates are filtered out of the air stream, prior to entry into the interior spaces.

IEQp Environmental Tobacco Smoke

Alta XMBLY will prohibit smoking within all areas of the building. This policy will be communicated to residents through rental agreements. Exterior designated smoking areas will be identified with signage and located at least 25-feet from all building entries, air intakes, and operable windows.

IEQp Compartmentalization

The Project will compartmentalize each residential unit to minimize leakage. Each unit will be tested for leakage and will demonstrate compliance with the maximum allowable leakage of 0.23 CFM50 via blower door testing at construction completion.

IEQc Enhanced Ventilation (3 points)

The Project will include a continuously operating exhaust fan in each unit of the building. Additionally, fresh air will be supplied to both the units and the common spaces of the building, providing balanced ventilation throughout.

IEQc Balancing of Heating and Cooling Distribution Systems (3 points)

1. The average unit size is less than 1,200 square feet and automatically meets the requirements of the credit.
2. Each unit will be tested to confirm that supply air-flow rates are within 20% of ACCA calculated values.
3. Each bedroom will be tested to demonstrate a pressure difference of less than 3 Pa with respect to the main body of the building when the air handler is running and doors are closed.

IEQc Enhanced Combustion Venting (1 point)

The Project will only install natural gas equipment listed by an approved safety testing facility. Any fireplaces installed will be in the amenity space and will have permanently fixed glass front and an electronic pilot with direct venting.

IEQc Enhanced Garage Pollutant Protection (1 point)

The garage exhaust will meet the requirements of ASHRAE 62.1-2010. The exhaust fan will run continuously with increased exhaust if CO levels are elevated.

IEQc Environmental Tobacco Smoke

Alta XMBLY will prohibit smoking within all areas of the building. This policy will be communicated to residents through rental agreements. Exterior designated smoking areas will be identified with signage and located at least 25-feet from all building entries, air intakes, and operable windows.

INNOVATION

The Innovation and Design Process (ID) category encourages project planning and design to improve the coordination and integration of the various elements in a green home.

IDp Preliminary Rating

The preliminary Project design indicated LEED Certifiability for the building. An updated checklist is attached in Appendix A, for review.

IDc LEED AP Homes (1pt)

Eli Herman, of NEI, holds a LEED AP Homes credential and is an integrated member of the Project Team; his credentialing certificate can be seen in Appendix C, attached.

REGIONAL PRIORITY

The Regional Priority (RP) category encourages projects to pursue existing checklist credits that have identified by the United States Green Building Council (USGBC) as “high-priority” for the project location and region.

The following credits have been identified for the building

1. Access to Transit (1pt)
2. Balancing of Heating and Cooling Distribution Systems (1 pt)
3. Nontoxic Pest Control (1 pt)

APPENDIX A: LEED CHECKLIST

ALTA XMBLY Scorecard

Location: 290 Revolution Drive, Somerville, MA 2145, USA

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



Integrative Process		Preliminary	Y	1 of 2	M	0	Verified	0
IPc	Integrative Process			1 of 2		0		



Location and Transportation		Preliminary	Y	14 of 15	M	0	Verified	0
LTP	Floodplain Avoidance			Required				Not Verified
<i>Performance Path</i>								
LTc	LEED for Neighborhood Development			0 of 15		0		
<i>Prescriptive Path</i>								
LTc	Site Selection			7 of 8		0		
LTc	Compact Development			3 of 3		0		
LTc	Community Resources			2 of 2		0		
LTc	Access to Transit			2 of 2		0		



Sustainable Sites		Preliminary	Y	2 of 7	M	2	Verified	0
SSp	Construction Activity Pollution Prevention			Required				Not Verified
SSp	No Invasive Plants			Required				Not Verified
SSc	Heat Island Reduction			0 of 2		2		
SSc	Rainwater Management			0 of 3		0		
SSc	Nontoxic Pest Control			2 of 2		0		



Water Efficiency		Preliminary	Y	8 of 12	M	0	Verified	0
WEp	Water Metering			Required				Not Verified
<i>Performance Path</i>								
WEc	Total Water Use			8 of 12		0		
<i>Prescriptive Path</i>								
WEc	Indoor Water Use			0 of 6		0		
WEc	Outdoor Water Use			0 of 4		0		



Energy and Atmosphere		Preliminary	Y	13.5 of 37	M	3.5	Verified	0
EAp	Minimum Energy Performance			Required				Not Verified
EAp	Energy Metering			Required				Not Verified
EAp	Education of the Homeowner, Tenant or Building Manager			Required				Not Verified
EAc	Annual Energy Use			13.5 of 30		1.5		
EAc	Efficient Hot Water Distribution System			0 of 5		2		
EAc	Advanced Utility Tracking			0 of 2		0		



Materials and Resources		Preliminary	Y	2 of 9	M	3	Verified	0
MRp	Certified Tropical Wood			Required				Not Verified
MRp	Durability Management			Required				Not Verified
MRC	Durability Management Verification			0 of 1		0		
MRC	Environmentally Preferable Products			0 of 5		3		
MRC	Construction Waste Management			2 of 3		0		



Indoor Environmental Quality		Preliminary	Y	9 of 18	M	3.5	Verified	0
EQp	Ventilation			Required				Not Verified
EQp	Combustion Venting			Required				Not Verified
EQp	Garage Pollutant Protection			Required				Not Verified
EQp	Radon-Resistant Construction			Required				Not Verified
EQp	Air Filtering			Required				Not Verified
EQp	Environmental Tobacco Smoke			Required				Not Verified

EQp	Compartmentalization	Required		Not Verified
EQc	Enhanced Ventilation	3 of 3	0	
EQc	Contaminant Control	0 of 2	0.5	
EQc	Balancing of Heating and Cooling Distribution Systems	3 of 3	0	
EQc	Enhanced Compartmentalization	0 of 3	0	
EQc	Combustion Venting	1 of 2	0	
EQc	Enhanced Garage Pollutant Protection	1 of 1	0	
EQc	Low-Emitting Products	0 of 3	3	
EQc	No Environmental Tobacco Smoke	1 of 1	0	



Innovation		Preliminary	Y	1 of 6	M	0	Verified	0
INp	Preliminary Rating	Required					Not Verified	
INc	Innovation	0 of 5		0				
INc	LEED Accredited Professional	1 of 1		0				



Regional Priority		Preliminary	Y	3 of 4	M	0	Verified	0
RPc	Regional Priority	3 of 4		0				

Point Floors

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

No

The project earned at least 3 points in Water Efficiency

No

The project earned at least 3 points in Indoor Environmental Quality

No

Total	Preliminary	Y	53.5 of 110	M	12	Verified	0
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Certification Thresholds Certified: 40-49, Silver: 50-59, Gold: 60-79, Platinum: 80-110

APPENDIX B: LEED ACCREDITED PROFESSIONAL CERTIFICATE



10566540-AP-HOMES

CREDENTIAL ID

23 FEB 2018

ISSUED

22 FEB 2020

VALID THROUGH

GREEN BUSINESS CERTIFICATION INC. CERTIFIES THAT

Eli Herman

HAS ATTAINED THE DESIGNATION OF

LEED AP[®] Homes

by demonstrating the knowledge and understanding of
green building practices and principles needed to support
the use of the LEED green building program.

A handwritten signature in black ink, reading "Mahesh Ramanujan".

MAHESH RAMANUJAN
PRESIDENT & CEO, U.S. GREEN BUILDING COUNCIL
PRESIDENT & CEO, GREEN BUSINESS CERTIFICATION INC.

APPENDIX C: MULTIFAMILY HOMESIZE ADJUSTMENT CALCULATOR

Multifamily Home Size Adjuster

This approach can be used to determine an overall home size adjuster for multifamily buildings.

Input the number of units and the average square footage for units with the corresponding bedroom number. For example, if the building has three 2-bedroom units that are 1300 sq ft, 1400 sq ft, and 1500 sq ft, insert "3" in cell G9 and "1400" in cell H9. Please leave zeroes or blanks where appropriate.

This approach can also be used to determine an overall home size adjuster for a complex with multiple residential buildings. If a project includes multiple residential buildings, add all the buildings together like it's a single-mega structure. For example, if building A has four 2-bedroom units and building B has six 2-bedroom units, insert "10" in cell G9. Average the square footage for all units in the complex with the corresponding bedroom quantity.

Building ID	0 Bedrooms		1 Bedroom		2 Bedrooms		3 Bedrooms		4 Bedrooms		5 Bedrooms		6 Bedrooms	
	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)	Number of Units	Average Floor Area (sq ft)
Home size adjustment	48	499.55	198	855.28	71	993.80	12	1,126.00						
Point adjustment	50%		34%		38%		49%		0%		0%		0%	
Total number of units	12.5		8.6		9.5		12.2		0.0		0.0		0.0	
Average home size point adjustment														9.5