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Re: Caledonia Green Building Features

To whom it may concern:

Regarding our development application for the CRHC Caledonia site in Fernwood, please note that the project will include the following Green Building Features:

1. Step 3 of the BC Energy Step Code

- As a BC Housing-funded development this project will be built to comply with Step 3 of the BC Energy Step Code; operating at a 20% reduction in energy use and with substantially increased envelope performance relative to prescribed references.
- Energy modeling will be conducted at multiple stages during the pre-construction stage to validate compliance.
- Air tightness testing will be conducted prior to occupancy to verify that building performance meets modelled criteria.
- All ventilation is mechanical rather than passive, with heat recovery exchangers at every exhaust vent. This ensures all makeup air is pre-conditioned and reheating energy loads are minimized.
- The Heat Recovery Ventilation (HRV) system is decentralized into individual suites, reducing rooftop air handling equipment and providing an overall reduction in noise pollution.

2. Site selection and design

- The proposal is to rebuild and densify an existing affordable housing project within an already densely populated centralized urban location with strong pre-existing infrastructure and amenity.
- Rather than building on a greenfield site this project is situated on the site of the former Fairey Tech building, now demolished and left unimproved.

3. Green Spaces

- Urban agriculture boxes are distributed throughout the property to both green the site and provide food security and recreation opportunities for residents.
- All trees with compromised health are being more than replaced with healthy new site-appropriate species.
- New plants will be drought-tolerant, non-invasive indigenous species selected for quality of appearance and ease of maintenance.



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- The extent of grass turf will be minimized, with a combination of less water-intensive landscaping treatments used instead.

4. Transportation

- The densification of this centralized site in Fernwood means that a higher number of residents will be within close walking distance of well-established neighbourhood services and amenities. Personal vehicle usage will be low relative to walking and transit usage.
- The underground parkade will have dedicated areas for secured bicycle parking.
- Additional electrical circuit capacity and conduit rough-in will provide scalability for electrical vehicle charging stations to keep pace with rising demand.

5. Storm water management

- Storm water management design will be provided on site to limit post-development flow rates to pre-development flow rates – rain gardens will be utilized.
- An erosion and sediment control plan will be developed for the duration of construction.
- All patios and sidewalks will be designed to discharge to landscaped areas or the storm water detention system.
- The paved driveway and parking areas will be designed to discharge to the storm water detention system.

6. Water usage

- All interior plumbing fixtures will be low water, low flow fixtures, including dual flush toilets (4.8 LpF).
- Water efficient (Energy Star) Clothes Washers will be specified (95 litres per load or less).
- All hot water piping will be insulated and will be on a recirculating loop.
- A high efficiency irrigation system will be customized for the site, using Smart Timer Technology to tailor the irrigation flow to the present climatic conditions.

7. Sustainable Materials

- Concrete will contain 30% - 50% fly ash.
- Timber framing will use finger jointed studs, engineered wood products (LSL, SCL, wood I-Joists, pre-engineered wood trusses).
- Thermal wall assemblies will use insulation meeting EPP guidelines where possible.
- Millwork panel products will be free of urea-formaldehyde.
- SCS Floor Score Certified hard flooring products will be used throughout (no carpet will be used).
- New paints and finishes will meet low V.O.C. contents (i.e. flat paint – 50g/l, non flat – 150 g/l, clear wood finish – 350g/l, floor coatings – 100 g/l, stains – 250 g/l).

- Low VOC adhesives will be used (wood floor adhesive – 100 g/l, Construction adhesives – 70 g/l, ceramic tile adhesive – 65 g/l, subfloor adhesives – 50 g/l, VCT adhesive – 50 g/l).

8. Energy Efficient Detailing

- Window specification is energy star vinyl windows– double-glazed units with Low E coatings and argon fill for best energy conservation. U value of 0.31 or lower.
- Increased levels of insulation in walls and roof: R22 – R28 in exterior walls; R40+ in roof.
- CFL / LED light bulbs in energy efficient light fixtures specified throughout, with motion detectors in public areas for reduced energy usage.
- Energy Star rated appliances for unit kitchens and the common laundry rooms.
- Central high efficiency gas fired condensing hot water heater(s).

In conclusion the owners and consultant team are fully committed to sustainability in aspects of this redevelopment, and believe it this a key factor and providing exceptional new affordable housing units in Fernwood.

Regards,



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