INTRODUCTION

This document outlines Development Review Application requirements in relation to the long-term environmental sustainability and climate resilience of buildings within Somerville. Development proposals that require Site Plan Approval by the Somerville Zoning Ordinance must include a completed Sustainable & Resilient Buildings Questionnaire (Questionnaire) with the required Development Review Application. A Development Review Application is considered incomplete unless a completed questionnaire is submitted with the application. It is strongly recommended that the development team meets with staff from the Office of Sustainability and Environment prior to submitting the Development Review Application.

The purpose of this Questionnaire is to minimize the adverse environmental impacts in the design, construction, and occupancy of buildings in Somerville and to ensure that the impacts of future climate conditions are carefully evaluated.

Please review the following documents before completing the Questionnaire:

- **Somerville Climate Change Vulnerability Assessment**
- **Carbon Neutrality Pathway Assessment**
- **Somerville Climate Forward**

PROCEDURE:

A completed Sustainable & Resilient Buildings Questionnaire must be submitted with a Development Review Application for all development proposals that require Site Plan Approval. New construction or alterations to existing structures of 25,000 square feet or more must also submit an updated Questionnaire prior to the issuance of the first Building Permit and prior to the issuance of the first Certificate of Occupancy to identify any design changes made subsequent to Site Plan Approval or additional information determined as the development process unfolds.

BACKGROUND: CARBON NEUTRALITY

Understanding the global imperative to reduce greenhouse gas emissions in order to prevent extreme changes to the climate, Mayor Joseph A. Curtatone set a goal for Somerville to become carbon neutral by the year 2050. Carbon neutrality is defined as the net-zero release of carbon dioxide and other greenhouse gases (GHG) within Somerville's municipal boundary. Reducing greenhouse gas emissions is critical to avoiding the worst impacts of climate change and to protecting the health, safety, and welfare of current and future generations. In 2017, the Somerville Board of Aldermen passed a resolution reaffirming the city's carbon neutrality goal. And In 2018, Somerville released its first community-wide climate action plan, Somerville Climate Forward.

To achieve carbon neutrality by 2050 and to minimize adverse environmental impacts, Somerville will need to drastically reduce greenhouse gas emissions from electricity, buildings, transportation, and waste disposal. To meet these goals, all buildings within the city will need to pursue net zero emissions. New development should be designed to maximize envelope performance and energy efficiency, produce or procure renewable energy, and phase out fossil fuel use through electrification of building systems. The City of Somerville recognizes that as technology advances, incorporating design elements to mitigate carbon emissions and increase resilience may become more feasible. Applicants are asked to devise strategies that permit building systems to adapt and evolve over time to further reduce GHG emissions and to avoid path dependency that perpetuates reliance on fossil fuels.

BACKGROUND: CLIMATE CHANGE VULNERABILITY

Despite efforts to minimize greenhouse gas emissions, climate change is already impacting Somerville and changes to the climate will continue to intensify. The City of Somerville's Climate Change Vulnerability Assessment analyses vulnerabilities associated with Somerville's key climate stressors: increased precipitation, sea level rise and storm surge, and higher temperatures. The analysis recommends that new development consider these climate impacts and take appropriate measures to address the projected climatic conditions described in the assessment.

Several areas of Somerville are already prone to flooding from intense precipitation. With climate change, precipitation events will become more intense—meaning that a greater volume of rain will fall in a shorter period of time. Somerville is projected to experience more than a 30% increase in rainfall during a 100-year 24-hour event. This increase in precipitation will increase the risk of flooding in areas where the drainage system does not have sufficient capacity.

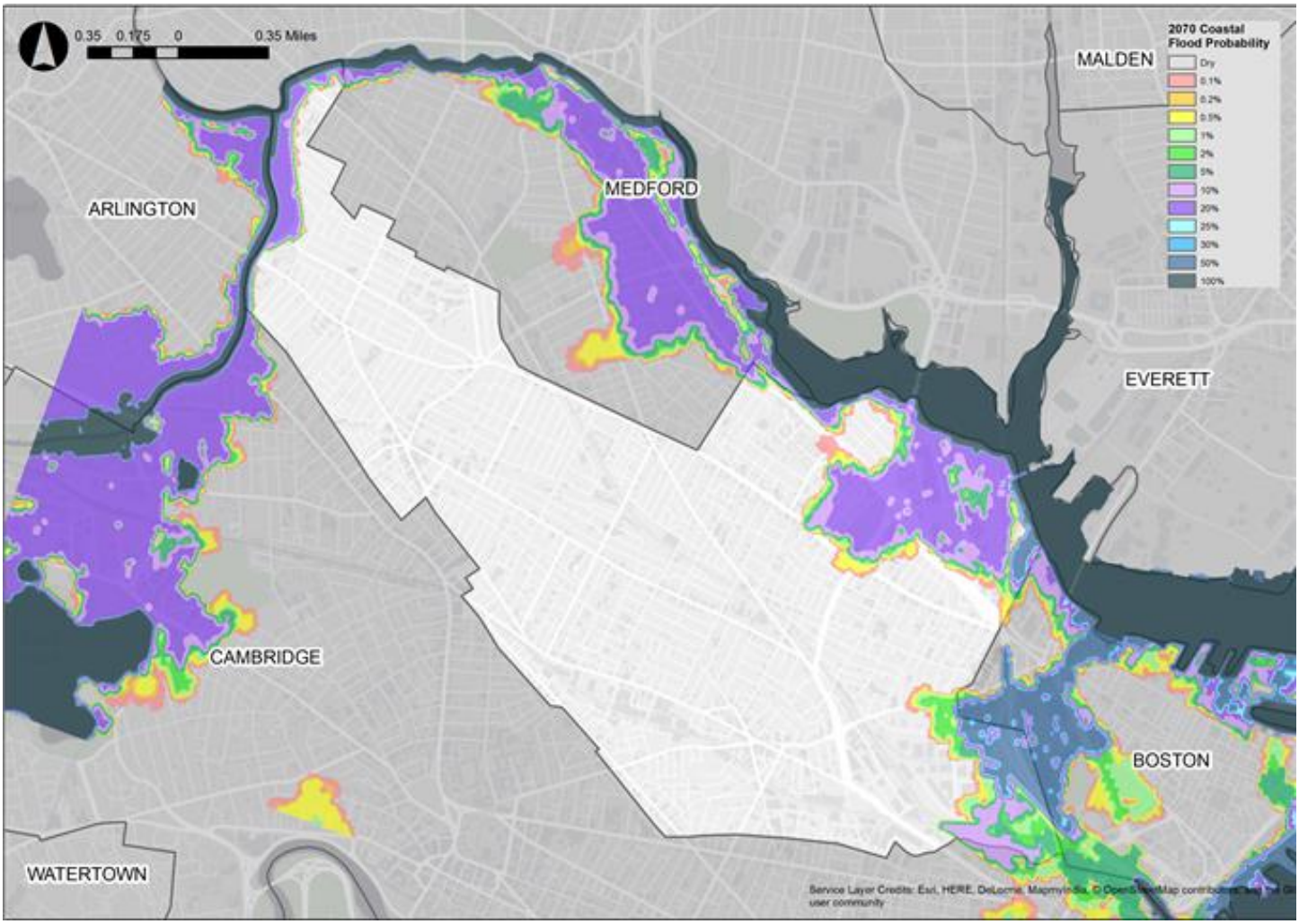
In addition to flooding from precipitation, sea level rise and storm surge are already potential concerns for areas of East Somerville and by 2035-2040 the Amelia Earhart Dam could be regularly flanked by storms, resulting in flooding for areas of Assembly Square, Ten Hills, and Winter Hill.

As the climate continues to change, average seasonal temperatures are also expected to increase and the number of days above 90 degrees Fahrenheit (historically about 10 a year) could rise to 40 days by 2030, a third of the summer, and 90 days by 2070, nearly the entire summer. In 2018 there were 23 days over 90 degrees.
As temperatures increase, Somerville will become more susceptible to the urban heat island effect which causes hotter temperatures due to paved surfaces and waste heat generated by energy use when compared to less developed areas. Increasing average temperatures can have wide-ranging impacts on human life, the built environment, and natural ecosystems. Rising temperatures and more intense heat waves present significant public health concerns and can contribute toward kidney, lung,

and heart problems. Vulnerable populations are particularly susceptible to heat-induced illness and mortality. There will also be increasing demand for indoor cooling.

The following maps and figures provide an overview of projected climate exposure. Please review the Climate Change Vulnerability Assessment for more detailed analysis on Somerville's exposure, vulnerability, and risk to climate change. For higher resolution maps and GIS files, please contact Hannah Payne, Sustainability Coordinator, at hpayne@somervillema.gov.

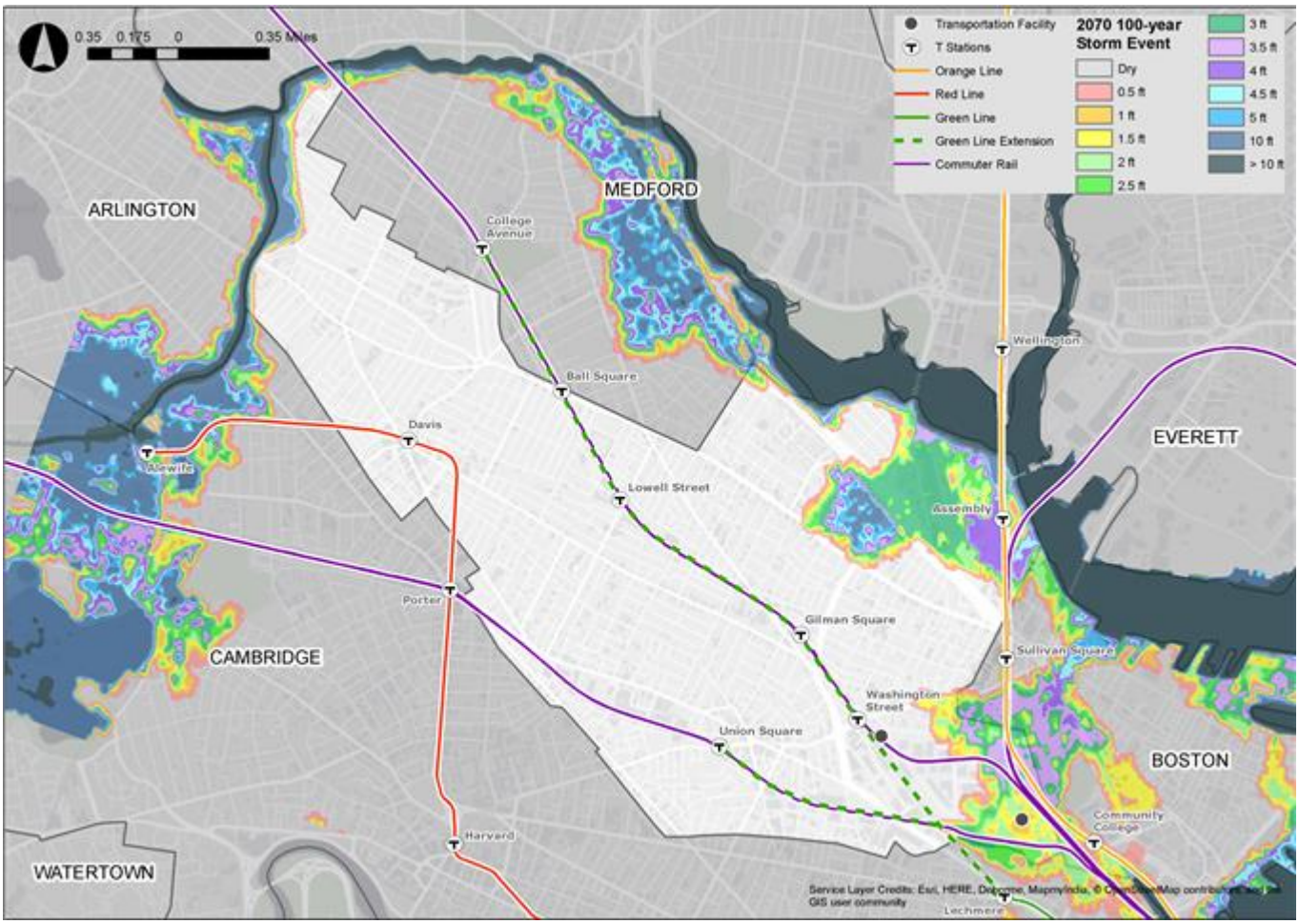
2070 Coastal Flood Probability



This map shows the annual chance of flooding from coastal storm events and sea level rise in 2070. A 100% chance of flooding means that there is a nearly certain chance that the area will flood at

least once in a given year, while a 50% chance means that there is an equal chance that it may or may not flood in a given year. A 1% chance of flooding corresponds with a 100-year event. A 0.1% chance corresponds with a 1000-year event. This map does not account for drainage (Somerville Climate Change Vulnerability Assessment, 2017)

2070 Coastal Flood Depth from 2070 100-year Storm Event

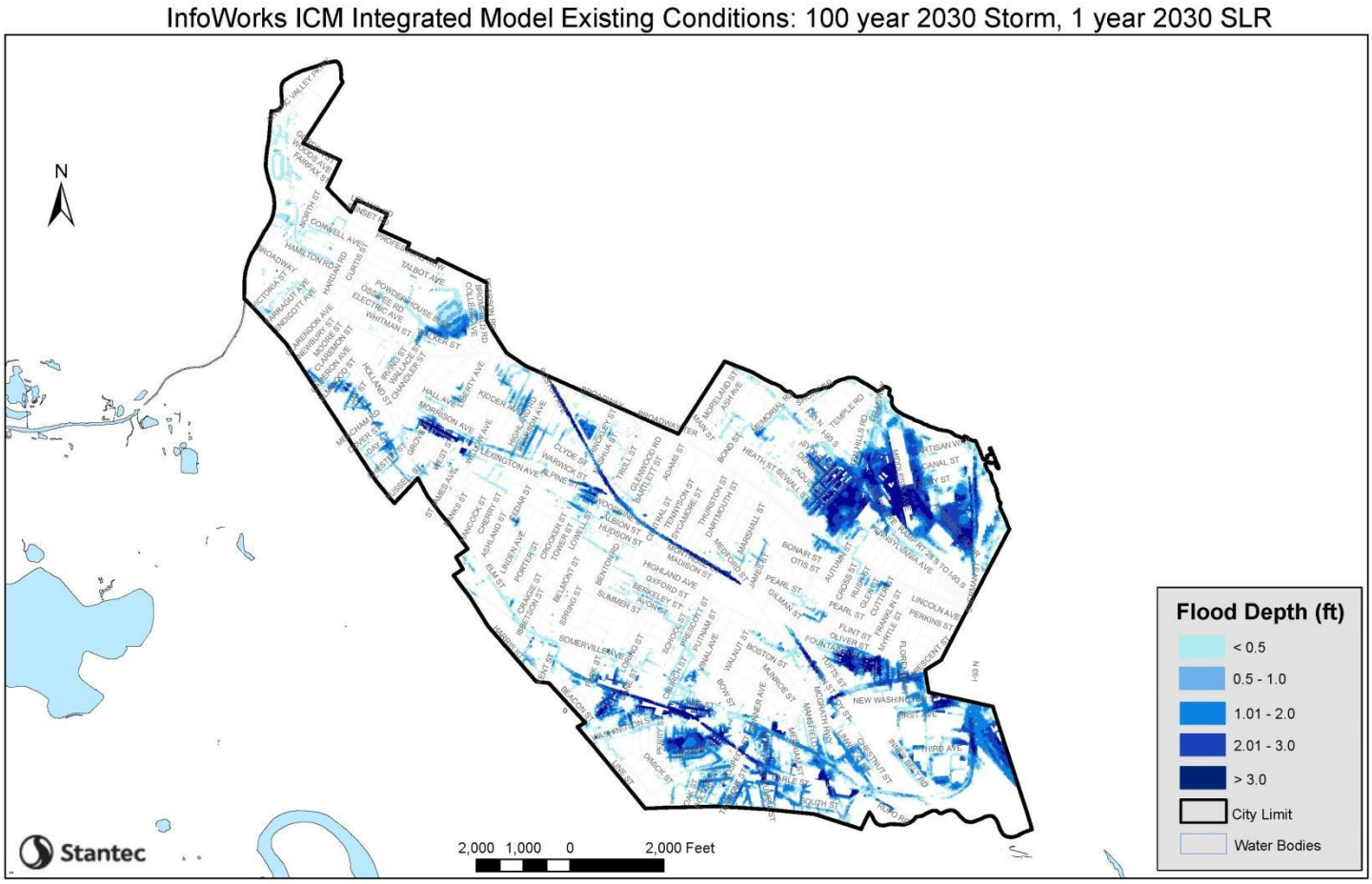


This map shows the projected flood depths of a 100-year coastal storm event in 2070 along with public transportation infrastructure assets. This map does not account for drainage (Somerville Climate Change Vulnerability Assessment, 2017)

Precipitation Projections

Precipitation-based flooding is projected to increase in Somerville and is currently more of an immediate and widespread threat than sea level rise and storm surge. The intensification of both the frequency and intensity of rainfall events is likely to cause increased risk of flooding during rain events.

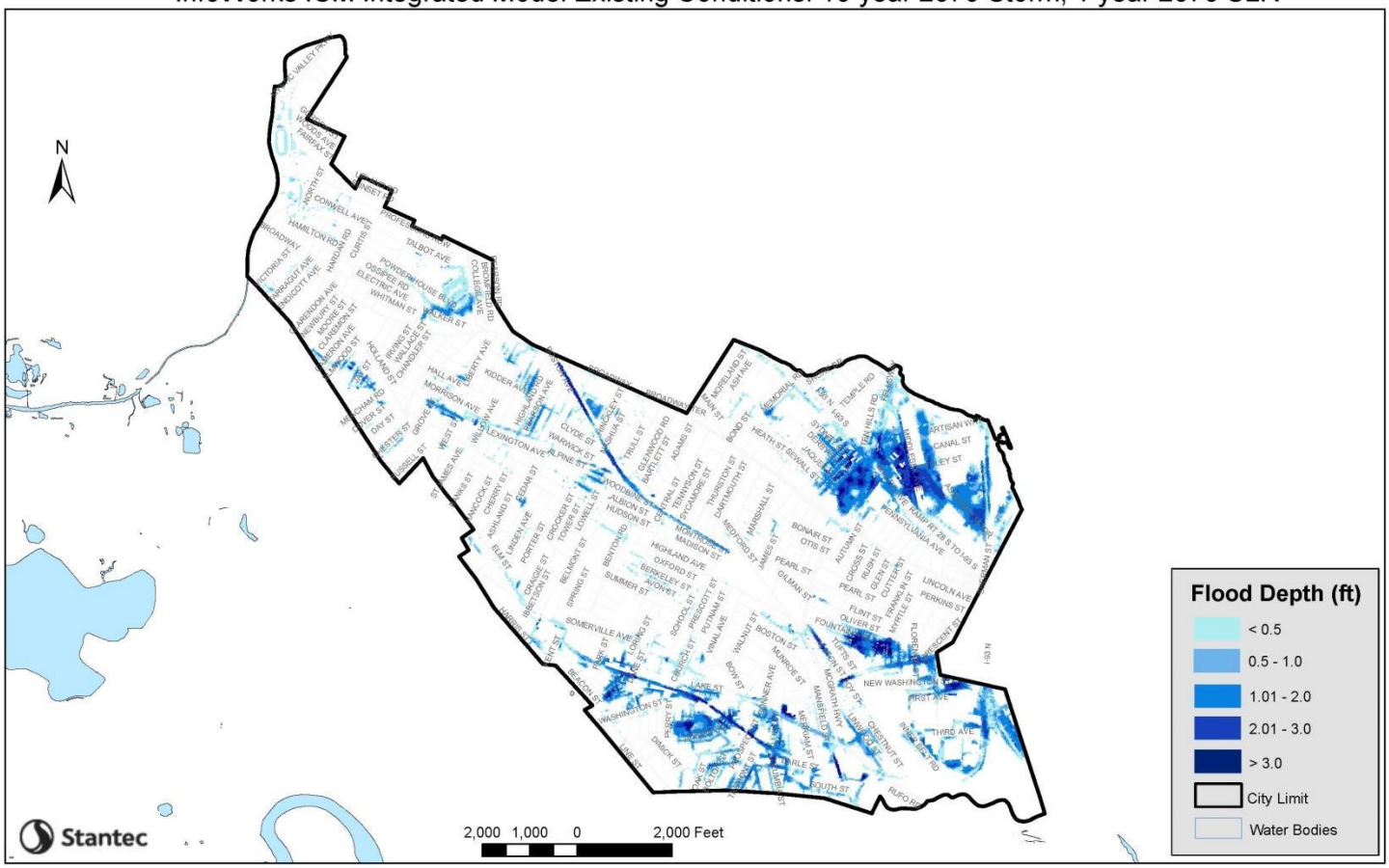
Storm Type	Present-day Rainfall	2030 Rainfall	2070 Rainfall
10-year (10% annual chance), 24-hour	4.9 in	5.6 in	6.4 in
100-year (1% annual chance), 24-hour	8.9 in	10.2 in	11.7 in



This map shows the impact of both precipitation-based flooding and sea level rise and storm surge. This map shows the modeled flood depths of a 100-year, 24-hour Design Storm with 1-year storm surge and sea level rise projections in 2030. Unlike the maps above, this includes modeling of the drainage system, which takes into account how water will be conveyed out of the city. The model is

based on how the system is designed to function, so actual areas of flooding and depth of flooding could vary (Stantec, 2019).

InfoWorks ICM Integrated Model Existing Conditions: 10 year 2070 Storm, 1 year 2070 SLR



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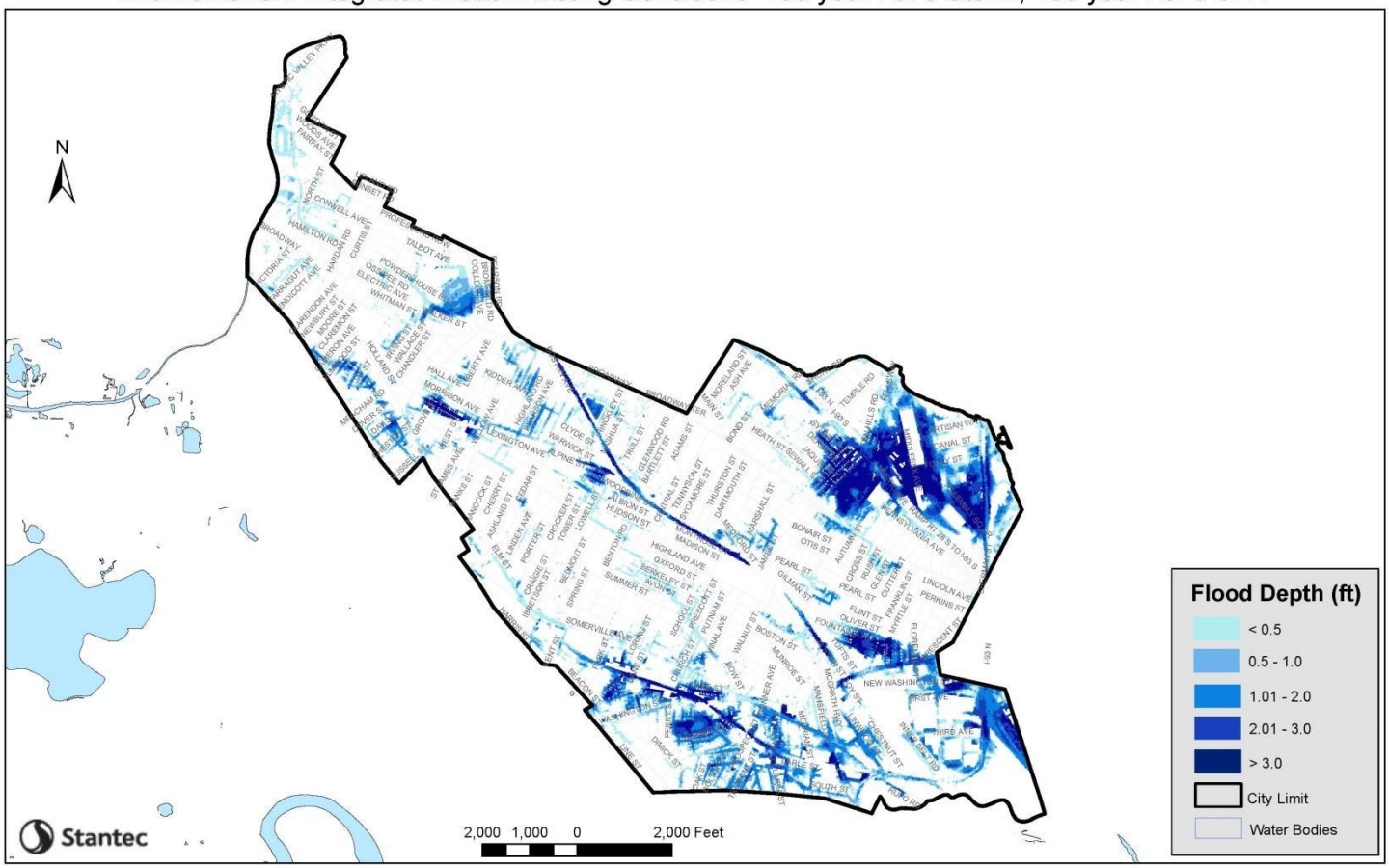
InfoWorks ICM Integrated Model Existing Conditions: 100 year 2070 Storm, 100 year 2070 SLR



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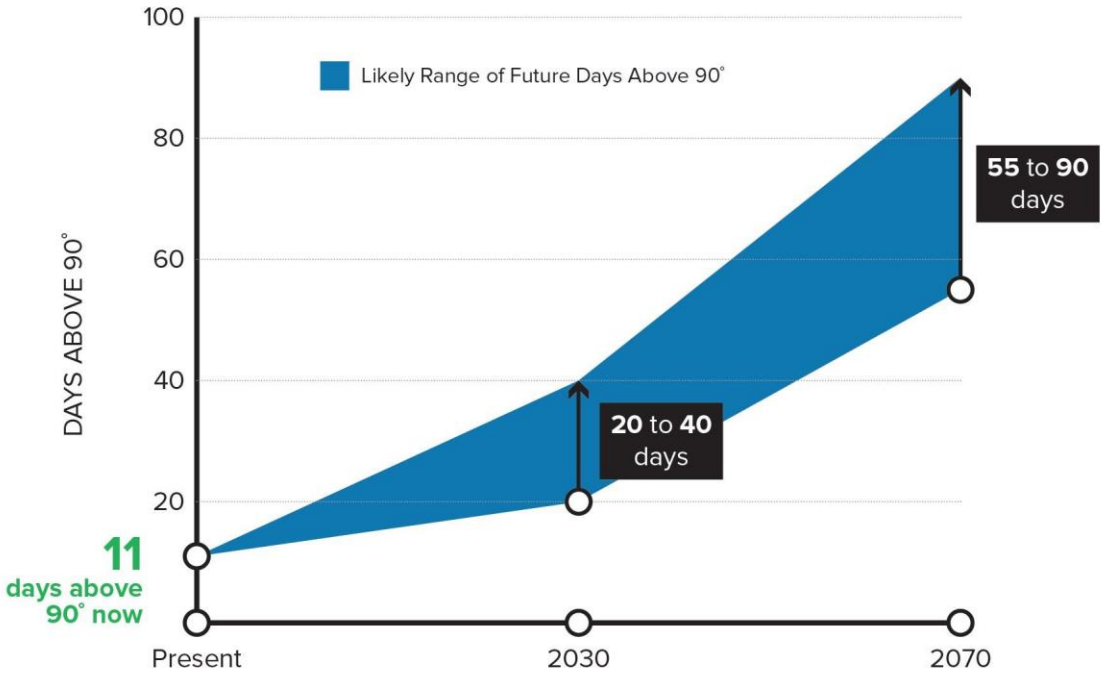
Temperature Projections



(Somerville Climate Change Vulnerability Assessment 2017)

Temperature	1971-2000 (average)	2030 (low)	2030 Avg. (high)	2070 (low)	2070 Avg. (high)
Annual	50.0º F	53.3º F	53.5º F	55.8º F	58.7º F
Summer	70.6º F	74.5º F	74.8º F	77.4º F	80.6º F
Winter	29.8º F	32.2º F	33.0º F	34.6º F	38.0º F

RESOURCES:

For information on net-zero and resilient building and site design, please review the following resources:

- **Passive House Principles**
- **Architecture 2030 Palette (Net-zero design tools)**
- **Building Resilience in Boston**
- **Enhancing Resilience in Boston**
- **A Better City's Resiliency Toolkit**
- **Ready to Respond: Strategies for Multifamily Building Resilience**

For additional information visit www.somervillema.gov/sustainaville

SUSTAINABLE & RESILIENT BUILDINGS QUESTIONNAIRE

Section 1: Proposal Information

Proposal Name	**Boynton Gateway**
Address	**495 Columbia Street**
Developer	**Boynton Gateway Owner LLC (a joint venture between an affiliate of CV Properties LLC., and a fund indirectly owned by Columbia Property Trust, collectively the "Proponent")**
Business Address	**c/o Columbia Property Trust, 315 Park Avenue South, Suite 500**
Designated Contact	**Eric Rubin**
Telephone Number	**201-218-4199**
Contact's Email Address	**Eric.Rubin@columbia.reit**
Date Submitted	**5/7/2021. Updated and resubmitted on 10/8/2021**
Filing Type (Development review application, Building Permit, or CoA)	**Amendment to development review application originally submitted on June 4, 2021.**
Is this a revised Questionnaire?	**Yes**
Is MEPA Approval Required?	**Yes. ENF submitted 3/15/21. Secretary's Certificate issued on 4/23 indicating the Project does not require production of an Environmental Impact Report. The Proponent confirmed on with MEPA during a meeting on September 14, 2021 that the Project modifications would not require further MEPA review.**

Section 2: Building & Site Details

2.1 Building Information

Building Uses	**R&D Lab/Office**
Gross Floor Area	**Total GFA: 313,500 SF (excludes mechanical penthouse and below-grade parking)**
Expected Life of Building	**60+ years**
Expected Life of Building Systems: HVAC, electrical, boilers, plumbing, telecom, lighting, energy management.	**15-30 years**
Type of Heating System(s)	**Gas-fired condensing boiler plant, high-efficiency heat recovery, and evaluation of baseline electric heat pump hot water system**
Type of Cooling System(s)	**Water-cooled chiller plant**

2.2. Green Building Green Building Professional(s): Name(s) and contact information	**Allison Zuchman, The Green Engineer** **23 Bradford Street, 1st Floor, Concord, MA 01742** **allison@greenengineer.com** **Direct: 978.341.5464 | Office: 978.369.8978**
Professional Credentials: Green Building Program Certification(s)	**LEED BD+C, Fitwel Amb., RA**
Building LEED Rating	**LEEDv4 CS Platinum**
Building LEED Point Score	**81**
Will you pursue LEED certification through the USGBC?	**Yes**
Are any other green building certifications being pursued? (Passive House, Enterprise Green Communities, etc.). Please describe.	**Yes, the Proponent is exploring the potential for Fitwel Certification.**

2.3. Electric Vehicle Parking

The number of electric vehicles (EVs) in Somerville is expected to increase significantly over the next decade with more electric vehicles coming to market than ever before. Conservative estimates based on historical trends alone suggest 20% of personal vehicles in Somerville will be electric by 2040. Installing capacity for EV supply equipment (EVSE) has been shown to be more feasible and cost effective during construction than when retrofitting parking areas to support the installation of EVSE in the future[1]. Providing EVSE can increase the property value, become a future revenue source, and provide an amenity that more tenants and commuters will be looking for. It is recommended that parking facilities be designed to allow for the most flexibility to adapt to future needs of electric vehicles and changing mobility needs. The City of Somerville recommends 25% of spaces have installed charging access and up to 100% of spaces be "EV Ready" (everything but the station installed). Eversource currently has a program to pay the associated infrastructure costs of EV charging, including infrastructure needed to be "EV ready." Please consult with Eversource to determine if any

[1] http://evchargingpros.com/wp-content/uploads/2017/04/City-of-SF-PEV-Infrastructure-Cost-Effectiveness-Report-2016.pdf; https://www.richmond.ca/__shared/assets/Residential_EV_Charging_Local_Government_Guide51732.pdf

	installation costs could be covered through their Make Ready Program.
Total # of Parking Spaces	**170 vehicle parking spaces**
EVSE Plugs (number and voltage/ level of plugs)	**EV charging stations to be provided for 5% of parking spaces (9 spaces). Location to be determined based on design evolution advances.**
EV Ready Spaces (everything but station is installed)	**The electrical capacity in the building is being planned to support 25% EV charging stations with expansion capability to 50% using load management software. The Mass save EV incentive program will be explored on the project.**
Please share any other information on your EV strategy. Have you spoken with Eversource? Are you talking with EVSE providers? Have you considered EVSE needs in conjunction with your parking and mobility management plans?	**The Project team will include a minimum of 5% of spaces to have installed infrastructure as conditioned in our Mobility Management Plan. The team will reach out to Eversource for additional information about potential funding.**

2.4 Key Building Efficiency Metrics

The following should be provided for each building type (office, retail, multifamily, hotel, restaurant, etc.).

Updated Vertical Envelope Performance

Vertical Envelope	ASHRAE Reference Building			Proposed Building		
	Percent of Vertical Area	**R value** *(see note 1)*	**U value** *(see note 2)*	**Percent of Vertical Area**	**R value** *(see note 1)*	**U value** *(note 2)*
Framed, insulated Wall	**60%**	**18**	**0.055**	**47%**	**25**	**0.04**
Opaque glass, curtain wall, shadowbox, spandrel	**NA – ASHRAE reference building has no spandrel**			**18%**	**6.25**	**0.16**
Vision glass	**40%**		**0.42**	**35%**	**3**	**0.34**
Aggregate U-value	**100%**		**0.201**	**100%**		**0.166**

Aggregate R-value		**5.0**			**6.0**	

Notes:

1. Show in format of R+R c.i. where first R is amount of discontinuous insulation and second R is amount of continuous insulation.
2. U values shall be based on indicated R+R c.i. and shall conform to Appendix A of ASHRAE 90.1 2013.
3. U value includes frame, per NRFC standard methods.
4. Aggregate U is calculated as: $(U_1\%_1 + U_2\%_2 + U_3\%_3)$ where U is the respective thermal transmittance values and $\%_1$ is the percent area of framed insulated wall; $\%_2$ is the percent area of opaque glass, curtain, or shadowbox; and $\%_3$ is the percent area of vision glass. Only areas adjacent to conditioned space are counted, areas adjacent to unconditioned spaces (e.g. parking garages, mechanical penthouses) are not counted. Aggregate R is the inverse of aggregate U. For percent areas for ASHRAE reference building, see Table G3.1.1-1 in ASHRAE 90.1 2013.

Other Performance Metrics

	ASHRAE Reference Building	Proposed Building
Air Infiltration (ACH 50)	**0.4 cfm/ft2 @ 75 Pa**	**0.25cfm/ft2 @ 75 Pa**
Aggregate Vertical Envelope R	**R-5**	**R-6**
Roof R	**R-20**	**R-40**
Lowest level conditioned floor above unconditioned space (if any) R	**R-20**	**R-25**
Cooling End Use (kBtu/sf-yr)	**21.849**	**15.94**
Heating End Use (kBtu/sf-yr)	**129.6**	**66.62**
Peak Heating (kBtu/sf)	**0.026**	**0.011**
Peak Cooling (kWh/sf)	**1.61**	**1.03**
Site EUI (kBtu/hsf)	**201.45**	**133.43**

Section 3. Planning for Net Zero Emissions and Energy Resilience

3.1. How is the building currently designed to reduce energy usage? Please describe the key design features of the building including:

A) Building envelope performance (including roof, foundation, walls, and window assemblies)
B) How has the design team integrated energy performance into the building and site design and engineering (orientation, massing, mechanical systems, envelope, etc.)?
C) Efficiency of heating and cooling systems. Will these systems be electric? Provide reasoning for selection of heating and cooling systems.

A) The building orientation has been defined in order to achieve an optimal trade-off between energy consumptions, heat losses and elevated quality standards in terms of natural daylight.

The building Window to Wall Ratio of 35% coupled with high thermal performance envelope assemblies meets ASHRAE-90.1-2013 guidelines and Envelope Backstop thresholds introduced by Section C402.1 of 2018 IECC.

Based on the anticipated space distribution (percent lab / percent office), the ventilation rate needed and the predicted internal loads generate relevant annual energy consumptions. For this reason, high efficiency air handling units (AHUs) operate based on a constant daily schedule to ensure high levels of indoor air quality and comply with

health and safety requirements. Moreover, the design team is developing feasibility studies based on current energy use intensities to introduce solar photovoltaic arrays at the roof level and allocate additional space for future renewable system implementations in order to be all-electric ready.

B) High efficiency central cooling and heating plants are proposed using HVAC equipment that exceeds code efficiencies including consideration for high efficiency heat recovery systems, and exhaust monitoring and fan speed control systems for increased energy performance.

The Project is being designed to include a high efficiency heat recovery system with the goal of reducing the overall heating consumption of the system by upwards of 90%. With this reduction the remaining required heating capacity will be evaluated as to whether a hybrid gas boiler/ASHP heating plan is viable for the Project.

C) Laboratory and office spaces are being conditioned by chilled and hot water plants with reset controls. Chiller Efficiency is 0.362 kW/ton (NPLV), Gas-fired Boiler Efficiency is 95.2%. Chillers utilize electricity for cooling, Boilers utilize natural gas for heating. The gross square footage of the design and its use as laboratory and office space were the primary reasons for selecting a CHW/HW plant. The size of the building makes it a good candidate for these systems (vs DX).

3.2 Will the building be a net zero carbon building? A net zero carbon building is a highly energy efficient building that does not burn fossil fuels and either produces or procures enough carbon-free electricity to meet the building's total energy demand. If the building will not be a net zero carbon building, provide a technical description of how the building's systems will be transitioned over time to achieve net zero carbon emissions, including how and when systems can be transitioned in the future to carbon-free alternatives (provide timeline including 2030, 2040, and 2050 targets). Description must include whether any remaining emissions will be offset with on-site or off-site renewables and at what quantity. Changes could include, but are not limited to, addition of on-site renewable energy generation, energy storage, additional energy efficiency measures, building electrification, or other measures that would further reduce greenhouse gas emissions.

The Project is a core and shell building designed to accommodate future tenants with a research and development/laboratory need. Due to the focus on a very specific anticipated future tenant type the building systems are being designed to accommodate high ventilation demand and high process energy use. The current high performance/efficiency building HVAC equipment available on the market requires

fossil fuels for high efficiency operation. Therefore, designing an all-electric building is not feasible at this time. The building will be designed to ensure that in the future when the original equipment reaches its end of life it can be replaced with all electric systems.

Over time, the building's base systems can be transitioned to all-electric options, but cutting off the natural gas supply entirely may be challenging since 40 percent of the building is dedicated to tenant labs which require flexibility for conducting experiments and research. A potential pathway to a net zero carbon building could include:

- **2040 Target: Transitioning to electric heating system by replacing condensing hot water boilers with electric heat pumps or electric resistance boilers. The hot water heating distribution systems are being designed using lower water temperatures to allow for this transition to electric heat pump systems as they become available. Also the Proponent will consider procuring off-site renewable energy that is Green-e Energy certified or equivalent to off-set the building's total site energy use.**

3.3 Describe any and all incentives, rebates, grants provided by utilities, government organizations, and other organizations being pursued to maximize building efficiency and to reduce emissions. Description must include any incentives that were considered but are not being pursued, including reasoning for each decision.

The team is considering applying for the "Eversource / Mass Save – New Buildings and Major Renovations Path 2: Whole Buildings Energy Use Intensity (EUI) Reduction incentive program". This incentive program provides financial incentives based on a percent EUI reduction beyond the Mass Save baseline, and provides a cost share for the technical assistance and energy modeling fees. To be eligible, the Project must have a goal of meeting at least 10 percent EUI reduction from the Mass Save baseline, which is based on the Massachusetts energy code using either International Energy Conservation Code – IECC 2018 or ASHRAE 90.1-2016.

The Project Team held a Charrette with Eversource/Mass Save on Tuesday 6/8/21. We are currently working on putting together materials to provide to Mass Save to better identify potential incentive sources.

- **An overview of the incentive program is available here: https://www.masssave.com/en/saving/business-rebates/new-buildings-and-major-renovations/whole-building-energy-use-intensity-reduction**

- **A full description of the current Mass Save baseline is available here: https://www.masssave.com/-/media/Files/PDFs/Business/Energy_Code_Baseline.pdf?la=en&hash=1D0A5D90B03A32B2833D3D0EEE3522E573B67D52**

The team is also considering the potential for funding through Eversource's Electric Vehicle (EV) Charging Station Program.

3.4 Evaluate feasibility of on-site renewable generation. Please describe your analysis and findings. Analysis should consider incentives available. Will any renewable energy generation be incorporated into the project? If so, please describe (system type and capacity). If no, could it be added in the future? And will any off-site renewable energy be purchased?

As a Core + Shell lab building, the majority of the roof area will be dedicated to mechanical equipment and accessible paths to access the equipment We currently have about 4,000 sf of flat roof area with southern exposure on the roof of Level 9. We will explore the feasibility of a solar PV array or a vegetated green roof or a combination of both as the design advances.

3.5. Are any on-site energy storage systems planned? Please describe.

The Proponent does not currently anticipate any on-site energy storage.

3.6 Does the electric utility's infrastructure have enough capacity to support the addition of your building's energy load? Please provide confirmation from utility.

The design team will coordinate with the local utility company during the next phase of the design. Load Letters are being developed for submission to Eversource.

3.7 Will the building's roof include any sustainability features? These may include, but are not limited to, high albedo roof materials, solar panels, or vegetation. Please describe what features could be added in the future (i.e. roof will be designed to support solar or green roof installation of X size).

See response to Section 3.4. Additional strategies being analyzed include the use of high-albedo materials.

A blue roof is being planned since there is no place to infiltrate on the site. Roof drains will collect runoff from the roof and internally convey stormwater to a 50,000-gallon cast-in-place storage tank under the parking ramp of the P1 level. In this area, rainwater reclamation systems will be used to provide toilet flushing water and/or cooling tower make up water.

Section 4: Climate Change Risk and Vulnerability

4.1 Climate Vulnerability Exposure
(check all that apply)

- Sea Level Rise & Storm Surge
- ✔ Precipitation Induced Flooding
- ✔ Heat
- Other(s):

4.2 How is your site vulnerable to projected climate change impacts?

According to Somerville's 2017 climate change plan, Somerville Climate Forward, the Project Site will not be vulnerable to coastal flooding from sea level rise based on projections for 2030 and 2070. However, the Project Site is vulnerable to increasing precipitation-based flooding during the 100-year 2030 storm (1 year 2030 SLR), the 10-year 2070 storm (1 year 2070 SLR), and the 100 year 2070 storm (100 year 2070 SLR). Precipitation events will become more frequent and more intense, leading to flooding in areas like Boynton Yards where the drainage system may not have enough capacity and much of the area is covered with impervious surfaces. Additionally, the Project Site lies within an area of high outdoor heat exposure and consequently will experience negative impacts from the urban heat island effect, which will threaten utility systems, building performance, and public health.

The next two sections ask specific questions about how the project is designed to manage climate-related risks from heat, coastal and inland flooding.

Section 5: Managing Heat Risks

5.1 Describe all building features that will keep building occupants safe and comfortable during extreme heat, including mechanical systems and non-mechanical design elements to cool building (orientation, envelope, operable windows, etc.).

Mechanical systems have been sized to meet ASHRAE 0.4 percent heating design day conditions using weather data from Logan International Airport.

5.2 How has increased demand for indoor cooling been factored into the building design and energy management strategy?

Chillers are sized for the expected building load with one fully redundant chiller. Chilled and condenser water risers are sized such that higher gallons per minutes than noted can be provided to lower floors for tenant flexibility. From this design & available roof space, the chiller plant could be redesigned to utilize the capacity of the redundant chiller.

5.3 List any indoor spaces without cooling and their uses.

- **Penthouses will be heated and ventilated only.**
- **Eversource vault and main electric room will be heated and ventilated only.**
- **Building entrance vestibules will be heated only.**
- **Dry sprinkler rooms will be heated only.**
- **Elevator shafts and mechanical shaft space.**
- **Janitors' closets will be ventilated only.**
- **Parking garage will be ventilated only.**
- **Egress stairwells to non-conditioned areas.**

5.4 What design features will be implemented on site to minimize the site's contribution to the urban heat island effect? Please describe any and all design elements. Strategies could include, but are not be limited to, the following:

- High albedo pavement or roof materials
- Passive cooling or increased ventilation capacity
- Green roofs or walls
- Heat resistant trees and plants
- Additional landscaped areas

The design team is investigating the use of high albedo roof materials and solar photovoltaic (PV) applications.

The Project replaces an expanse of existing surface parking and industrial buildings with new landscaping, public realm improvements, and approximately 2,500 SF of publicly accessible and sustainably designed open space that will contribute to a reduction in the urban heat island effect.

Section 6: Managing Flood Risks

6.1 Is the site susceptible to flooding from sea level rise and storm surge and/or rain events now or during the building's expected lifetime? Please refer to the Somerville Climate Change Vulnerability Assessment and the updated stormwater flooding maps provided in the Background section of this Questionnaire. Additional maps and data are available by request (email hpayne@somervillema.gov

As described in Section 4, according to Somerville Climate Forward, the Project Site will not be vulnerable to coastal flooding from sea level rise based on projections for 2030 and 2070. However, the Project Site is vulnerable to increasing precipitation-based flooding during the 100-year 2030 storm (1 year 2030 SLR), the 10-year 2070 storm (1 year 2070 SLR), and the 100 year 2070 storm (100 year 2070 SLR). According to the ICM Infoworks generated maps for these scenarios, the Project Site could experience up to two feet of precipitation induced flooding at the street level. Precipitation events will become more frequent and more intense, leading to flooding in areas like Boynton Yards where the drainage system may not have enough capacity and much of the area is covered with impervious surfaces.

If you answered YES to the previous question, please complete the remainder of Section 6. Otherwise, you have completed the Questionnaire. Thank you.

6.2 Flooding Design Considerations

Proposed Site Elevation - Low	**7.8 (ft)**	Proposed Site Elevation - High	**10 (ft)**
Lowest elevation of life-safety systems	**+5 Feet FFE or 15 (ft)**	Proposed First Floor Elevation	**9.5 – 10.5 (ft)**

Nearest flood elevation for the 2070 10-year storm	**10 (ft)**	Nearest flood elevation for the 2070 100-year storm	**10 (ft)**

6.3 What are the first floor uses of the building? Are there any below ground stories of the building? If so, what uses are located below ground?

First floor uses in the building will include an entry lobby, office/lab/R&D support and amenity space, bicycle storage room and loading areas. There is also a tenant space on the ground floor. The building includes two stories of below-grade parking and additional utility rooms.

All vehicle parking will be provided below grade. As necessary, the Proponent will also consider both movable and permanent flood barriers to protect the garage entrance.

6.4 Are there any flood-sensitive assets, utilities, mechanical equipment, or life-safety systems located in areas of the building that are at risk of flooding? What measures will protect building systems during a flood or severe storm? These might include, but may not be limited to, the following:

- Elevation of utilities and mechanical systems
- Water tight utility conduits
- Waste water back flow prevention
- Storm water back flow prevention
- Systems located above the ground floor
- Securing objects at risk of becoming dislodged

Proposed life safety and tenant generators will be installed on the building's roof. In general, essential mechanical systems and equipment in each of the Project's buildings will be elevated, or placed above the first floor where feasible to reduce risk associated with flooding in the event of an extreme weather event.

The Project will install backflow preventers on all connections to the sanitary sewer system to prevent surcharging of sanitary sewer flows into the building. The design of the building will consider watertight wall penetrations for utilities at the building face to prevent the intrusion of elevated groundwater levels.

6.5. Residential and commercial buildings should be designed to maintain regular operations during a 10-year storm in 2070. **Describe how the site and building have been designed to maintain regular operations--meaning all systems will remain operational and all occupied spaces are protected from flooding-- during the 2070 10-year storm.** Please refer to both the 2070 coastal flood probability map and the 2070 10-year storm and 1-year sea level rise scenario (pages 3 and 6). Resilience measures might include, but may not be limited to, the following:

- Elevation of the site
- Structural elevation of the building
- Non-structural elevation of the ground floor
- Energy storage and backup generation
- Wet flood-proofing (allowing water to flow through building envelope)
- Dry flood-proofing (preventing water from entering building)

The finished floor of the Project will be at elevations 9.5 to 10.5, which will be partially resilient to precipitation-based flooding from the 100-year storm event in the area. The Project Site could experience flooding to approximately elevation 11. This will make all electrical systems and life safety systems placed 5 feet above the ground floor, including the raised transformer vault on the ground floor resilient to 100-year storm event flooding.

Wastewater and stormwater backflow prevention will be designed by the plumbing engineer. Watertight utility conduits will be provided.

6.6 Residential buildings should be designed to allow occupants to shelter in place during a catastrophic storm (100-year event) today and in the future, this means all life-safety systems should be above the 2070 100-year flood elevation. **How will your site and building be impacted by the 2070 100-year, 24-hour storm and how will your site and building be designed to protect against those impacts?** Please evaluate impact based on both the 2070 coastal flood depth model for the 100-year storm and the 2070 100-year, 100-year sea level rise model (pages 4 and 7). Summarize anticipated pre- and post-event policies, strategies, and actions necessary to facilitate post-flood recovery.

This section is not applicable, the Project does not include any residential uses.

6.7 Will hazardous or toxic material be stored on site? Where will it be stored? How will you protect hazardous or toxic material from flooding?

Chemical storage is anticipated on the ground level. The Project will construct a curb at the entry door to the Chemical Storage Room to prevent flooding / spills. The fuel oil tank in the parking garage will be provided with hold-down straps to prevent its movement (and line breaks) in event garage is flooded.

6.8 Will the site be accessible by a typical vehicle during a 10-year event (up to 6 inches of water) and by emergency vehicles (up to 12 inches of water) during a 100-year event?

A typical vehicle will be able to access the site in a 10-year event with up to 6 inches of flooding from precipitation only, and an emergency vehicle will be able to access the site in a 100-year event with up to 12 inches of flooding from precipitation only. According to the Infoworks ICM integrated Model figures, the Project Site could experience up to 24 inches of flooding in the 10-year and 100-year event, so there may be some events where the site is not accessible. These models take into account existing conditions only. The Proponent will be upgrading site storm drainage infrastructure to improve these conditions during precipitation related flood events. Additionally, downstream improvements to the drainage system are planned by the City to reduce precipitation based flooding in the near future, which include the installation of a 3 million gallon detention tank in the Boynton Yards neighborhood.

Boynton Gateway

495 Columbia Street, Somerville, MA 02143

Somerville Green Building Report

City of Somerville Site Plan Submission

Submission Date: October 4th, 2021

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I. Project Overview

The Proponent proposes the construction of a pedestrian- and transit-oriented all commercial building that includes up to approximately 313,500 sf of floor area including office, research and development, lab, retail space, and tenant amenity space. A 170-space parking garage is located below grade.

The Project will be designed to activate Webster Avenue, and at a scale that will complement and connect the Boynton Yards Neighborhood with the low and mid-rise development to the south and west. The building will accommodate cutting-edge labs, modern offices, innovative startups, and art/creative enterprise uses that will attract the much-desired commercial development that will transform this neighborhood into an urban employment center, life sciences cluster and vibrant mixed-use neighborhood.

II. Project Data

Building Area: 313,500 GFA including ground floor retail, office (60%), and lab space (40%)
- 1,000 sf Accessory Retail
- 10,500 sf Tenant Amenity Space
- 302,000 sf Lab/R&D/Office (40% lab/ 60% office)

Occupants (FTE): 1,221 (*as per USGBC default occupancy guidance)*
Peak Visitors: 9 *(as per USGBC default occupancy guidance)*

Site Area: 50,090 SF
Total Parking Spaces: 170

III. LEED-CS v4 Project Scorecard

	Yes	Maybe	No			
	1	0	0	**INTEGRATIVE PROCESS**		1
D	1			IPc1	Integrative Process	1
	Yes	Maybe	No			
	17	0	3	**LOCATION & TRANSPORTATION**		20
D			N	LTc1	LEED for Neighborhood Development Location	20
D	2			LTc2	Sensitive Land Protection	2
D	3			LTc3	High Priority Site	2-3
D	6			LTc4	Surrounding Density and Diverse Uses	1-6
D	3		3	LTc5	Access to Quality Transit	1-6
D	1			LTc6	Bicycle Facilities	1
D	1			LTc7	Reduced Parking Footprint	1
D	1			LTc8	Green Vehicles	1
	Yes	Maybe	No			
	9	0	2	**SUSTAINABLE SITES**		11
C	Y			SSpr1	Construction Activity Pollution Prevention	Req'd
D	1			SSc1	Site Assessment	1
D			2	SSc2	Site Development - Protect or Restore Habitat	1-2
D	1			SSc3	Open Space	1
D	3			SSc4	Rainwater Management	2-3
D	2			SSc5	Heat Island Reduction	1-2
D	1			SSc6	Light Pollution Reduction	1
D	1			SSc7	Tenant Design and Construction Guidelines	1
	Yes	Maybe	No			
	11	0	0	**WATER EFFICIENCY**		11
D	Y			WEpr1	Outdoor Water Use Reduction	Req'd
D	Y			WEpr2	Indoor Water Use Reduction	Req'd
D	Y			WEpr3	Building-level Water Metering	Req'd
D	2			WEc1	Outdoor Water Use Reduction	1-2
D	6			WEc2	Indoor Water Use Reduction	1-6
D	2			WEc3	Cooling Tower Water Use	1-2
D	1			WEc4	Water Metering	1
	Yes	Maybe	No			
	20	3	10	**ENERGY & ATMOSPHERE**		33
C	Y			EApr1	Fundamental Commissioning and Verification	Req'd
D	Y			EApr2	Minimum Energy Performance	Req'd
D	Y			EApr3	Building-level Energy Metering	Req'd
D	Y			EApr4	Fundamental Refrigerant Management	Req'd
C	5		1	EAc1	Enhanced Commissioning	2-6
D	11	2	5	EAc2	Optimize Energy Performance	1-18
D	1			EAc3	Advanced Energy Metering	1
C			2	EAc4	Demand Response	1-2
D		1	2	EAc5	Renewable Energy Production	1-3
D	1			EAc6	Enhanced Refrigerant Management	1
C	2			EAc7	Green Power and Carbon Offsets	1-2

	Yes	Maybe	No			
	7	2	5	**MATERIALS & RESOURCES**		14
D	Y			MRpr1	Storage & Collection of Recyclables	Req'd
C	Y			MRpr2	Construction and Demolition Waste Management Plan	Req'd
C	3		3	MRc1	Building Life-Cycle Impact Reduction	2-6
C	1		1	MRc2	Building Product Disclosure & Optimization-EPD's	1-2
C		1	1	MRc3	Building Product Disclosure & Optimization-Raw Materials	1-2
C	1	1		MRc4	Building Product Disclosure & Optimization-Material Ingredients	1-2
C	2			MRc5	Construction and Demolition Waste Management	1-2

	Yes	Maybe	No			
	6	1	3	**INDOOR ENVIROMENTAL QUALITY**		10
D	Y			EQpr1	Minimum IAQ Performance	Req'd
D	Y			EQpr2	Environmental Tobacco Smoke (ETS) Control	Req'd
D	2			EQc1	Enhanced IAQ Strategies	1-2
C	3			EQc2	Low-Emitting Materials	1-3
C	1			EQc3	Construction IAQ Management Plan	1
D			3	EQc7	Daylight	1-3
D		1		EQc8	Quality Views	1

	Yes	Maybe	No			
	6	0	0	**INNOVATION**		6
D	1			INc1.1	Innovation: Lamp Purchasing / Low Mercury	1
D	1			INc1.2	Innovation: EP for LTc7 Reduced Parking Footprint	1
D	1			INc1.3	Innovation: EP for SSc5 Heat Island	1
C	1			INc1.4	Innovation: EP for MRc4 Material Ingredients	1
C	1			INc1.5	Pilot Credit: Integrative Analysis of Building Materials	1
C	1			INc2	LEED Accredited Professional	1

	Yes	Maybe	No			
	4	0	0	**REGIONAL PRIORITY 02143** (underlined)		4
D	1			RPc1	LTc3 High Priority Site (2 pts)	1
D	1			RPc2	SSc4 Rainwater Management (2 pts)	1
D	1			RPc3	WEc2 Indoor Water Use Reduction (40%/4pts)	1
D	1			RPc4	EAc2 Optimize Energy Performance (17%/8pts)	1
D			x	RPcX	EAc5 Renewable Energy Production (5%/2 pts)	1
D		x		RPcX	MRc1 Building Life-Cycle Impact Reduction (2pts)	1

Yes	Maybe	No		
81	6	23	**PROJECT TOTALS (Certification Estimates)**	110

Certified: 40-49 points Silver: 50-59 points Gold: 60-79 points Platinum: 80+ points

IV. Credit by Credit Narrative

The project was reviewed for compliance with the City of Somerville's Zoning Ordinance using the USGBC's LEED for Core and Shell Development, (LEED-CS), version 4 Rating System. The project is currently tracking **81 'YES'** credit points. By targeting a minimum of 80 credit points, the project anticipates achieving the City of Somerville's requirements to be LEED v4 Platinum 'certifiable' for lab buildings. In addition to the City requirements, the project will be registered under the LEED-CS v4 rating system and will be pursuing formal certification with the USGBC.

LEEDv4.1: LEEDv4.1 is the recently released update to the LEEDv4 Rating System. Where applicable, LEEDv4.1 credits have been substituted for LEEDv4 credits. A note has been added below next to the credit name where that occurs.

A. Integrative Process (IP)

The project team is meeting regularly to ensure that the team members from the various disciplines involved are all known to each other and collectively communicating. Workshops are being held and the team is establishing shared sustainable design and energy efficiency goals for the project. As the project progresses, there will be regular design meetings to ensure the entire team is engaged throughout the design and construction process. Additionally, the project team will meet with Eversource to discuss the incentive programs and potential Energy Conservation Measures for the proposed project.

IP Credit 1 Integrative Process ***1 point***

The Project will meet the intent of this credit through identification of cross discipline opportunities to design a sustainable building project. Sustainable design focused meetings will be ongoing throughout the design process to assist the team in establishing shared sustainable design and energy efficiency goals for the Project. Early design phase energy modeling is being conducted to review systems synergies and assess areas where energy loads may be significantly reduced. A preliminary water use analysis has been conducted to aid in establishing water use reduction targets.

B. Location and Transportation (LT)

The Project Site is ideally located to take advantage of public transportation resources in the area, including the new MBTA Green Line Extension service at the Union Square stop, and MBTA bus service. As a result of these services, along with the Project's planned pedestrian and bicycle connections, a significant percentage of patrons and employees are expected to use transportation modes other than private vehicles to travel to and from the Project. The site is in a dense urban neighborhood with access to many public spaces and amenities.

LT Credit 2 Sensitive Land Protection ***2 points***

The Project meets the credit requirements; it is located on land that has been previously developed.

LT Credit 3 High Priority Site ***3 points***

The site is in a Difficult Development Area (DDA) and some soil remediation will be required. Contaminated soils will be appropriately remediated in accordance with MassDEP regulations.

LT Credit 4 Surrounding Density and Diverse Uses (LEEDv4.1) ***6 points***

The project is achieving this credit via both Option 1 and Option 2. Option 1 Surrounding Density:

> *Option 1: Locate on a site whose surrounding density within a ¼ mile radius of the project boundary meets 22,000 (2 points) or 35,000 (3 points) square feet per acre of buildable land.*

The project is in a dense area whose density within a ¼ mi radius of the project site is 35,105 square feet per acre of buildable land. See the image below showing the density of the surrounding area.

Option 2 Diverse Uses: Construct or renovate a building or a space within a building such that the building's main entrance is within a ½-mile (800-meter) walking distance of the main entrance of four to seven (1 point) or eight or more (2 points) existing and publicly available diverse uses.

The project is located in a dense urban neighborhood and is within a ½-mile walking distance to at least eight (8) services. See below for a diagram highlighting the surrounding services.

Proximity to eight or more services for this credit is worth two (2) points.

Category	Use Type	Number	Business Name	Distance
Community-serving retail	Convenience Store	1	Pires Market	0.3 mi.
	Hardware Store	2	Inman Square Hardware	0.4 mi.
	Pharmacy	3	Inman Pharmacy	0.5 mi.
	Other Retail	4	City Paint & Supply Co., Inc.	0.3 mi.
Services	Gym	5	CrossFit Somerville	0.3 mi.
	Hair care	6	Headlines Unisex Barbershop	0.2 mi.
	Restaurant	7	Puritan & Company	0.3 mi.
Civic and community facilities	Post Office	8	USPS	0.4 mi.
	Public Park	9	Lincoln Park	0.5 mi.

LT Credit 5 Access to Quality Transit (LEEDv4.1) ***3 points***

The project is located within one half mile walking distance to Union Square stop which provides access to the MBTA Green Line Extension. It is also within one quarter mile to multiple MBTA bus routes in the area. In combination, the employees of the tenants at Parcel N will have access to 298 weekday rides and 202 weekend transit rides.

Map Number		Total Rides Per Day		Percent of Total Rides Per Line	
		Weekday	Weekend	Weekday	Weekend
	Green Line D	158	120	53%	59%
	Bus # 85	21	0	7%	0%
	Bus # 69	56	45	19%	22%
	Bus # CT2	27	0	9%	0%
	Bus # 91	36	37	12%	18%
	Total:	298	202		

LT Credit 6 Bicycle Facilities (LEEDv4.1) ***1 point***
Exterior short-term and covered long-term bicycle storage is planned for visitors and regular occupants of the project. The immediate neighborhood provides a direct connection to a local bicycle network that links to a variety of services with pedestrian and cyclist access and the speed limit per the City of Somerville is 25 MPH meeting the bicycle network requirement.

The LEEDv4.1 language states, "Provide long-term bike storage for at least 5% of all regular building occupants and short-term storage for at least 2.5% of all peak visitors. Shower requirement: provide at least one on-site shower with changing facility for the first 100 regular building occupants and one additional shower for every 150 regular building occupants thereafter, to up 999 regular building occupants. Then provide one additional shower for every 500 occupants for the additional 1,000-4,999 occupants".

Preliminary calculations indicate that the project requires **55** long-term bike spaces, **4** short-term bike spaces, and **8** showers. Currently the project plans for **90** long-term bike racks, **9** short-term bike racks, and **10** showers. Showers and changing rooms will be located in the Fitness Center on Level 9.

LT Credit 7 Reduced Parking Footprint (LEEDv4.1) ***1 point***
Total parking capacity must be a 30% reduction below the base ratios recommended by the ITET Planning Handbook to earn the credit point. **170** total parking spaces will be provided. According to the Parking Consultants Council, based on the space use types and building size, the recommended base-ratio is **1235** parking spaces, therefore **170** parking spaces is an **83.84**% reduction, which earns the credit point and qualifies the project for an exemplary performance point.

LT Credit 8 Green Vehicles (LEEDv4.1) ***1 point***
170 parking spaces are provided for tenants and visitors of Boynton Gateway. The v4.1 compliance path will be followed in support of the credit requirements, which requires EV charging stations for 2% of spaces (170 x 2% = 4). The project is planning to install **9** EVCS spaces, which is 5% of the total parking spaces.

C. Sustainable Sites (SS)

Low impact site and building development strategies will be pursued that minimize construction pollution, reduce heat island effect, reduce light pollution, and manage rainwater runoff.

SS Prerequisite 1 Construction Activity Pollution Prevention ***Required***
The construction manager will be required to submit and implement an appropriate SWPPP/Erosion and Sedimentation Control (ESC) Plan for construction activities related to the construction of the project. The ESC Plan will conform to the erosion and sedimentation requirements of the applicable NPDES regulations and specific municipal requirements for the City of Boston. Additionally, the ESC Plan will address management and containment of dust and particulate matter generated by on site demolition and construction activities. Civil design drawings include measures for the implementation of the ESC plan.

SS Credit 1 Site Assessment ***1 point***
A comprehensive site assessment will be completed as part of the project development. The site assessment included topography, hydrology, climate, vegetation, soils, human use, and human health effects specific to Boynton Gateway which will be used to inform the design.

SS Credit 1 Open Space ***1 point***
The project will provide physically accessible outdoor space that is at least 30% of the total site area and at least 25% of that outdoor space will be vegetated or have overhead vegetated canopy. Open space and green space areas include pedestrian hardscape, shared pedestrian/vehicular drives, planted areas, and terraces.

SS Credit 4 Rainwater Management (LEEDv4.1) ***3 points***
Boynton Gateway project to achieve the LEEDv4.1 rainwater run off requirements to manage 90th percentile (3 points) of regional or local rainfall events using LID (Low-Impact Design) and GI (Green Infrastructure) strategies.

Rainwater Management Summary:
Much of the developed site will be covered with new building footprint. A blue roof is being planned since there is no place to infiltrate on the site. Roof drains will collect runoff from the roof and internally convey stormwater to a 50,000-gallon cast-in-place storage tank under the parking ramp of the P1 level. In this area, rainwater reclamation systems will be used to provide toilet flushing water and/or cooling tower make up water (see rainwater reuse narrative below). In larger storms (above the 90th percentile) excess stormwater may be overflowed to the municipal drain/combined sewer in Columbia Street. The southern portion of the Site will be finished with the site access driveway, pedestrian walkways, and a landscaped park area. Runoff from these areas will be collected in a series on on-site catch basins which will convey stormwater to a subsurface storage and infiltration system. This system will be controlled by a weir wall and in large storm events overflow to the municipal drain/combined sewer in Webster Avenue.

Rainwater Reuse Summary:
Rainwater reclamation system to provide toilet flushing water and/or cooling tower make-up water. Room shall house day tank, rainwater treatment (chlorination, UV, force field, dye injection, etc.), booster pump package, pressure reducing station, & non-potable water make-up backflow device. Space required = approximately 300 sf.

SS Credit 5 Heat Island Reduction ***2 points***
The project roof membrane will be a low albedo membrane with a minimum 3-year aged SRI value of 64 (initial SRI of 82), the terrace areas and site hardscape will have a light-colored surface, and 100% of the parking provided for Boynton Gateway will be under the building.

SS Credit 6 Light Pollution Reduction ***1 point***
The project is in LZ3 and will meet the credit requirements for uplight and light trespass via Option 1: BUG Rating Method. Façade lighting will not exceed allowable backlight, uplight or glare (BUG) ratings as determined by the project's lighting zone. All exterior lighting within the project boundary is used solely for façade and landscape lighting and is on a timeclock (will shut off between 12 and 6am).

SS Credit 7 Tenant Design and Construction Guidelines ***1 point***
The project will provide Tenant Design and Construction Guidelines for distribution and review with potential building tenants. The guidelines will outline the sustainable design and energy efficiency measures implemented in the core and shell building and provide detailed guidance for the Tenants to design and build in alignment with the project sustainability goals.

D. Water Efficiency (WE)

The project has specified low flow and high efficiency plumbing fixtures within the project and will reuse rainwater for WC flushing to reduce the amount of potable water used throughout the building.

WE Prerequisite 1 Outdoor Water Use Reduction, 30% ***Required***
The design of the irrigation system will target at minimum a 30% reduction in potable water use when compared to a mid-summer baseline.

WE Prerequisite 2 Indoor Water Use Reduction, 20% Reduction ***Required***
The project must, at a minimum, meet the following requirements for fixtures and fittings: *as applicable to the project scope, reduce aggregate water consumption by 20% from the EPA baseline.*

All newly installed toilets, urinals, private lavatory faucets, and showerheads that are eligible for labeling must be WaterSense labeled. For appliance and process water use: Install appliances, equipment, and processes within the project scope that meet the requirements listed in Tables 2 and 3 of the LEED BD+C Reference Guide.

Flush and flow fixtures specified for the project will exceed the aggregate water consumption reduction requirement of 20% and will be WaterSense labeled, as applicable. Additionally, appliance and process water use will meet applicable requirements outlined within the Reference Guide to comply with this prerequisite.

The fixture flow rates are as follows: dual flush watercloset 1.19 gpf, urinal 0.125 gpf, lavatory 0.35 gpm, shower 1.5 gpm, kitchen sink 1.5 gpm.

Group Name	Baseline Case (gallons/year)			Design Case (gallons/year)		
	Annual Flush Volume	Annual Flow Volume	Annual Consumption	Annual Flush Volume	Annual Flow Volume	Annual Consumption
Visitors	1,357.20	234.00	1,591.20	864.63	163.80	1,028.43
FTEs	1,249,248.00	758,472.00	2,007,720.00	745,087.20	490,776.00	1,235,863.20

Annual baseline water consumption (gallons/year)	2,009,311.20
Annual design water consumption (gallons/year)	1,236,891.63
Percent water use reduction (%)	**38.44%**

The project will reuse stormwater for WC flushing for an estimated total Indoor Water Use Reduction of 88.21%.

Rainwater Reuse Narrative:
Rainwater reclamation system to provide toilet flushing water and/or cooling tower make-up water. Room shall house day tank, rainwater treatment (chlorination, UV, force field, dye injection, etc.), booster pump package, pressure reducing station, & non-potable water make-up backflow device. Space required = approximately 300 sf. Additional space will be provided for storm water storage tank of 50,000 gallons. Annual non-potable water supply is estimated to be 1,000,000 gallons per year. To be refined as design progresses.

For projects pursuing WE Credit Indoor Water Use Reduction with alternative water sources

Provide the following values from the Summary tab of the Indoor Water Use Calculator:

Annual baseline water consumption (gal/year)	2,009,311.2
Annual design water consumption (gal/year)	1,236,891.63
Annual nonpotable water supply (gal/year)	1,000,000
Percent reduction from baseline with alternative water sources (%)	88.21

WE Prerequisite 3 Building Level Water Metering ***Required***

The project will meet the requirements of this prerequisite by installing permanent water meters that measure the total potable water use for the building and associated grounds. In addition to installing the meters, the Project will commit to sharing water usage data with the USGBC for a five-year period beginning on the date the Project accepts LEED certification or typical occupancy, whichever comes first.

WE Credit 1 Outdoor Water Use Reduction 100% ***2 points***
The project is planning to install an irrigation system that will reduce the landscape water requirement by at least 50% from the baseline through use of native and adapted plants, efficient drip emitters and soil moisture sensors. A rainwater harvesting cistern will supply non-potable water supply to earn the second point.

WE Credit 2 Indoor Water Use Reduction ***6 points***
Through the specification of low flow and high efficiency plumbing fixtures and the reuse of rainwater for WC flushing, the project will implement water use reduction strategies that target **38.46%** less potable water use annually when compared to EPA baseline fixtures for the building (not including irrigation) after meeting Energy Policy Act of 1992 fixture performance requirements. Fixtures and fittings planned for use include 1.28/1.1 GPF dual flush water closets, 0.125 GPF urinals, 0.35 GPM faucet lavatories, 1.5 GPM kitchen faucets, and 1.5 GPM showers. . It is expected with greywater reuse, overall water use reduction will be approximately 83.19%, earning all 6 credit points.

WE Credit 3 Cooling Tower Water Use ***2 points***
For cooling towers, a one-time potable water analysis will be conducted for 5 control parameters. Cooling tower cycles will be limited to avoid exceeding maximum values for any of these parameters. The following five control parameters will be assessed: Ca, Total alkalinity, SiO_2, Ci, and Conductivity. A minimum number of 10 cooling tower cycles will be achieved.

WE Credit 4 Water Metering ***1 point***
The project will include permanent water meters for a minimum of two water subsystems. The following meters will be included: irrigation, reclaimed water, and HVAC makeup.

E. Energy and Atmosphere (EA)

The proposed project has been designed with high efficiency building systems and a high-performance building envelope. The proposed lighting will target a lighting power density below code maximums using daylight dimming, carefully considered controls systems, and LED fixtures. A preliminary energy use assessment has been conducted using whole building energy modeling. The proposed design must meet both the State Stretch Energy Code and LEED v4 criteria.

EA Prerequisite 1 Fundamental Commissioning and Verification ***Required***
A third-party Commissioning Agent, (CxA) will be engaged by the Owner for purposes of providing fundamental commissioning services for the building energy related systems including HVAC & R, lighting, and domestic hot water systems. The CxA will verify the building systems are installed, calibrated, and perform to the building owners project requirements through verification and performance reviews of the systems to be commissioned. The commissioning agent will provide a summary report.

The commissioning agent is independent of the project's design and construction management. The commissioning agent will report findings to the project owner. The owner will provide the Owner's Project Requirements documentation and the design team will provide the basis of design documents to the commissioning agent for review.
The following systems are included in the Commissioning scope of work:

- Heating, ventilating, air conditioning and refrigeration (HVAC&R) systems
- HVAC controls
- Lighting controls

- Electrical systems
- Domestic hot water systems
- Plumbing and pumps
- Building Management System
- Fire Alarm system

EA Prerequisite 2 Minimum Energy Performance ***Required***
The project is following Option 1. Whole building energy simulation:

> ***Option 1. Whole-building energy simulation:*** *Demonstrate an improvement of 5% for new construction, 3% for major renovations, or 2% for core and shell projects in the proposed building performance rating compared with the baseline building performance rating. Calculate the baseline building performance according to ANSI/ASHRAE/IESNA Standard 90.1–2010, Appendix G, with errata (or a USGBC-approved equivalent standard for projects outside the U.S.), using a simulation model.*

This LEED prerequisite requires that projects achieve a minimum energy cost savings of 5% over an ASHRAE Standard 90.1-2010 baseline. The project expects to achieve **13.5%** annual energy cost savings.

The project will meet the Stretch Code requirement to be 10% better than current MA code in annual site energy use. Using an ASHRAE Standard 90.1-2013 baseline, the project is demonstrating **33.7%** site energy use savings.

Following Energy Conservation Measures (ECM's) are incorporated in the proposed design:

- High efficiency chilled water plant.
- High efficiency gas fired condensing boiler plant
- High efficiency glycol heat recovery loop
- Smart Stack Exhaust Monitoring and control system on exhaust air handling units
- C406.2 More efficient HVAC equipment performance
- C406.3 Reduced lighting power
- C406.9 Reduced air infiltration

EA Prerequisite 3 Building Level Energy Metering ***Required***
To meet the requirements of this prerequisite, the project will install whole building energy meters for gas and electricity use by the core and shell project. In addition to installing the meters, the project will commit to sharing energy use data with the USGBC for a five-year period beginning on the date the project accepts LEED certification or typical occupancy, whichever comes first.

EA Prerequisite 4 Fundamental Refrigerant Management ***Required***
The specifications for refrigerants used in the building HVAC & R systems will NOT permit the use of CFC based refrigerants. The proposed design of the HVAC systems will achieve this prerequisite.

EA Credit 1 Enhanced Commissioning ***5 points***
The Owner will engage a Commissioning Agent (CxA) for purposes of providing Commissioning (Cx) services for the building energy related systems including HVAC & R, lighting and domestic hot water systems, and the building envelope. The CxA will verify the building systems are installed, calibrated and perform to the building owners project requirements through verification and performance reviews of the systems to be commissioned.

The following enhanced commissioning process activities in addition to those required under EA Prerequisite Fundamental Commissioning and Verification will be completed by the CxA, in

accordance with ASHRAE Guideline 0–2005 and ASHRAE Guideline 1.1–2007 for HVAC&R systems, as they relate to energy, water, indoor environmental quality, and durability:

- Review contractor submittals.
- Verify inclusion of systems manual requirements in construction documents.
- Verify inclusion of operator and occupant training requirements in construction documents.
- Verify systems manual updates and delivery.
- Verify operator and occupant training delivery and effectiveness.
- Verify seasonal testing.
- Review building operations 10 months after substantial completion.
- Develop an on-going commissioning plan.

Requirements for Enhanced HVAC commissioning and Envelope commissioning will be included in the OPR and BOD.

Monitor-based Commissioning (1 maybe point) requirements are being reviewed and strategy will be determined later in the design phase.

EA Credit 2 Optimize Energy Performance ***11 points, 2 'maybe' points***
The project is designed to meet IECC 2018/ASHRAE 90.1-2013 energy efficiency requirements to comply with the requirements of the Massachusetts "Stretch" Energy Code. It is expected that the project will achieve at least a **13%** annual energy cost savings (6 points) when compared to the LEED-CS v4 ASHARE 90.1-2010 Appendix G baseline. Using the LEED Alternative Compliance Path (EApc95) which considers energy cost, energy sources, and greenhouse gas emissions, the savings is expected to be **24.3%** (11 LEED points). Refer to **EA Prerequisite 2 Minimum Energy** Performance for additional information.

EA Credit 3 Advanced Energy Metering ***1 point***
Permanent advanced energy metering will be installed for all energy sources used by the base building and project will include meters for future tenant spaces so that tenants will be capable of independently metering energy consumption (electricity, chilled water, etc.) for all systems dedicated to their space.

The project will provide enough meters to capture total tenant energy use with a minimum of one meter per energy source per floor. The advanced energy metering will be permanently installed, record at intervals of one hour or less, and transmit data to a remote location. Electricity meters will record both consumption and demand. Whole-building electricity meters will record the power factor, if appropriate. The data collection system will use a local area network, building automation system, wireless network, or comparable communication infrastructure. The system will be capable of storing all meter data for at least 36 months. The data will be remotely accessible. All meters in the system will be capable of reporting hourly, daily, monthly, and annual energy use.

EA Credit 5 Renewable Energy Production ***1 'maybe' point***
The project may use renewable energy systems to offset building energy costs by 1% (1pt). To be determined as design progresses.

EA Credit 6 Enhanced Refrigerant Management ***1 point***
The HVAC equipment to be installed in the base building will use low-impact refrigerants that have low global warming and ozone depletion potential.

EA Credit 7 Green Power and Carbon Offsets ***2 points***
Green power and/or carbon offsets will be purchased through a 5-year contract to offset 100% (2pts) of the building's energy use with renewable sources.

F. Materials and Resources (MR)

The proposed project has specified materials and products that are environmentally responsible and are transparent regarding the harvest and extraction of raw materials and the manufacturing processes. The design team endeavored to specify materials and products with environmental and health product declarations to help support a reduced impact of the development on the environment. Waste management will be addressed during demolition, construction, and post occupancy. The Construction Manager, (CM), will provide a construction waste management plan with a goal to divert a minimum 50 percent of the construction and demolition debris and track at least three different waste streams. Post-occupancy collected recyclables will be accommodated in the recycling room of the building. Building maintenance staff will bring their recyclables to the recycling collection area where a contracted waste management company will pick up the collected recyclables on a regular basis.

MR Prerequisite 1 Storage and Collection of Recyclables ***Required***

The Project will comply with this prerequisite by providing dedicated areas accessible to waste haulers and building occupants for the collection and storage of recyclable materials for the entire building. Storage of collected recyclables will be accommodated on Level 1 of the project in a centrally located designated recycling area. Recyclable materials collected will include mixed paper, corrugated cardboard, glass, plastics, and metals, and the safe disposal of two of the following: batteries, mercury-containing lamps, and/or electronic waste. The building maintenance staff and/or the lease tenants will bring recyclables to the storage room. A contracted waste management company will collect the recyclables on a regular basis.

MR Prerequisite 2 Construction & Demolition Waste Management Planning ***Required***

The Project will comply with this prerequisite:

Develop and implement a construction and demolition waste management plan:

- *Establish waste diversion goals for the project by identifying at least five materials (both structural and nonstructural) targeted for diversion. Approximate a percentage of the overall project waste that these materials represent.*
- *Specify whether materials will be separated or commingled and describe the diversion strategies planned for the project. Describe where the material will be taken and how the recycling facility will process the material.*

The Construction Manager will be required to develop a compliant construction and demolition waste management plan that establishes waste diversion goals, specifies commingled versus site separated strategies, and enables the project to divert least 75% of the onsite generated construction and demolition waste from area landfills. A construction waste management plan will be developed by the CM that meets the documentation requirements listed above. The final Construction Waste Management Plan and a final report detailing all major waste streams generated, including disposal and diversion rates, will be provided at the end of construction.

A final report detailing all major waste streams generated, including disposal and diversion rates will be provided with at the end of construction.

MR Credit 1 Building Life-Cycle Impact Reduction (LEEDv4.1) ***3 points***

The project will conduct a life-cycle assessment of the project's structure and enclosure (1 point). Path 2 and 3 will be pursued and confirmed as design progresses and the analysis is completed. Path 2 (2 additional points): Conduct a life cycle assessment of the project's structure and enclosure that demonstrates a minimum of 5% reduction, compared with a baseline building in at least three of the six impact categories listed below, one of which must be global warming potential. Path 3 (3 additional points): 10% reduction.

Impact Reduction Categories:

- Global warming potential (greenhouse gases)
- Depletion of the stratospheric ozone layer

- Acidification of land and water sources
- Eutrophication
- Formation of tropospheric ozone
- Depletion of nonrenewable energy resources

MR Credit 2 Building Product Disclosure and Optimization:
Environmental Product Declarations (LEEDv4.1) ***1 point***
The Project will achieve this credit via Option 1: Environmental Product Declaration. The project will install at least 10 different permanently installed products sourced from at least three different manufacturers that meet one of the following disclosure criteria:
Environmental Product Declarations which conform to ISO 14025, 14040, 14044, and EN 15804 or ISO 21930 and have at least a cradle to gate scope.

- USGBC approved program. Other USGBC approved programs meeting the material ingredient reporting criteria.

Project to track 20 different permanently installed products with EPD's for IN Exemplary Performance point. Compliance will be confirmed during the construction phase.

Requirements for the CM to purchase compliant materials to be included in the project manual.

MR Credit 3 Building Product Disclosure and Optimization:
Sourcing of Raw Materials (LEEDv4.1) ***1 'maybe' point***
The Project may achieve this credit via Responsible Sourcing of Raw Materials. The project will attempt to use products sourced from at least three different manufacturers that meet at least one of the responsible sourcing and extraction criteria below for at least 15%, by cost, of the total value of permanently installed building products in the project Product-specific declaration.

- Extended producer responsibility. Products purchased from a manufacturer (producer) that participates in an extended producer responsibility program or is directly responsible for extended producer responsibility. Products meeting extended producer responsibility criteria are valued at 50% of their cost for the purposes of credit achievement calculation.

- Bio-based materials. Bio-based products and materials other than wood must be tested using ASTM Test Method D6866 or equivalent method ISO 16620-2, or be certified to the USDA BioPreferred Voluntary Labeling Initiative that includes verification via ASTM 6866 testing. Exclude hide products, such as leather and other animal skin material.

- Bio-based products that meet the criteria above: value at 50% of cost multiplied by the biobased content of the product for the purposes of credit achievement calculation.

- Bio-based products that meet the Sustainable Agriculture Network's Sustainable Agriculture Standard in addition to the testing requirements above: value at 100% of cost multiplied by the biobased content of the product for the purposes of credit achievement calculation.

- Wood products. Wood products must be certified by the Forest Stewardship Council or USGBC-approved equivalent. Products meeting wood products criteria are valued at 100% of their cost for the purposes of credit achievement calculation.

- Materials reuse. Reuse includes salvaged, refurbished, or reused products. Products meeting materials reuse criteria are valued at 200% of their cost for the purposes of credit achievement calculation.

MR Credit 4 Building Product Disclosure and Optimization:

Material Ingredients (LEEDv4.1) ***1 point, 1 'maybe' point***

The Project is achieving this credit via Option 1: Material Ingredient Reporting:
Use at least 10 different permanently installed products from at least three different manufacturers that use any of the following programs to demonstrate the chemical inventory of the product to at least 0.1% (1000 ppm).

- *Manufacturer Inventory. The manufacturer has published complete content inventory for the product following these guidelines:*
- *A publicly available inventory of all ingredients identified by name and Chemical Abstract Service Registration Number (CASRN)*
- *Materials defined as trade secret or intellectual property may withhold the name and/or CASRN but must disclose ingredient/chemical role, amount and hazard score/class using either GreenScreen List Translator score and/or full GreenScreen benchmark; or The Globally Harmonized System of Classification and Labeling of Chemicals rev.6 (2015).*
- *Health Product Declaration. The end use product has a published, complete Health Product Declaration with full disclosure of known hazards in compliance with the Health Product Declaration Open Standard.*
- *Cradle to Cradle. Product has Material Health Certificate or is Cradle to Cradle Certified under standard version 3 or later with a Material Health achievement level at the Bronze level or higher.*
- *Declare. The Declare product label must meet the following requirements:*
    - *Declare labels designated as Red List Free or Declared.*
    - *Declare labels designated as LBC Compliant that demonstrate content inventory to 0.1% (1000 ppm).*
- *Living Product Challenge. The included Declare product label must demonstrate content inventory to 0.1% (1000 ppm)*
- *USGBC approved program. Other USGBC approved programs meeting the material ingredient reporting criteria.*

Any compliant report above with third-party verification that includes the verification of content inventory are worth 1.5 products for credit achievement calculations.

The project will use at least 10 different permanently installed products from at least three different manufacturers that use any of the following programs to demonstrate the chemical inventory of the product to at least 0.1% (1000 ppm). An Innovation Exemplary Performance point is being targeted by installing 20 products from five different manufacturers. Requirements for the CM to procure compliant materials has been included in the project specifications.

Path 2 Material Ingredient Optimization (1 additional point) will also be pursued: *Use products that document their material ingredient optimization using the paths below for at least 25%, by cost, of the total value of permanently installed products in the project.* Compliance to be confirmed during construction phase.

MR Credit 5 Construction and Demolition Waste Management (LEEDv4.1) ***2 points***

The project will reduce construction and demolition waste disposed of in landfills and incineration facilities by recovering, reusing, and recycling materials. The project is targeting LEEDv4.1 Path 3: Divert at least 75% of the total construction and demolition material; diverted materials must include at least three material streams.

Prior to the start of construction, the Construction Manager will develop and implement a compliant construction and demolition waste management plan that establishes waste diversion goals, specifies commingled versus separated strategies, and enables the project to divert a minimum of three (3) waste streams comprising 75% of the onsite generated construction and demolition waste from area landfills. Compliance will be confirmed during the construction phase.

G. Indoor Environmental Quality (IEQ)

The building will have a healthy interior environment generated using low-VOC containing interior construction and finish materials and maintained through an efficient ventilation system in compliance with ASHRAE 62.1-2010. In compliance with local regulations, the building will be non-smoking, and no smoking will be allowed within 25 feet of the building. During construction the Construction Manager will develop and implement a compliant Indoor Air Quality Management Plan for the construction and pre-occupancy phases of the project.

IEQ Prerequisite 1 Minimum IAQ Performance ***Required***

The Project will comply with this prerequisite via Option 1: ASHRAE Standard 62.1-2010:
For mechanically ventilated spaces (and for mixed-mode systems when the mechanical ventilation is activated), determine the minimum outdoor air intake flow for mechanical ventilation systems using the ventilation rate procedure from ASHRAE 62.1–2010 or a local equivalent, whichever is more stringent.

This prerequisite establishes a baseline for providing a minimum amount of outdoor air to buildings to maintain good indoor air quality and keep occupants comfortable and healthy. Overall, the intent is to establish minimum outdoor air quality (IAQ) performance to enhance indoor air quality in buildings, thus contributing to the comfort and well-being of the occupants.

Outdoor airflow monitors will be included in the project. Dedicated Outdoor Air Systems (DOAS) connected to VAV boxes provide ventilation to the spaces. Non-laboratory area ventilation will conform to ASHRAE 62.1 ventilation rate procedure requirements while laboratory area ventilation will follow mandatory energy code turndown requirements.

IEQ Prerequisite 2 Environmental Tobacco Smoke (ETS) Control (LEEDv4.1) ***Required***

Smoking is prohibited inside the building and within 25' of building entrances, operable windows, and outdoor air intakes. The no-smoking policy will be communicated to occupants including provisions for enforcement or no-smoking signage.

IEQ Credit 1 Enhanced IAQ Strategies ***2 points***

The Project is achieving points under both Option 1 and Option 2:

Option 1: Enhanced IAQ Strategies (1 point):
Comply with the following requirements for Mechanically ventilated spaces:

- Entryway systems
- Interior cross-contamination prevention
- Filtration

Option 2: Additional Enhanced IAQ Strategies (1 point):
Comply with the following requirement for Mechanically ventilated spaces

- Carbon dioxide monitoring

The Boynton Gateway project will be completely mechanically ventilated and is planning to follow the LEED requirements for all mechanically ventilated spaces (1 point):

- Install permanent entryway systems at least 10 feet (3 meters) long in the primary direction of travel to capture dirt and particulates entering the building at regularly used exterior entrances. Acceptable entryway systems include permanently installed grates, grilles, slotted systems that allow for cleaning underneath, rollout mats, and any other materials manufactured as entryway systems with equivalent or better performance. Maintain all on a weekly basis.
- Sufficiently exhaust each space where hazardous gases or chemicals may be present or used (e.g., garages, housekeeping, and laundry areas, copying and printing rooms), using

the exhaust rates determined in EQ Prerequisite Minimum Indoor Air Quality Performance or a minimum of 0.50 cfm per square foot (2.54 l/s per square meter), to create negative pressure with respect to adjacent spaces when the doors to the room are closed. For each of these spaces, provide self-closing doors and deck-to-deck partitions or a hard-lid ceiling.

- Each ventilation system that supplies outdoor air to occupied spaces must have particle filters or air-cleaning devices that meet one of the following filtration media requirements:
    - Minimum efficiency reporting value (MERV) of 13 or higher, in accordance with ASHRAE Standard 52.2–2017; or
    - Equivalent filtration media class of ePM1 50% or higher, as defined by ISO 16890-2016, Particulate Air Filters for General Ventilation, Determination of the Filtration Performance.

  Replace all air filtration media after completion of construction and before occupancy.
- The project is planning to monitor CO2 concentrations within all densely occupied spaces. CO2 monitors will be between 3 and 6 feet (900 and 1 800 millimeters) above the floor. CO2 monitors will have an audible or visual indicator or alert the building automation system if the sensed CO2 concentration exceeds the setpoint by more than 10%. Appropriate CO2 setpoints will be calculated using methods in ASHRAE 62.1–2016, Appendix D.

IEQ Credit 2 Low Emitting Materials (LEEDv4.1) ***3 points***

To meet the requirements of this credit, the project is pursuing Option 1, Product category calculations, by at minimum meeting the threshold level of compliance with emissions and VOC content standards for three product categories [three compliance categories = 2 points, 4 compliance categories = 3 points]. Additional categories will be pursued for possible additional points.

The categories tracked will include paints and coatings, adhesives and sealants, flooring systems, and composite wood. The specifications will include requirements for products with compliant VOC content and general emissions limits. Compliance will be confirmed during the construction phase. Requirements for the CM to procure compliant materials has been included in the project specifications.

IEQ Credit 3 Construction Indoor Air Quality Management Plan ***1 point***

To meet the requirements of this credit the project must:

- *Develop and implement an indoor air quality (IAQ) management plan for the construction and preoccupancy phases of the building. The plan must address all of the following.*
- *During construction, meet or exceed all applicable recommended control measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 2nd edition, 2007, ANSI/SMACNA 008–2008, Chapter 3.*
- *Protect absorptive materials stored on-site and installed from moisture damage.*
- *Do not operate permanently installed air-handling equipment during construction unless filtration media with a minimum efficiency reporting value (MERV) of 8, as determined by ASHRAE 52.2–2007, with errata (or equivalent filtration media class of F5 or higher, as defined by CEN Standard EN 779–2002, Particulate Air Filters for General Ventilation, Determination of the Filtration Performance…), are installed at each return air grille and return or transfer duct inlet opening such that there is no bypass around the filtration media. Immediately before occupancy, replace all filtration media with the final design filtration media, installed in accordance with the manufacturer's recommendations.*
- *Prohibit the use of tobacco products inside the building and within 25 feet (8 meters) of the building entrance during construction.*

The Construction Manager will develop and implement a compliant Indoor Air Quality Management Plan for the construction phase of the project to meet/exceed the recommended Control Measures of the SMACNA IAQ Guidelines for Occupied buildings Under Construction 2nd Edition 2007,

ANSI/SMACNA 008-2008 (Chapter 3). The permanently installed air handlers will not be operated during construction, and tobacco products will be prohibited within the building as well as within 25 feet of the building entrance.
Indoor Air Quality Management Plan requirements to be included in the project manual.

IEQ Credit 8 Quality Views ***1 'maybe' point***
The interior tenant spaces of the Boynton Gateway project are intended to achieve a direct line of sight to the outdoors via vision glazing for 75% of all regularly occupied floor area. View glazing in the contributing area will provide a clear image of the exterior, not obstructed by frits, fibers, patterned glazing, or added tints that distort color balance. Additionally, 75% of all regularly occupied floor area must have at least two of the following four kinds of views:

- Multiple lines of sight to vision glazing in different directions at least 90 degrees apart;
- Views that include at least two of the following: (1) fora, fauna, or sky; (2) movement; and (3) objects at least 25 feet (7.5 meters) from the exterior of the glazing;
- Unobstructed views located within the distance of three times the head height of the vision glazing; and
- Views with a view factor of 3 or greater, as defined in "Windows and Offices; A Study of Office Worker Performance and the Indoor Environment."

Calculations will include any permanent interior obstructions. Moveable furniture and partitions will be excluded. Credit strategy to be confirmed and preliminary calculations to be completed as design progresses.

H. Innovation (IN)

The project will explore innovative approaches to design and maintenance including green housekeeping & pest management programs and purchasing lighting with low-mercury content.

INc1 Innovation: Lamp Purchasing / Low Mercury ***1 point***
The project will implement a lighting purchasing plan that specifies an overall building average of 35 picograms of mercury per lumen-hour or less for all mercury-containing lamps purchased for the building and associated grounds within the project boundary. Lamps for both indoor and outdoor fixtures will be included, as well as both hard-wired and portable fixtures. Lamps containing no mercury will be counted only if their energy efficiency at least equals that of their mercury-containing counterparts. The project plans to install 100% LED fixtures. LED fixtures do not include mercury.

INc2 Exemplary Performance: LTc7 Reduced Parking Footprint ***1 point***
The project will achieve exemplary performance for LTc7 Reduced Parking Footprint by reducing the amount of parking provided by over 60% from the base ratio.

INc3 Exemplary Performance: SSc5 Heat Island Reduction ***1 point***
The project will achieve exemplary performance for SSc5 Heat Island Reduction by meeting Option 1 for roof and non-roof measures, and additionally locating 100% of parking under cover.

INc4: O+M Starter Kit ***1 point***
The Owner will develop and implement a green cleaning plan that focuses on the use of green cleaning products and equipment in the common areas. Additionally, the owner will develop and implement an indoor integrated pest management (IPM) program. The plan will require routine inspection and monitoring, along with the incorporation of integrated methods, specification of emergency application measures for pesticides, and communication strategies to building occupants. All cleaning products included in the IPM plan will adhere to the requirements listed in the Green Cleaning plan for the project.

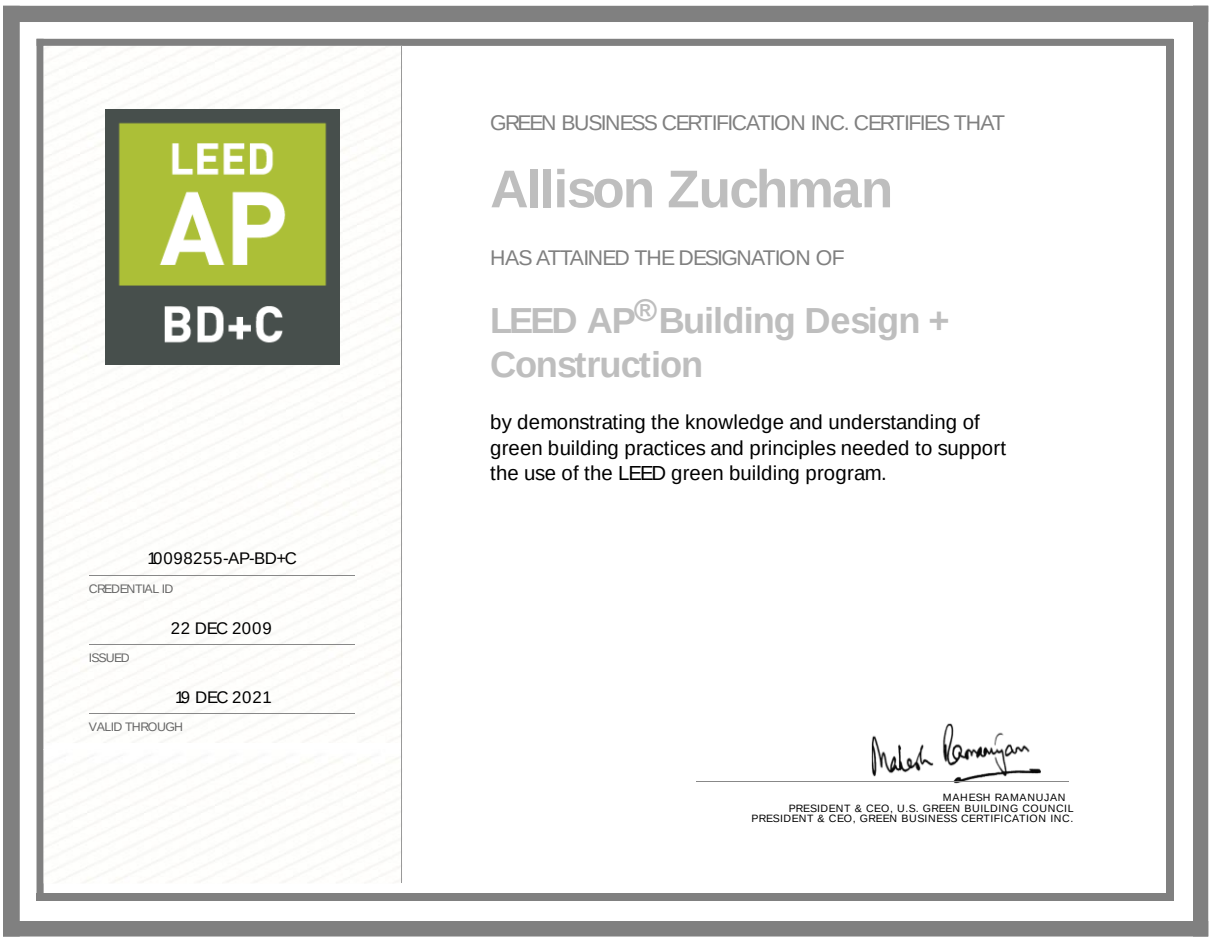
INc5 Pilot: Integrative Analysis of Building Materials ***1 point***

The project will use at least three different permanently installed products that have a documented qualitative analysis of the potential health, safety and environmental impacts of the product in five stages of the product's life cycle (product assembly/manufacturing, building product installation, product use product maintenance, end of product life/reuse). Compliance will be confirmed during the construction phase.

INc6 LEED Accredited Professional ***1 point***

Several project team members are accredited LEED AP's with the BD+C specialty, including Allison Zuchman at the Green Engineer.

*I, **Allison Zuchman**, do hereby affirm that I have thoroughly reviewed the supporting documents for the LEEDv4 for Core & Shell rating system and confirm that the **Boynton Gateway** new construction project is targeted to meet the requirements for Platinum Certifiability with **81** points as 'Yes' and **3** possible ('maybe') points. The Boynton Gateway new construction project, located in Somerville, MA will be designed to meet the green building requirement under the Somerville Zoning Ordinance effective December 12, 2019.*



Allison Zuchman, LEED AP BD+C, is a Senior Sustainability Consultant and Owner at The Green Engineer, Inc., a sustainable design consulting firm located in Concord, MA.

I. Regional Priority (RP)

Regional Priority Credits (RPCs) are established by the USGBC to have priority for a particular area of the country. When a project team achieves one of the designated RPCs and additional credit is awarded to the project. LEED v4 RPCs applicable to the Somerville area include: LTc High Priority Site (2 points), SSc Rainwater Management (2 points), WEc Indoor Water Use Reduction (4 points), EAc Optimize Energy Performance (17%/8 points), EAc Renewable Energy Production (5%/2 points), MRc Building Life Cycle Impact Reduction (2 points), and This project is tracking the following RPCs:

RPc1 LTc3 High Priority Site (2 points)	***1 point***
RPc2 SSc4 Rainwater Management (2 points)	***1 point***
RPc3 WEc2 Indoor Water Use Reduction (4 points)	***1 point***
RPc4 EAc2 Optimize Energy Performance (5% / 8 points)	***1 point***

END OF DOCUMENT