



CASE STUDY

INSULATING MULTIFAMILY HOUSING

How TimberHP is Helping Avesta Housing Solve Common
Performance Problems in Shared Living Spaces



Multifamily construction is a necessity in Maine to help alleviate a growing need for affordable housing, and New England's largest nonprofit affordable housing provider, Avesta Housing, is approaching this need with safe, comfortable, and more sustainable multifamily homes.

Avesta prioritizes lasting, efficient, and clean living spaces over flashy finishes, and is committed to the health and safety of residents. One way the company has delivered on this mission is partnering with TimberHP to integrate our sustainable wood fiber insulation into several of their new properties.

Since 2023, Avesta has specified TimberHP products in 5 multi-building projects across Maine, leveraging not only our local, sustainable, and healthy product promise, but the exceptional sound dampening wood fiber insulation provides. In multifamily housing, acoustic comfort is critical, and our ability to deliver on that need while also providing high performance and sustainability makes our partnership all the more powerful.



Project Highlights

- **Maine Locations:** Gray, Lewiston, Farmington, and Westbrook
- **Build Type:** Multifamily housing units
- **Specs:** 2 - 3-story wood frame construction
- **Sizes:** Ranging from 21,000 to 60,000 square feet
- **TimberHP Products:** TimberFill and TimberBatt

Product Applications:



Achieving a Shared Vision for Housing

Avesta has more than 100 properties across Maine and New Hampshire that serve low- to medium-income individuals with median annual earnings of \$20,000 or less.

Discovering wood fiber insulation from TimberHP was a game-changer for Avesta because it allows them to improve the sustainability, performance, and health of its housing units simply by adjusting the type of insulation – a building material that serves such a widespread and critical function to the overall structure.



“I wanted to commit Avesta to TimberHP because clean insulation was something we could do and a Maine-based company seemed like a no-brainer for us. Health and safety is important to our residents.”

Todd Rothstein,

Director of Construction, Avesta Housing

Rothstein first heard about wood fiber insulation a decade ago and was intrigued by its performance attributes, so when TimberHP began manufacturing it in Maine several years ago, he wanted Avesta to be at the forefront of using this material in multifamily builds.

The general contractors and architects on Avesta’s projects share a similar vision for multifamily housing in terms of performance and sustainability.

Jesse Kaplan, Principle at Kaplan Thompson Architects, which worked on Avesta’s Lewiston and Farmington projects, said his firm has fully moved away from spray foam insulation for health reasons, and TimberHP offers a sustainable solution that also meets Maine’s stringent housing standards while offering superior – and critical – soundproofing.



“These multifamily construction projects are two-to-three stories, wood frame construction, and are simple and economical. A truss roof needs blown-in insulation with a high R value. Maine housing standards have been steadily ramping up the required amount of R value in the roof because this is one of the easiest places to add insulation, and this is where TimberHP has been really effective because it’s an easy drop-in. We’re also focused on good air sealing and controlling that attic lid so there isn’t moisture and air leakage through the ceiling that causes buildings to degrade.”

Jesse Thompson,

Principal, Kaplan Thompson Architects



Going Big With a Local Product

TimberHP wood fiber insulation is a simple one-for-one swap with other insulation materials like cellulose, and is competitively priced while offering exceptional thermal, acoustic, and moisture performance, as well as fire resistance. For these Maine projects, our company's roots in the Pine Tree State were a selling point as well, especially since we use abundant residual softwood chips produced during milling processes at Maine lumber yards.

For these projects, we also made sure project leads were involved in a pre-construction process with our field service technician to see which tools to use, how to use TimberFill, and review information about the blowing machines and methodology.

JSA Design were the architects involved with the Avesta project in Gray, and TimberHP helped the firm address some common challenges they face in multifamily builds.

- **Cost Standards:** Maine has stringent standards for what affordable housing can cost, and TimberHP helped JSA Design lower building costs by getting closer to a Passive House level of energy while providing healthier living spaces for residents.
- **Ease of Install:** JSA Design is trying to move away from cheaper products with harsh chemicals because of itchiness and health concerns.
- **Preventive Qualities:** TimberHP products are treated with liquified borate, saturating the wood fiber and providing a superior long-term solution for fire, bug, and moisture/mold resistance.

Designer Luke Perczak at JSA said the firm was excited to use TimberHP for the first time, and the pre-construction process allowed him to see TimberFill in action and working as intended.

"We were excited because my firm hasn't used TimberHP before. I was able to see how it was being blown-in, and I think it was really well done, and it was nice to see the product working as intended. We try to move away from cheaper or harsher chemical products, and TimberHP's sourcing and the way they're using the mill; they're positioned as one end use to another."

Luke Perczak,
Designer, JSA Design



Why TimberFill Was the Right Fit

TimberFill allowed Avesta Housing and project partners to meet important goals for each multifamily housing unit in Maine:



High R value exterior wall insulation



Effective sound dampening—especially important for multifamily builds



No use of spray foams or insulations with harmful chemicals



Cost effective with easy installation and high performance



Easy to visually inspect to verify density and coverage, ensuring long-term performance

For Kaplan Thompson, these performance attributes deliver on everything they aim to accomplish in a multifamily build in Maine.

TimberFill is an excellent insulation solution for any project, offering ease of installation, with no itch. It's available through all traditional channel partners and is less expensive than mineral wool with high-performance capabilities – plus it's renewable.

Partners like Avesta Housing see right away the many benefits of using TimberHP, especially for multifamily builds where sound dampening is a huge selling point. For Avesta, TimberHP has allowed them to follow their mission to build healthier, higher-performing living spaces with more sustainable and longer-lasting materials.

“We want buildings to be beautiful, attainable, and sustainable. We have worked with Avesta on several projects, and these projects demonstrate how we can make projects attainable, hit great sustainability goals, and make beautiful places for people to live.”

Jesse Thompson,
Principal, Kaplan Thompson Architects



Continued Partnerships

Avesta Housing and TimberHP are under contract for four more Maine housing projects in Biddeford, Portland, and Kennebunk that will leverage TimberFill, TimberBatt, and—when available—TimberBoard continuous exterior insulation.

Avesta is finding great value in TimberHP’s sound dampening qualities, and is planning to introduce it between demising walls because they have found TimberBatt to have a better sound coefficient than an R-13 batt insulation, especially between units and in units next to elevators where mechanical noise is audible through the walls.

“We’re using the TimberFill or TimberBatt for sound when there’s an elevator on the other side of an apartment wall where there are mechanicals. People previously rendered them unlivable because the sound is just annoying, and this product has been a charm because of the sound-deadening insulation. We’re all in.”

Todd Rothstein,
Director of Construction, Avesta Housing

TimberHP is proud to support affordable housing with a sustainable insulation solution, and to partner with likeminded companies to construct high-performing housing without compromising health or safety.

Maine is challenged with a housing crisis and high dependence on fossil fuels, and building construction is one way to address both of those issues. When performance, price, and principles align, everyone benefits.



“We have so much respect for the folks at Avesta Housing for their mission to build affordable housing for Maine residents and for their commitment to doing it the right way. TimberHP wood fiber insulation is designed for companies like Avesta that value health, sustainability, and long-term building performance over the most expensive stone countertop. Their housing units are beautiful and even more so because they are designed with such care and thoughtfulness.”

Scott Johnston,
Director of Sales, TimberHP



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