

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

0795531 B.C. Ltd. (Jim Penner)

Site Address

876/880 Dansmuir Road.

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DEC 09 2019

CORP. OF TOWNSHIP
OF ESQUIMALT

1.0 Certification		Please check
1.1	Step Code (Please indicate level) <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
1.2	EnerGuide rating	Appendix
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 ² are located > 20 m from the high water mark (HWM) of the Gorge Waterway.	Required
2.2	New buildings > 10 m ² 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.	
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.	
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).	
3.4	Removal of at least 30% of hardened shoreline and replacement with erosion control measures designed to improve the habitat of the shoreline.	
3.5	Light from building and landscaping does not cast over water.	
3.6	Wildlife habitat has been incorporated into seawall design.	

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.	<i>Appendix</i>
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%.	<i>Appendix</i>
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.	<i>No</i>
6.2	There will be no net loss of trees.	<i>Yes</i>
6.3	Trees will be planted in soil volumes calculated to support the full grown size of the tree.	<i>Yes</i>
6.4	At least 25% of replacement trees are large canopy trees.	<i>No</i>
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.	<i>N/A</i>
7.0 Biodiversity		
7.1	New landscaping is predominantly native plant and tree species.	<i>Yes</i>
7.2	Invasive species will be removed from landscaped areas.	<i>Yes</i>
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).	<i>Yes</i>
8.0 Energy Conservation		
8.1	The building is pre-plumbed for solar hot water.	Required
8.2	Install a greywater heat recovery unit.	<i>Yes</i>
8.3	Passive cooling is supported through flow-through ventilation design, low E windows, solar shades, shade trees etc.	<i>Yes</i>
8.4	Passive heating is supported via building orientation, window design and thermal mass.	<i>Yes</i>
8.5	The building will have necessary structural support and conduit for Solar PV.	<i>Yes</i>
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.	<i>Yes</i>

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.	Yes
9.3	Charging infrastructure for E-bikes will be provided.	Yes
9.4	EV charging conduit supplied to 100% of residential parking units.	Yes
9.5	30% of residential parking spaces include an electrical outlet or EV charging equipment.	Yes
9.6	Adequate space in the electrical system to provide EV charging for 100% of parking stalls.	Yes
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).

Township of Esquimalt Green Building Checklist Appendix

**0795531 BC Ltd (Jim Penner)
876/880 Dunsmuir Road**

I have commenced working with an experienced professional energy advisor, Brooke Gallupe. He has a history and references in Victoria, which support his credentials. Once a builder is selected, Brooke will be engaged again to confirm target achievability, objectives, standards, methods, and materials.

1.0 Certification

1.2 Energuide rating - Goal is -10% of standard, achieved by window upgrades, small heat pumps with HRV's, additional attic insulation, overhangs on south facing windows

4.0 Stormwater Absorption and Treatment

4.1 Gardens and medium shrubs are planned on both sides of the building that will absorb rain water

4.4 Permeable pavers will be installed in the driveway and parking areas

5.0 Water Conservation

Dual flush toilets, volume limiting shower heads

6.0 Trees/Landscaping

6.2 One large tree to be removed from back, replaced by a medium tree in the front

6.3 Yes, BCNLA standards

7.0 Biodiversity

7.1 Yes, 50% native

8.0 Energy conservation – energy advisor to be engaged

8.2 Yes, heat exchanger coils in tub/shower drains

8.3 Yes, front tree will provide shades to large window/doors of lower unit, front balconies overhang lower units to provide shade to South facing window/patio doors. Upgraded windows.

8.4 Concrete steps and lower patio will retain heat

8.5 Yes, structural support and conduit roughed in

8.7 Individual heat pumps and HRV's provide heat control and circulation in each unit. Electric heat (in bathrooms) is supplementary only.

9.0 Transportation

9.2 Bike locker room

9.3 Bike locker room with electrical outlets

9.4, 9.5, 9.6 Electrical panel capacity and conduit roughed in to both parking areas, capacity for all

10.0 Materials/Waste

10.1 Trusses, ?, ?

10.2 Flooring, ?, ?

10.3 ??

10.4 ??

10.6 No, existing building includes hazardous materials (asbestos)

10.7 ??

10.9 emphasis on local materials, no mahogany or other threatened trees

10.10, 10.11 in suites and collection point

10.12 facility provided, collection by strata

10.13