

416- 418 Langley Road Sustainability Strategies

HERS Score: 36-41 Unit depending

Energy Conservation & Sustainability	Project Notes
Use of foam insulation to minimize thermal bridging resulting in reduced heating and cooling loads and hence energy consumption	Exterior Walls = R21 2x6 cavity insulation (Fiberglass, Cellulose or Spray Foam + R6 continuous exterior rigid insulation) Floors over the garage = R60 Dense Cellulose, 4x18x16 Open Web Trusses, double 5/8 gypsum Ceiling/Roof flat to ambient = R60 Dense Cellulose, 4x18x16 Open Web Trusses
Use of efficient energy efficient insulated windows and doors and windows	Window Performance = U0.30, SHGC 0.30
Individual mechanical systems and controls for each unit, sized to meet heating and cooling loads and to ensure comfort	Each unit will have its own electrical HVAC unit
Separation of individual dwelling units using double-stud insulated walls with continuous air seal to isolate apartments thermally and acoustically	A double Fire-wall with insulation will be installed between units to isolate units for better efficiency and minimize noise.
Electric Hot Water Heaters	Using electric hot water heaters further reduces the buildings use of fossil fuel for this system. Hybrid Electric Water Heater - 65 gallon = UEF 3.5
LED Lighting	100% LED lighting
High efficiency air circulation system	Ducted Air Source Heat Pump - Heating and Cooling = COP 3.2 Mechanical Ventilation Indoor Air Quality = Panasonic FV-20VEC1 ERV, flow rates set to satisfy ASHRAE 62.2 2013 Bathroom fans = spot ventilation only, 80 cfm if bath or shower is present; Range Hood = vented to outside
Energy Star Appliances	All appliances are Energy Star and will be 100% electric (including drier and stove)
Air/Vapor/Water barrier inspections & testing of exterior enclosure assemblies	A third-party HERS testing agency has been retained to inspect air/vapor water barriers during construction.
Electric Vehicle (EV) Charging	Two EV ready plugs will be provided for the development. Electric panel will be able to support additional future vehicles.
Storm Water Capture and Retention	Engineered, City Approved, storm water retention system will mitigate potential impact to neighboring properties.
Landscape	The Landscaping will utilize native plantings, using those that are drought tolerant where appropriate. Green roof to help retain water and give more green space to property
No Fossil Fuel	The entire building will be 100% electric and all the appliances will be electric
Recycled and Recyclable materials	Attempt will be made to reuse materials available on site such as ledge for the retaining walls. All of the construction materials will be evaluated to reduce carbon footprint and ongoing maintenance.
Solar Panel ready	Designated area on the roof for solar panels, if the community elects to install at later point