

Completed checklists form part of the application package reviewed by staff and ultimately, Council. New buildings and developments have impacts that last well beyond the construction period. Reducing the consumption of natural resources and increasing resilience to a changing climate are part of the challenge of building more sustainably. This checklist will help you identify and present how your project will help the Township meet its goals of becoming carbon neutral by 2050.

**Applicant's Name**    Gesa Zellermann for Cornerstone Architecture

**Site Address**            1148 - 1140 Esquimalt Road

1.0 Certification		Please check
1.1	Step Code (Please indicate level) <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	✓
1.2	EnerGuide rating	
1.3	LEED	
1.4	Passive House	
1.6	Living building	
1.7	Other (Built Green BC, R-2000, Green Shores etc.)	
2.0 Siting		
2.1	New buildings > 10 m <sup>2</sup> are located > 20 m from the high water mark (HWM) of the Gorge Waterway.	Required
2.2	New buildings >10 m <sup>2</sup> are located at least 10 m from the HWM from the outer coastline.	Required
2.3	Flood Construction Level has been established using sea level rise projections for the life of the building.	
2.4	Habitats of threatened and endangered species have been protected from impacts of development.	N/A
2.5	Buildings are located within disturbed or developed areas.	✓
3.0 Shoreline Protection Measures		
3.1	Landscaping within 10 m of the high water mark consists primarily of native plant and tree species.	Required
3.2	A conservation covenant has been signed to protect sensitive ecosystems within 10 m of the shoreline.	N/A
3.3	At least one native tree capable of (now or in the future) supporting the nest of a Bald Eagle, Osprey etc. has been retained or is planted within 30 m of the high water mark (HWM).	N/A
3.4	Removal of at least 30% of hardened shoreline and replacement with erosion control measures designed to improve the habitat of the shoreline.	N/A
3.5	Light from building and landscaping does not cast over water.	✓
3.6	Wildlife habitat has been incorporated into seawall design.	N/A

4.0 Stormwater Absorption and Treatment		Please Check
4.1	An on-site stormwater retention system has been designed to retain at least the first 3 cm of rainfall from each rain event.	✓
4.2	Stormwater will be treated for pollutants prior to release to the stormdrain system or to a surface water source.	✓
4.3	The project features a green roof.	
4.4	The total amount of impervious surface is not greater than 20%.	
5.0 Water Conservation		
5.1	The irrigation system has been designed to reduce potable water use by 50% compared to conventional systems.	✓
5.2	Waterless urinals will be used.	
5.3	Water features use re-circulating water systems.	✓
5.4	Rainwater will be collected for irrigation purposes.	
5.5	Toilet and kitchen sink drains are separate from other drains to the point of exit.	
5.6	An approved greywater reuse system will be installed.	
6.0 Trees/Landscaping		
6.1	The project is designed to protect as many native and significant trees as possible.	✓
6.2	There will be no net loss of trees.	✓
6.3	Trees will be planted in soil volumes calculated to support the full grown size of the tree.	✓
6.4	At least 25% of replacement trees are large canopy trees.	
6.5	Topsoil will be protected from compaction, or stockpiled and reused.	✓
6.6	Erosion control measures have been designed and installed to prevent erosion of topsoil.	
7.0 Biodiversity		
7.1	New landscaping is predominantly native plant and tree species.	✓
7.2	Invasive species will be removed from landscaped areas.	✓
7.3	At least two biodiversity features have been incorporated into the new or existing landscaping (see section 18.5.3 of the OCP for ideas).	✓
8.0 Energy Conservation		
8.1	The building is pre-plumbed for solar hot water.	Required
8.2	Install a greywater heat recovery unit.	
8.3	Passive cooling is supported through flow-through ventilation design, low E windows, solar shades, shade trees etc.	✓
8.4	Passive heating is supported via building orientation, window design and thermal mass.	✓
8.5	The building will have necessary structural support and conduit for Solar PV.	✓
8.6	Obtain minimum of 20% of building energy consumption through community based or on-site renewables, such as district energy, waste heat recovery, geothermal, solar PV, solar hot water.	
8.7	Heating uses a low carbon heating source, such as air source heat pump.	✓

9.0 Transportation		Please Check
9.1	Building will have a car share or bus pass program for residents.	✓
9.2	Enhanced facilities for bicyclists such as showers, lockers, storage etc.	
9.3	Charging infrastructure for E-bikes will be provided.	✓
9.4	EV charging conduit supplied to 100% of residential parking units.	
9.5	30% of residential parking spaces include an electrical outlet or EV charging equipment.	✓
9.6	Adequate space in the electrical system to provide EV charging for 100% of parking stalls.	✓
9.7	For commercial buildings, Level 2 or Level 3 EV charging provided for employees and/or visitors.	
10.0 Materials/Waste		
10.1	Employs at least 3 advanced framing techniques described in the CHBA builder's manual to reduce unnecessary lumber and sheathing.	
10.2	Uses at least two materials which are certified for recycled content.	
10.3	Uses engineered structural material for two major applications (>10% of floor area).	
10.4	5 major building elements made from >50% recycled content.	
10.5	Use foundation, floor and >50% of walls from existing building.	
10.6	Deconstruct at least 50% of existing building for material salvage.	
10.7	Use at least five major materials or systems produced in BC.	
10.8	Use certified sustainably harvested wood for one major structural or finishing application (eg framing, plywood, floors)	
10.9	Eliminate use of wood from threatened trees.	
10.10	Recycling area provided within residential suites.	
10.11	Recycling collection area for multi-family buildings.	✓
10.12	Pickup of compostables provided in multi-family units.	✓
10.13	Construction waste management practices used to reduce and separate waste and divert at least 50% from the landfill.	✓

Please include a brief description of how this project contributes to a reduction in greenhouse gas emissions and moves the municipality closer to its ultimate target of becoming carbon neutral by 2050 (use next page if needed).



## How Our Community Will Contribute to a Reduction In Greenhouse Gas Emissions

Our Esquimalt Village Cohousing group has made environmental sustainability a core value and priority throughout this project. We recognize that the decisions we make now will have lasting impacts on greenhouse gas emissions for decades to come. While we are currently in the early stages of the design process and have not yet finalized all specific sustainable building features, we have deliberately partnered with Cornerstone Architecture, a firm with extensive expertise and demonstrated leadership in passive, low-energy design and energy-efficient construction. As the design process advances, we are committed to thoroughly evaluating opportunities with Cornerstone to exceed minimum statutory requirements for energy performance. Our goal is to incorporate best practices in sustainable building design wherever feasible, balancing environmental performance with the financial realities of creating affordable, community-oriented housing. The features outlined below represent our initial commitments, with the understanding that additional energy-saving and carbon-reduction measures will be explored and may be incorporated as the design is further developed, and refined.

### Energy Efficiency & Low-Carbon Systems

This project achieves **BC Energy Step Code Level 3**, representing a substantial reduction in energy consumption compared to conventional construction. The building incorporates:

- **Air source heat pump heating systems** that eliminate fossil fuel combustion on-site
- **Pre-plumbing for solar hot water** to enable future renewable energy integration
- **Passive heating and cooling design** through strategic building orientation, compact form factor, window placement, thermal mass, and flow-through ventilation, reducing mechanical heating/cooling loads
- **Compact building form** that reduces surface area-to-volume ratio, improving passive energy retention and reducing heating/cooling demands

## Cohousing Model: Shared Resources & Reduced Consumption

The cohousing model inherently reduces per-capita greenhouse gas emissions through:

- **Shared common facilities** (common house, workshop, guest rooms, laundry) that eliminate the need for duplicate appliances and spaces in individual units, reducing embodied carbon and operational energy
- **Smaller individual unit sizes** enabled by shared amenities, meaning less space to heat, cool, and maintain
- **Shared meals and kitchens** that reduce energy consumption through economies of scale and less food waste
- **Community car-sharing infrastructure** that reduces the number of vehicles owned per household

## Sustainable Transportation

The project significantly reduces transportation emissions through:

- **Enhanced bicycle infrastructure** including storage and e-bike charging stations
- **Access to public transportation** in established Esquimalt neighborhood
- **Walkable location** in established Esquimalt, reducing vehicle dependency

## Water & Site Management

- **Stormwater retention systems** (retaining first 3 cm of rainfall) reduce infrastructure loads and energy-intensive municipal water treatment
- **Tree preservation** with no net loss of trees planting native species, and, maintaining carbon sequestration

## Materials & Waste Reduction

- **Sustainable materials** including BC-sourced products (reducing transportation emissions)
- **Recycling infrastructure** within units and collection areas for multi-family buildings