

MEMO

PROJECT: UBC WESBROOK COMMUNITY CENTRE DATE: 26 JULY 2012

TO: THE UNIVERSITY OF BRITISH COLUMBIA
CAMPUS + COMMUNITY PLANNING

RE: DEVELOPMENT PERMIT - SITE DEVELOPMENT GUIDELINES RESPONSE

ITEM	RESPONSE (Numbering follows the Design Brief format)
GENERAL	The design principals outlined in brief have been carefully implement in the Wesbrook Community Centre proposal. No significant relaxation of the guidelines is sought.
3.1	Create a social/cultural heart of the community
3.1.1	The project endeavors to strength UNA identity and add richness with an inviting presence, which promotes social gathering, knits the surrounding community together and invites active indoor and outdoor events and celebrations.
3.1.2	The main entry opens to the east on to the parking plaza, which will serve as an occasional event space for markets and festivals.
3.1.3	The community centre is organized around a central atrium space that serves as both a gathering space during community events and a circulation corridor. The building massing is divided into three main elements each connected to the central atrium: <ol style="list-style-type: none">1. The gymnasium, fitness centre, washroom core and teen centre as well as the service rooms are grouped together in a bar on the north side of the atrium.2. The meeting and multi-purpose rooms are to the south and rotated due south to take better advantage of natural light and to provide a more generous connection to the high school.3. The dance studio located adjacent to the main building entrance is hovering above the mostly glazed cafe space.
3.1.4	The community centre and park are connected with ground oriented multipurpose rooms that can spill out through large double doors on to a landscaped terrace. The gym has direct access to the athletic field through west access doors. A generous path from the water park to the west building entry provides easy access for to change rooms and washrooms for parents and wet children. A row of deciduous trees south of the centre provides natural shading in summer months.
3.1.5	In addition to the 30,000 sf of community facillity, a 7,000 sf child care facility is Incorporated as part of the Wesbrook Community Project as a Phase 2 construction. This facility is to be one story, fully licensed and programmed to accommodate three age groups: infants, toddlers and Pre-school, for a total of 49 children. The Child Care Centre will be designed in accordance with City of Vancouver/Coastal health standards/guidelines.

Given all the feedback and comments received from the Committee members and UBC Child Care facility manager, as well as consideration taken from design guidelines; the proposed location of the facility is to the west of the Community Centre tucked away next to the existing forest grove. This location provides the least interference of noise from street traffics and also allows a complete exposure to park view and natural daylight. The shape of the Child Care Centre takes cue from the Community Centre, angled to face true south; the west limit of the footprint is aligned with the edge of south entry Plaza of the secondary school to the north, respecting students' physical and visual access to and from the park.

The general layout of the facility will have all activity rooms at the south edge to make direct connections to the secured outdoor play space which also makes a direct visual connection to the field and water park to the south. Main entry to the Child Care Centre will be from the west end of Community Centre atrium through a small lobby/reception area. Administration/staff area and other service rooms such as laundry are tucked at the north side, which also provides an alternative entry for the staff and service personnel.

A two story facility was considered. However, due to the following concerns raised by UBC Child Care a two story daycare is not recommended for this site. A change in floor has a profound effect on the function of a daycare. In an office setting, a change of floors is deemed to be equal to something like 150 ft or more of horizontal corridor in terms of "separation". This separation effect is even greater for a daycare. The upper floor facilities might as well be in another building. The child/staff ratios must be maintained and any use of another level becomes as structured as an "out trip" outside of the daycare. Locating core space on a different level disrupts the flexibility of use of space, flexible timing, flexibility of participants, synergies between activities etc. Every impediment to staff lessens quality of care, increases stress.

3.2 Create animated and interesting edges

- 3.2.1 The centrally located building provides easy access and circulation for all physical abilities and modes of transportation with clear way finding throughout. The project site is bounded on all sides by pedestrian and cycling routes that connect to the nearby residential neighbourhoods, campus and Pacific Spirit Park. Emergency access is via Webber Lane to the east front entry.
- 3.2.2 The west entry elevation provides a well-defined edge to the parking plaza and the commercial core.
- 3.2.3 The north elevation's stone treatment, view windows into the gym and the street trees provide a comfortable environment for pedestrians on the E/W promenade.
- 3.2.4 The main entry is oriented to the east.
- 3.2.5 The ground floor elevation is set at slightly above the level of the parking plaza to provide for universal access.
- 3.2.6 The south terrace provides indoor-outdoor access for the café, reading room and large multipurpose rooms.
- 3.2.7 The overhanging second floor provides generous weather protection and bike storage.

3.3 Express urban place in a forest clearing "near the farm"

- 3.3.1 The architectural expression of the community centre has a distinct character that

bridges the modern language of Modern Green and Uhill with Granite Terrace's west coast arts & craft style. The use of wood and stone connects to the village context, while the more contemporary massing relates to more recent development around the civic plaza.

3.3.2 The building has a more formal expression to the east and a more open expression to the south and west.

3.3.3 The atrium provides a strong link between the civic plaza and the park and playing fields to the west.

3.4 Landscape and open space

3.4.1 The park includes a large water play park, located in a sunny spot with no shadowing from adjacent buildings. The multipurpose rooms and office administration areas overlook the play park, which provides natural surveillance and enhanced public safety.

3.4.2 North-south and east-west pedestrian and cycling routes connect to the community centre for easy access. The location of the café and reading room at natural cross roads will provide great opportunities for people watching and social engagement.

3.4.3 The building and park are closely integrated to take best advantage off their shared program.

3.5 Planting

3.5.1 The landscape concept for the Wesbrook Community Centre embraces its spectacular natural setting; an outdoor area and open space connector also serves as the green 'lungs' of the neighbourhood. There is strong interest in retaining existing trees as a wild chunk of forest providing a natural backdrop for the Centre and mediating between the activity spaces of the Centre, the schools, and the sport fields. Tree protection will be established in advance of site grading, and the tree grove reviewed and restored between initial site development and later improvement phases. Review by Arborist will occur as warranted.

3.5.2 Closer to the Centre, outdoor spaces are edged with layers of planting to reduce the impact of several of the building facades and create a more contemplative, community environment. The south walk features a perennial swale garden that will receive storm water from the adjoining pavements. A stroll garden featuring a spring peony display has been shown. Lawn will be provided for high-use areas.

3.5.3 Plantings include a diversity of native plantings to enhance the existing forest edge, and several species – including early blooming *Fothergilla* – to highlight the seasons.

3.5.4 The roof terrace amenity is proposed for the planned future Child Care facility.

3.5.5 Trees to be removed are within the building footprint or immediate construction zone. Relocation of existing native trees is not recommended due to the low success rate.

3.5.6 Plant selections address the varied conditions around the building. Plantings and specific gardens endeavour to extend the landscape appreciation to year round.

3.5.7 An in-ground, automatic irrigation system will be provided for plant establishment and lawn and perennial maintenance.

3.5.8 Preservation of a contiguous stand of existing native vegetation was identified as an important goal early on. The mix of trees was considered appropriate, and provides a wilder environment for adventure play.

3.6 Sustainability

- 3.6.1 The project is design to meet a LEED gold standard. The UNA Board has decided not to proceed with LEED registration. UBC's Sustainability Office has agreed to provide enhanced oversight to ensure equivalent LEED Gold requirements are met.
- 3.6.2 The primary Initiative is an aggressive energy use target of 117 kwh/m²/year. This will be achieved with a high performance envelope, reduced glazing area of less than 40%, natural daylighting, passive ventilation and high efficiency HVAC and lighting systems.
- 3.6.3 Ventilation to all multipurpose and office spaces will be delivered by displacement ventilation and the indoor air quality in each space will be confirmed through CO2 monitoring. Separate air-handling systems will be provided for multipurpose rooms, general offices space and the gymnasium. The air-handling units will be located in the penthouse mechanical rooms. With high volumes of outside air required in multipurpose rooms, heat recovery of the outside air will also be incorporated into the ventilation systems. The system will also be design to allow mixed mode operation in which the ventilation systems can be throttled back when natural ventilation is in use.
- 3.6.4 A hybrid mechanical natural ventilation design will combine interconnected floor spaces, operable windows in multipurpose rooms and offices and digitally controlled relief air dampers to create a natural stack effect. Under suitable outdoor temperature and wind conditions, when such occurs, the digital controls system will throttle or fully close airflow to specific rooms where temperature and carbon dioxide are controlled to specified acceptable levels.
- 3.6.5 Low water flow fixtures will be used throughout the facility to reduce water consumption. A building management system (BMS) will provide real-time water and power consumption information to user to help people see how behavioral changes can have a positive impact on energy use.
- 3.6.6 Daylighting will be implemented throughout all spaces of the building. High efficiency luminaires will be specified. The lighting system shall be automated using daylighting controls, zone switched luminaires, occupancy sensors, dimming ballasts tied into daylight sensors and Photoelectric cells.
- 3.6.7 Source of Heat Energy - The facility is designed to tie into the future district energy system.
- 3.6.8 Building Structure – Heavy timber laminated beams and CLT panels are used throughout the project to reduce the buildings environmental impact over a conventional steel and concrete building. This was validated through an independent Life Cycle Assessment.
- 3.6.9 Siting & Orientation – Passive energy performance is improved by orienting the multipurpose room wing to due south. Generous overhangs provide passive cooling and weather protection. The gym is located to the northwest and has reduced glazing area to mitigate solar gain on the west and heat loss on the north. The gym has clerestory windows to provide natural daylight.
- 3.6.10 Parking – no additional parking stalls are provided. An underground connection to the parking level was investigated, but was rejected due cost, building servicing conflicts and fire safety concerns.
- 3.6.11 Building Envelope – The project is designed to have a high performance envelope with continuous exterior insulation, reduced thermal bridging due to the CLT structure and less than 40% glazing area.
- 3.6.12 Two accessible parking stalls are provide near the main entry.
- 3.6.13 Deciduous trees are provided on the south side for shading.
- 3.6.14 The building is located in the northeast corner of the lot to maximize sunlight exposure for the park.

3.7 Storm Water Management

3.7.1 Storm water will be collected from the building roof surfaces and discharged into a bio-swale connecting to the south campus underground water retention tank. Storm water will not be used for the water play park because of the water is not potable and can not be affordable treated on site.

3.8 Building Service and Delivery

3.8.1 HVAC, delivery and service entries are located on the north side of the building adjacent to the Granite Terrace One loading bay. The service zone is accessible, but well screened from the civic parking plaza.

3.8.2 Garbage and recycling containers are located in a service room in the building.

3.8.3 The UNA Recycling Centre will allow residents to have local access to Product Stewardship Program (PSP) recycling and other non-standard recycling programs. It would also provide a location for residents to learn about other regional recycling opportunities and for the UNA to provide outreach about UNA sustainability programs. It will be visible and easily accessible for residents and help demonstrate the UNA's commitment to sustainability. PSP recycling includes: computers, a/v equipment, batteries, cell phones and Styrofoam and plastic film.

3.9 Accessibility

3.9.1 All major circulation routes, front door accesses and other building access points are universally accessible. Alternate routes are provided from ground floor rooms where access is limited due to existing site grades. For example, the north gym access door is not accessible, while the west gym door is.

3.9.2 Ramps and guards are designed to meet BCBC requirements.

3.10 Bicycle

3.10.1 Outdoor covered bicycle storage is provided near the east and west entry doors. Spaces at the east entry are large enough to accommodate child transport trailers.

3.10.2 End-of-trip facilities are provided in the community centre change rooms and include lockers and showers.

3.10.3 The community centre is located at a cross roads of bicycle pathways connecting to the greenway, playing fields, and the planned 16th avenue mid block connection.

3.11 Paving Standards, Site Furniture and Lighting

3.11.1 Site circulation establishes a series of nodes and connectors that crisscross site and set up a primary axis that is celebrated in the water feature and spray park. The intent is to locate circulation to the perimeter of the space, maximizing the perimeter activity and viewing of the central lawn and water feature. Site accessibility is supported with gentle ramps integrated into the space. The layering of pavements, plantings and site furnishings supports pedestrian flow and visual interest.

3.11.2 Materials connect the Centre to the neighbourhood, while distinguishing the activity zones. Most pavements are standard concrete pavements with a light sand blast finish and sawcut joints. Park paths provide a finer detail of scoring. Stone – basalt columns, granite boulders, and river cobble – will be used to define and distinguish the water

feature elements.

- 3.11.3 Programming is a flexible overlay. The entry is flush with the parking court to permit the entire space to be used for activities and events, including weekend markets and gatherings. North of the centre curb-free pavements permit the entire zone to function as a circulation 'woonerf' (pedestrian priority zone) with the High School. At the southeast corner of the centre a large terrace provides ample outdoor seating, and a wraparound seat-wall provides connections for outdoor internet use. The south terraces provide generous spill out space for activities in the multi-purpose rooms, and a pleasant prospect above the central green and water feature. The Central Green supports a diversity of events with seating along all edges. The Central Water Feature provides rings of activity and viewing.

3.12 Crime Prevention Through Environmental Design

- 3.12.1 The building exterior and park spaces meet CEPTED design principals for Natural Surveillance, Crime Prevention Through Environmental Design strategies have been employed to create safe exterior and interior spaces at all times of the day or night. The two main building entrances are clearly visible from high traffic public providing good *Natural Surveillance*. The reception area has *Natural Access Control* of the east and west entries, teen room, gym and service rooms. Loading and service entrances are visible from the parking plaza but not intrusive.
- 3.12.2 The ground oriented location of the café, offices and multipurpose rooms all contribute to *Natural Territorial Reinforcement* and attracts more users to exterior terraces on the south side of the building. Tall ground cover landscaping is kept away from building edges and soffit lighting is provided to ensure there are no dark hiding spaces around the perimeter of the building.
- 3.12.3 Anti-graffiti coatings will be applied to all vertical at-grade surfaces. Stone masonry cladding is proposed for its texture, beauty, and durability and because it is difficult to tag or damage. Skateboard stops will be provided for all vertical landscape walls and the terrace steps.
- 3.12.4 Careful attention is taken to keep circulation routes easily visible from multiple viewpoints, and to maximize and diversify use of the site in all seasons to keep more eyes on the spaces, applying CPTED principles. Lighting is to be provided per the current UBC and UNA guidelines.