

Memo

File: 3060-20 / DP 5A 19

DATE: June 4, 2019

TO: Advisory Planning Commission
(Electoral Area A)

FROM: Planning and Development Services Branch

RE: Kensington Comprehensive Development Permit Area
Lot 3, Plan EPP15507, Island Highway (34083 Yukon Inc)
Lot 3, District Lot 154, Nanaimo District, Section 32, Township 1 and District Lot
28, Nelson District Plan EPP15507, PID 028-731-531

The attached development proposal is for commission members' review and comment.

Application Description

An application has been received for a Kensington Comprehensive Development Permit (DP) to construct two buildings to be used as a real estate sales centre and café/deli ("Discovery Centre"). The subject property is 7.0 hectares in size and is located in Comprehensive Development Area 3 (CDA-3). The property is surrounded by the Island Highway to the west, vacant lands to the north and east, and the sea to the south (Figures 1 and 2). The proposed Discovery Centre (comprised of two buildings connected by a covered walkway) is 1.5 storeys with a total floor area of 725 square metres (Figures 3 and 4). Once real estate sales are completed, the real estate office must be converted to another permitted use in the Mixed-Use Commercial-Residential (MUCR) zone.

Official Community Plan Analysis

The subject property is designated Settlement Node in the Official Community Plan (OCP) being the "Rural Comox Valley Official Community Plan No. 337, 2014". Settlement Nodes are intended to be the primary growth areas within the electoral areas. Section 88 of the OCP requires the applicant to obtain a Kensington Comprehensive DP prior to the construction of a building or structure. The proposed Discovery Centre and associated areas are outside of the Aquatic and Riparian Habitat Development Permit Area.

Kensington Comprehensive Development Permit Area

The Comox Valley Regional District (CVRD) Board has limited discretion when reviewing DP applications. Provided the proposal meets the Kensington Comprehensive DP guidelines (Appendix A), the DP should be issued. Other planning approvals, such as a development variance permit or a Zoning Bylaw amendment, are discretionary and site specific.

The main objectives of the guidelines are to protect the historic character of Union Bay, provide landscaping for privacy and security, to manage rainwater, and promote sustainable development. A preliminary review of the proposal against the DP guidelines is detailed below.

General Form and Character

The guidelines seek to protect the historic character of Union Bay. The character of the building should reflect the rich heritage values of Union Bay and the natural coastal amenities of Vancouver Island utilizing a “west coast” style comprised of stone, wood and other natural building materials. The Design Rationale, dated May 31, 2019, prepared by Kim Smith, Architect AIBC, FRAIC, LEED A.P of Helliwell + Smith Blue Sky Architecture Inc. (Appendix B) details the design choices and how they meet the DP guidelines. The building is intended to be designed to net zero standards, utilizing only as much or less energy than it produces. A low sloped folded metal roof peaks near the northwest corner signifying the gateway into the first phase of the development. The total building height is 10.6 metres (measured from average natural grade). The form and character references the Union Bay Historical Pier with large angled wood columns supporting a large overhang. Additionally, a mural of the historical pier will be featured on the north side of the building. The design represents a “west coast style” through the use of cedar siding, metal siding and architectural concrete with large windows framed in natural aluminum (Figure 3). The Discovery Centre proposes 22 parking spaces (2 reserved for people with disabilities) and 10 bicycle parking spaces (Figure 4). The site aims to be pedestrian friendly with two access points separate from the parking lot and plenty of walkways around the buildings. The walkways have a different landscape treatment to differentiate them from the parking area. Public use is encouraged through the placement of outdoor benches and an outdoor seating area associated with the café/deli. The Architect Renderings and Drawings, dated May 31, 2019, prepared by Kim Smith, Architect AIBC, FRAIC, LEED A.P of Helliwell + Smith Blue Sky Architecture Inc. can be found in Appendix C and D.

Signage

One freestanding illuminated sign is permitted on the same parcel as the development provided it is within a landscaped area. The maximum height including support structures shall not exceed 1.2 metres and the area shall not exceed 3 square metres. The applicant has proposed one freestanding sign, visible from the Island Highway, within these parameters. Signage is permitted on exterior building walls, provided each sign has a maximum area of 4 square metres. The maximum area of all exterior signs combined shall not exceed 12 square metres. Signs may be illuminated and should be integrated into the design of the building. Three types of signage are proposed. Type A is “Union Bay Estates” in stainless steel 3D lettering pin mounted on the wall with concealed backlighting. Type A signs are featured in three locations on the building. Type B is “Discovery Centre” in stainless steel 3D lettering flush mounted on the wall and is featured in two locations. Type C is “Café” and “Deli” (exact words, to be determined) in stainless steel 3D lettering on metal backboard suspended from soffit and is featured in two locations. The cumulative signage area is 9.0 square metres (Appendix C and D).

Landscaping and Screening

A landscaping plan is required detailing landscaping along the frontage of existing and future roads and throughout parking areas. The applicant has proposed landscaping throughout the parking area and building site, including adjacent to the two proposed roads that may be created at time of subdivision. A bulk of the landscaping is proposed along the Island Highway, but only within the proposed 0.3 hectare lot, which has not received subdivision approval from the Ministry of Transportation and Infrastructure (MoTI). As future buildings will trigger new DPs, it is reasonable to not require the entire frontage of the 7 hectare lot (CDA-3) to be landscaped at this time. Future DPs can ensure the landscaping along the remaining frontage of CDA-3 is adequate for the type and scale of the development. The landscaping plan, dated February 1, 2019, prepared by Michael

Patterson, BCSLA, CSLA of Perry + Associates Inc. (Appendix E) details the type of plantings and notes the planting and installation to meet or exceed the British Columbia Society of Landscape Architects and British Columbia Landscape and Nursery Association standards. Where possible, landscaping should utilize native plants and xeriscaping. The landscaping plan includes several native plant species and an irrigation system that utilizes captured rainwater. A security deposit will be collected for 125 per cent of the estimated cost of the landscaping works.

Service elements should be screened from the public. The waste disposal/recycling bins are fully screened by a metal enclosure and the small loading area for the café is not screened, however the loading door is designed with a metal door that is cohesive with the rest of the development.

Lighting

The proposed lighting is consistent with the CVRD's DarkSky Policy. The lights, which are urban post mount luminaire with powder coated black finishes, are fully shielded so they do not shine into adjacent properties and use LED technology for energy efficiency.

Rainwater

A majority of roof water will be collected into three large scuppers that will drain into a landscape pool under the covered walkway adjoining the two buildings. The landscaping pool will drain into an underground cistern to be reused for irrigation. The scupper on the east side of the building will drain into a small rain garden. A Rainwater Management Plan, dated May 28, 2019, prepared by Adam Cooper, Eng. L. and Bob Hudson, P. Eng of McElhanney Consulting Services notes the probable percentage of impervious surfaces (for proposed lot, not existing lot) is 85 per cent. The report recommends that roof water and other hard surfaces are routed into a series of on-site subsurface storage/infiltration facilities. On-site storage should accommodate a 1 in 10 year, 24 hour storm event. A control manhole should be installed at the point of connection to the future off-site stormwater system. With the exception of roof water, all runoff will be routed through catch basins equipped with grit sumps, upstream of proposed infiltration galleries, to remove settleable solids and debris. The modelling in the drainage plan does not account for the underground storage tank for on-site irrigation or use of permeable paving in the parking areas. These features will provide an increased factor of safety by serving to further reduce peak runoff rates and total volumes.

Energy Conservation, Water Conservation and Reduction of Greenhouse Gas Emissions

The guidelines require the applicant contemplate how the proposed development will incorporate energy efficient systems or features. The building is designed to a net zero standard, uses solar panels, reuses roof water for irrigation and utilizes LED lights in all light fixtures.

Contaminated Site

SLR Consulting is working with the Ministry of Environment and Climate Change Strategy (MoECCS) Environmental Emergencies and Land Remediation Branch to address contamination issues associated with the former industrial use of the lands. As per Section 557 (2) of the *Local Government Act* (RSBC, 2015, c. 1), a DP cannot be issued until the applicant receives a release letter, approved remediation plan or certificate of compliance from the Director under the *Environmental Management Act*. On May 16, 2019, the MoECCS issued a letter stating the CVRD could proceed with the review of this specific DP. The requirement for the site investigation is not extinguished by the release of the DP and this outstanding requirement will suspend the approval of any future applications.

Master Development Agreement

Union Bay Estates is governed by a Master Development Agreement (MDA) that was approved by the CVRD Board in 2010 and amended in December 2017. The agreement details community amenities that the developer will provide as well as the installation of infrastructure to ensure road, water, and sewer servicing are available to the lands. The DP application does not trigger any commitments outlined in the MDA. However, prior to the issuance of a building permit, a number of substantial commitments will need to be fulfilled such as donation of affordable housing lots, site servicing, initial parks and trail dedication, etc.

Zoning Bylaw Analysis

The subject property is zoned Kensington Comprehensive Development Zone (K-CD) and sub-zoned MUCR in Bylaw 2781, being the “Comox Valley Zoning Bylaw, 2005”. The MUCR zone permits a real estate sales centre and commercial uses. As the proposed lot, shown on Figure 4, does not currently exist, the zoning provisions were reviewed in relation to the current lot. At time of subdivision, if the buildings are completed, the zoning would be reviewed to address any non-conforming siting issues. The applicant has endeavored to meet setbacks for the proposed lot, but there is no guarantee this exact configuration will be approved by the MoTI. Off-street parking requirements are 20 parking spaces and 2 bicycle parking spaces. The applicant is proposing 22 spaces, 2 which are reserved for people with disabilities, and 10 bicycle parking spaces. The proposal is consistent with the Zoning Bylaw.

Floodplain Considerations

The property is subject to Bylaw No. 2782, being the “Floodplain Management Bylaw, 2005” and provincial *Flood Hazard Area Land Use Management Guidelines* “provincial guidelines”, whichever is more restrictive. The architectural drawings reference a flood construction level of 5.0 metres, but note the exact flood construction level will be determined at the building permit stage when adherence with Bylaw No. 2782 and the provincial guidelines are confirmed. The applicants have provided a Sea Level Assessment for the Flood Construction Level, dated May 29, 2019, prepared by Hammad Mir, Ph.D, P.Eng and Jason Clarke, P. Eng of Great Pacific Engineering and Environment, which recommends a minimum elevation of 4.6 metres above mean sea level for the underside of a wooden floor system or top of concrete slab for a habitable building.

Sincerely,

T. Trieu

Ton Trieu, MCIP, RPP
Manager of Planning Services
Planning and Development Services Branch

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Attachments: Appendix A – “Kensington Comprehensive Development Permit Guidelines”
Appendix B – “Design Rationale, dated May 31, 2019”
Appendix C – “Architect Renderings, dated May 31, 2019”
Appendix D – “Architect Drawings, dated May 31, 2019”
Appendix E – “Landscaping Plan, dated February 1, 2019”

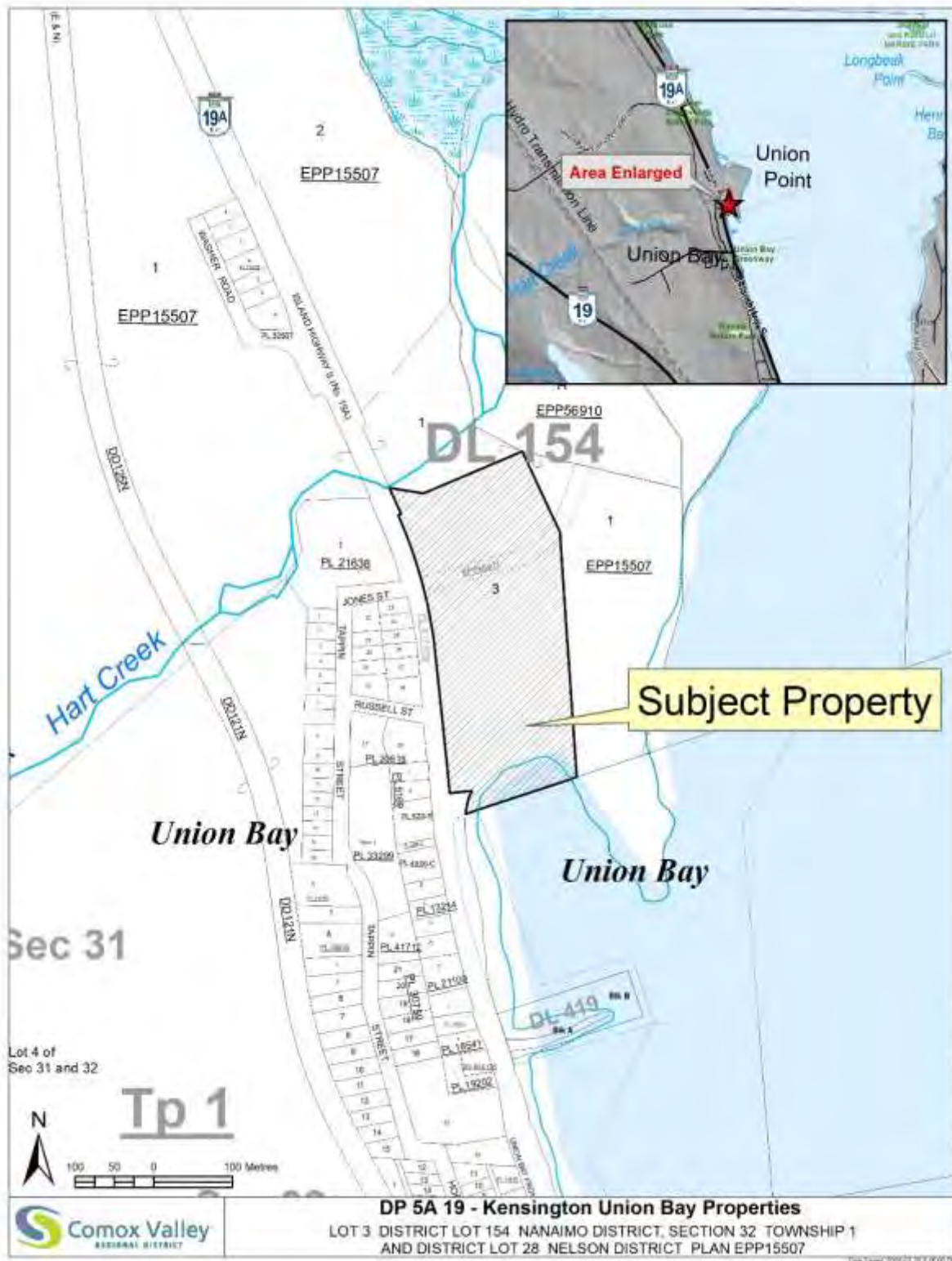


Figure 1: Subject Property Map



Figure 2: Aerial Photo



Figure 3: Architect Renderings

Comox Valley Regional District

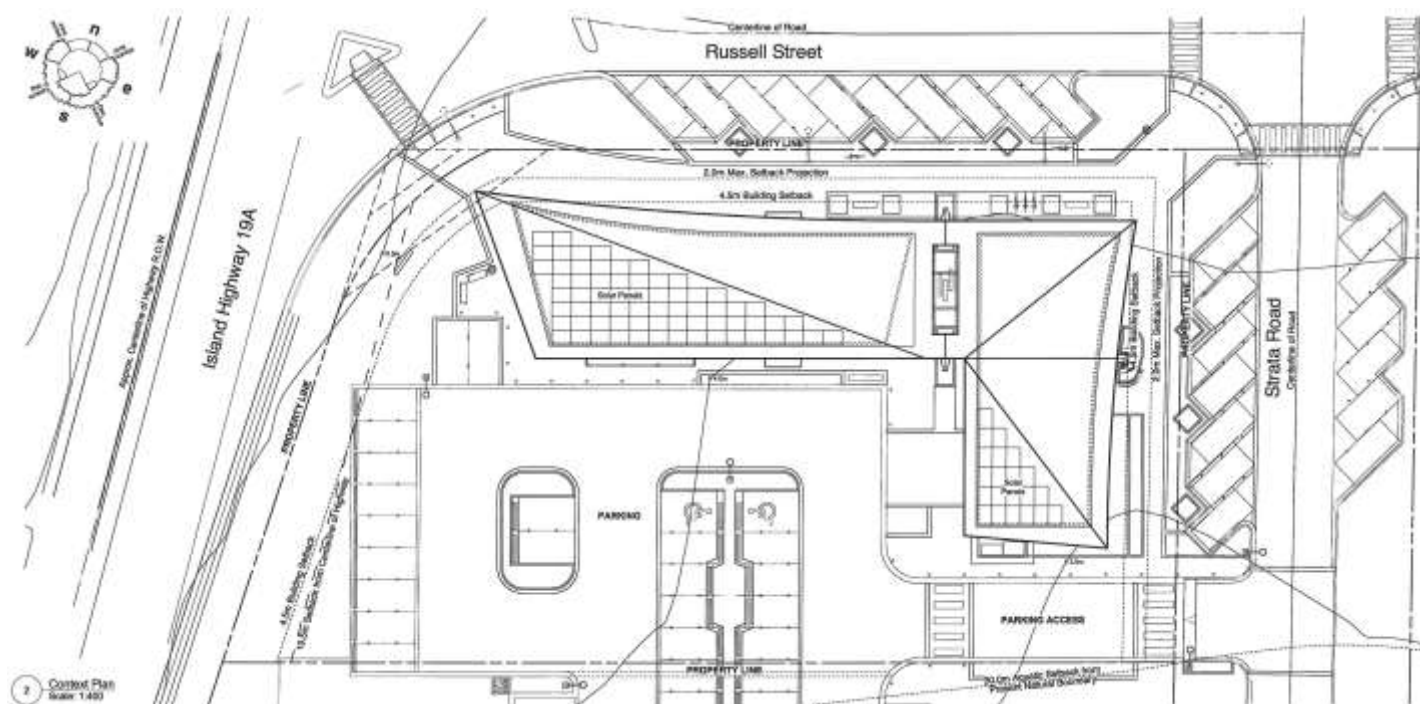


Figure 4: Site Plan

Text removed as part of previous Section 87

Kensington comprehensive development permit area

88. *Justification*

The proposed Kensington development permit area is located north of and adjacent to the Union Bay community, which is renowned for past successes and future goals to preserve the rich heritage of the area. Development within sensitive areas will be subject to environmental sensitive areas development permits and the development conditions of these permits. Portions of the proposed development area are impacted by the coal residue inherited from a previous industrial era. The “waste coal hills,” as commonly known, are subject to be remediated in accordance with a remediation plan approved by the Ministry of Environment.

One of the objectives of the Kensington development permit area is to protect the historic character of the Kensington and Union Bay communities. This will be accomplished by creating compatible buildings that complement Union Bay’s historic character by utilizing a “west coast” style comprised of stone, wood and other natural building materials.

Where applicable, the regional district will in addition to the above, apply the aquatic habitat development permit and the Ministry of Environment’s riparian areas regulation.

Area

The Kensington comprehensive development permit area is shown on map 5.

Information requirements

All development within the Kensington development permit area indicated on map 5 shall be required to obtain a development permit unless otherwise exempted. An application for a development permit for the Kensington development permit for commercial, multi-family, non-residential and intensive residential development permit applications shall include the following information:

- (1) Location and dimensions of all driveway crossings, parking areas, loading areas, vehicular circulation areas, pedestrian areas and connections to other walkways, proposed landscaping areas, outside storage areas and outside display areas;
- (2) Location and dimensions of all proposed improvements including expansion of proposed and existing improvements;
- (3) Location and dimensions of all property lines, easements and statutory rights-of-way, siting of parking areas, driveways, storage areas and loading docks;
- (4) Proposed surface treatment of all yard areas, showing the extent and nature of landscaping, including details of vegetation cover (trees) to be maintained, or proposed to be planted;
- (5) Dimensioned elevations of all improvements including elevations, noting building materials and finishes;
- (6) Proposed methods of management and control of all on-site drainage (i.e., rainwater management plan);
- (7) Location, height, and construction of all proposed signage, lighting, fencing and screening; and
- (8) Such further information or materials as the regional district may reasonably require.

Exemptions

The following conditions are exempt from development permit requirements of all categories:

- (1) for single family residences;
- (2) for interior renovations;
- (3) for minor alterations to the exterior of a building or structure that do not change the form or character of the development;
- (4) for minor changes to design, finish or landscaping;
- (5) for accessory buildings;
- (6) for subdivisions which are lot line adjustments, subdivision for park purposes or for consolidation; and
- (7) for trail projects approved by the regional district.

Guidelines

General form and character guidelines:

- (1) All buildings and structures shall give consideration to the general architectural style, detailing scale, materials, character of fenestration, character and material of roofs, treatment of entrances, gradations of heights, relationship of indoor and outdoor spaces, design and placement of amenity areas, access, parking arrangement and circulation, and landscape character and design.
- (2) The character and style of buildings, neighbourhoods and communities should provide a sense of place, one that reflects the rich heritage values of Union Bay and coastal natural amenities of Vancouver Island.
- (3) The design of all buildings, open spaces and their relationships should embody crime prevention through environmental design, an established multi-disciplinary approach to deterring criminal behavior through environmental design. Proper design and effective use of the built environment can reduce crime, reduce the fear of crime, and improve the quality of life.
- (4) The design of all buildings and open spaces (e.g., sidewalks, trails, parking lots and public areas) should consider easy and friendly access by people with disabilities and special needs.
- (5) Varied rooflines, including pitched roofs, are encouraged to provide for view corridors and to reflect heritage elements.
- (6) The design and introduction of a new building type to, or adjacent to, a residential neighbourhood should provide harmony and lend continuity to the neighbourhood and should not create excessive disruption of the visual character of the neighbourhood.
- (7) All roof top, mechanical equipment should be screened from view and incorporated with the overall architectural treatment of buildings.
- (8) Any end wall of a building that is visible from the street should be finished to the same standard as the front of the building to provide an attractive appearance. Blank unarticulated walls are not permitted.
- (9) The roof slope and siting of any buildings shall be such as to minimize any obstruction of direct sunlight falling onto adjacent properties and residences.
- (10) Buildings and structures shall be designed and situated to maximize view corridors where appropriate.
- (11) Buildings and structures shall be designed and situated to minimize the disturbance of significant natural vegetation.
- (12) Buildings and structures shall be designed to complement unique topographical features.
- (13) Security and other lighting shall not be placed so as to shine directly into residential properties, as per the dark sky policy of the regional district or to reduce the separation effectiveness of any landscaped buffer.
- (14) Compliance with the regional districts dark sky policy is a mandatory requirement.
- (15) Exterior lighting fixtures should be architecturally integrated with the design of the buildings.
- (16) Site planning details shall demonstrate inclusion of the following pedestrian circulation considerations:
 - i. Development of a walkway network that provides access to important site and off-site destinations.
 - ii. Building and site designs should include “public gathering places,” such as open-air market areas which help to encourage pedestrian traffic.

- iii. The use of small seating areas, entry areas, plazas and other meeting places in conjunction with pedestrian areas should be incorporated into development plans.
- iv. Site design should minimize vehicle and pedestrian conflicts.
- v. Pedestrian access to the site and to buildings should be inviting and well marked.
- vi. Encourage maximum accessibility and usage of the foreshore for the public in all land uses.
- vii. Ensure neighbourhood parks in all zones are connected by greenways or trail system to other land uses (e.g., to neighbourhood commercial or to trail systems).
- viii. Pathway design and construction to meet proposed use criteria:

Pathway	Location	Width & surface
Greenway trail	Golf course, riparian areas, waterfront, buffers	2.0 metres (6.6 feet) pervious surface (e.g., gravel)
Sidewalk	Commercial, hotel, retail	2.0 metres – 3.0 metres (6.6 feet – 9.8 feet) hard surfaced (e.g., unit pavers, exposed aggregate concrete, permeable pavers)
Neighbourhood connector	Residential neighbourhood	1.5 metres (4.9 feet) pervious surface (e.g., gravel)
Bicycle commuter trail	Shoulder of major transportation routes / E &N Rail Corridor	Minimum 2.0 metres (6.6 feet) impervious surface (e.g., asphalt)

- ix. Sidewalks may not be required in residential areas or in sectors where alternate pathways are available (refer to paragraph viii above). All pathways shall have the greatest permeability practical for the intended use.
- x. Pathways may be developed in riparian corridors provided that requirements of the riparian area regulations are followed and that porous, non-polluting trail/tread surfaces are used.
- xi. A pedestrian and cycle-friendly access shall be built as part of roadway crossings of Hart Creek.
- xii. All paths are to be connected to form a continuous pedestrian route.
- xiii. Paths shall be established within the dedicated old rail right-of-way as documented in the greenway plan, if feasible.
- xiv. Sidewalks are required on both sides of streets in the Village Centre commercial area.
- xv. Trails, paths and sidewalks should link to those of adjacent communities.

- xvi. Trails, paths and sidewalks should be accessible to people with disabilities.
- (17) Site planning details shall demonstrate inclusion of the following cycling circulation considerations:
 - i. Site vehicle circulation should provide for safe bicycle routes across the site to building entrances.
 - ii. Bicycle parking should be provided in a sheltered location convenient to building entrances and provide for secure storage.
- (18) Site planning details shall demonstrate inclusion of the following automobile / transportation infrastructure considerations:
 - i. Lanes servicing the rear of residential units shall be surfaced to increase infiltration of rainwater.
 - ii. Alternates to curb and gutter construction are encouraged for interior roadways in the single-family residential areas.
 - iii. Parking areas should clearly identify pedestrian circulation areas, preferably with different paving and landscaping treatment.
 - iv. Parking areas are to be designed with minimum visual impact from the highway and from the retail pedestrian streets.
 - v. Developers are encouraged to incorporate site parking requirements within the principal structures of their development.
 - vi. On commercial sites the following additional considerations are noted:
 - a) Co-ordination and connection of parking lots with adjacent properties is encouraged to ensure street efficiency. Rear loading of commercial buildings is also encouraged.
 - b) Parking areas in commercial zones are to be integrated with the sidewalks adjoining the retail shops.
 - c) On street parking shall be encouraged in commercial areas.
 - d) Parking for people with disabilities and special needs shall be close to buildings.
 - vii. In order to facilitate pedestrian circulation with options for travel routes, a pedestrian walkway from the end of the cul-de-sac to adjacent roadway or trail shall be provided.
 - viii. To create more pedestrian-friendly streets, paved street widths should be reduced wherever possible. The rights-of-way should provide ample room to incorporate walking/cycling paths, services, landscape areas, parking and safe travel lanes. Reduced pavement results in slower vehicle speeds in residential areas, which results in a safer environment for pedestrians and wildlife.
 - ix. Recommended rights of way and paved travel lane widths; should comply with the Ministry of Transportation and Infrastructure’s Chapter 14 Subdivision Road Standards.
 - x. Large surface parking areas are to be discouraged and should be broken down into smaller parking lots dispersed throughout the development and integrated with planted landscaped areas or designed with permeable

- surfaces. Visitor parking spaces should be clearly identified and provided within the development.
- xi. Tree planting is encouraged in parking areas with the provision of adequate space to ensure the success and vigour of the plantings.
 - xii. Traffic calming measures are to be encouraged in all roadway design.
 - xiii. Roads should be connected to the road networks of adjacent communities.
 - xiv. Cul-de-sacs and dead ends should be minimized; they should only be used for the protection of environmentally sensitive areas or for topographic reasons.
 - xv. Where public access to a body of water is required or warranted, identification signs should clearly mark these public corridors.

Additional form & character guidelines - commercial

- (1) All buildings and structures in comprehensive development area 3 (CDA-3) shall be a maximum of four stories in order to promote an appropriate sense of small scale village town centre and ensure surrounding views, including those from the marine environment, are respected.
- (2) Neighbourhood commercial development should blend in character with the surrounding single family homes.
- (3) Special care is required for the design and construction of buildings that will become landmarks, included but not limited to the proposed civic or institutional buildings and the marina public facilities building; to ensure that these buildings complement the form and character of the surrounding area.
- (4) For pedestrian oriented, continuous street fronting development, buildings should line the street with minimum front setbacks or with setbacks to encourage outdoor retail and service use.
- (5) Buildings containing commercial uses shall be sited so as to ensure that any adjacent residential properties have visual privacy, as well as protection from site illumination.
- (6) Articulation of the face of the building to express a variety of three-dimensional forms is encouraged to provide visual interest and varied outdoor space, and prevent the construction of expansive blank walls.
- (7) Street furniture such as benches, lamps and refuse containers shall be incorporated in the landscape design.
- (8) All garages and carports are encouraged to be located at the rear of the lot and accessed from rear lanes or shared driveways.

Additional form & character guidelines - multi-family residential

- (1) All multi-family developments are encouraged to front or appear to front onto adjacent roadways. This may be achieved through appropriate treatment of the building exteriors and through the provision of pedestrian entranceways and walkways to the street.
- (2) No more than five townhouse units should be linked as one building and façades are encouraged to be articulated.
- (3) Pedestrian connections among buildings are encouraged.
- (4) Where multi-family units have vehicular access via a public street, combined driveways are encouraged to minimize breaks in the landscaping along the boulevard.

- (5) Recreation, play and/or garden areas should be provided within each project and should be sensitive to the needs of all age groups likely to reside within the development.
- (6) Buildings should be designed and sited so as to minimize opportunities for residents to overlook each other's private spaces.
- (7) The design and siting of buildings and individual units should take advantage of views, natural amenities and adjacent open spaces, and should provide the maximum of units with good sun exposure to enhance the livability of units.
- (8) All garages and carports are encouraged to be located at the rear of the lot and accessed from rear lanes or shared driveways.

Additional form & character guidelines – intensive residential

- (1) Building façade plans of single family homes in intensive residential areas shall only be repeated every five houses along the same side of the street and are not to be finished, either by colour or materials exactly the same as the adjacent house.
- (2) The design and siting of buildings and individual units should take advantage of views, natural amenities and adjacent open spaces, and should provide the maximum of units with appropriate sun exposure to enhance liveability.
- (3) All garages and carports are encouraged to be located at the rear of the lot and accessed from rear lanes or shared driveways.
- (4) Road layouts are encouraged to take advantage of the topography and natural features to provide for varied street patterns.

Additional form & character guidelines- marina

- (1) Marina security gates and ramps should be located and designed so that public and emergency access to the water is maximized and view blockage from the shore (Highway 19A) is minimized.
- (2) Ramp locations should be in close proximity to marina parking.
- (3) The service facilities, restaurant, boatsheds and marine buildings should each have glazing opening onto the main public walkway portion of the pier, sufficient to enable passersby to overview activities occurring within.
- (4) Common area floats and pilings are for access only and should not be used for personal property storage.

Landscaping, screening, outdoor storage and signage guidelines

- (1) The character of commercial, non-residential and multifamily developments shall be enhanced by landscaping along property lines adjacent to single family residential developments.
- (2) A landscape plan shall be required for any commercial, multi-family or non-residential development within all comprehensive development areas. A preliminary site plan shall be provided with the required development permit application and a detailed landscape plan provided prior to the issuance of a development permit. The landscape plan shall be professionally prepared and shall include supporting documentary evidence pertaining to landscape specifications, detailed planting lists, cost estimates and the total value of the work. The landscape plan shall provide for the landscape treatment of the entire frontage of the building site abutting onto

existing or future public roads. Street specimen tree and boulevard landscape provisions are to be identified to soften the character and scale of the area. All proposed plant materials shall be suitable for local environmental conditions. All landscaping and screening shall be installed within 12 months of an occupancy permit being issued and shall meet or exceed the British Columbia Society of Landscape Architects and British Columbia Landscape & Nursery Association standards.

- (3) Use native west coast plant material and xeriscaping wherever possible in all landscape areas especially in screening, buffer, trails, greenways and park areas.
- (4) Where hard surface areas such as parking lots are planned, adequate pockets of landscaping should be included to soften the effect, provide shade and encourage ground water infiltration.
- (5) Service elements such as shipping and loading areas, transformers and meters shall be screened from public view as effectively as possible through the use of evergreen landscaping materials, solid fencing and appropriate siting.
- (6) All waste disposal bins shall be completely screened within a solid walled enclosure.
- (7) All recycling centers are to be appropriately located to provide easy access for users and ease of management by the service providers. Partial screening (i.e., landscaping or structures) is encouraged where conflicts between residential land use and the recycling centre may arise.
- (8) All residential development adjacent to existing Highway 19A will be buffered from the highway by existing native vegetation, enhanced with additional west coast native plant material in order to provide an effective vegetative screen.
- (9) No outdoor storage shall occur in the front yard.
- (10) Any portion of a building site which may be used as an outside storage area shall only be used as such if:
 - i. The area is enclosed within a two metre (6.6 feet) high solid fence having a suitable security gate;
 - ii. None of the goods or materials stored therein exceed the height of the two metre (6.6 feet) high fence; and
 - iii. In cases where the area lies between a structure and any public road, it is screened by an adequately landscaped buffer strip so that such storage areas are not readily visible from such public road.

Exemptions: tourist and marina related activities, such as, but not limited to kayak, canoe, bicycle and boat rental.

- (11) Billboards and roof signs are not permitted.
- (12) No signs shall be equipped with flashing, oscillating, moving lights or beacons, or be backlit, as per CVRD dark sky policy.
- (13) Illuminated signage should be located in a manner that minimizes disruption to any adjoining residential uses as per the CVRD dark sky policy.
- (14) Each development within the development permit area shall be allowed one freestanding sign for each street frontage of the development. Freestanding signs shall be permitted in landscaped areas only, on the same parcel as the development. Unless otherwise noted, the height of any sign including support structures shall not exceed 1.2 metres (4.0 feet) and the area of any one face shall not exceed three square metres (32.3 square feet). A freestanding sign may be illuminated.

- (15) All green and public open spaces in the development permit area, which include but are not limited to the following, shall be pesticide free zones and shall be established and maintained in accordance with recognized best management practices: golf course and adjacent areas forming part of the golf courses; public open spaces; walking trails; parks; and outdoor recreation facilities.
- (16) In addition to the above, the development and maintenance of all areas associated with the golf course development in the development permit area, shall adhere to a stringent program utilizing recognized environmental best management practices, including but not limited to the following guide:

Greening your BC Golf Course: A Guide to Environmental Management (Fisheries and Oceans Canada and Environment Canada; 1996.)

Although minimizing water use forms part of the implementation of best management practices, this item is included to ensure that the developer will minimize the use of water during the construction and maintenance stage of golf courses.

Additional landscaping, screening, outdoor storage and signage guidelines - commercial

- (1) Landscaping should be provided with the objective of:
 - Providing screening for privacy and security; and
 - Providing an effective screen at the time of planting.
- (2) The use of plant species which may be considered drought resistant is encouraged in all landscaping.
- (3) All landscaping shall be irrigated and maintained by the property owner(s).
- (4) Installation of interim landscaping (e.g., reclamation seed mixture, wildflower/ fescue mix, and clover/ fescue mix), which is appropriate to the soil, water regime and microclimate, should be encouraged to the satisfaction of regional district planning staff, on every part of a commercial development site that is not immediately developed according to the ultimate landscape plan include with a development permit.
- (5) Fascia signs shall be permitted for each exterior wall of a commercial building. The maximum area of each fascia sign shall not exceed four square metres (43.0 square feet). The maximum area of all fascia signs combined shall not exceed 12.0 square metres (129.0 square feet). Fascia signs may be illuminated and should be integrated into the design of the building. Fascia signs may not extend above the roofline of a building.
- (6) In comprehensive development areas 1 and 3 (CDA-1 and CDA-3), in order to promote pedestrian interest and visual variety, small retail units at grade level are encouraged to display a variety of sign designs, such as hanging perpendicular from an awning or perpendicular from the building.

Additional landscaping, screening, outdoor storage and signage guidelines - multifamily residential

- (1) All portions of a multi-family dwelling lot not occupied by buildings, parking areas, driveways or sidewalks shall be landscaped.
- (2) A screen of hedging at least two metres (6.6 feet) or trees should be placed and maintained among multi-family buildings and adjacent commercial buildings.

- (3) Orientation signage for larger developments should be provided. All signs should be architecturally compatible with the overall design of the buildings.
- (4) Maximum area of each orientation signage shall be three square metres (32.0 square feet).

Additional landscaping, screening, outdoor storage and signage guidelines - general

- (1) Street trees should be planted after construction of house and driveway.
- (2) Small lot developments should, where practical, provide a common green space.

Environmental guidelines

For additional environmental requirements, please refer to the following regulations:

Aquatic habitat development permit area eagle nest trees development permit area; heron nest sites development permit area; and bylaw no. 2782, being the “floodplain management bylaw, 2005.”

In addition to the above, the following guidelines are provided:

Rainwater

It is recognized that the clearing, grading and servicing of sites alters the natural hydrology patterns. In recognition of this fact each development proposal should be accompanied by a rainwater management plan that has as its goal the prevention of any rainwater runoff to enter the ocean; and the maintenance of post-development flows to those of pre-development flow patterns and volumes over the entire winter season. Preparation, adoption and implementation of a rain water management plan, based on “best management practices,” for the development permit area, may include some or all of the following practices:

- (1) use sediment control ponds;
- (2) use rain gardens;
- (3) encourage the installation of green roofs;
- (4) incorporate the use of oil/water separators or an equivalent technology to remove oil wastes from rainwater;
- (5) the use of grass swales and other alternates (e.g., infiltration trenches, rain gardens) as alternatives to curb and gutter approach should be encouraged wherever they can provide aesthetically-pleasing, practical and cost-effective alternatives to “hard” piped rainwater management solutions;
- (6) pervious and permeable surface should be used wherever possible in order to allow infiltration of precipitation; and
- (7) on-site rainwater detention.

All drainage works that affect roadway ditches or culverts, will require Ministry of Transportation and Infrastructure approval.

Hazardous slopes

- (1) Wherever development is proposed along Hart Creek or adjacent to slopes with 30% or greater, detailed studies of specific sites will be required for development setback recommendations. The following guidelines are conditions of a development permit in hazardous areas:

- i) The sequence and timing of construction or land alteration shall be coordinated to minimize potential erosion;
- ii) Exposed soil on steep slopes subject to erosion shall be immediately re-vegetated or otherwise protected from run-off; and
- iii) Geotechnical report shall be required and the recommendations in the report will form the conditions of the development permit.

Energy conservation, water conservation and reduction of greenhouse gas emissions

Human activities that contribute to climate change include in particular the burning of fossil fuels, agriculture and land-use changes like deforestation. These cause emissions of carbon dioxide (CO₂), the main gas responsible for climate change, as well as of other 'greenhouse' gases. To bring climate change to a halt, every effort should be made to reduce global greenhouse gas emissions. In 2008, the Province mandated local government to establish targets to reduce greenhouse gas emission and include policies and actions indicating how they will achieve the targets. These guidelines are based on the aforementioned mandate.

- (2) Pursuant to Bill 27 *Local Government (Green Communities) Statutes Amendment Act, 2008*, the following areas of development should be considered with respect to their impacts on energy conservation, water conservation and reduction of greenhouse gas emissions:
 - i. landscaping;
 - ii. siting of buildings and other structures;
 - iii. form and exterior design of buildings and other structures;
 - iv. specific features in the development; and
 - v. machinery, equipment and systems external to buildings and other structures.
- (3) The development should incorporate energy efficiency systems or features, such as ground-field loops for ground-source heat pump systems, solar thermal collectors, a district energy system. For example, using “waste” heat from one business as an input to a neighbouring business.
- (4) In order to meet the new legislated requirements for targets and reductions, all buildings and structures should strive to get the highest level of certification by known, leading rating system for all buildings and developments. For example, all new houses should achieve the highest feasible rating of EnerGuide for new houses. Another example is all new commercial and institutional buildings should strive to achieve the highest certification level of the LEED Canada for new construction.
- (5) The use of solar energy is encouraged and therefore clotheslines will be supported.
- (6) In all of the comprehensive development areas, geothermal energy should strive to capture wherever possible and be used efficiently. In comprehensive development area 3, where the village core will be located, the developer is encouraged to plan for and make use of geothermal technology or other green technologies that minimize the consumption of fossil fuels and electricity for heating and cooling purposes. For all residential and other uses outside of the village core, the developer will encourage the use on a precinct basis of geothermal technology or other green technologies that minimize the consumption of fossil fuel and electricity for heating and cooling purposes.

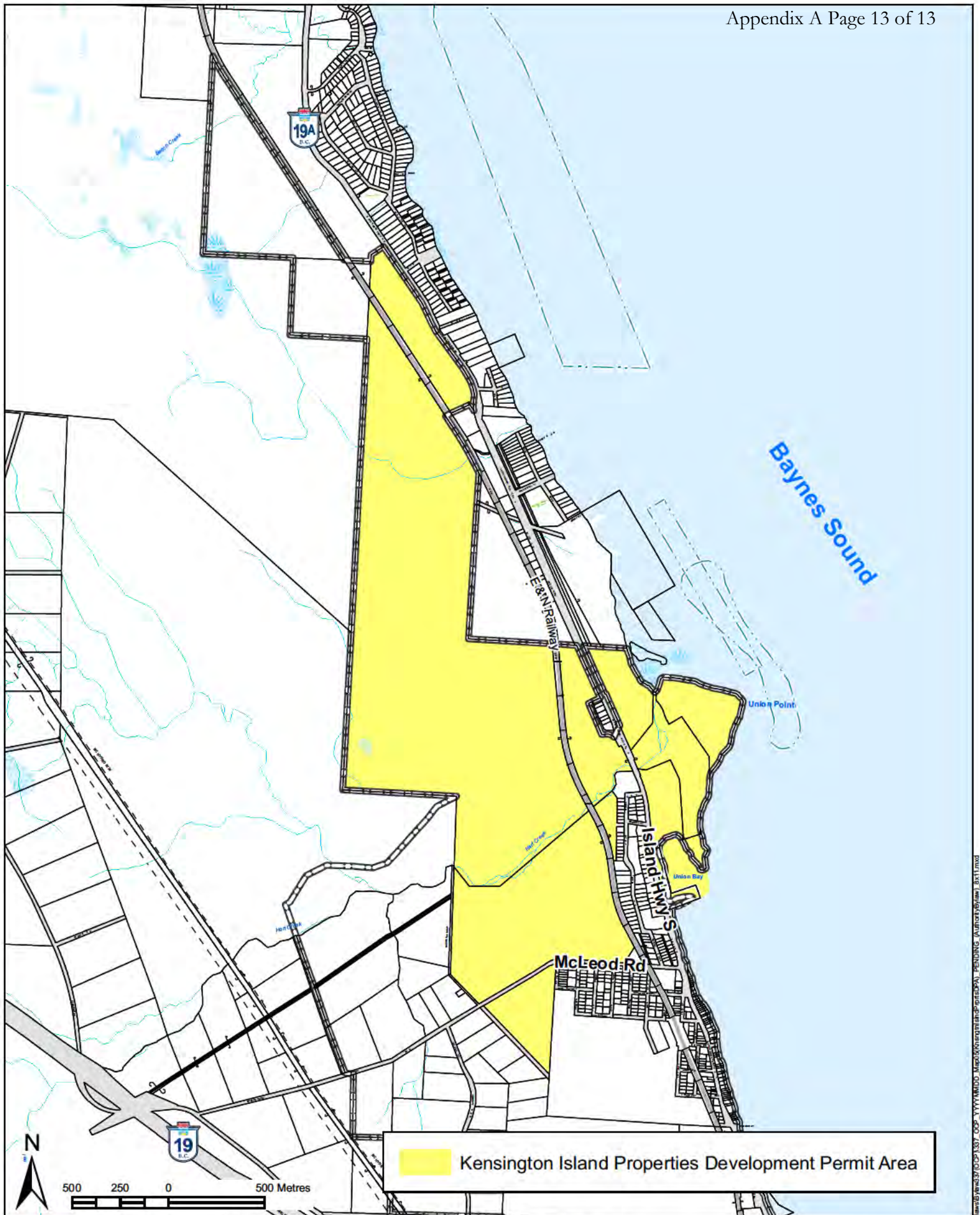
- (7) Placement and type of trees and other vegetation should not interfere with sunlight access to solar panels.
- (8) The location of all buildings in relations to trees and vegetation should allow each building to maximize their exposures to winter sunlight and to be shaded from the summer sunlight.
- (9) All outdoor lighting and electrical systems should be energy efficient.
- (10) All street furniture should be made in an environmentally responsible manner.
- (11) To reduce water consumption for landscaping, all landscaping should be xeriscape, which reduces or eliminates the need for supplemental irrigation. Native, west coast plants that are appropriate to the local climate should be used and care should be taken to avoid losing water to evaporation and run-off.
- (12) In order to minimize water use the water systems used in the development area will, where appropriate, utilize recognized water conservation techniques, including low water use and flush appliances, cisterns for storm drain collection, water meters and other similar techniques, to the satisfaction of the regional district.

Gravel and sand crushing

- (1) No portion of the lands included in the Kensington comprehensive development permit area is shown as on map 5, may be used for the crushing or processing of sand, gravel or other aggregate material, except as needed for the development of such lands.
- (2) None of the above-mentioned material may be removed from the subject lands other than for use in the Kensington development permit area as shown on map 5 with the exception of removing excess material.
- (3) Approval for the crushing or processing of sand, gravel, or other aggregate materials must be done in accordance to the provisions outlined in the *Mines Act*.

Neighbourhood public open spaces and parks

The development needs to incorporate the provision of neighbourhood public open spaces and parks; the number and size of which shall be identified in future subdivision process.



HELLIWELL + SMITH

BLUE SKY ARCHITECTURE

UNION BAY DISCOVERY CENTRE

Island Highway S, Union Bay, BC

Design Rationale

The Union Bay Discovery Centre is the first building proposed for Union Bay Estates. The building conforms to the Union Bay Design Guidelines.

The building will initially be comprised of a sales centre, offices, a trellised walkway connecting to a deli/ convenience store and café. Conforming to the CDA-3, the Sales Centre will be converted to other professional services and office uses after the real estate sales are finished. The café/ deli will continue with a flexible use of food services and retail.

The building is intended to be designed to net zero energy standards, utilizing only as much or less energy than it produces.

The building has a low sloped folded metal roof with solar panels on the south facing sides of the roof. The roof ridge rises to a peak at the northwest corner of the property, acting as a gateway to the first phase of Union Bay Estates.

The Island Highway façade references the past Union Bay wooden pier with large angled wood columns supporting the generous roof overhang, in front of a modern curtain wall, wood and concrete clad facade.

An exposed timber frame structure behind the curtain wall facade blends old and new, with a mix of traditional island and contemporary architecture.

The proposal has 22 parking spaces on site for office, sales centre and restaurant/ deli including 2 accessible parking spaces. There are 10 secure bicycle parking spaces.

Public Realm + Landscape

The principal planning concept for The Union Bay Discovery Centre is to create a vibrant social beginning to the Union Bay Estates development with an iconic building. A new commercial storefront will add life to the entrance to the development on Russell Street.

We are envisioning a neighbourhood café in the eastern wing of the building, with indoor and outdoor seating, and perhaps a deli/ convenience store. This will service the local Union Bay neighbourhood as well as those locally employed in the area.

Architectural Response

The building is a one and a half story wood frame building that wraps around the north and east part of the site, defining the street edges and sidewalks.

The low slope, folded rooflines rise from east to west and north to south. The roof form creates a recognizable iconic profile for the building. The roof sweeps out to create a wide covered outdoor area in front of the café on the east side of the building. The majority of roof drainage will be collected in 3 featured large scuppers. The north/ south scuppers drain into a landscape pool and rain garden. The scupper on the east side of the building will drain into a featured rain garden. Rainwater infiltration galleries are proposed within the parking lot area (per the Drainage Plan). Exact locations and configuration will be defined during detailed servicing design.

The cladding is a mix of cedar siding, metal siding, and architectural concrete with a contemporary curtain wall of smart glass. Windows will be framed with natural aluminum. The roof is galvalume standing seam metal with photovoltaic solar panels. A south facing second story balcony attached to the offices will have glass balcony guards with wood rails.

Project Components

Access, Parking, Loading

Access for parking, loading, garbage and recycling will be from the laneway on the southeast side of the property. Garbage and recycling bins will be screened with metal clad fencing. Garbage and recycling bins will be bear proof roll down bins.

Loading for the commercial component will be from the loading bay provided on the site. Required parking for the building is 14 spaces and we are providing 22 spaces, including 2 accessible parking spaces. Required secure bicycle parking spaces are 2 and we are providing 10 spaces.

Density

Allowable Floor Area Ratio on this site is 2,787 sq.m. and we are proposing 724.6 sq.m. Allowable Site Coverage is 90% and we are proposing 21.4% site coverage.

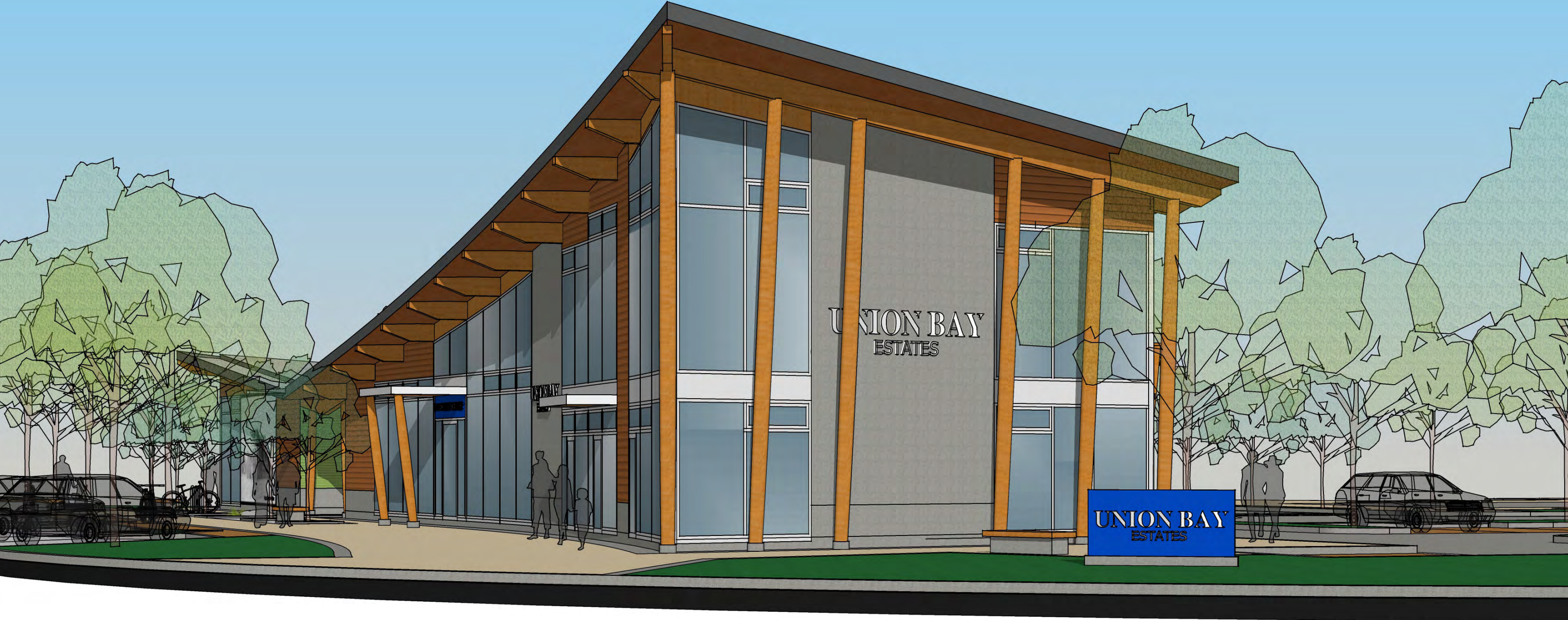
Site Servicing

The building will be tied into the water treatment plant developed for Union Bay, which will be complete before occupancy of this building. A purple pipe system will use the treated water for toilet and urinal flushing and for landscape irrigation.

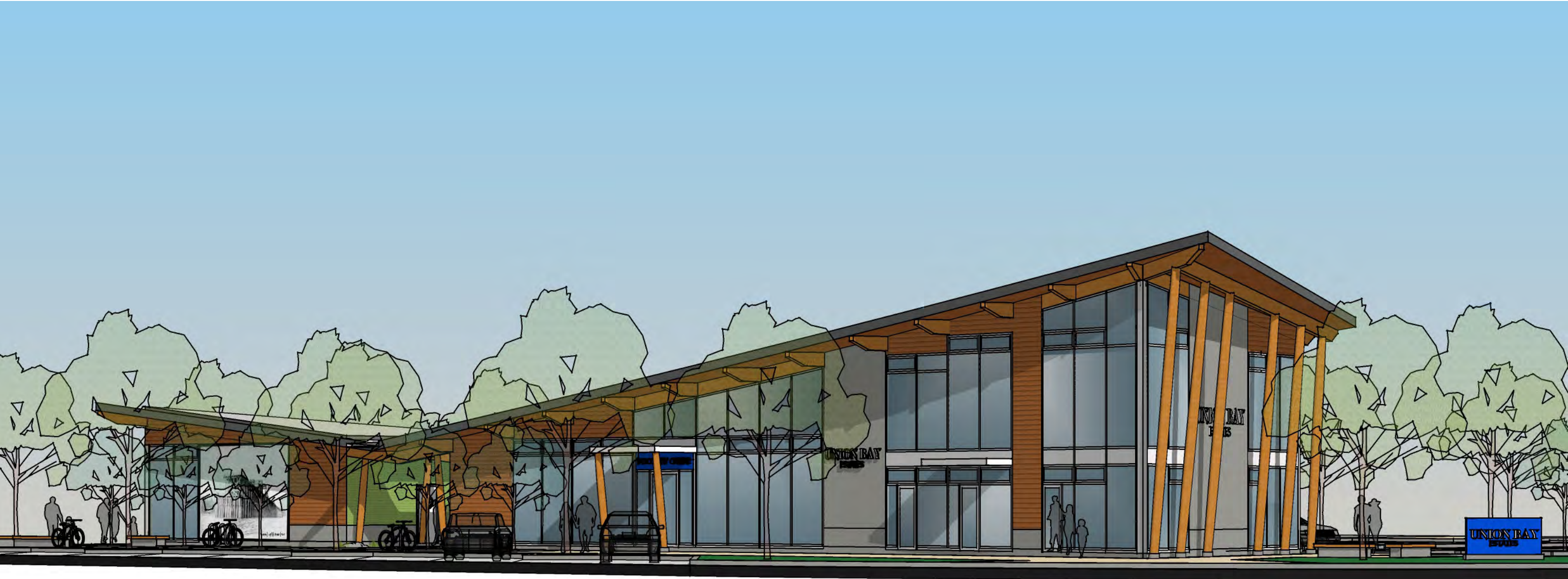
Potable water will be provided from the Union Bay water system.

Conclusion

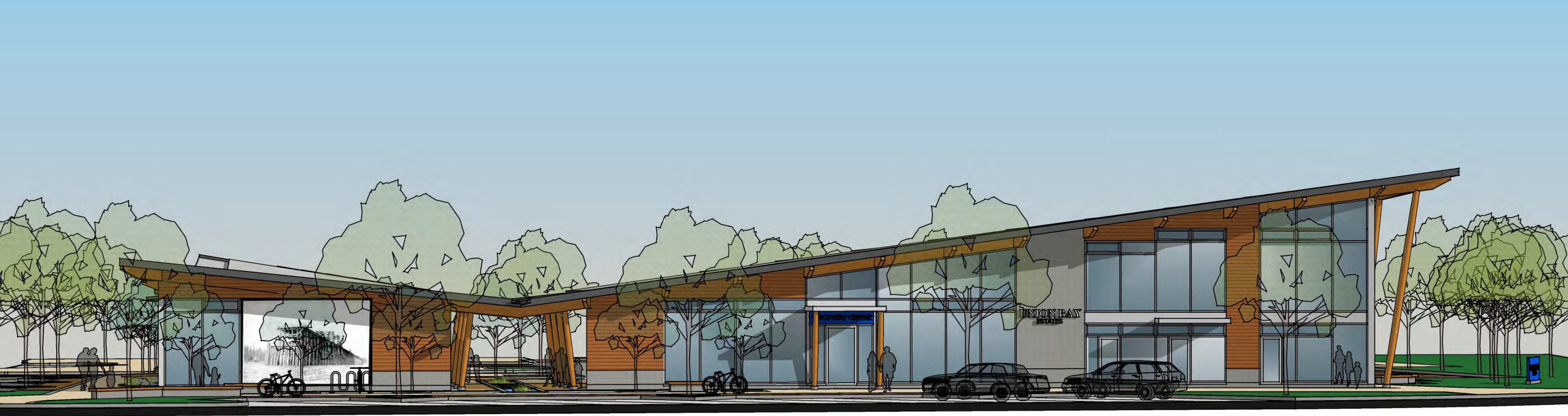
The Union Bay Discovery Centre will provide a mixed-use building with offices and a sales centre on Russell Street, and deli/ café on Strata Street. As a gateway to this new sustainable community and village, the building will set a high-quality precedent for Union Bay Estates.



Union Bay Estates • Discovery Centre
View of North-West Corner from Island Highway at Russell Street



Union Bay Estates • Discovery Centre
View from corner of Island Highway and Russell Street, approaching from the North



Union Bay Estates • Discovery Centre
View of North Facade from Russell Street



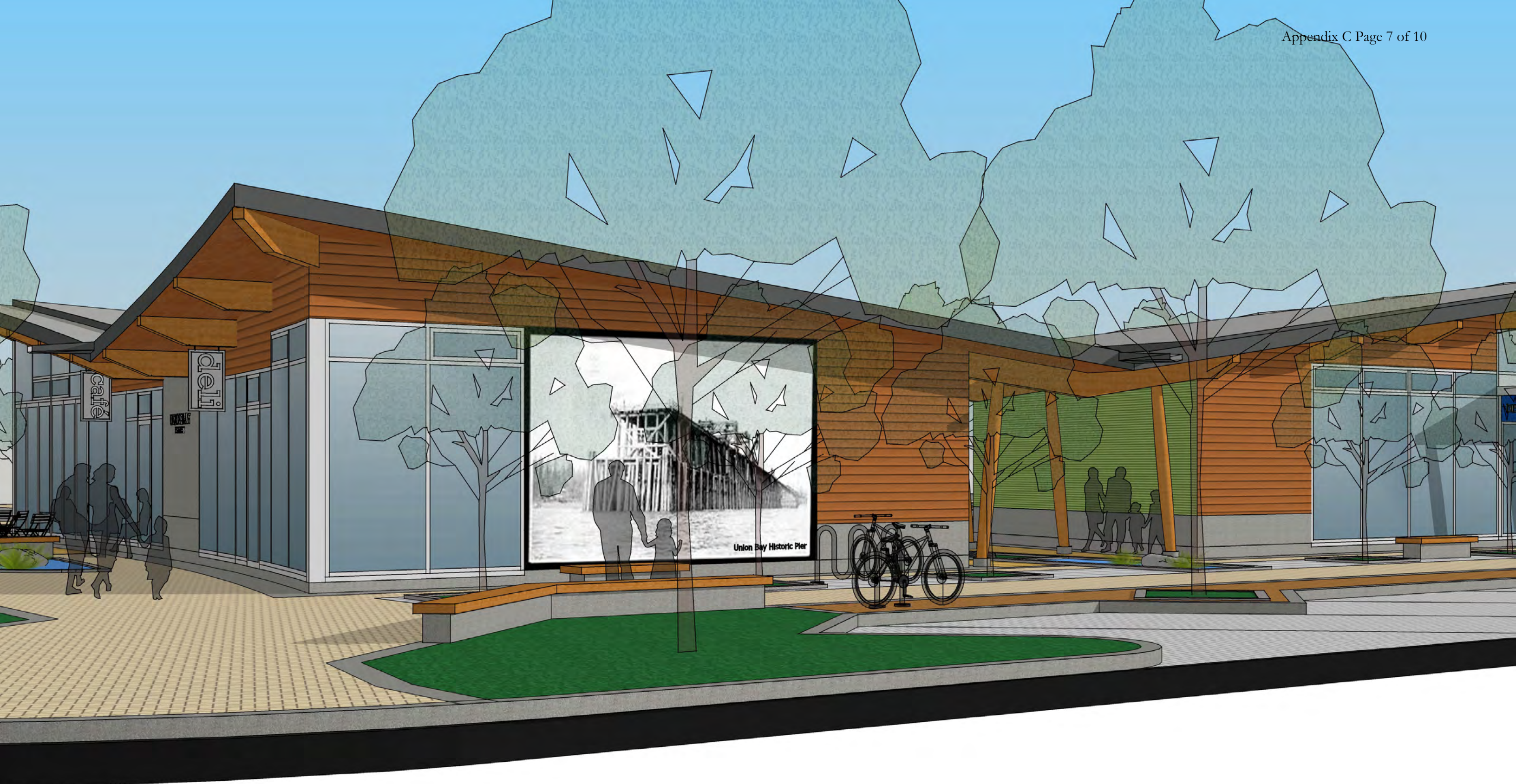
Union Bay Estates • Discovery Centre
Corner of Russell Street and Strata Road, viewed from the North-East



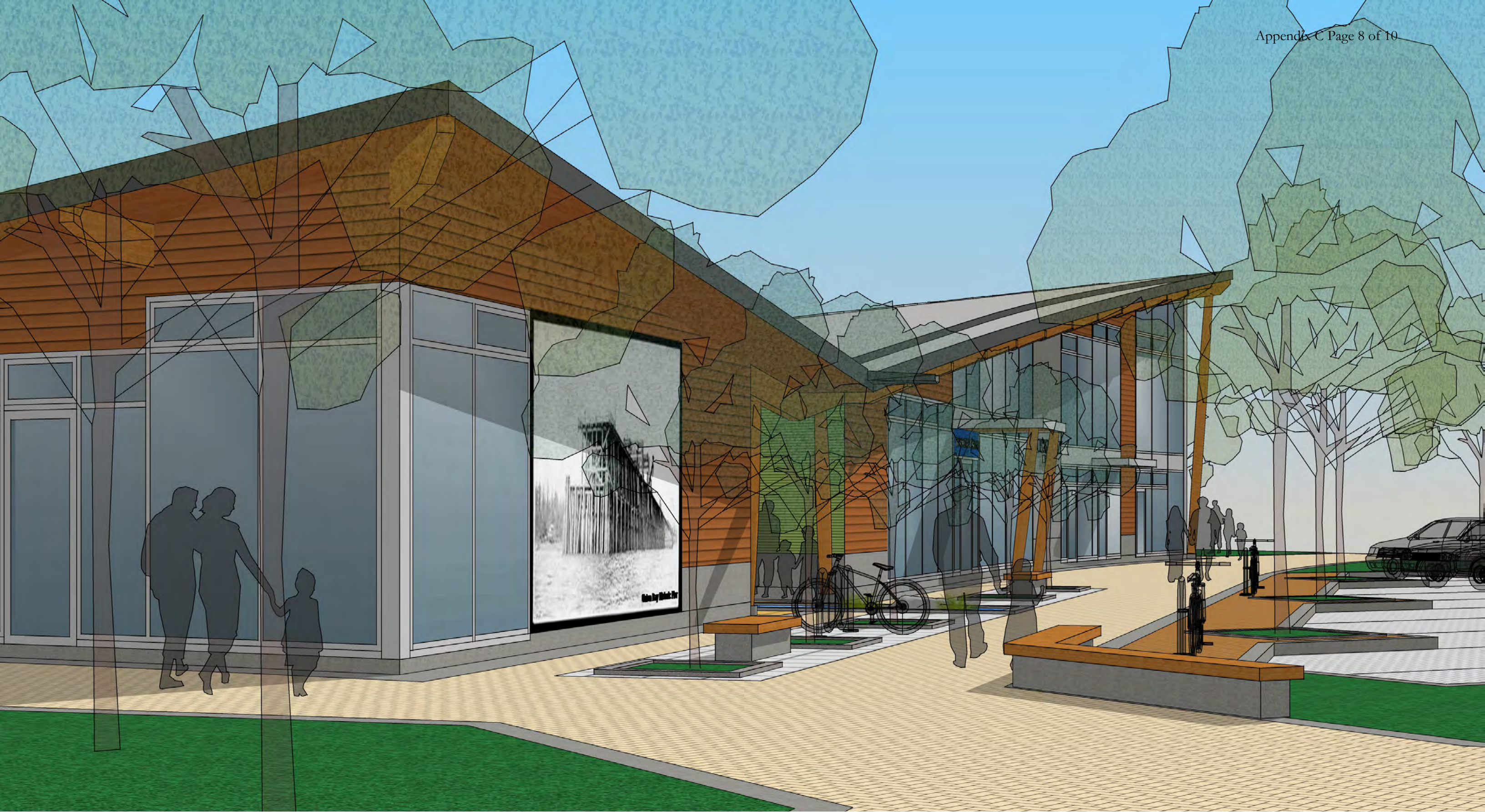
Union Bay Estates • Discovery Centre
View from Strata Road, approaching from the South-East



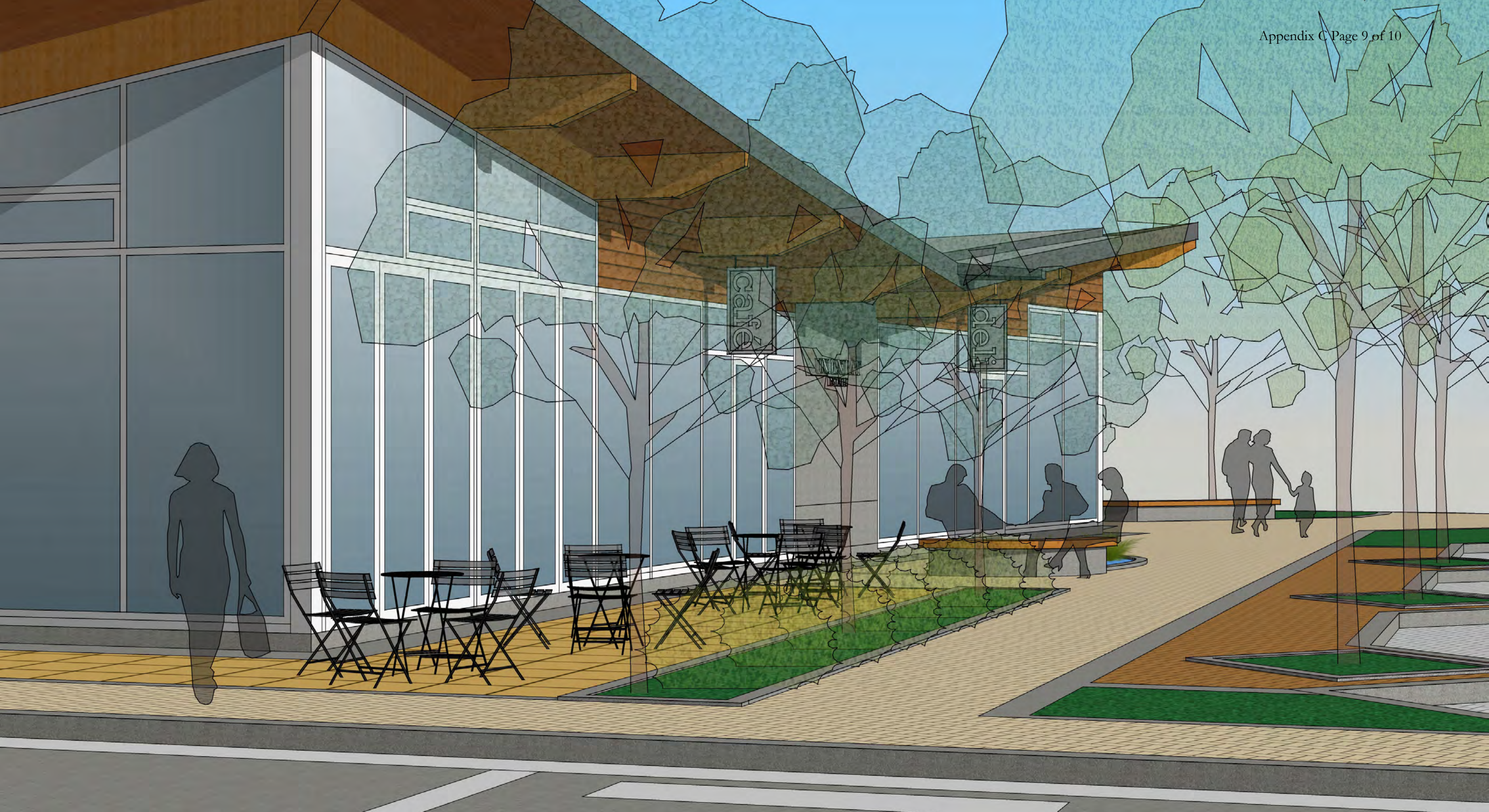
Union Bay Estates • Discovery Centre
Bird's Eye View, from South-West

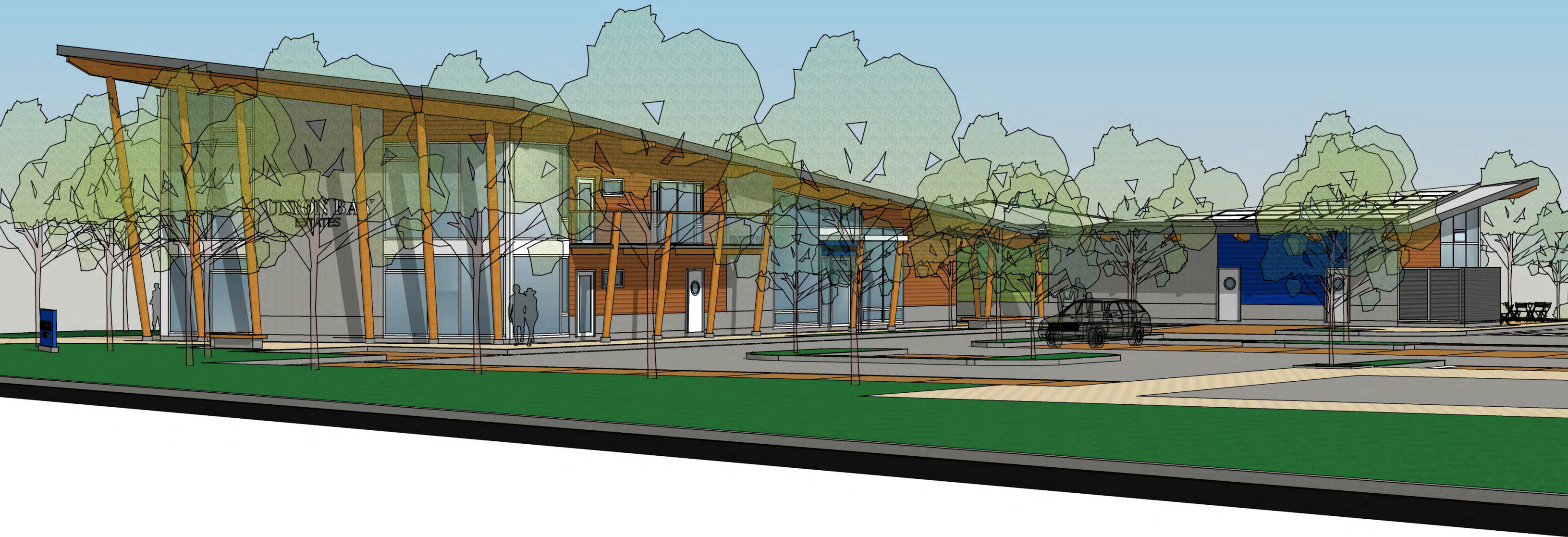


Union Bay Estates • Discovery Centre
Detailed View of North-East Plaza and Proposed Mural from Russell Street

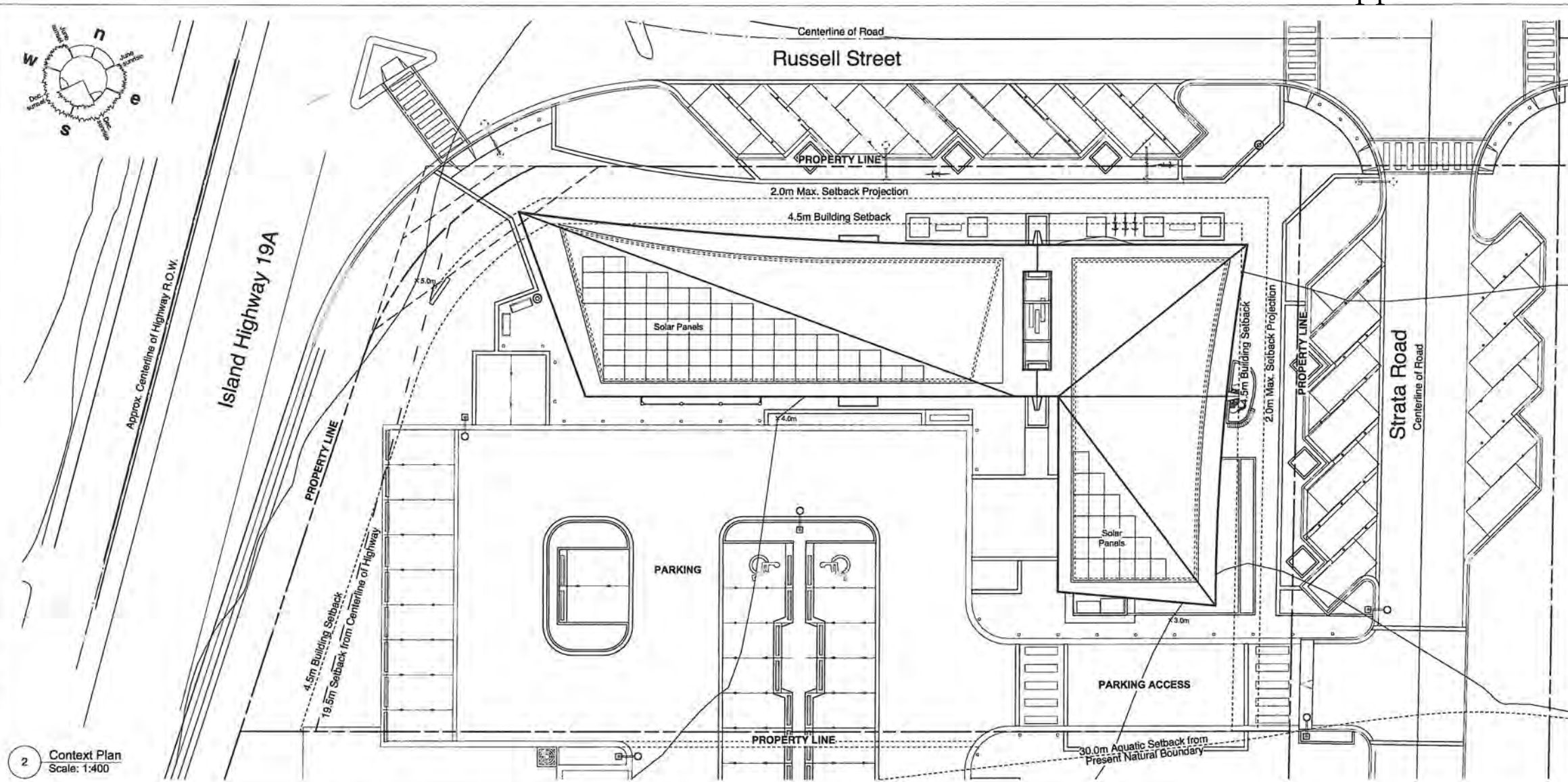


Union Bay Estates • Discovery Centre
Detailed View of North-East Corner from Russell Street at Strata Road





Union Bay Estates • Discovery Centre
View of South Plaza and Parking from Island Highway



Civic Address:
Island Highway S, Union Bay, BC

Legal Description:
Lot 3, Plan EPP15507 District Lot 154
Section 31 TP 1 Land District 32 & DL 28
Nelson District
P.I.D. 028-731-531

Project Description:
Real Estate Sales Centre and Café

Lot Size:
3,311 sq.m. (35,640 sq.ft.)

Acting Authority:
Comox Valley Regional District
Planning + Development Services
600 Comox Road, Courtenay, BC V9N 3P6
t (250) 334-6006

ZONE: **K-CD** Kensington Comprehensive Development Zone
CDA-3 Mixed-Use Commercial-Residential (MUCR)

SETBACKS:

Front Yard	4.5m (14.8 ft.)
Rear Yard	0.0m (0.0 ft.)
Side Yard	0.0m (0.0 ft.)
Side Yard Abutting Road	4.5m (14.8 ft.)
Island Highway (centerline)	19.5m (63.9 ft.)

**Where eaves and sunlight controls project beyond the face of a building, the minimum distance to an abutting front, rear and side lot line may be reduced by not more than 50% of such distance up to a maximum of 2.0m (6.6 ft.).*

**F.C.L. for Discovery Centre may vary with master development site grading. To be finalized at Building Permit application.*

Allowable Building Height:
13.7m (45.0 ft.) or 4 storeys Maximum

Average Natural Grade at Building:

A+B / 2	=	4.79m + 4.03m / 2	=	4.41m (14.47 ft.)
B+C / 2	=	4.03m + 3.97m / 2	=	3.99m (13.12 ft.)
C+D / 2	=	3.97m + 4.03m / 2	=	4.00m (13.13 ft.)
D+E / 2	=	4.03m + 3.04m / 2	=	3.54m (11.60 ft.)
E+F / 2	=	3.04m + 3.31m / 2	=	3.18m (10.42 ft.)
F+G / 2	=	3.31m + 3.76m / 2	=	3.53m (11.59 ft.)
G+H / 2	=	3.76m + 3.81m / 2	=	3.78m (12.41 ft.)
H+J / 2	=	3.81m + 4.47m / 2	=	4.14m (13.59 ft.)
J+A / 2	=	4.47m + 4.79m / 2	=	4.63m (15.19 ft.)

Average Natural Grade = 3.91m (12.84 ft.)

LOT COVERAGE:	PARKING (Sales):	Required	Proposed
Allowable Lot Coverage: 90% of lot area = 3,311 sq.m. (35,640 sq.ft.)	Real Estate Sales Centre: 2 spaces + 1 per employee 2 employees expected	4	—
Proposed Lot Coverage: 21.4% of lot area = 708.7 sq.m. (7,628 sq.ft.)	Mercantile (Deli): 1 space per 50 sq.m. GFA 90.1 sq.m./ 50 sq.m. = 1.8	2	—
FLOOR AREA:	Restaurant (Café + Terrace): Greater of 1 space per 6 seats OR 1 space per 30 sq.m. GFA 227.2 sq.m./ 30 sq.m. = 7.57	8	—
Allowable Floor Area: Total commercial floor area within any single building in the MUCR zone shall not exceed 2,787 sq.m. (30,000 sq.ft.).	Total Parking Spaces	14	22
Proposed Floor Area:	Accessible Parking Spaces		2
Sales Centre:	Total Bicycle Spaces	2	10
Main Floor 315.4 sq.m. (3,395 sq.ft.)	1 bicycle for every 10 parking spaces		
Upper Floor 147.3 sq.m. (1,585 sq.ft.)	PARKING (Future):	Required	Proposed
Total Sales Centre 462.7 sq.m. (4,980 sq.ft.)	Office/ Mercantile: 1 space per 50 sq.m. GFA 462.7 sq.m./ 50 sq.m. = 9.3	10	—
Café + Deli:	Mercantile (Deli): 1 space per 50 sq.m. GFA 90.1 sq.m./ 50 sq.m. = 1.8	2	—
Deli 90.1 sq.m. (970 sq.ft.)	Restaurant (Café + Terrace): Greater of 1 space per 6 seats OR 1 space per 30 sq.m. GFA 227.2 sq.m./ 30 sq.m. = 7.57	8	—
Café 171.9 sq.m. (1,850 sq.ft.)	Total Parking Spaces	20	22
Total Cafe & Deli 261.9 sq.m. (2,820 sq.ft.)	Accessible Parking Spaces		2
Total Floor Area 724.5 sq.m. (7,800 sq.ft.)	Total Bicycle Spaces	2	10
Café Terrace: 55.3 sq.m. (595 sq.ft.)	1 bicycle for every 10 parking spaces		

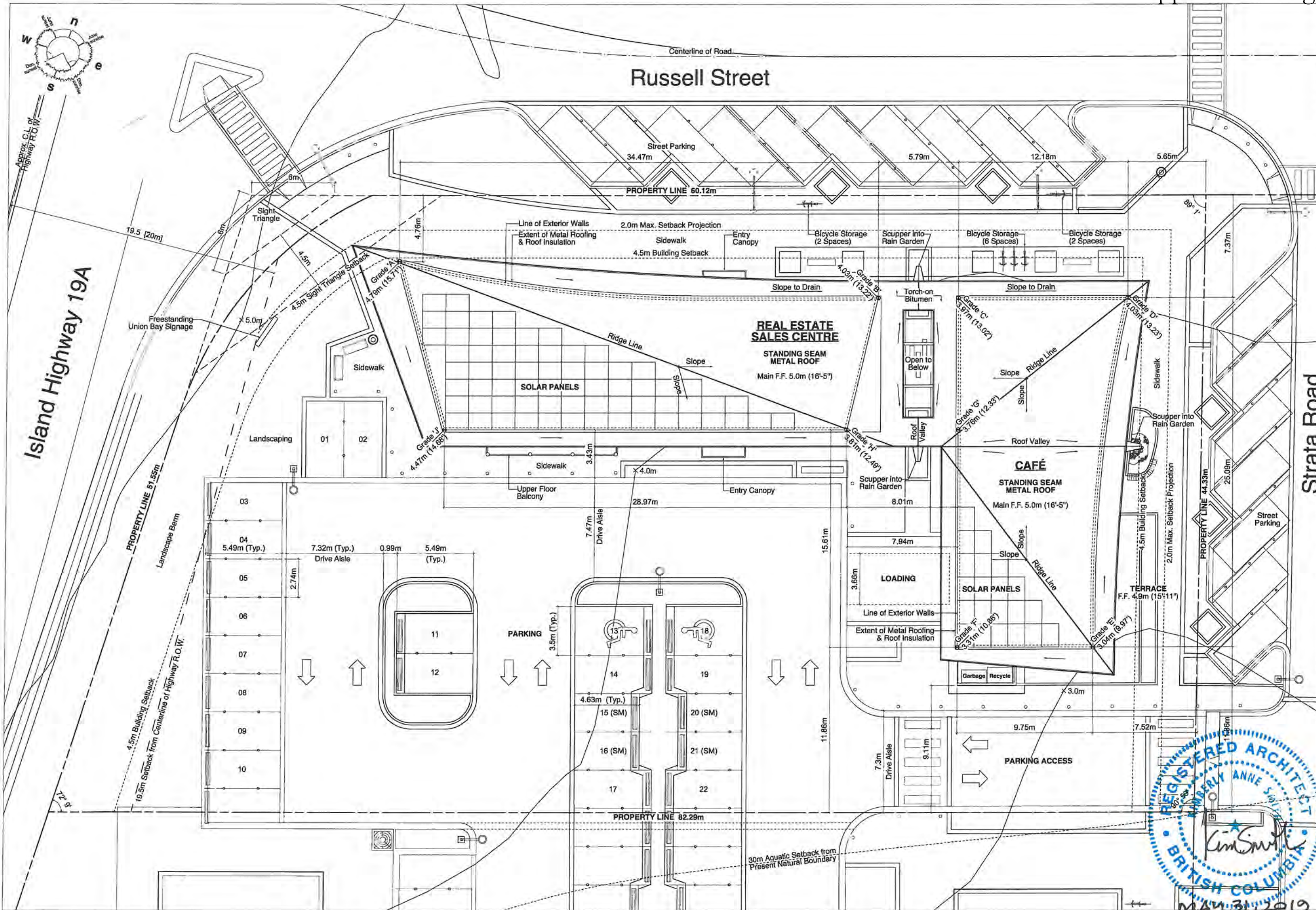
CONSULTANTS:

Structural Engineer:
Chiu Hippmann Engineering
1030 W 6th Ave., Vancouver, BC V6H 1A3
t (604) 797.9830

Civil Engineer:
McElhanney Consulting Services
495 Sixth Street, Courtenay, BC V9N 6V4
t (250) 338.5495

Architectural:
A101 Context Plan + General Notes
A102 Site Plan
A201 Main Floor Plan
A202 Upper Floor Plan
A203 Roof Plan
A301 Exterior Elevations
A302 Exterior Elevations

Civil: Drainage Plan



NO.	REVISION	DATE
1	Coordination	2018-12-07
2	Development Permit	2019-02-01
3	Development Permit	2019-05-31

NOTE:
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Contractor shall be responsible for all conditions on the job and shall notify this office of any variations of the conditions immediately. All work completed on site to conform to the British Columbia Building Code 2018.

PROJECT
UNION BAY DISCOVERY CENTRE
Union Bay
British Columbia

SHEET TITLE
Site Plan

DRAWN BY
ks/ sg

SCALE
1:250
(Scales on Tabloid)

FIRST ISSUED
2018-12-07

CHECKED BY
ks/ bh

**HELLIWELL + SMITH
BLUE SKY
ARCHITECTURE
INC.**

4090 BAYRIDGE AVE.
WEST VANCOUVER
BRITISH COLUMBIA
CANADA, V7V 3K1

PHONE (604) 921-8646
FAX (604) 921-0755

SHEET NO.

A102

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SHEET TITLE

Main Floor Plan

SCALE 1:200
(Scales on Tabloid)

CHECKED BY ks/ bh

PHONE (604) 921-8646
FAX (604) 921-0755

A201



Date Printed: 2019 May 31 Time: 3:35:18 PM File Name: 2019 0531 Union Bay_DP.vwx

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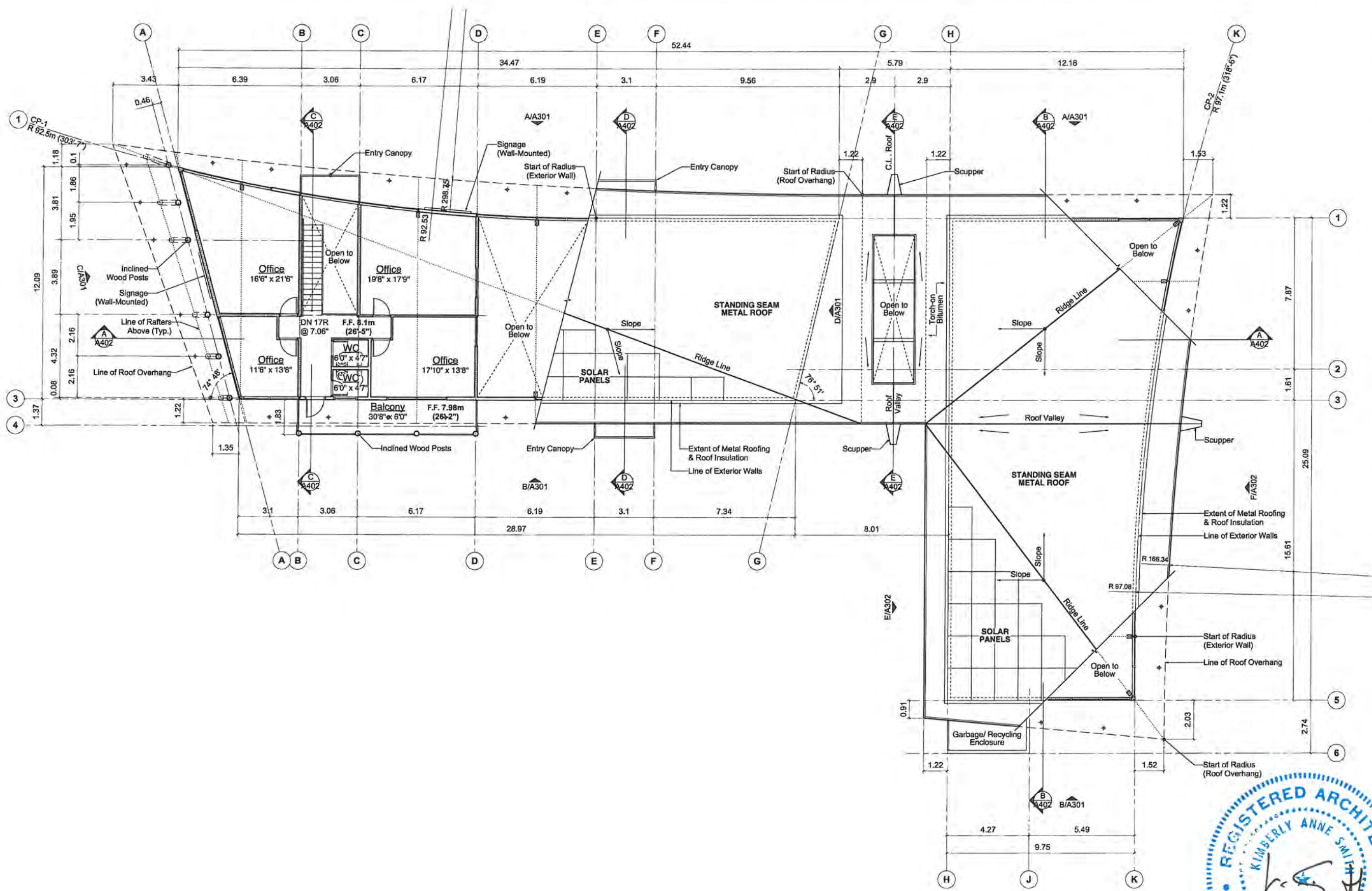
Upper Floor Plan

SCALE 1:200
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FAX (604) 921-0755

A202



MAY 31, 2019

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SHEET TITLE

Roof Plan

SCALE 1:200
(Scales on Tabloid)

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**4090 BAYRIDGE AVE.
WEST VANCOUVER
BRITISH COLUMBIA
CANADA, V7V 3K1**

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FAX (604) 921-0755**

ne: 2019 0531 Union Bay, DP www



Date Printed: 2019 May 31 Time: 3:35:10 PM File Name: 2019 0531 Union Bay_DP.vwx

NO.	REVISION	DATE
1	Coordination	2018-12-07
2	Development Permit	2019-02-01
3	Development Permit	2019-05-31

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PROJECT
**UNION BAY
DISCOVERY CENTRE**
Union Bay
British Columbia

SHEET TITLE
**Exterior
Elevations**

DRAWN BY
ks/ sg

SCALE
1:200
(Scales on Tabloid)

FIRST ISSUED
2019-02-01

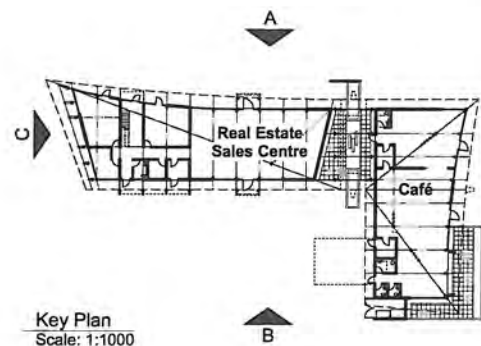
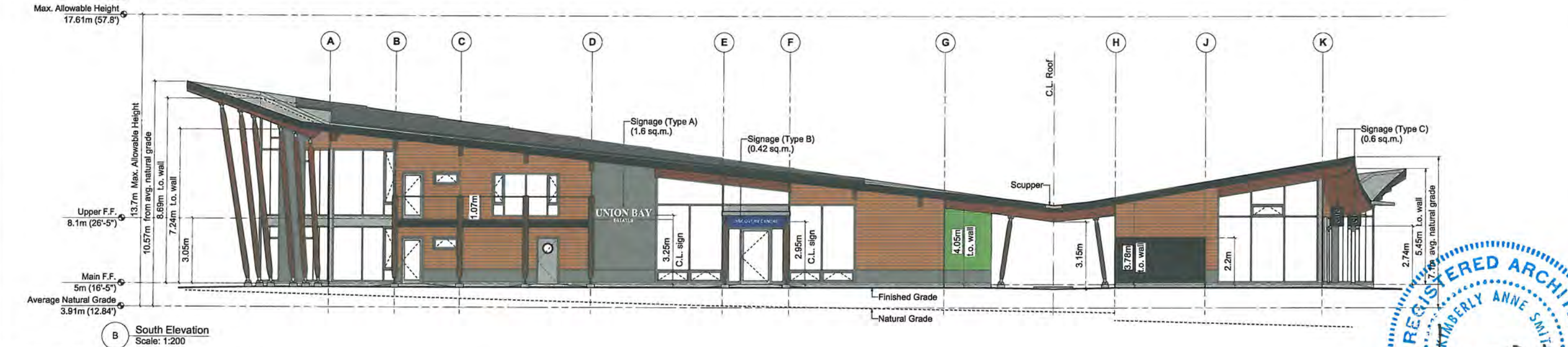
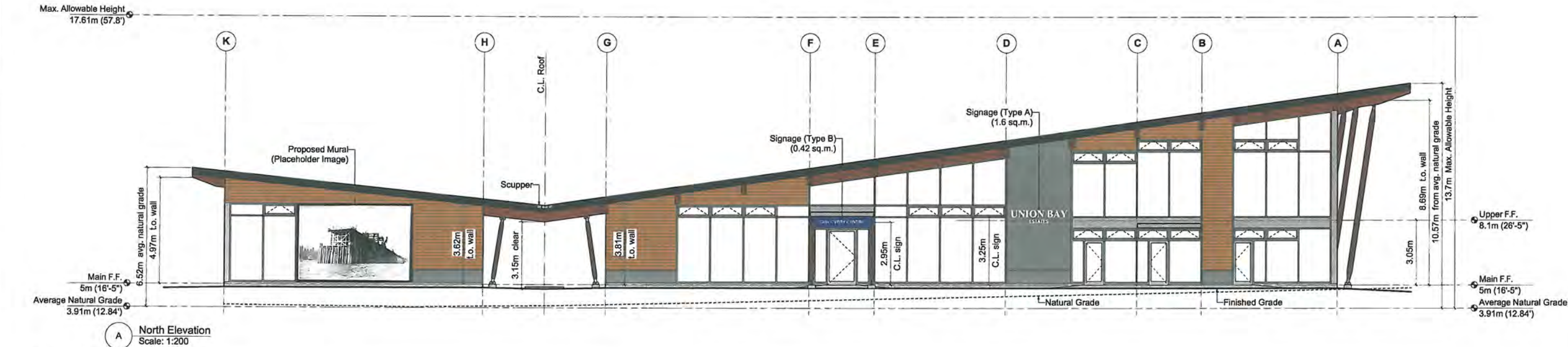
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**HELLIWELL + SMITH
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CANADA, V7V 3K1

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SHEET NO.
A301



FINISH SCHEDULE – EXTERIOR:

1. Wood Fascia, Painted (Charcoal)
2. Dowel-Laminated Panel Wood Soffit (Natural)
3. Glulam Rafters (Natural)
4. Glulam Posts (Natural)
5. Cedar Siding (Natural)
6. Wood Trim Board (Natural)
7. Metal Wall Panel (Charcoal + Green + Blue)
8. Architectural Concrete
9. Aluminum Window Frame (Natural Aluminum)
10. Tintable Smart Glass (View Dynamic Glass)
11. Aluminum Spandrel Panel (Natural Aluminum)
12. Aluminum Trim/ Corner Panel (Natural Aluminum)
13. Aluminum Mandoor w/ Glass Panel or Portal (Natural Aluminum)
14. Aluminum Accordion Door w/ Glass Panel (Natural Aluminum)
15. Tempered Glass Guard w/ Wood Rails (Natural)
16. Signage: Type A – Stainless Steel 3D Lettering Pin Mounted on Wall with Concealed Backlighting
1.6 sq.m. X 2 Locations = 3.2 sq.m.
3.9 sq.m. X 1 Location = 3.8 sq.m.
Type B – Stainless Steel 3D Lettering Flush Mounted on Wall
0.42 sq.m. X 2 Locations = 0.84 sq.m.
Type C – Stainless Steel 3D Lettering on Metal Backboard Suspended from Soffit
0.60 sq.m. X 2 Locations = 1.2 sq.m.
Total Signage Area = 9.04 sq.m.
17. Standing Seam Metal Roof (Galvalume)
18. Aluminum Scupper (Galvalume)
19. Photovoltaic Panels
20. Fully-Shielded Property-Aimed Soffit Light (per Dark Sky Policy) (see Main Floor Plan for locations)

Contractor shall be responsible for all conditions on the job and shall notify this office of any variations of the conditions immediately. All work completed on site to conform to the British Columbia Building Code 2018.

**Union Bay
British Columbia**

Exterior Elevations

s/ sg

:200
(Tabloid)

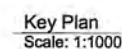
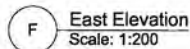
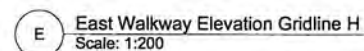
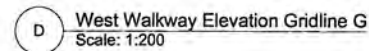
2019-02-01

s/ bh



PHONE (604) 921-8646
FAX (604) 921-0755

A302



1. Wood Fascia, Painted (Charcoal)
2. Dowel-Laminated Panel Wood Soffit (Natural)
3. Glulam Rafters (Natural)
4. Glulam Posts (Natural)
5. Cedar Siding (Natural)
6. Wood Trim Board (Natural)
7. Metal Wall Panel (Charcoal + Green + Blue)
8. Architectural Concrete
9. Aluminum Window Frame (Natural Aluminum)
10. Tintable Smart Glass (View Dynamic Glass)
11. Aluminum Spandrel Panel (Natural Aluminum)
12. Aluminum Trim/ Corner Panel (Natural Aluminum)
13. Aluminum Mandor w/ Glass Panel or Portal (Natural Aluminum)
14. Aluminum Accordion Door w/ Glass Panel (Natural Aluminum)

15. Tempered Glass Guard w/ Wood Rails (Natural)
16. Signage: Type A – Stainless Steel 3D Lettering
Pin Mounted on Wall with
Concealed Backlighting
1.6 sq.m. X 2 Locations = 3.2 sq.m.
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- Type B – Stainless Steel 3D Lettering
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(see Main Floor Plan for locations)



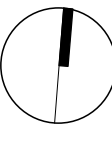
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Revision No. 2019/02/01
Date

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Client:

Project Title:
**Union Bay
Discovery Centre**

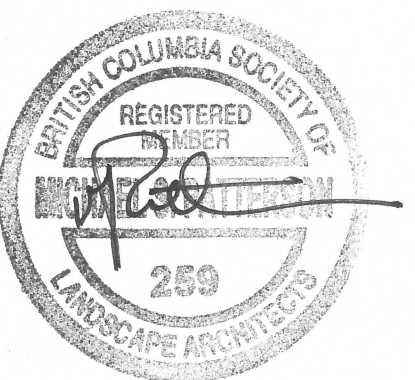
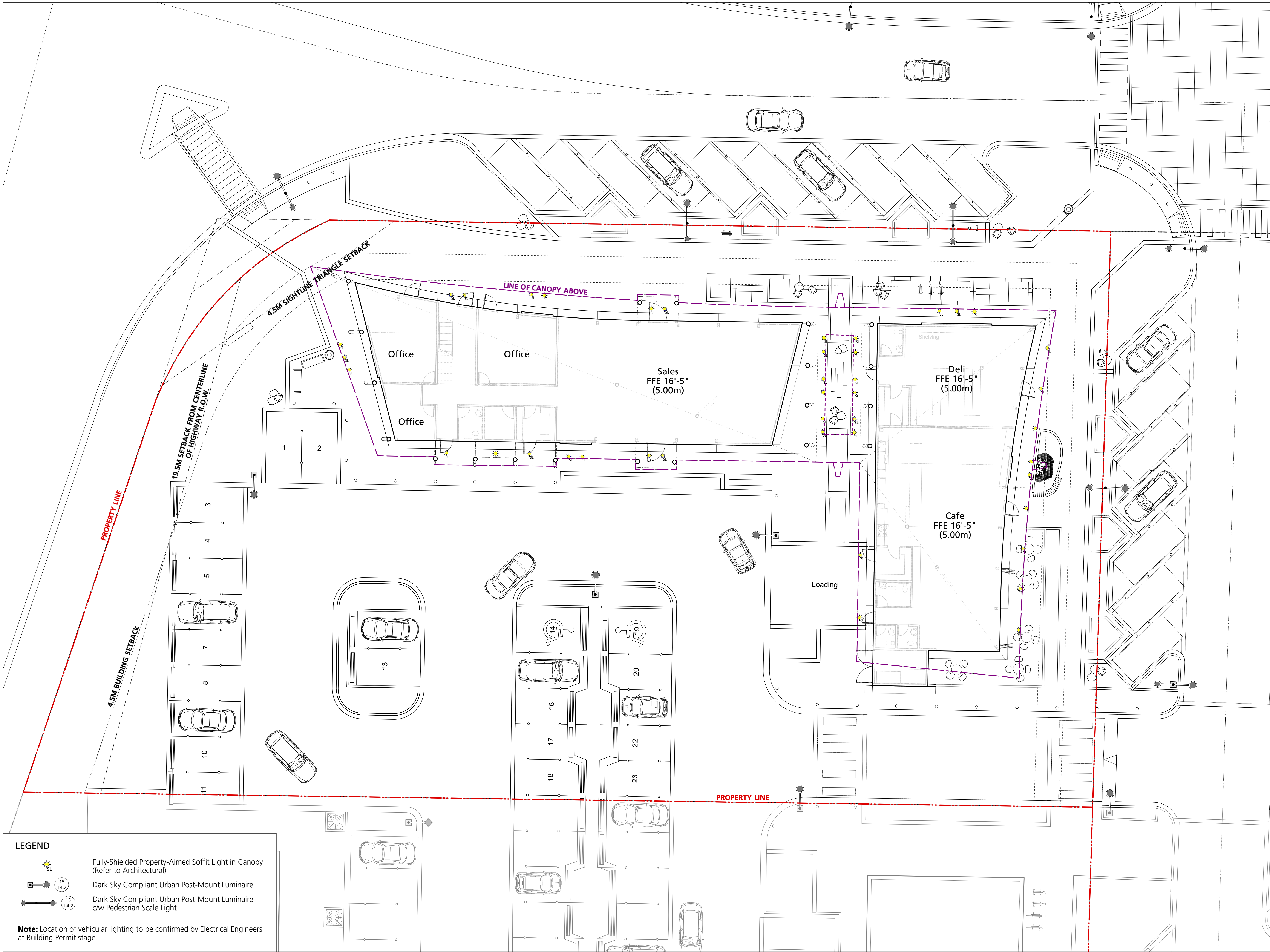
Drawing Title:
**Landscape Plan
(Interim Condition)**

Project North:  Drawn By: KS
Checked By: MP
Scale: 1:200 Job No.: 17-089
Sheet No.:

L 1.0



- LEGEND**
- | | | | | | |
|------------|--|-----------|----------------------------|------------|---|
| 1A
L4.0 | Pedestrian - 12x12" Abbotsford Nevada Paving | 4
L4.0 | Concrete Banding | 10
L4.1 | Ring Bike Rack |
| 1B
L4.0 | Pedestrian - 24x24" Hydrapressed Slab Paving | 5
L4.0 | Custom Curved Bench | 11
L4.1 | Receptacle |
| 2A
L4.0 | Vehicular - VS-5 Pavers | 6
L4.0 | Backed Bench | 12
L4.1 | Tree Cut Out and Soil Trench |
| 2B
L4.0 | Vehicular - Abbotsford Standard Pavers | 7
L4.1 | Custom Wood Backless Bench | 13
L4.2 | Parking Trench |
| 3A
L4.0 | Flush Curb | 8
L4.1 | Curb Stop | 14
L4.2 | Rain Garden |
| 3B
L4.0 | Barrier Curb | 9
L4.1 | Custom Bollard | 15
L4.2 | Dark Sky Compliant Urban Post-Mount Luminaire |

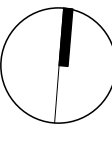


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Date

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Client:

Project Title:
**Union Bay
Discovery Centre**

Drawing Title:
Site Lighting Plan

Project North:  Drawn By: JS
Checked By: MP
Scale: 1:125 Job No.: 17-089
Sheet No.:

L 2.0




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Project Title: **Union Bay
Discovery Centre**

Planting Plan

North:

A circular compass rose with a vertical line through the center. The top half is labeled 'North' and the bottom half is labeled 'South'. The left half is labeled 'West' and the right half is labeled 'East'.

1:125 17-089

L 3.0

PLANTING NOTES

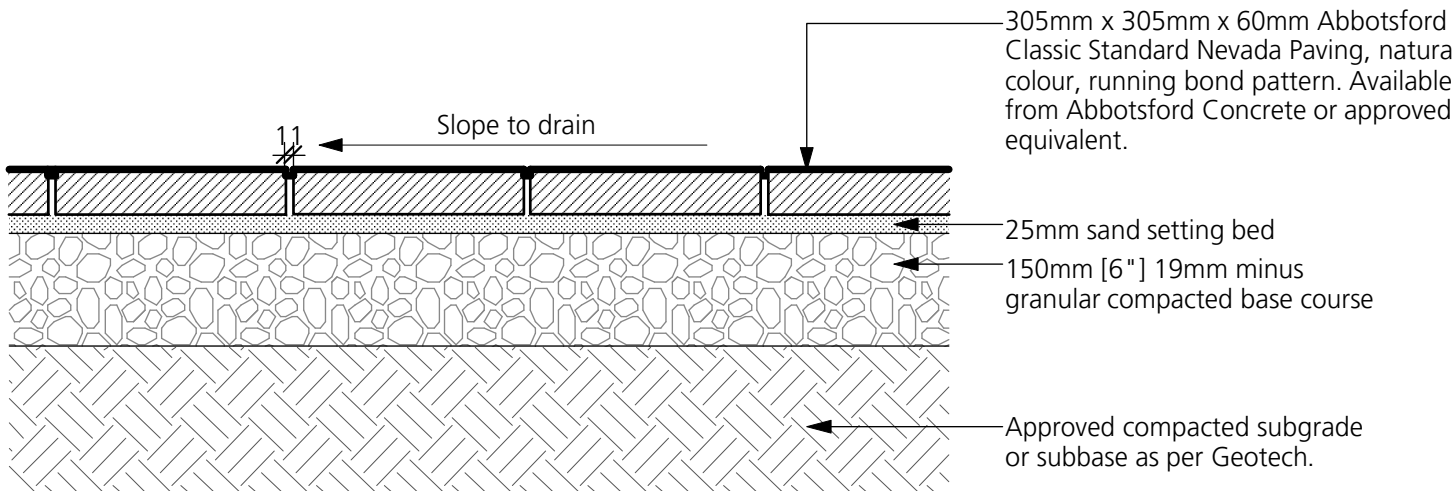
- 1) Contractor is responsible to obtain and be familiar with the relevant project specifications.
- 2) All planning and landscape installation to meet or exceed the BCSLA/BCUNA landscape standards.
- 3) As a minimal acceptable standard:
 - a) Sizes on the plant list shall be considered minimum sizes.
 - b) Root balls to be free of pernicious weeds.
- 4) Arborist to review in field all planting within existing tree driplines.
- 5) Contractor to ensure all plant material delivered to site is from nurseries certified to be free from the phytophthora ramorum virus (sudden oak death); removal and replacement of plant material found to contain the virus to be at the contractor's expense.
- 6) All plant material shall be approved at the nursery by the project Landscape Architect.
- 7) The contractor shall supply all plant materials shown on all drawings.
- 8) No container grown stock will be accepted if it is root bound. All root wrapping material made of synthetics or plastics shall be removed at time of planting.
- 9) Container grown stock, shall have the container removed and the rootball be clearly scored in two vertical locations.
- 10) Contractor to submit a representative sample of the proposed topsoil for testing to Pacific Soil Analysis. Contractor is responsible for arranging and payment of soil analysis and amendments to growing medium as determined. Contractor shall instruct soil testing lab to submit results directly to the consultant for approval prior to commencement of work. Generic Analysis is not acceptable.
- 11) Soil depths to be as follows:
 - a) Lawn 300mm
 - b) Shrub beds 450mm
 - c) Trees planting hole to be 600mm larger than rootball diameter, backfilled with approved soil, minimum 900mm depth.
- 12) The contractor shall locate and verify the existence of all utilities prior to starting work.
- 13) Planting beds to have min. 50 mm depth of 25mm minus screened composted bark mulch (not on groundcover areas).
- 14) All plants shall be watered thoroughly twice during the first 24-hour period after planting. All plants shall then be watered as necessary.
- 15) All plantings will be provided a high efficiency automatic irrigation system.

Abbotsford Classic Standard Nevada Paving

305mm x 305mm x 60mm [12" x 12" x 2-3/8"].
Natural colour, running bond pattern.

Available at **Abbotsford Concrete Products**

Address: 3422 McCallum Rd, Abbotsford, BC V2S 7W6
Tel: (604) 852-4967
https://www.pavingstones.com/



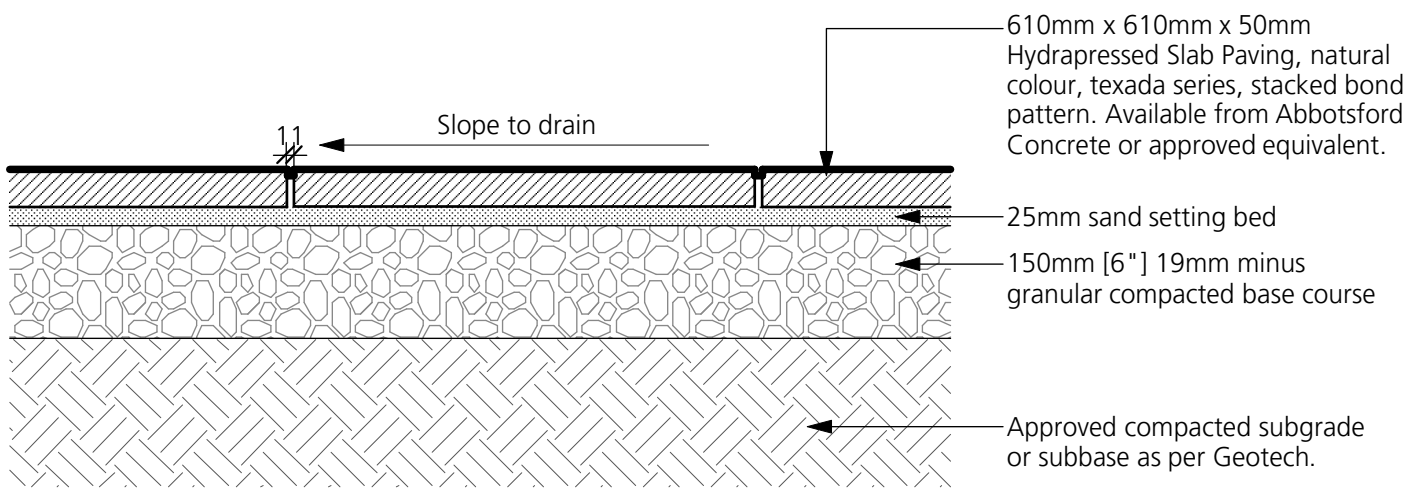
A. 12" x 12" Abbotsford Classic Standard Nevada Paving

Hydrapressed Slab Paving

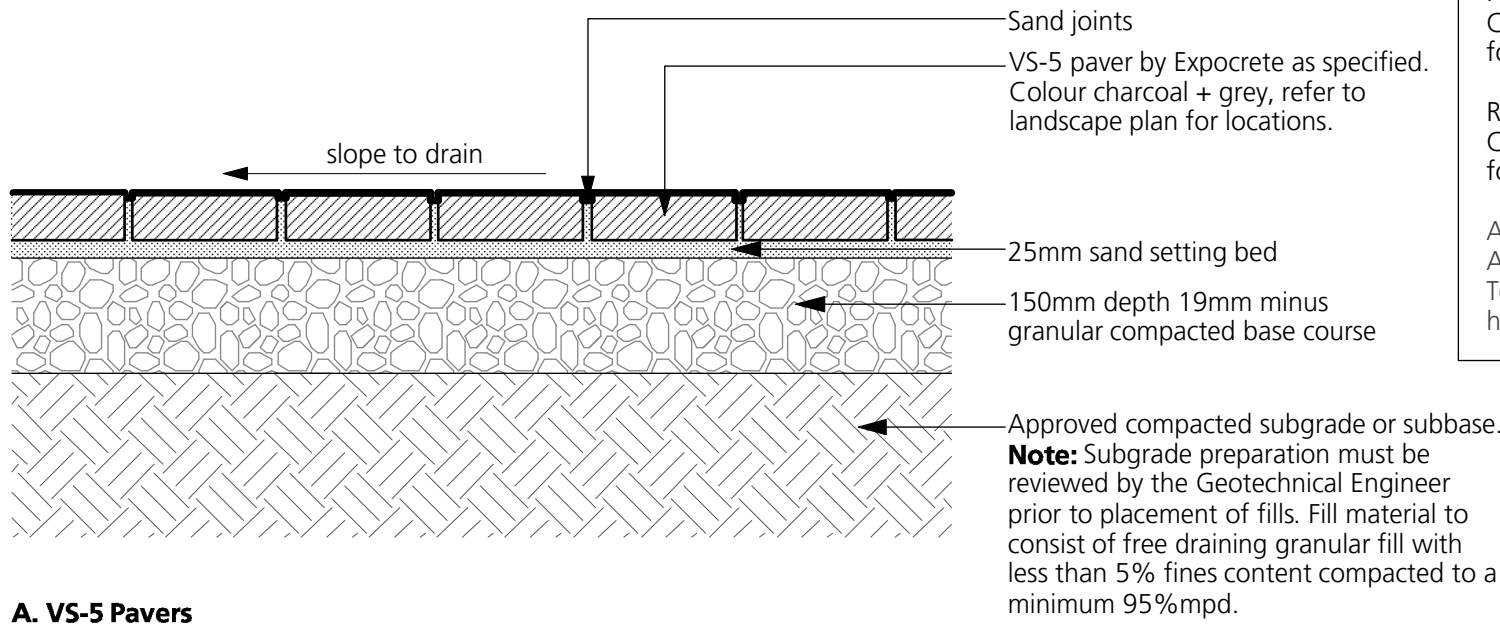
610mm x 610mm x 50mm [24" x 24" x 2"].
Natural colour, texada series, stacked bond pattern.

Available at **Abbotsford Concrete Products**

Address: 3422 McCallum Rd, Abbotsford, BC V2S 7W6
Tel: (604) 852-4967
https://www.pavingstones.com/



B. 24" x 24" Hydrapressed Slab Paving



A. VS-5 Pavers

VS-5 Pavers

Parking Bays: 305mm x 305mm x 108mm [12" x 12" x 2"].
Charcoal, grey colour, running bond, refer to landscape plan for locations.

Roadways: 305mm x 152mm x 108mm [12" x 6" x 2"].
Charcoal, grey colour, running bond, refer to landscape plan for locations.

Available at **Lafarge Plant Site**
Address: PO Box 94580, Richmond, BC V6Y 2V6
Tel: 1800 556-9733
http://www.expocrete.com/

1

L-4.0

Pedestrian Paving

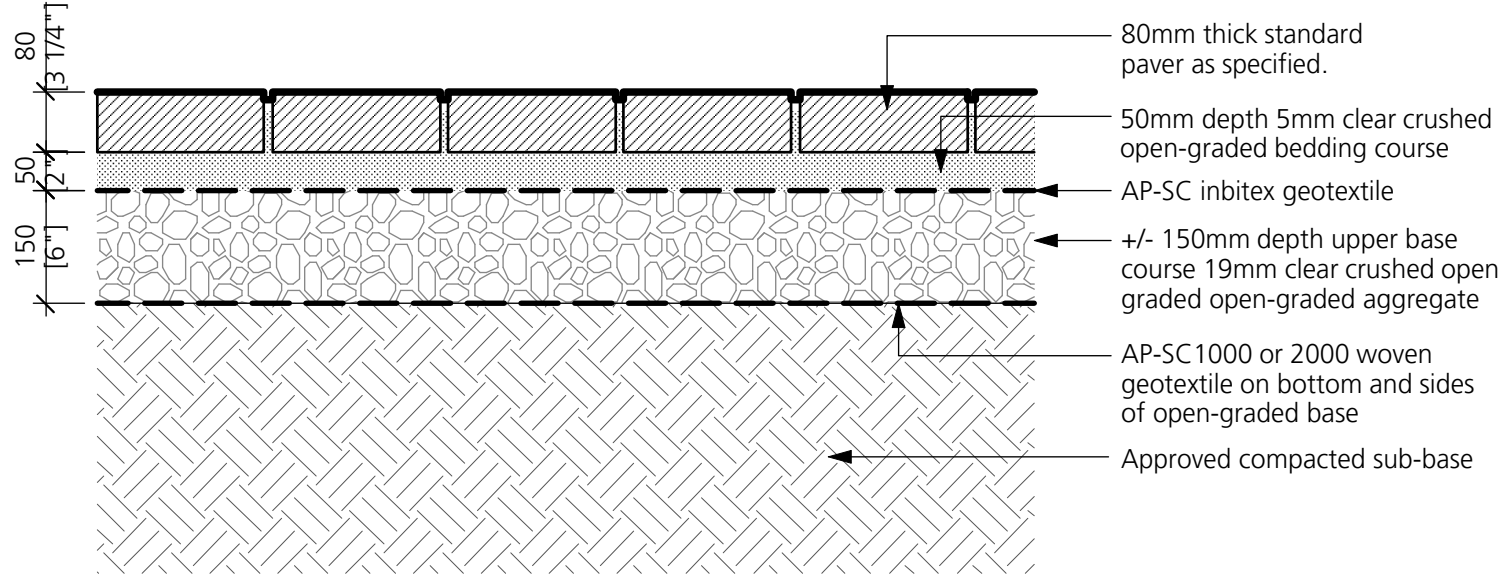
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Abbotsford Standard Series

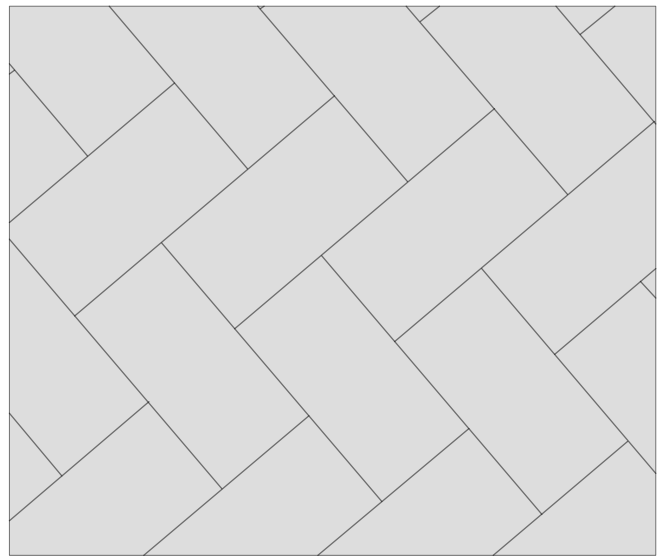
Size: Standard length: 8-3/4" (221.5 mm) x 4-5/16" (110mm) x 3-1/8" (80mm)
Colour: Shadow
Pattern: Herringbone

Available at **Abbotsford Concrete Products**

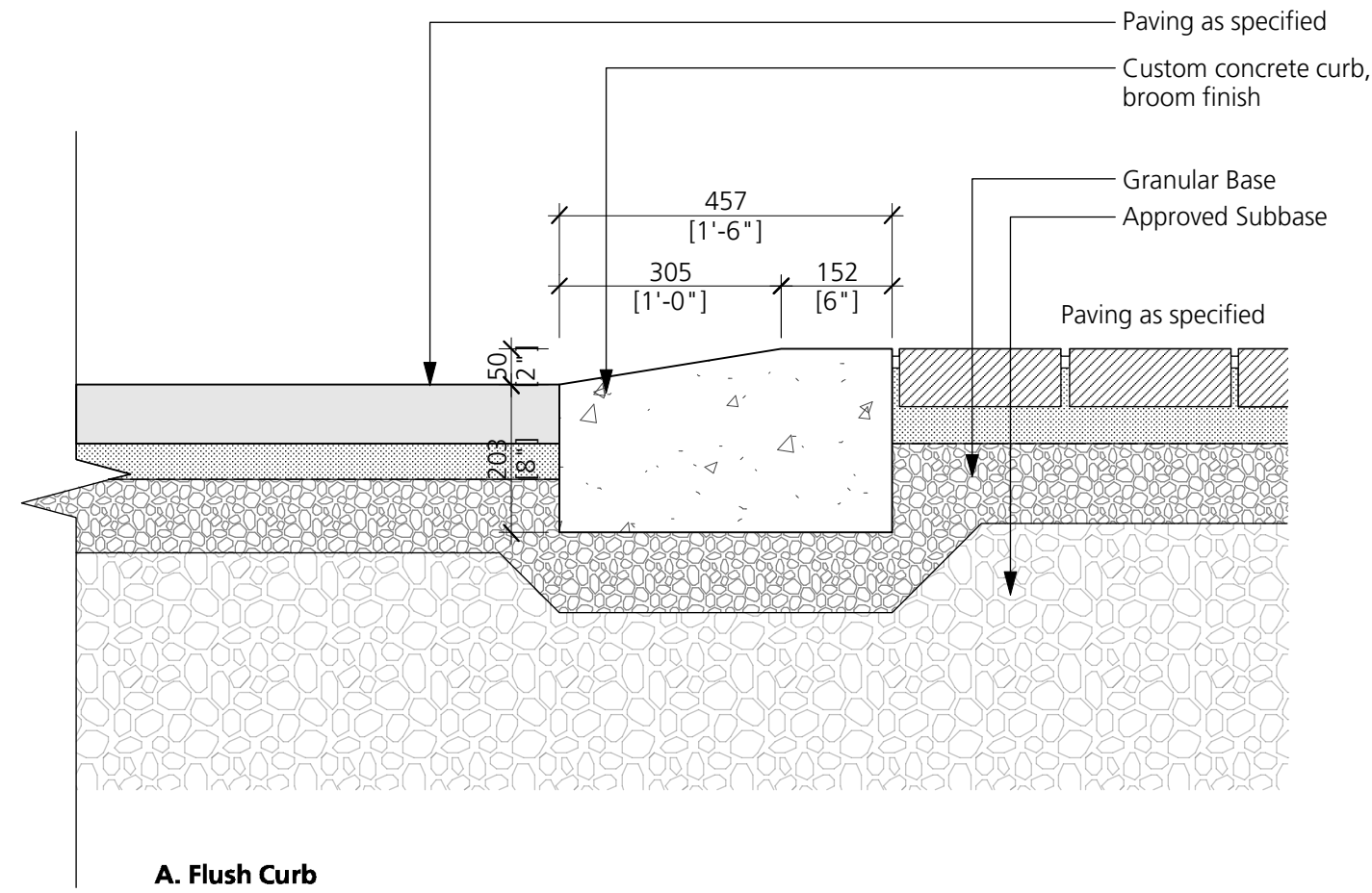
Address: 3422 McCallum Rd, Abbotsford, BC V2S 7W6
Tel: (604) 852-4967
https://www.pavingstones.com/



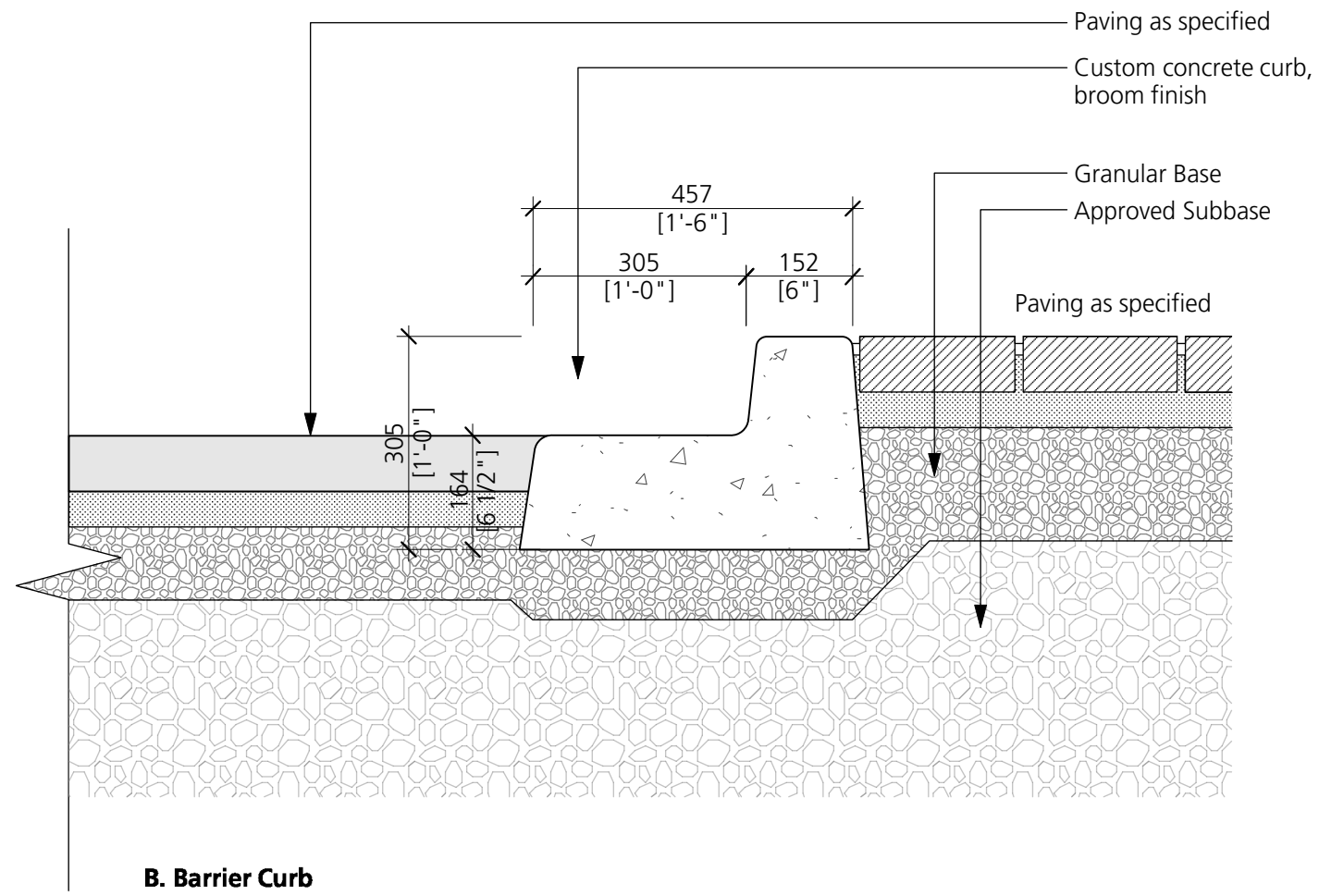
B. Permeable Pavers (in Parking Stalls in Parking Lots)



Plan View



A. Flush Curb



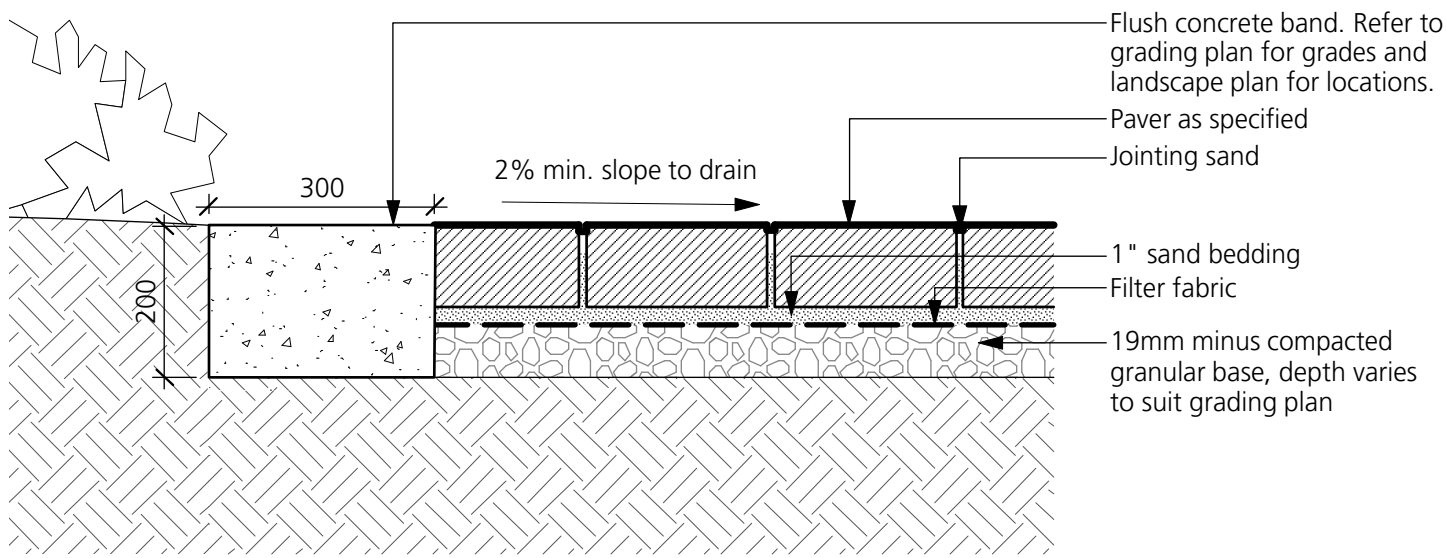
B. Barrier Curb

2

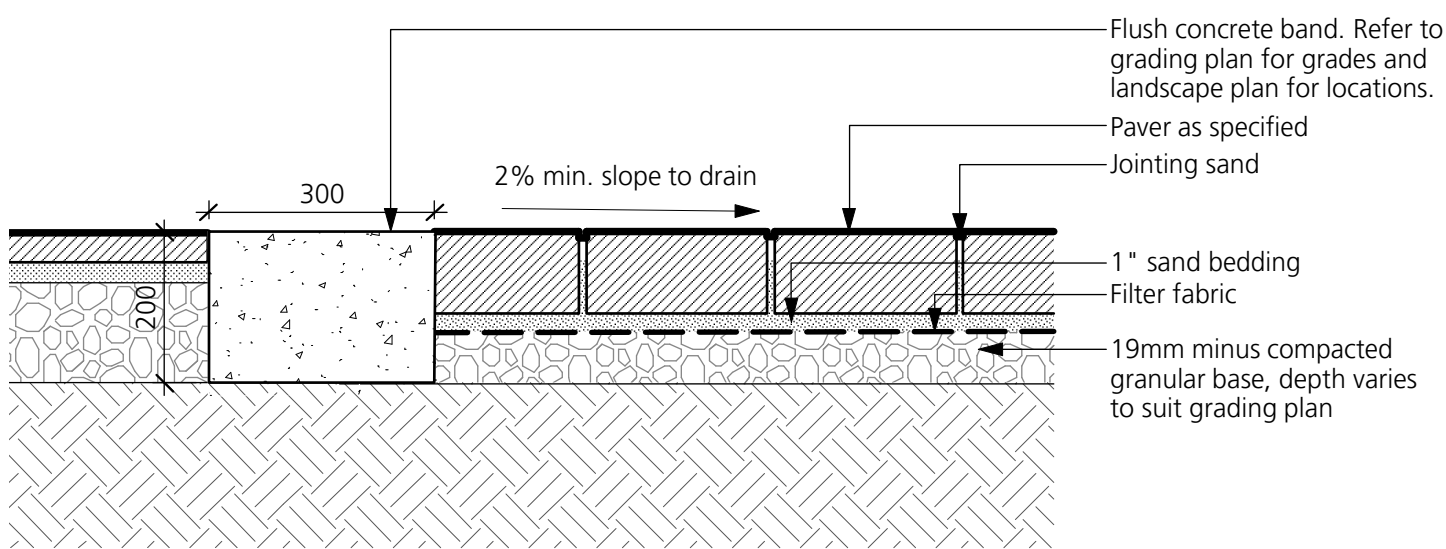
L-4.0

Vehicular Paving

Scale: 1:10



A. Banding between Pavers and Planting



B. Banding between Pavers and Pavers



5

L-4.0

Custom Curved Bench

Scale: NTS

Model: MLB870 Series

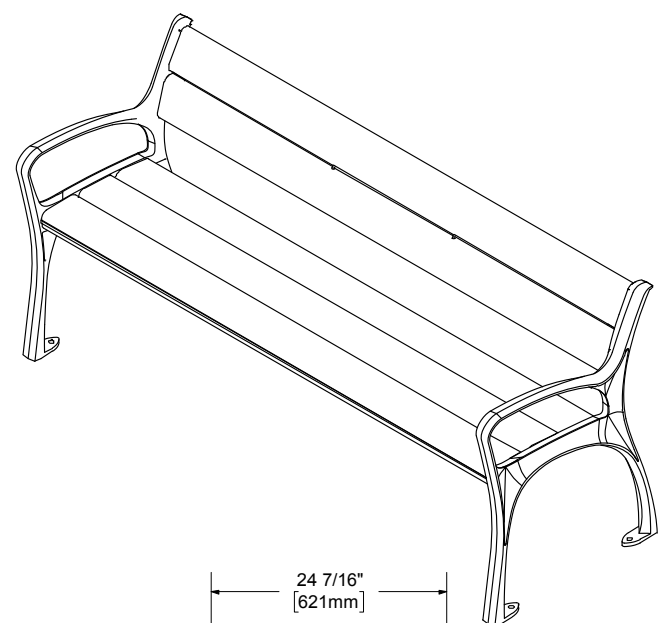
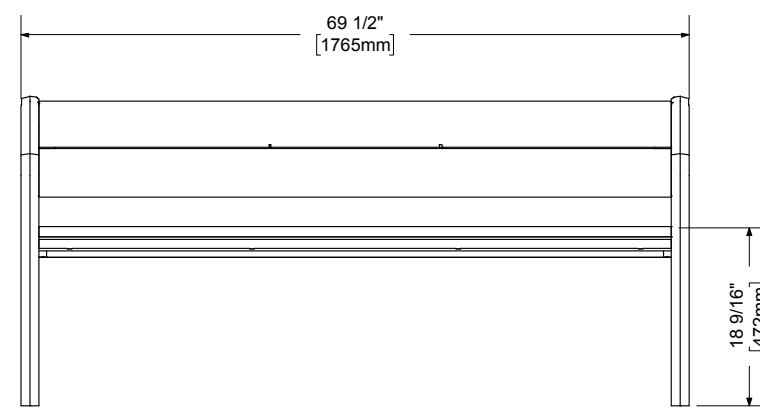
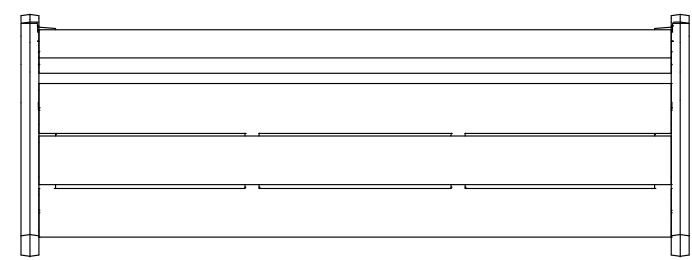
Manufacturer: Maglin

Colour: IPE + Powercoat Black-Gloss

Contact: www.maglin.com

Installation: Mount as per manufacturer's specifications

Quantity: TBD



6

L-4.0

Backed Bench

Scale: 1:20



1

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Client:

Project Title:

Union Bay
Discovery Centre

Drawing Title:

Landscape Details

Project North:

Drawn By:

JS

Checked By:

MP

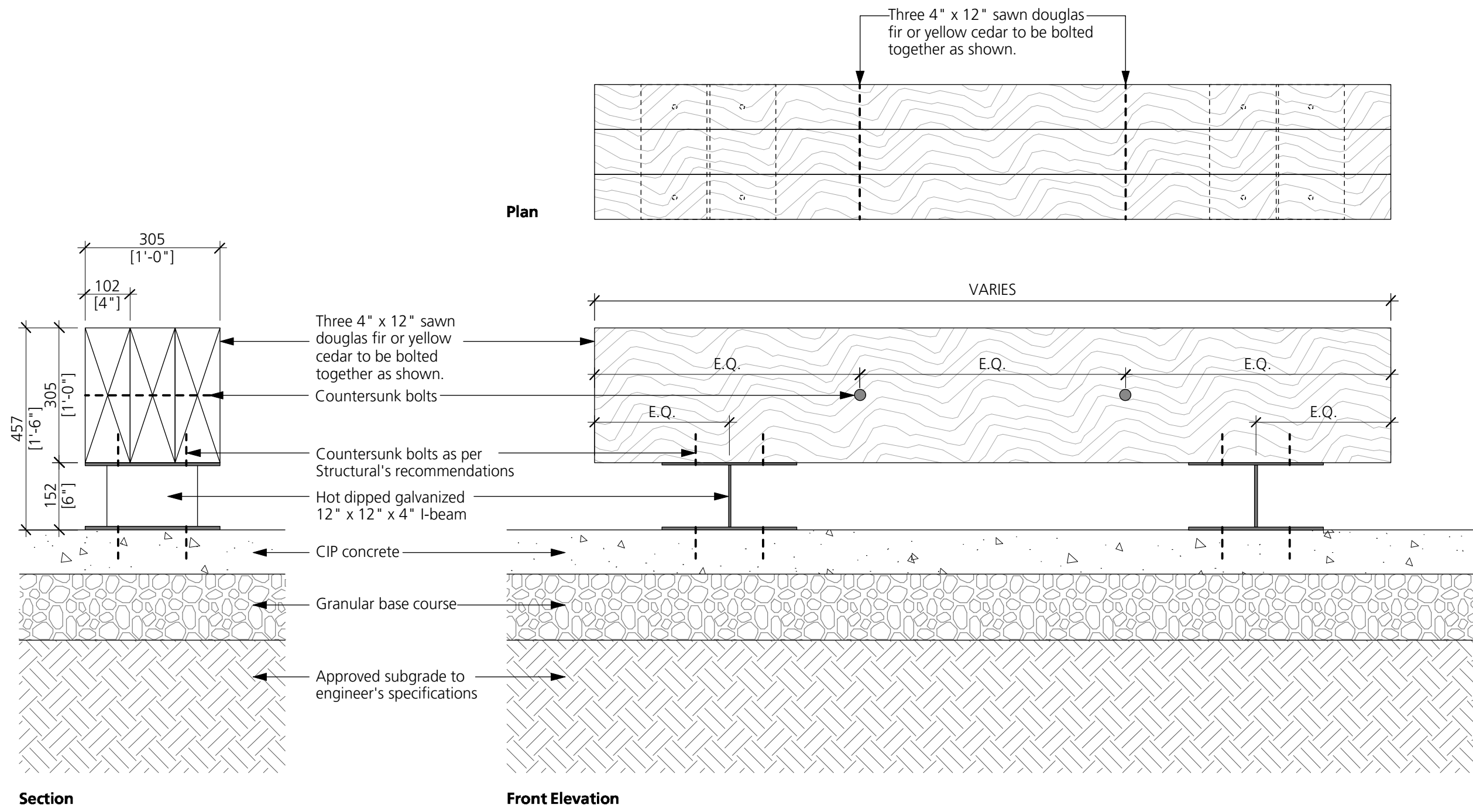
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Job No.:

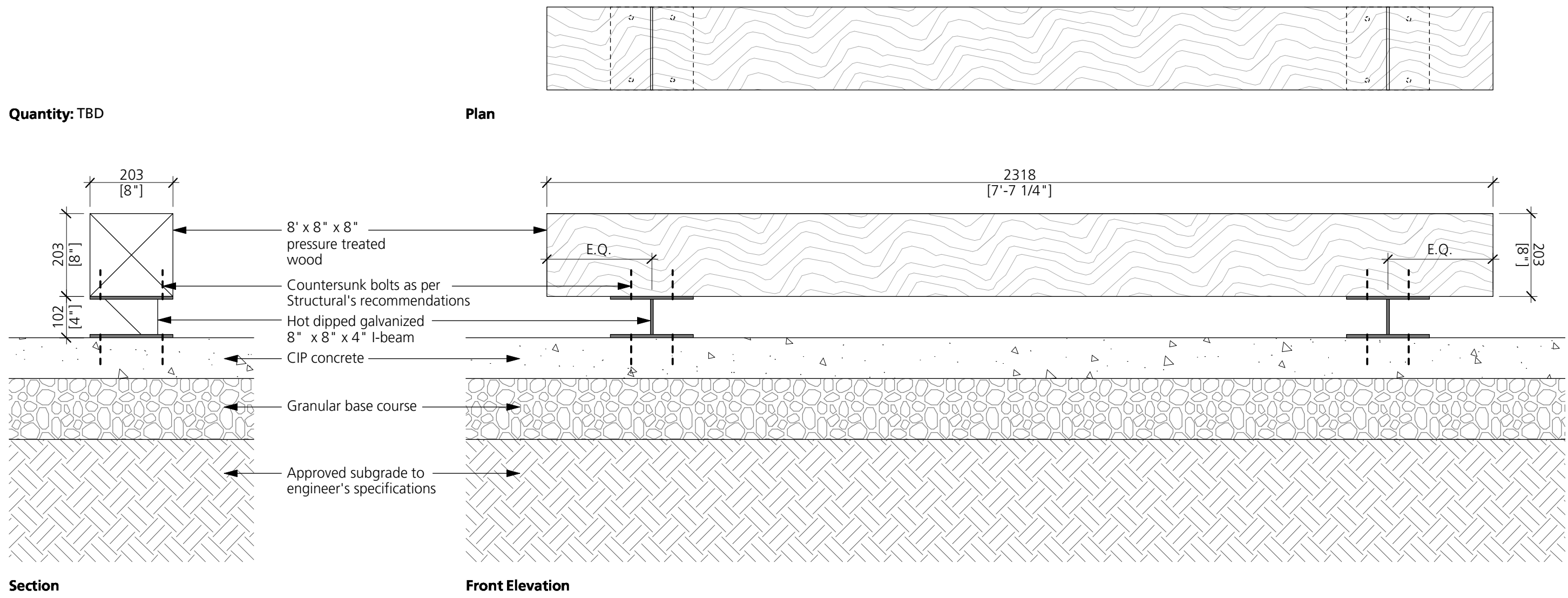
As Shown

17-089

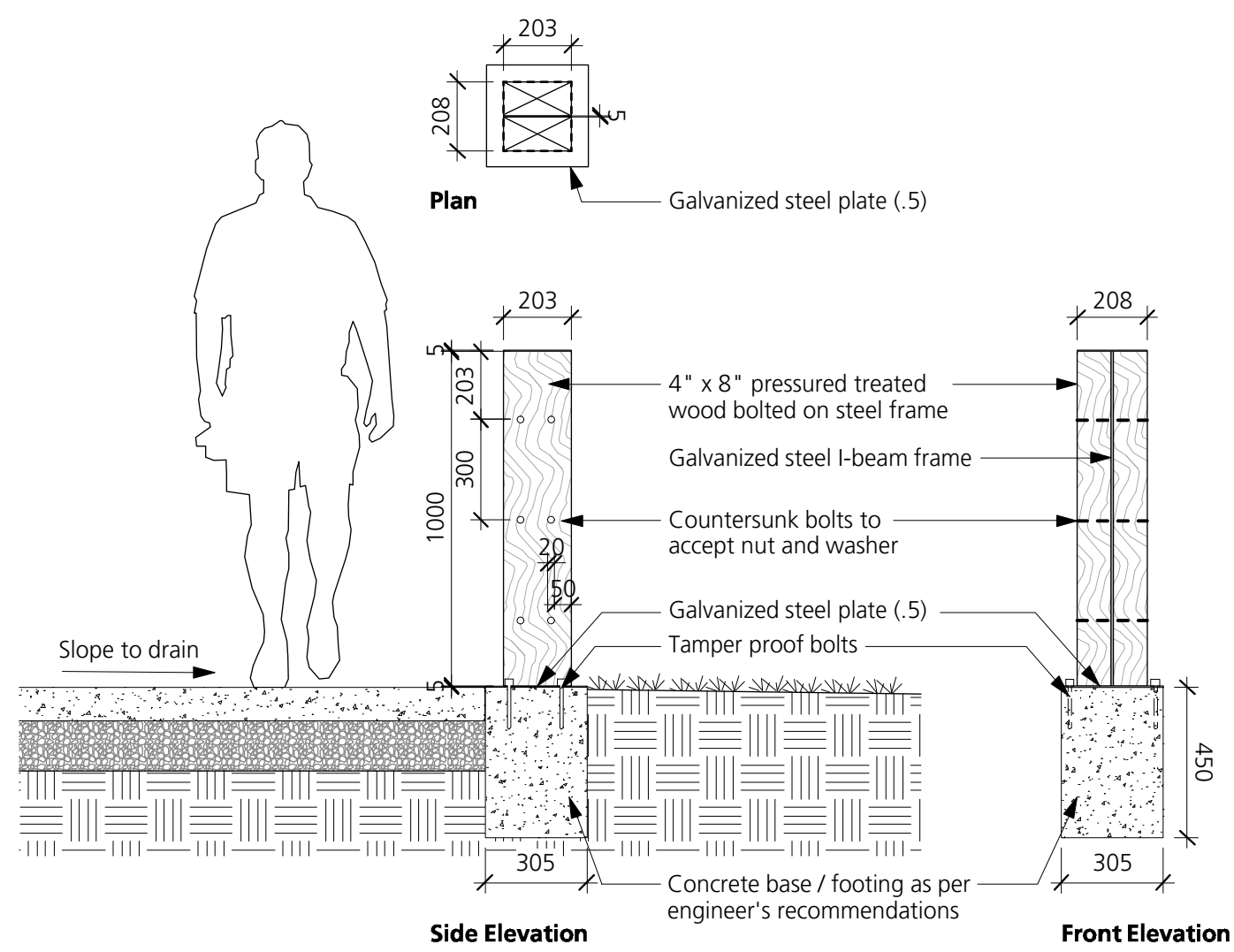
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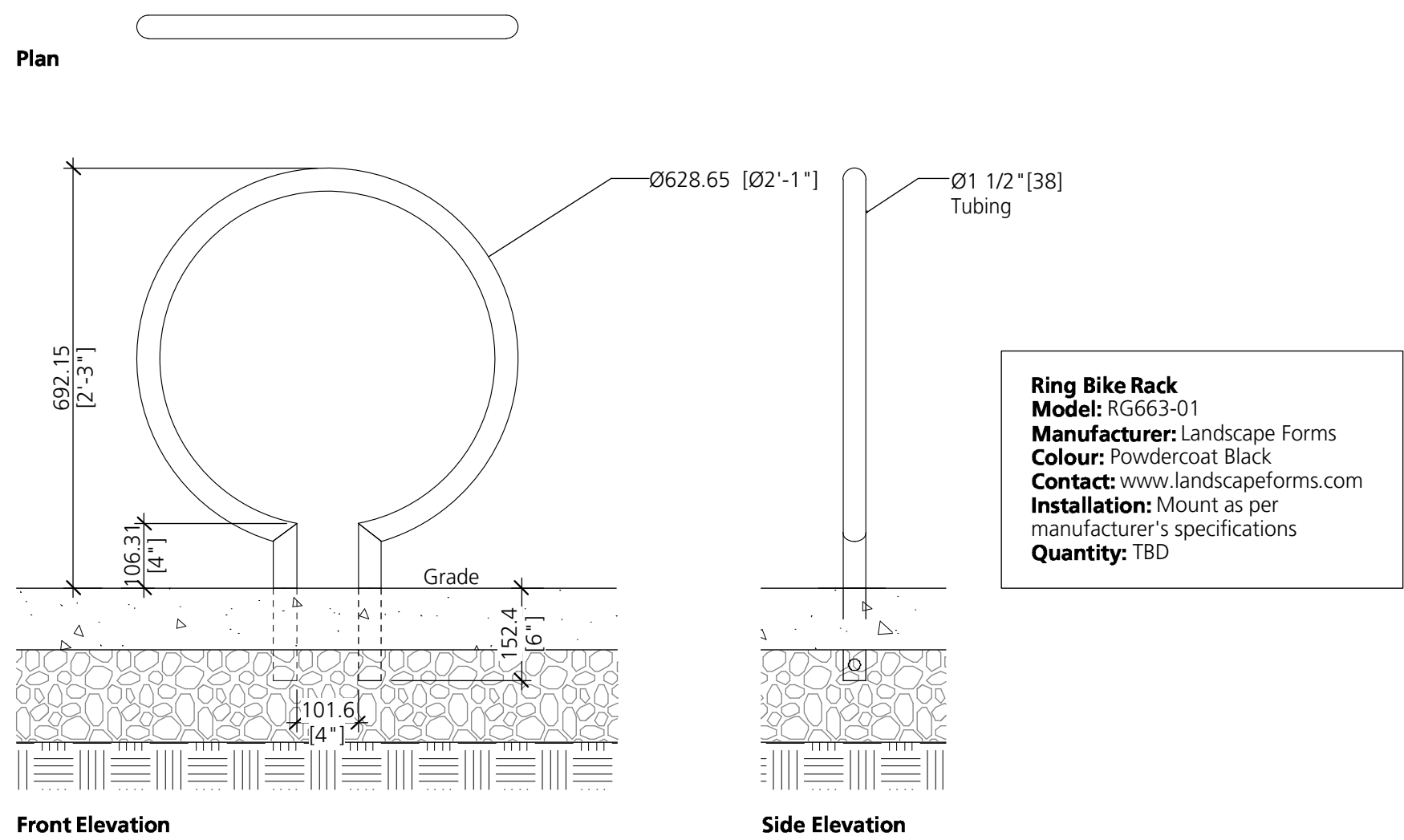
7 Custom Wood Backless Bench
Scale: 1:10



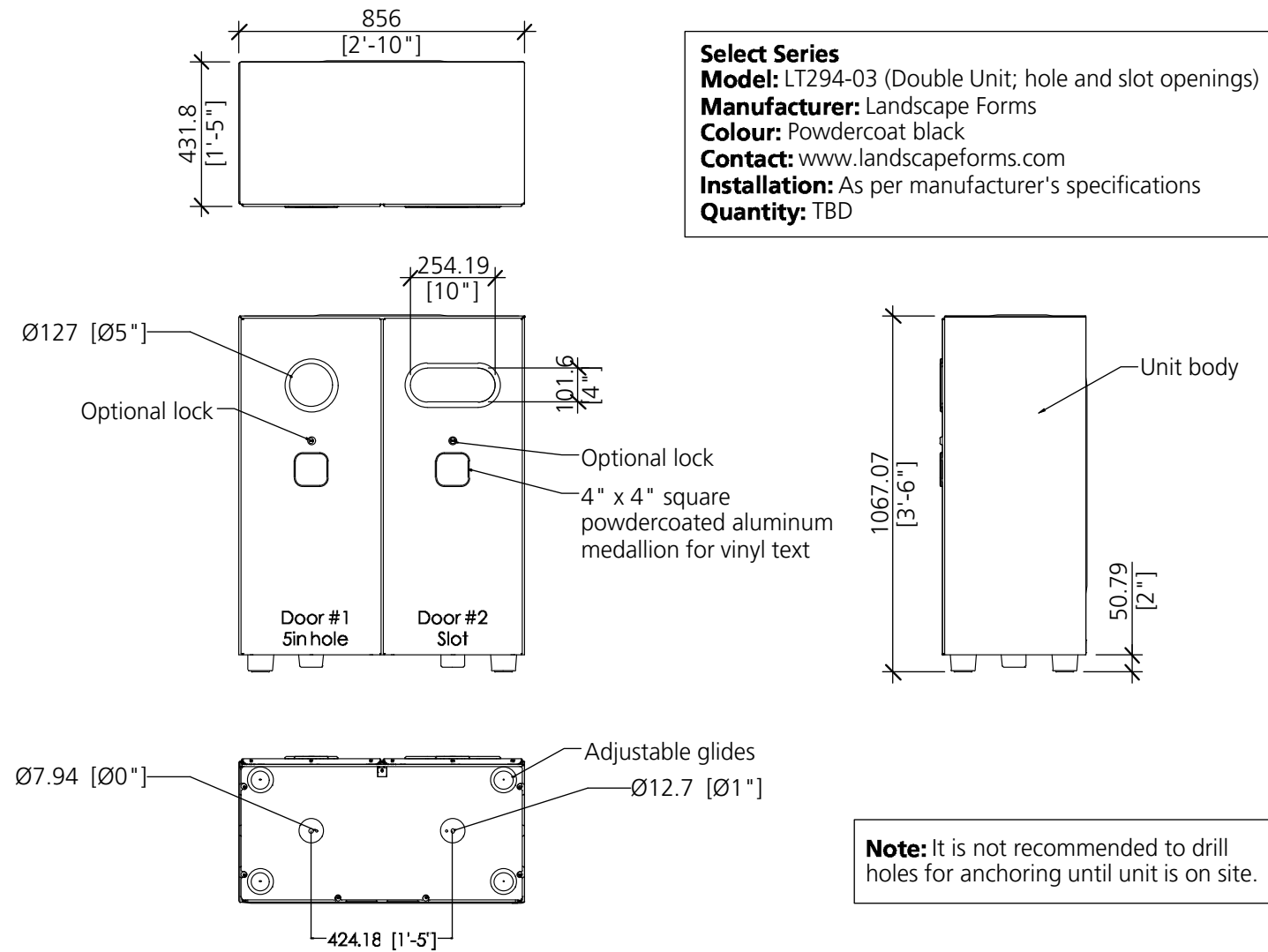
8 Curb Stop
Scale: 1:10



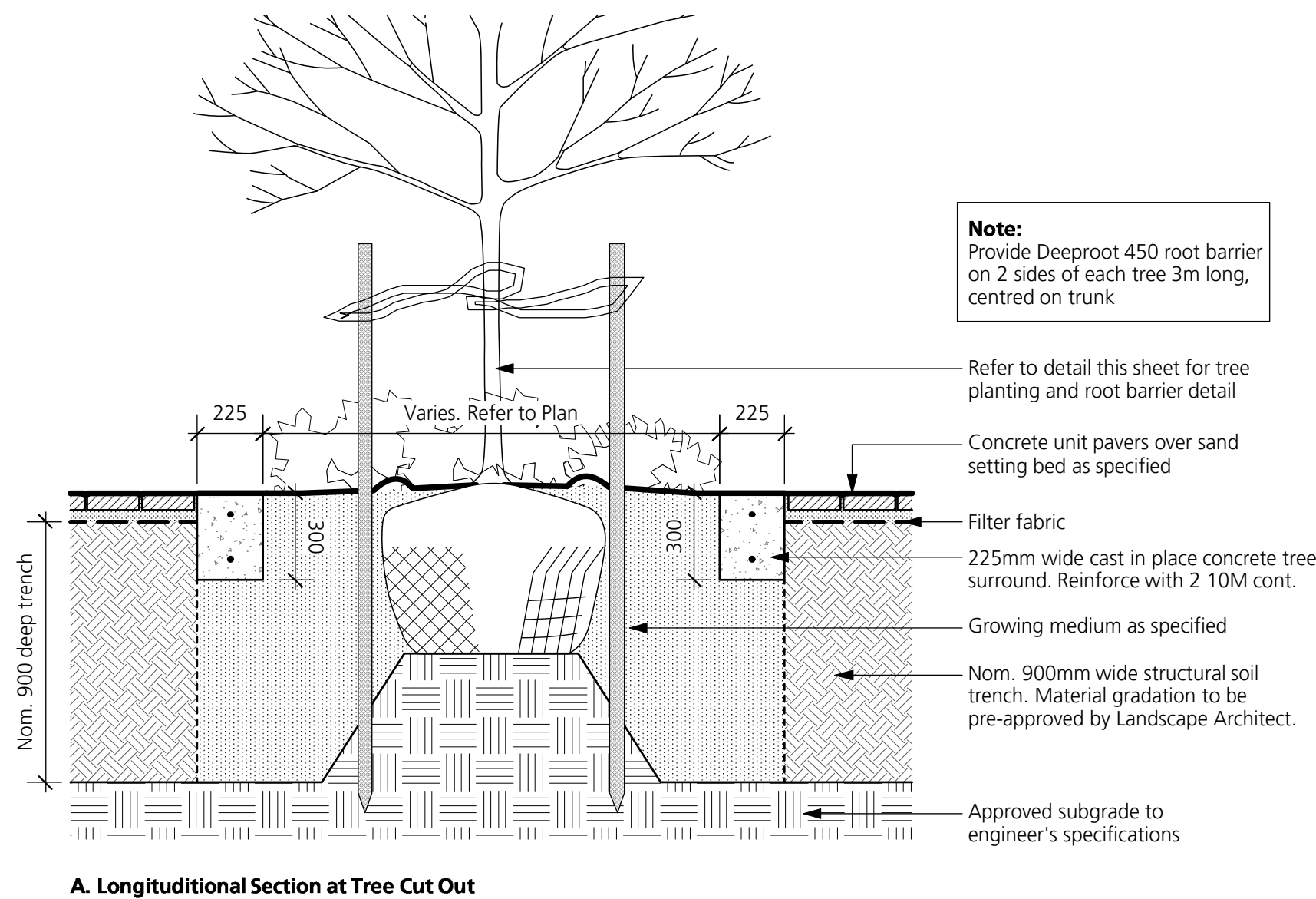
9 Custom Bollard
Scale: 1:20



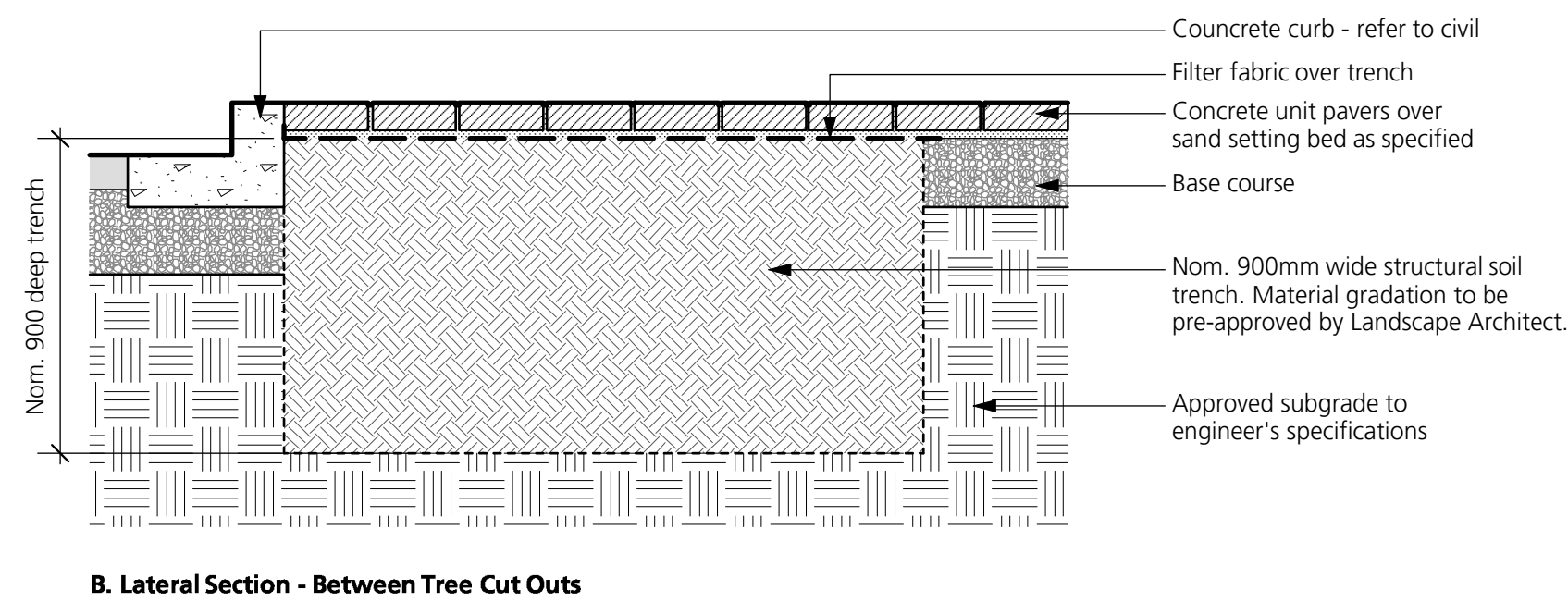
10 Ring Bike Rack
Scale: 1:10



11 Receptacle
Scale: 1:20



12 Tree Cut Out and Soil Trench
Scale: 1:20



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Client:

Project Title:

**Union Bay
Discovery Centre**

Drawing Title:

Landscape Details

Project North:

Drawn By:

JS

Checked By:

MP

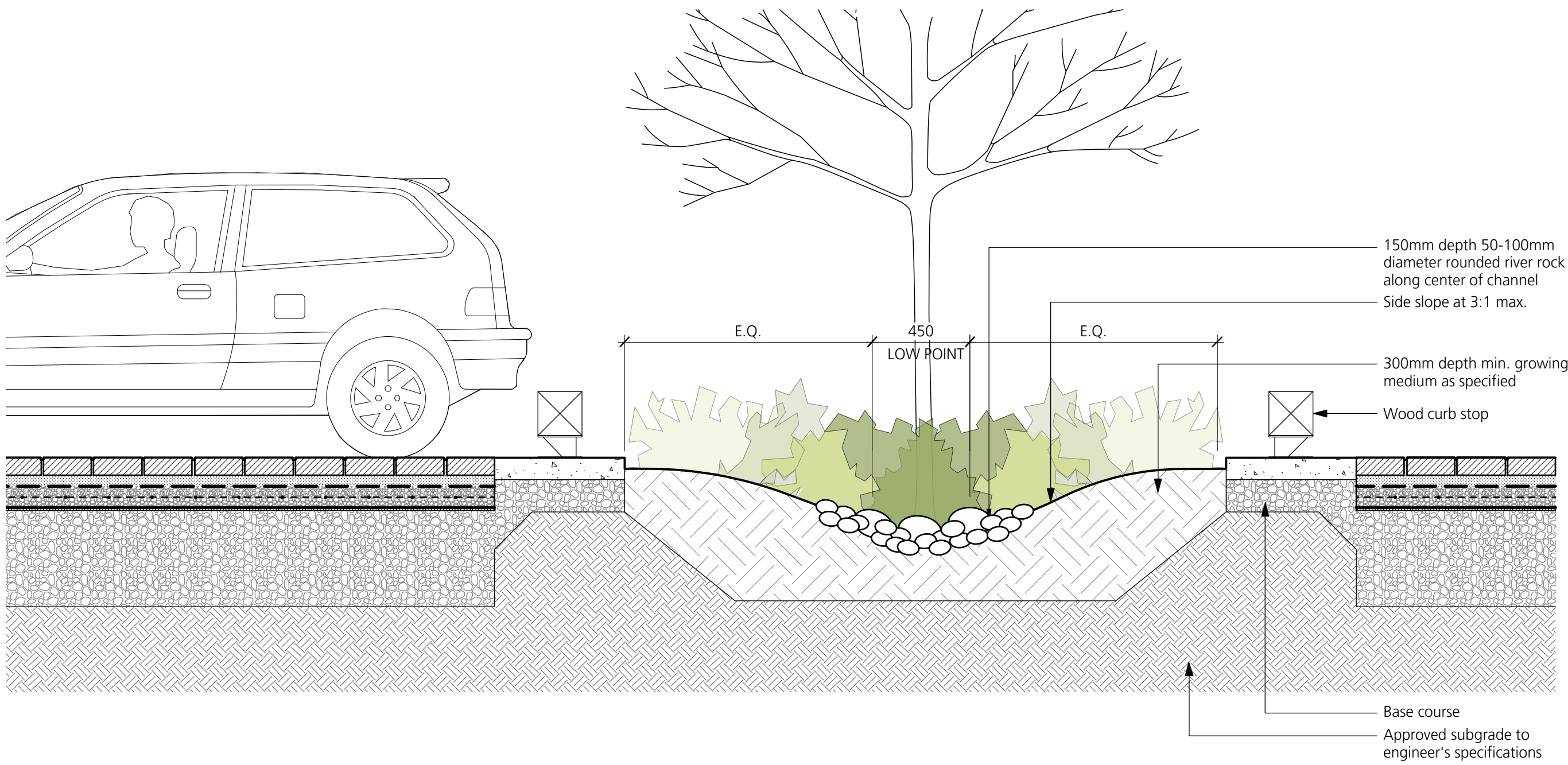
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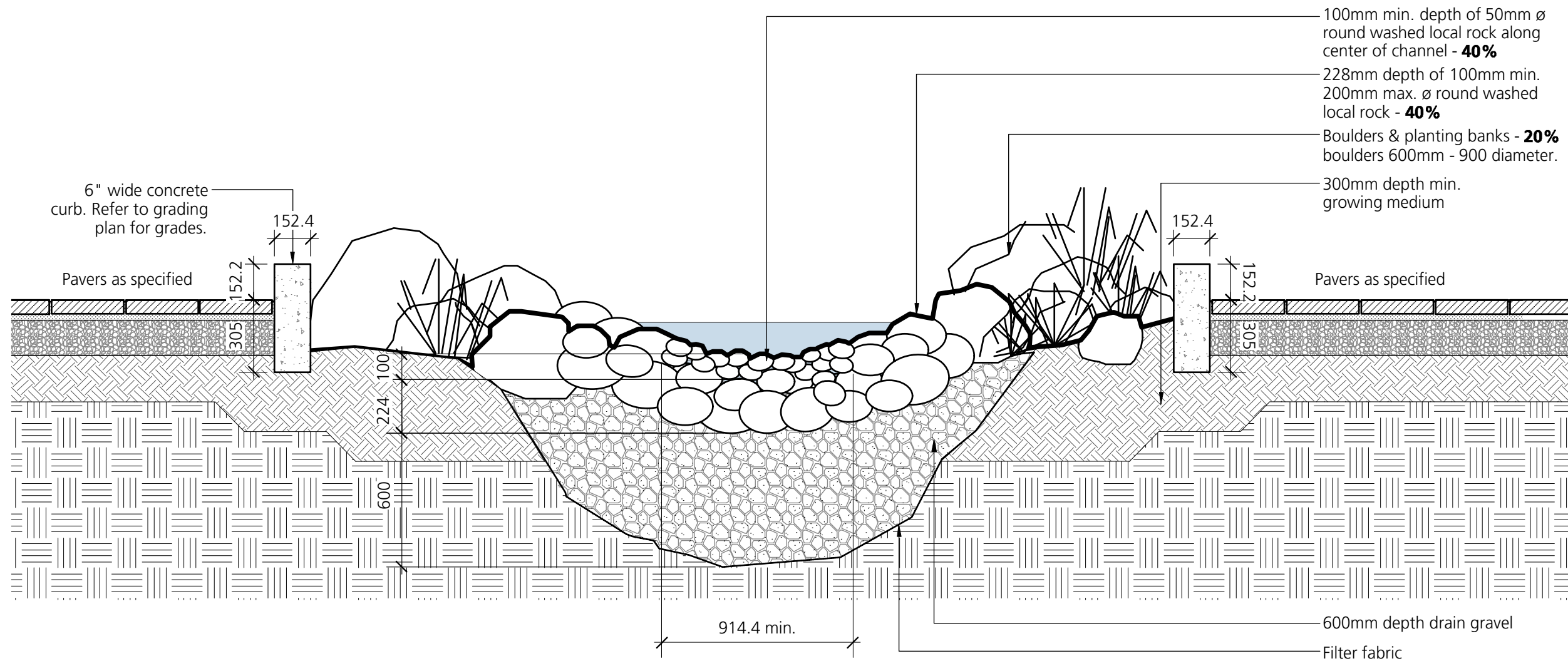
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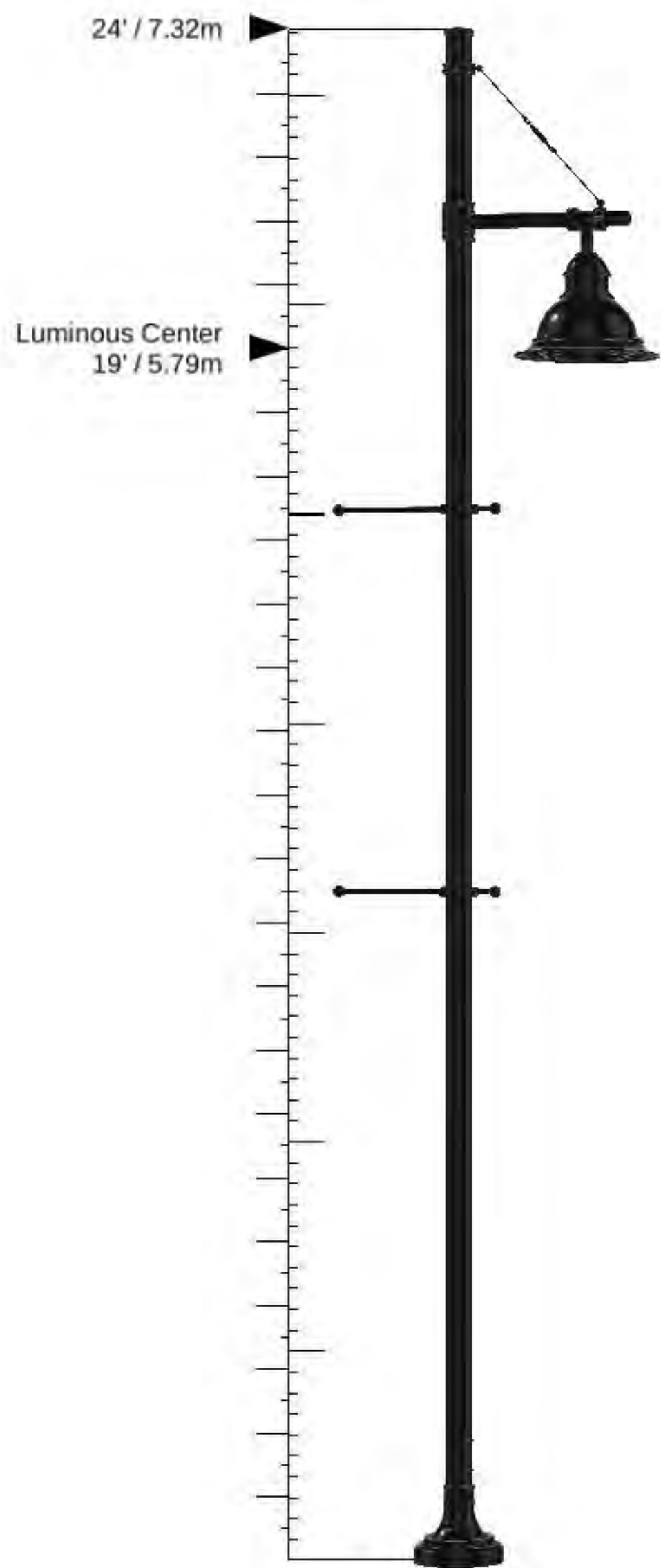
L 4.1



13
L-4.2 Parking Trench
Scale: 1:20



14
L-4.2 Rain Garden
Scale: 1:20



Note:
Urban Post-Mount Luminaire to be c/w LED light source compliant w/ Dark Sky requirement, decorative banners and powdercoated black finishes.

15
L-4.2 Dark Sky Compliant Urban Post-Mount Luminaire
Scale: 1:25



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Client:

Project Title:
**Union Bay
Discovery Centre**

Drawing Title:
Landscape Details

Project North: Drawn By: JS
Checked By: MP
Scale: Job No.: 17-089
Sheet No.: As Shown

L 4.2



RAINWATER COLLECTION AT STREET



BACKED BENCH



BACKLESS BENCHES



RAINWATER COLLECTION AT BREEZEWAY



BIKE RACKS



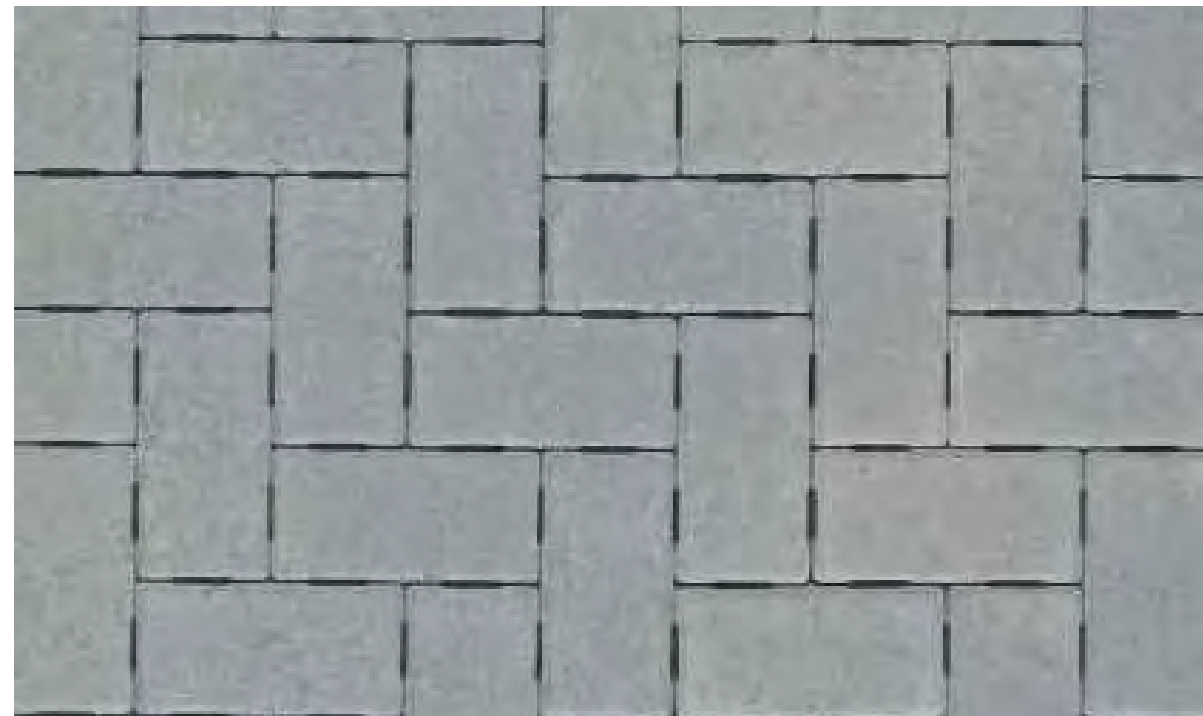
PARKING LOT AND PLANTED TRENCH



BOLLARD



VS-5 VEHICULAR PAVING



ABBOTSFORD STANDARD PAVERS - PARKING SPACES



HYDRAPRESSED SLAB PAVING



WORPLESTONE SWEET GUM



KINNICKINICK



JAPANESE MAPLE



GOLDMOUND SPIREA



TREMBLING ASPEN



TALL OREGON GRAPE



LOW OREGON GRAPE



MUGHO PINE



COMMON SNOWBERRY



JAPANESE STEWARTIA



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Client:

Project Title:
**Union Bay
Discovery Centre**

Drawing Title:
**Landscape
Precedent Images**

Project North: Drawn By: JS
Checked By: MP
Scale: NTS Job No.: 17-089
Sheet No.:



STREETScape CHARACTER

Project: Union Bay - Discovery Centre
On-Site Landscape Cost Estimate



Job No.: 17-089
 Date: March 28, 2019
 Prepared by: Kara Singbeil
 R. KIM PERRY & ASSOCIATES INC.

Perry and Associates
 Landscape Architecture
 Site Planning

ITEM		MATERIALS AND INSTALLATION			
No.	Description	No.	Unit	Unit Price	Cost
1	Soft Landscape:				
1.0	Top Soil materials supplied	393	m3	\$30.00	\$11,781.66
2.0	Hydroseed supplied	187	m2	\$4.00	\$749.48
3.0	Irrigation, Supplied	811	m2	\$14.00	\$11,350.36
4.0	Site Boulders	21	ea	\$4.00	\$84.00
5.0	Rain Garden Materials	7	m2	\$50.00	\$345.50
2	Plant Materials (Supplied):				
1.0	Deciduous Trees - 6cm cal.	37	ea	\$334.00	\$12,358.00
2.0	Coniferous Trees - 2.5m ht.	5	ea	\$234.00	\$1,170.00
3.0	Shrubs, Groundovers, Vines - #3 Pot	264	ea	\$24.00	\$6,336.00
4.0	Shrubs, Groundovers, Vines - #2 Pot	821	ea	\$17.00	\$13,957.00
5.0	Shrubs, Groundovers, Vines - #1 Pot	645	ea	\$10.00	\$6,450.00
		Subtotal Supplied Cost			\$64,582.00
		Subtotal on Cost of Labour			\$32,291.00

SUBTOTAL (Supplied Cost)	\$64,582.00
12% Tax (GST+PST)	\$7,749.84
Subtotal Supplied Cost	\$72,331.84

SUBTOTAL (Installed Cost)	\$32,291.00
5% Tax (GST)	\$1,614.55
Subtotal Labour Cost	\$33,905.55

25% CONTINGENCY (Supplied+Installed Cost)	\$26,559.35
TOTAL ON SUPPLIED & INSTALLED COST	\$132,796.74

Notes:

- 1.0 This estimate is for on-site soft landscape work including to back of curb along road frontages. Refer to attached L1.0 Landscape Plan for the scope of landscape work for this cost estimate.
- 2.0 This cost estimate does not include tax
- 3.0 All unit costs are for supply of materials
- 4.0 Refer to Civil for paving, site utilities and stormwater management.
- 5.0 Refer to Architect for Architectural elements and lighting.