

May 4, 2016

Esquimalt Town Square Project: Summary of Green Building Strategies

The DAU team has employed an ecological urbanism approach to the Esquimalt Town Square project. This approach draws upon our formal environmental design expertise and experience with numerous sustainable urban planning and architectural projects. Ecological urbanism means community planning and urban design issues have been considered comprehensively, from the level of the watershed catchment area through to the macro and micro-climate aspects of the Esquimalt Town Square site. Buildings, open spaces and infrastructure, as well as the user patterns of the community, are considered to be integrated parts of the ecology of the place and are treated accordingly.

For the Public Library and the building intended as the future home of the Justice Institute, a green building approach is being used but LEED Certification will not be sought. The green building strategies are mandated by the Developer and so, as an incentive program, the Canadian Green Building program is not deemed necessary for this project.

The design process for Esquimalt Town Square has given significant priority to energy performance, greenhouse gas production, daylighting, adaptability to change, and the long-term sustainability of the public open spaces and infrastructure. Material palettes and technical methods that adhere to green building principles are being incorporated into the architecture and site design.

Passive solutions have been given priority over mechanically dominant and highly consumptive systems for community recycling, heating, lighting, rainwater control, etc. The viability for geothermal energy exchange will be investigated for heating and cooling. On-site storm-water management will be explored and may include strategies such as rain gardens and cisterns. Environmental principles underlay the proposed zoning regulation that will guide the development. A consultative approach by a multi-disciplinary, integrated design team reflect a sustainable development approach to the project, from the outset.

This project is considered part of the urban regeneration and densification of Esquimalt's 'urban village'. Both of these are fundamental principles of resilient, sustainable community planning. Towards this end, the development planning principles of 'Complete Communities' underlay the Esquimalt Square proposal.

The design team includes professionals with Canadian Green Building Council LEED-accreditation enabling environmental responsibility as a natural priority throughout the design of this project. Sustainable design thinking is at the core of the design process. The following are specific strategies that are deployed in the architecture of Esquimalt Town Square project.

Green Mobility

- i. Promote use of alternative methods of transportation including provision of bicycle storage that will exceed the minimum requirements of the Township of Esquimalt's bylaws.
- ii. Electric vehicle charging stations will be provided for 20% of the total parking to promote the use of low emitting vehicles.
- iii. Promote pedestrian movement throughout the site by incorporation of an "art walk" and connected pathways to all adjacent public streets at multiple locations.

Water Management

- i. Low flow plumbing fixture and water efficient appliances will be specified in all buildings.
- ii. Selection of native and adaptive planting and water efficient irrigation techniques to reduce demand on the Township's water service.
- iii. Collection of rainwater for use in landscape features.
- iv. Limit conventional turf for landscaping.

Enhanced Building Performance

- i. Energy modelling has been commissioned to ensure high energy performance in all buildings.
- ii. Enhanced wall insulation to exceed minimum building code requirements.
- iii. Incorporate use of heat recovery units in residential suites for superior heating and cooling.
- iv. Incorporate energy star rated appliances.
- v. Incorporate no or low VOC emitting paints and finishes.
- vi. Incorporate motion sensors in underground garage lighting to reduce energy consumption.
- vii. Buildings are designed to manage solar heat gains.

Sincerely,

A handwritten signature in black ink, appearing to read 'F D'Ambrosio'.

Franc D'Ambrosio, architect maibc mraic
D'AMBROSIO architecture + urbanism