



Energy Efficiency and Sustainability Features

- Central heat pump water heater
- Ductless heat pumps
- Solar-ready design
- High-performance envelope
- Heat recovery ventilator (HRV)
- LED lighting with optimized controls
- ENERGY STAR® appliances
- Water-saving plumbing fixtures
- High-performance bath fans

ALBERTA ALIVE MAKES IMPACT WITH SMALL FOOTPRINT

SUSTAINABLE HOUSING CREATES OPPORTUNITY IN HISTORIC PORTLAND NEIGHBORHOOD.

Located in Portland's King neighborhood, Alberta Alive provides sustainable, affordable housing for families and veterans in this historically Black community. The two-site development is part of a collaboration between Community Development Partners and Self Enhancement, Inc., and includes the Ronnie Herndon and Paul Knauls buildings. Energy Trust of Oregon was proud to support this project, which prioritizes healthy, comfortable living spaces and a sense of permanence for local residents.

AN ENERGY-EFFICIENT PLACE TO CALL HOME

Alberta Alive offers 21 units of family-sized housing and recreation space, along with 31 units for Veterans.

"I think the intention behind the project is unique in the sense that it's a collaboration with Community Development Partners," said Rosanne Lynch, project architect, Access Architecture. "They really had a vision that this project could help reverse gentrification in a neighborhood that has witnessed pretty dramatic changes over the last several decades."

Both buildings benefit from energy-efficient design choices. Most significantly, a central heat pump water heater system helps reduce hot water costs which are typically the largest energy load for multifamily properties. The system is grid-interactive, meaning it can monitor and respond to changes in power demand on the grid itself. This saves energy and money, especially during peak demand when energy costs are higher. It also improves resiliency. The tanks can be filled with water and preheated to act as insulation and provide reliable hot water even if the grid goes down or there's a scheduled brownout.

"For something like water heating, especially when you have water storage, it's an opportunity to utilize the off-peak periods to heat the water and then keep it stored during the high-demand periods to reduce the power bill. This ultimately results in cost savings to the owner," said Thayer Hendrickson, partner, Windsor Engineers.

COMFORT FOR A CHANGING CLIMATE

Thermal comfort is a big priority for multifamily buildings. This is when humidity, temperature and air movement conditions result in a space that feels naturally comfortable with no hot or cold spots. The Alberta Alive design team focused on solutions that work together to achieve thermal comfort while also keeping utility costs low. Both buildings incorporate a high-performance envelope with window glazing, insulation and shading to reduce the energy load and use ductless heat pumps for efficient heating and cooling.

"Here in the Pacific Northwest, we're seeing warmer summers. Having appropriate heating and cooling is part of what I would call environmental justice, ensuring that people who are living in affordable housing can have comfort all year round," Lynch said.

PLANNING FOR SUCCESS

To reach energy targets for the buildings, the design team and key stakeholders met early in the process to review goals and begin exploring solutions. Energy Trust provided incentives for early design and technical assistance, qualified energy-efficient features and solar-ready design.

"Energy modeling is a really important tool for this," Hendrickson said. "There's also life cycle cost analysis and estimates we can use. Decisions can be made quickly with a simple analysis and then honed to determine more specifically what those energy savings and benefits will be in the future."

This close collaboration was also an important part of developing affordable multifamily housing that is both sustainable and blends into the existing neighborhood. From the material choices to the use of natural light and active spaces, the Ronnie Herndon and Paul Knauls buildings are designed to be a welcoming and integral part of the community for years to come.

"We really believe in making strong buildings that are contributing to public spaces," Lynch said. "We very much feel that this is much-needed housing, particularly in this neighborhood, and we hope these projects will inspire other developers."



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Energy Savings and Incentives

- 212,000 annual kWh savings
- \$16,400 in estimated annual energy cost savings
- \$53,000 in Energy Trust cash incentives

Additional Incentive Support

- Early design assistance
- Technical assistance
- Market Solutions
- Solar ready

Project Team

- Access Architecture
- Colas Construction
- Community Development Partners
- Self Enhancement Inc.
- Windsor Engineers