

Sehome Canopy House

The Sehome Canopy House proposes an assemblage of 4 homes on a typical lot in Bellingham's Sehome Neighborhood. Compatible with Sehome's 125x55 ft lot size, each of the four homes on the site is 1,800 sf across 3 floors with 2-bedrooms, 2.5 bathrooms, and a 2-car garage.

Canopy House expresses the idea of a canopy in two ways: the curved metal roof that drapes over the upper two floors of each home to create a "raincoat," and the inversion of program that places the larger communal spaces – living, dining, and kitchen – on the top floor adjacent to the canopy of the surrounding trees, directly accessible to residents via operable full height glazing.

The Canopy House's design is driven by four primary ideas:

- Organize around Daylight. Sunlight is a precious commodity in the Pacific Northwest and the building orients to both the Sehome grid and the sun path, with North-facing skylights and South facing solar panels. Large storefront walls facing East and West bring daylight deep into the homes.
- Stepping Stone to Density. Canopy House seeks to gently increase neighborhood density without sacrificing the comfort or lifestyle of a single-family home.
- Individual expression within a Common Language. Each of the homes reads as separate, despite being part of one building. Subtle variety in the form and color of each unit helps drive a sense of unique ownership for each household – not just Unit B, but the one that's a little greener with a softer curve.
- Connect to the Neighborhood and to Nature. The scale of the building breaks down to meet the neighborhood context, and the storefront system makes connection to outside unavoidable, albeit filtered.

The ground floor houses a 2-car garage, small entry area, significant storage space, and a mechanical room that collocates HVAC, water heater, laundry, and electrical. The second floor is the most private, with both bedrooms and primary bathrooms. The primary suite includes a bathroom, walk-in closet, and small balcony. The top floor is an open plan, with kitchen, built-in dining nook, generous living room, and half-bathroom.

Affordability & Constructability

Though formally expressive, Canopy House is built on a foundation of proven building systems. Mass timber CLT floors and laminated ribs establish an efficient primary structure. A standing seam metal enclosure system extends a typical roof assembly to the facade and integrates insulation. Large glass walls on the upper levels are storefront systems with only slight customization in some panels to meet the sloping roof. Materials are intended to be durable – mass timber and metal – with a proven exterior wall system that minimizes maintenance needs.

Sustainability & Resilience

Energy efficiency is at the heart of Canopy House. The all-electric power system is designed to operate like a space station: reliant on capturing and storing solar energy with roof-integrated solar arrays

oriented for optimal insolation and a battery storage system that feeds each home. The four homes operate as a microgrid commune, interconnected to weather daily variability before turning to the city grid. While the “raincoat” roof system is shaped to shed water, the canyons between units host a catchment system to filter and reuse gray water for irrigation and toilets for the building. Each ground-floor mechanical room is adjacent to a dedicated heat pump and operable windows and skylights create a passive ventilation and cooling strategy.

Parking. Because this proposal does not specify a particular lot and walkability is variable across the Sehome neighborhood, the design accommodates the possibility of being located away from public transit or in an area with lower walkability by providing parking. The type of homes in Canopy House are likely to attract residents who will expect to drive, and the local increase in density will put pressure on street parking. However, the accommodation and in situ solar power grid encourages electric cars. If residents have fewer than two cars, the garage space can easily be repurposed, adding square footage and value.

Innovation & Creativity

The homes have a distinctive and instantly recognizable formal language, but each one is slightly different in both form and color. The bold blue metal cladding changes slightly from home to home while the palette of blackened wood facade and natural wood doors at the ground level ties the building together. But beyond aesthetic, the building leans into innovation as a tightly integrated system of systems, taking definitive steps to be off-grid where it makes sense and strategically realizing the operational cost savings of designing for resilience.