

Sustainability Considerations for the 10-60 Main Street Development

Ashland Sustainability Committee
December 6th, 2024

To the Zoning Board of Appeals:

The Sustainability Committee believes that the redevelopment of 10-60 Main Street, if approved, offers a critical opportunity to set a new standard for sustainable, environmentally focused development in Ashland. After reviewing the initial construction plans, we urge the town to push for stronger environmental commitments to ensure that this project contributes to Ashland's long-term goals for sustainability and community well-being. Thank you in advance for your consideration of the following recommendations.

1. Moving Toward Net-Zero Emissions

The Sustainability Committee would like to see all new construction in our town help us move one step closer to our goal of net-zero emissions by 2040. For this project, the committee recommends that the developer consider a full net-zero standard, which would require the project to:

- **Be highly energy-efficient** in line with the Opt-In Stretch Code requirements recently adopted by the town.
- **Use all-electric heating and cooling** through efficient heat pump systems, reducing dependence on fossil fuels and ensuring year-round energy-efficient temperature control.
- **Install a comprehensive solar panel system** to provide renewable on-site energy generation, ideally designed to meet 100% of the building's annual electricity needs. We recommend a solar array sized based on the total projected energy consumption to maximize on-site renewable energy production.

Additionally, the committee strongly encourages the builder to pursue LEED certification to complement the net-zero goals. LEED certification would provide a comprehensive framework to assess sustainability across energy efficiency, water usage, indoor air quality, and material sourcing. Achieving LEED certification aligns with the town's environmental goals and demonstrates a commitment to creating a sustainable, high-performing building.

There is strong precedent in Massachusetts demonstrating that mixed-use and large-scale affordable housing projects can achieve full net-zero with minimal cost increases and substantial operating savings. Since 2021, net-zero and net-zero ready buildings have grown to over 48.4 million square feet statewide, with 80% of projects reporting less than a 1% cost premium for net-zero ready status. Multi-family and affordable housing projects lead this movement, representing 15.3 million square feet and making up 40% of all residential net-zero and net-zero ready developments, often using heat pumps and on-site renewables to reach their goals¹.

2. Composting and Zero-Waste Infrastructure

For buildings to be sustainable, waste generation must be addressed, as waste is a significant contributor to greenhouse gas emissions². The waste generated by 200+ apartments will be considerable; therefore, the

¹ [Massachusetts is going Net Zero.pdf \(builtenvironmentplus.org\)](#)

² [US-GHG-Inventory-2023-Chapter-7-Waste.pdf \(epa.gov\)](#)

Sustainability Committee would like to see a composting setup for residents. This could include space for composting bins that would be collected by a local composting contractor. Black Earth, for example, could service the property like a commercial building or school, providing 64-gallon bins (the same size as the curbside recycling bins the town uses) with pickup as frequently as daily up to once a week. Infrastructure that encourages residents to compost has the potential to significantly reduce greenhouse gas (GHG) emissions and waste disposal costs.

In addition to the waste generated by future residents, the Sustainability Committee would like the developer to implement a waste management plan during construction. The Committee urges the developer to divert demolition debris from the waste stream by making use of facilities set up to reuse and recycle construction and demolition debris. This practice is a prerequisite for obtaining LEED certification³. Additionally, this aligns with the Massachusetts Department of Environmental Protection (MassDEP)'s 2030 Solid Waste Management Plan, which calls for a reduction of 260,000 tons of construction and demolition debris by 2030⁴.

3. Landscaping and Contamination Management

Landscaping is essential for sustainable building, as it helps manage stormwater runoff, drought tolerance, and heat islands. For the project at 10-60 Main Street, the Sustainability Committee understands that contamination in the soil and groundwater makes impervious ground surfaces necessary. However, we would like to see above-ground planters consisting of native trees and shrubs to improve environmental benefits while minimizing exposure to contaminated soil, and any lawn/turf grass should be minimal.

4. Water Use and Greywater System

Stormwater runoff and water efficiency are also important concerns for this project. The Sustainability Committee would like to see a rainwater collection system for irrigation or other non-potable uses. A greywater collection and reuse system would also reduce the town's need to expand its sewer infrastructure and increase water efficiency. Given the site's proximity to the Sudbury River and a FEMA flood zone, extra precautions should be taken to ensure no runoff degrades the already fragile river ecosystem.

5. Heat Island Effect, Solar Canopy, and Sustainable Transportation

Other sustainability concerns include the heat island effect in downtown Ashland and the project's impact on traffic and transportation. We recommend a green roof to decrease the heat island effect and reduce energy consumption for residents. Landscaping, particularly with trees and shrubs, along with a solar canopy over the paved parking area, would also help reduce heat island effects. The heat island survey map from Framingham State University at the end of this section highlights this area as a "hot spot" with associated health and financial impacts.

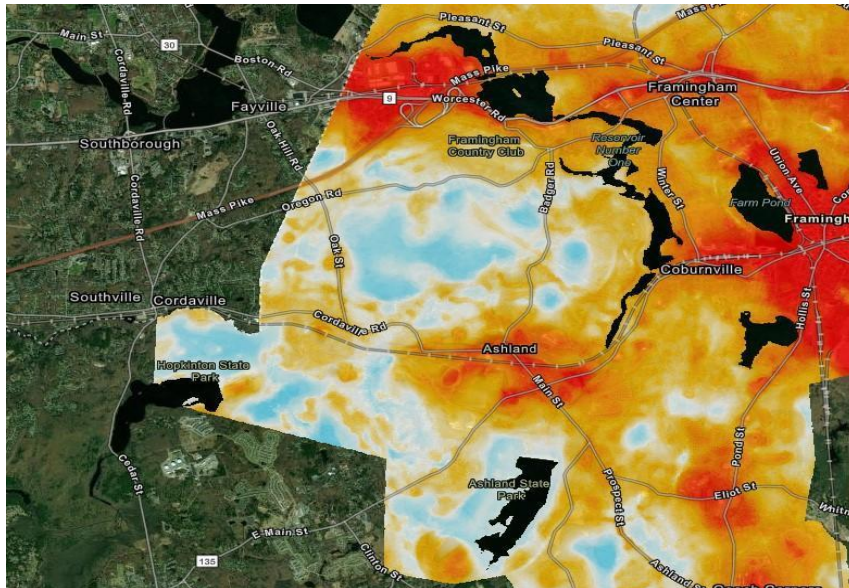
To reduce greenhouse gas emissions, this project should promote transportation that does not rely on fossil fuels. We recommend that at least 20% of parking spaces include Level 2 Electric Vehicle Charging Stations, and that all parking spaces be pre-wired to expand EV charging infrastructure as demand increases. The Sustainability Committee also recommends including bike storage and charging stations for electric bikes, as

³ [Recycling Construction and Demolition Materials Case Study \(recyclingworksma.com\)](https://recyclingworksma.com)

⁴ [Construction and Demolition Materials Guidance \(recyclingworksma.com\)](https://recyclingworksma.com)

well as designing paths around the property to connect to local bike paths. The site's proximity to the train station offers an excellent opportunity to promote public transportation use and reduce car dependence.

Below is the Ashland heat island survey map produced by Framingham State University. This dark red color surrounding 10-16 Main street shows how this property is a "hot spot" in our town, "indicating that this area experiences significantly higher temperatures compared to surrounding neighborhoods, potentially leading to negative health impacts for residents and increased financial burdens due to higher energy costs for cooling needs".



6. Other Environmental Concerns During Construction

Reports submitted to the Massachusetts Department of Environmental Protection (DEP) indicate an Activity and Use Limitation (AUL) on the property due to soil and groundwater contamination. The developer's plan to minimize soil export without groundwater treatment appears overly optimistic and potentially unsafe. Excavation for footings is likely to reach the groundwater table, requiring pumping and on-site discharge, which could lead to contaminated runoff into the Sudbury River. We urge the town to require water treatment for any groundwater handled on-site or offsite. Additionally, stockpiling contaminated soils near the river increases runoff risks. To mitigate this, we recommend avoiding soil stockpiling and implementing a dust monitoring system during dry-day work.

Given the apparent lack of a soil and groundwater remediation plan, we suggest that the developer consider using Rammed Aggregate Piers instead of traditional footings to reduce excavation and dewatering needs, lowering exposure risks to workers and the community. Lastly, future residents should be informed of ongoing site conditions. We recommend providing residents with annual reports of groundwater and air quality testing results to ensure transparency and safety.

Thank you for considering these recommendations. We look forward to your feedback and are available for further discussion.

Sincerely,
Ashwin Ratanchandani
Chair, Ashland Sustainability Committee