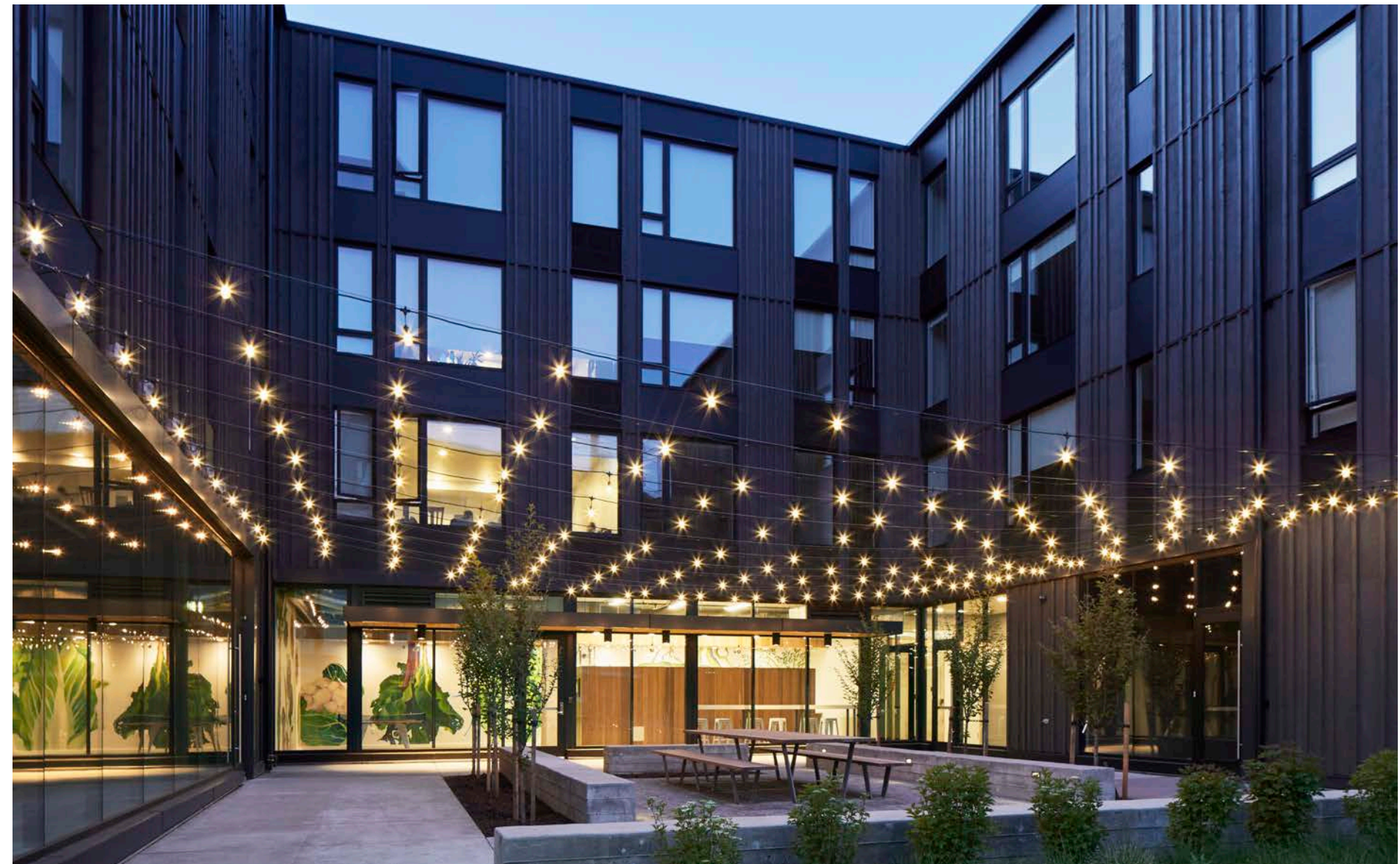
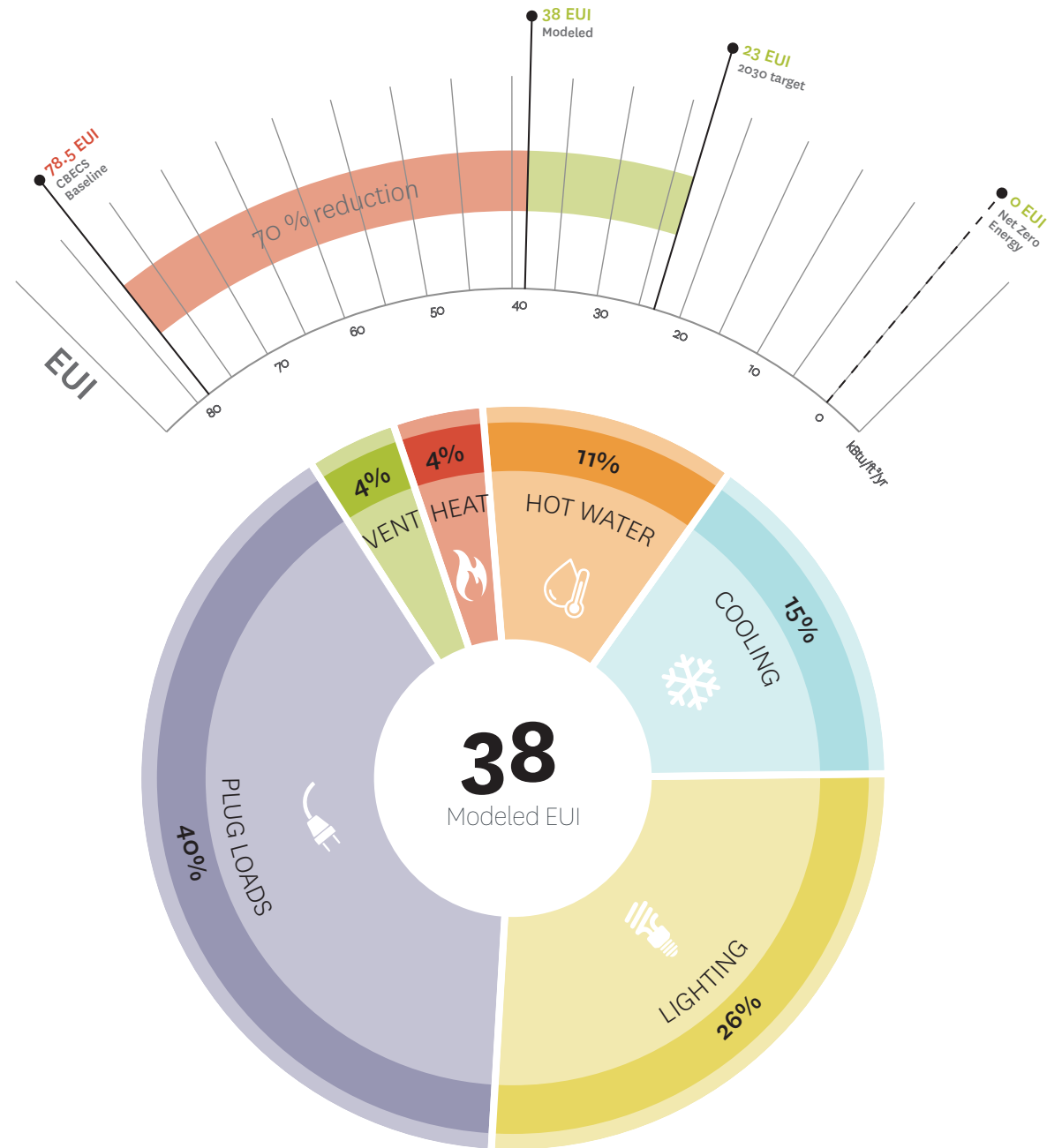


Lents Commons
Sustainability Summary

Project Type: Multi-Family Residential
Location: Portland, Oregon
Built Area: 65,000 SF
Scope: New Building, completed 2018
Certification: LEED Gold for Homes

Architect: Hacker
Energy Consultant: Green Building Services
Sustainability Consultant: O'Brien & Company



Design Summary

This four-story mixed-use apartment building is located at the intersection of 92nd & Foster in the heart of the historic Lents Town Center. The project serves as a catalyst for Lents' commercial district renaissance with 9,000 sf of retail and commercial space on the ground floor. Above, three floors of market-rate and affordable apartments surround a public courtyard. The objective of the design is to activate the sidewalks and support the unique identity of a community proud of its agrarian, "Lents Grown," heritage. The familiar, gabled form, wood board and batten details recall the farmsteads that once dotted the landscape.

Key Sustainability Concepts

LEED Gold certification was important for Hacker as well as the client, Prosper Portland. Due to a tight budget, Hacker was very strategic in determining the most effective sustainable design strategies to use on this project. Energy modeling helped the team analyze different energy

conserving measures. Energy analysis indicated in the proposed energy end-use breakdown showed that the largest areas of electrical energy consumption would be from tenant appliances and lighting. The design team chose to use high-performing Energy Star appliances for all tenant spaces, and LED lighting in all residential, corridor, and office spaces. Individual Packaged Terminal Heat Pump (PTHP) units installed in each apartment provide occupant comfort and control of heating, cooling and ventilation while providing substantial savings in overall energy consumption within a modest construction budget.

The building uses condensing gas-fired water heaters with 95% thermal efficiency to help further reduce tenant energy loads and is targeted for connection to a future Solar Photovoltaic system to be shared among neighboring properties in Lents Town Center.

A shared central laundry facility with high-efficiency washers and dryers saves a significant amount of energy, and also reduces the number of individual external dryer

vents, thus helping to keep the building envelope tighter with fewer chances of air leaks. We then enhanced the exterior wall assembly, beyond Oregon Energy Code R-21 minimum, by adding 3" thick continuous mineral wool insulation. This strategy increased the walls' performance to R-28.

The building's central outdoor courtyard acts as a shared gathering space for tenants and neighbors, and also helps to reduce the heat island effect by offering evaporative cooling with trees and abundant plantings at the heart of the building.

While the modeled EUI of 38 does not meet the 2030 Challenge target EUI of 23, the team is hopeful that post-occupancy energy bills will show that the actual EUI is closer to the target.