



July 11, 2016

EFL 18.2 **Design Rationale**

Proposal, Context, Urban Design Response Massing and Circulation

The proposed new development at parcel 18.2 is a new addition to master planned East Fraser Lands planning area, and follows EFL's planning guidelines in terms of form, height and placement. The site is located along East Kent Av North Green Way, and Sawmill Crescent and is half a block away from the proposed town centre area and a block away from Marine Way (SE Marine Dr) corridor, which is considered an existing arterial within the city's overall transportation network.

The approved development west of the lane is a 5-storey mixed-use residential building with commercial retail units at ground. The development north of the site consists of a 19-storey residential tower, a 10-storey midrise residential building above a double-height retail podium and townhouses along Marine Dr.

The development at parcel 18.2 includes a 25 storey tower with a reduced penthouse floor, a 6-storey podium at the base along Sawmill Crescent, and 3 storey townhouses along E Kent Av North. It consists of 314 residential units, with 17 of which being 2 storey Live-Work lofts along the north and east portion of the site. The development proposes a mix of units that support the neighborhood as it develops into a community. The ground floor live work units will be generally 2 and 3 bedrooms units with the living areas on the main floor and bedrooms on the upper floor. The upper floor residential uses, provide a range of residential living units. The unit mix is weighted to support family housing, with 179 two-bedroom+ suites, 57% of the total unit count.

The parking and loading stalls start on Level 1 directly under the green courtyard and continuous on P1 and a partial P2. The total number of parking spaces is 396 stalls. This number includes 2 Care Share spaces at level 1 and 33 visitor parking spaces as required.

The building massing is arranged to provide a relatively continuous street wall to Sawmill Crescent. The tallest residential element is located on the northwest corner of the site, with lower residential elements on the south side of the property. The form of the building has been massed to optimize the views and access to daylight for the residents and the green courtyard.

These building forms surround a permeable, but sheltered landscaped space. To the south, a generous opening between the townhouses steps down from the courtyard directly across from the foot of the tower, and connects this green courtyard area to E Kent Av Greenway. At Sawmill, a 30' wide and 3-storey tall passageway is proposed on the northeast edge of the property. This will encourage movement through the site, connecting the green space to E Kent's Greenway and Sawmill, and allows for easy circulation to and from the development in multiple directions.

The 25' wide set back from the north east corner property lines creates a plaza (relic square) that

act as the gate to the pedestrian pathway and offers opportunities for public art installations, landscaping and outdoor seating.

The site planning and building massing has been designed to optimize the permeability of the site for pedestrians through and around the site. All underground vehicle parking, loading and bicycle storage access is from the shared lane at the west end of the site. All residential visitors parking would be in the gated parking at Level 1.

Architectural Form and Character

The architectural character of the building reflects a clean contemporary design vocabulary. The residential podium and townhouses are clad in contrasting brick colours (white and dark grey) and the tower envelope consists of a variegated panel language. The moderately sized tower plate is designed to optimize the amenities available to each unit, offering similar sized balconies with views of the south and the Fraser River to all units. These generously sized balconies are 2-storey tall due to the alternating pattern they follow between bedrooms and living rooms. On the east and west elevations, triangular screen elements are placed on the edge of these balconies that work both as a privacy screen and a vertical shadowing device.

The variegated panel language, accompanied by recessed building elements and balcony groupings, provide a pattern on the building façade that changes with sun movement and the angle of view. At grade, the live-work components are clearly differentiated with an undulating plan form and are read as a strong base to the residential volumes above.

All wide and tall window openings (5.5' x 7.5') in the brick clad residential component of the podium and the townhouses on the south side of the site, include a metal frame that projects out 8" from the face of the brick. This feature helps to limit views into the units and therefore increases privacy. These frames on the south, east and west elevations act as shading devices as well, controlling solar gain into the primary windows of the units.

The architectural vocabulary of generous roof and balcony projections, as well as vertical shading screens, are key elements in the livability and sustainable design strategies for the building.

The development comprises of three separate residential amenity areas each designed with a unique program. At the courtyard level (L2), an enclosed exercise area has been provided under the tower that can spill into the green space for outdoor activities. The eastern portion of the courtyard leads into an additional amenity area designated for indoor entertainment. The podium roof portion on the northeast corner provides an additional 2,000 SF amenity space for the residents for family gatherings or meetings. On the roof, a portion of the amenity room is dedicated to urban agriculture and can act as a green house. This area fronts onto the western part of the roof equipped with sizable garden plots intended for urban agriculture.

The upper floor penthouse level responds to the EFL Comprehensive Development regulations for additional penthouse level and is set back up from the edge of the building with a light and transparent expression.

Sustainable Design Strategy

The East Fraser Lands Official Development Plan and subsequent rezoning's required the implementation of a community-wide heat source and system strategy. This led to the creation of River District Energy (RDE), a flexible and centralized utility system that produces and distributes thermal energy via hot water for space heating and domestic hot water in a closed loop to buildings located within the community. River District Energy is the first privately owned and funded district energy system in British Columbia. While it is currently using natural gas as a heat source, the system has the capability of using a variety of sustainable and renewable energy sources to adapt to a changing energy market, while reducing greenhouse gas emissions in comparison to conventional systems. The long-term goal for the system is to switch to a low-carbon source. For buildings connected to the distribution system, the requirement for boilers, hot water tanks, and auxiliary equipment is eliminated which allows for more efficient use of overall space, and a significant reduction in maintenance costs.

The proposed building contributes to the community sustainability of the River District in its massing, materiality and energy use. Through the wise use of resources and energy, guided by the LEED Gold framework, the team has set a goal to create a building and landscape that is a healthy environment to live, work and play. The project will achieve 9 LEED 2009 energy performance credits and will exceed the City of Vancouver's rezoning energy requirements of 22% better than ASHRAE 90.1 2010. This will involve enhanced envelope design to improve thermal performance, and provide necessary solar shading. Metering energy use and monitoring actual energy performance is an important component of future-proofing the operational energy use of the building and leaves a legacy for building residents to make responsible choices in the future.

The proposal seeks to create a mixed community of residents with an emphasis on family-sized suites. Another key project features include a focus on healthy and comfortable indoor environments through material selection and verification of thermal comfort and water efficient fixtures throughout.