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136-144 Hancock Street & 169 Grove Street, Newton, MA

Sustainability Goals

The 136-144 Hancock Street & 169 Grove Street project is a sustainably focused development that will reuse an existing unoccupied, nonprofit, ecumenical retreat and inn known as the Walker Center. The existing main buildings will be converted into twelve residential dwelling units and four new construction townhomes will be constructed on the site for a total of sixteen dwelling units. Approximately twenty-eight parking spaces will be provided with a mix of surface and covered spaces. The proposed project contains approximately 38,500 SF of interior space. To support Newton and State of Massachusetts green goals and climate commitments, the project is committing to a low carbon footprint, and to eliminate fossil fuels using all electric heat pump technologies where able.

In addition to the four new construction townhomes being LEED certified, the project is targeting the following green and high-efficient features to support its sustainability goals:

Guiding Sustainability Goals:

- Energy Efficient Mechanical Systems: High-efficiency equipment will be utilized. New townhomes will be heated and cooled by electric split heat pumps to reduce energy use and fossil fuel dependence.
- Embodied Carbon Reduction: As a historic rehab, the existing structures of the former retreat will be preserved and less emissions will be generated through materials and construction.
- Low Global Warming Potential Materials: The project team intends to utilize insulation products that include low global warming potential blowing agents to reduce emissions.
- Healthy Indoor Air Quality: To promote healthy indoor environment for residents and increase efficiency, the project will utilize healthy indoor air quality materials and ventilation systems.
- Walkability: Close proximity to the public transit and neighborhood amenities will reduce potential emissions associated with transportation.

Energy Narrative

The project consists of two building types, the renovation and upgrade of the existing Walker Center and the new construction of 4 townhomes.

Existing Building Renovations

The 12 units being added to the existing buildings will all undergo a gut renovation with advanced insulation and air sealing upgrades to the building. This will include re-insulating the exterior walls with new insulation, inclusive of new roof insulation, and high performing double pane low-e insulated glass with U-0.30 or less with air tight detailing and air sealing. The project will be heated and cooled using electric heat pump systems. In combination with a heat pump water heating system, the project will be all-electric and fossil fuel free to eliminate carbon emissions on site. This will allow the owners if they choose to achieve net zero energy through the purchase of off site renewable energy or community solar arrangements with are offered through a variety of electricity suppliers.

New Construction Townhomes

The 4 new townhomes on the project will target Energy Star Homes V3.1 program with a HERS 55 or less utilizing all electric heat pump systems. The insulation is targeting R-5 minimum exterior rigid insulation outside 2x6 wood framing with R-21 cavity insulation, plus fully insulated R-49 roof assembly, and R-10 insulated slab edge. The windows will be high performing double pane low-e insulated glass with U-0.30 or less with air-tight detailing and air sealing. The project will be blower door tested to ensure air-tight construction and will be heated and cooled using electric heat pump systems. In combination with a heat pump water heating system, the project will be all-electric and fossil fuel free to eliminate carbon emissions on site. The project will be fitted to be solar PV ready with the ability to add solar PV at a later date if the owners choose to offset the electric load of the building to achieve net-zero energy in the future. The owners could also choose to purchase off site renewables or community solar to achieve net zero energy.