
CITY OF KELOWNA

MEMORANDUM

Date: June 23, 2021
File No.: DP21-0135
To: Suburban and Rural Planning (KB)
From: Development Engineering Manager (RO)
Subject: 437 Bay Ave Form and Character

The Development Engineering Branch has the following requirements related to this Development Permit application for the Form & Character of a new commercial storage facility which will be applicable at time of Building Permit.

1. **General**

- a. The following requirements are valid for two (2) years from the reference date of this memo, or until the application has been closed, whichever occurs first. The City of Kelowna reserves the rights to update/change some or all items in this memo once these time limits have been reached.
- b. There is a possibility of a high water table or surcharging of storm drains during major storm events. This should be considered in the design of the onsite system.

2. **Domestic Water and Fire Protection**

- a. The subject lot is located within the City of Kelowna water supply area. The existing lot is currently serviced with a 200-mm diameter water service. Only one service will be permitted.
- b. The Developer's Consulting Engineer will determine the domestic and fire protection requirements of this proposed development and establish hydrant requirements and service needs. The bylaw requirement for industrial lots is 225 L/s. If it is determined that upgrades to any other existing water distribution system must be made to achieve the required fire flows, additional bonding will be required.
- c. A Water meter is mandatory for this development and must be installed inside a building on the water service inlet as required by the City Plumbing Regulation and Water Regulation bylaws. The Developer or Building Contractor must purchase the meter from the City at the time of application for a building permit from the Inspection Services Department and prepare the meter setter at their cost.

2. Sanitary Sewer System

- a. Our records indicate that this property is currently serviced with a 200-mm diameter sanitary sewer service off Ellis St.
- b. The Applicant's Consulting Mechanical Engineer will determine the requirements of the proposed development and establish the service needs. Only one service will be permitted for each legal lot. If required, the applicant will arrange for the removal and disconnection of the existing service and the installation of one new larger service at the applicants cost.
- c. Industrial lots require an inspection manhole within the subject lot and is to be installed as close to property line as practical to allow for access by the City as per section 2.16 of Schedule 4 of the Subdivision, Development & Servicing Bylaw No. 7900.

3. Storm Drainage

- a. Our records indicate that the subject lots is currently serviced with a 250-mm diameter storm sewer service off Ellis St. Only one service is permitted for each legal lot.
- b. A flow control manhole is to be installed within 3 metres of the property line, and downstream of any water quality enhancement system. The manhole will include provision for isolating runoff into the City Storm system and an SROW is required to allow for access by the City.
- c. The developer must engage a consulting civil engineer to provide a storm water management plan for this site which meets the requirements of the City Subdivision Development and Servicing Bylaw 7900. The storm water management plan must also include provision of lot grading plans, minimum basement elevations (MBE), if applicable, and provision of a storm drainage service and recommendations for onsite drainage containment and disposal systems.
- d. Provide the following drawings:
 - i. A detailed Stormwater Management Plan for this development that is based off the original grading plan of the subdivision; and,
 - ii. An Erosion and Sediment Control Plan is to be prepared by a Professional Engineer proficient in the field of erosion and sediment control. The plan is to be prepared as per section 3.14 of Schedule 4 of Bylaw 7900. If a line item for ESC is not included in the Engineer's cost estimate for off-site work, then an additional 3% will be added to the performance security based on the total off-site construction estimate.
- e. On-site detention systems are to be compliant with Bylaw 7900, Schedule 4, Section 3.11.1 Detention Storage.
- f. As per Bylaw 7900, Schedule 4, Section 3.1.3 Climate Change, the capacity of storm works will include an additional 15 percent (15%) upward adjustment and applied to the rainfall intensity curve stage (IDF) in Section 3.7.2.
- g. Register right of ways on private properties for all the storm water infrastructure carrying, conveying, detaining and/or retaining storm water that is generated from the public properties, public road right of ways, and golf course lands.

- h. Where structures are designed or constructed below the proven high groundwater table, permanent groundwater pumping will not be permitted to discharge to the storm system. The City will approve designs that include provisions for eliminating groundwater penetration into the structure, while addressing buoyancy concerns. These design aspects must be reviewed and approved by the City Engineer.

4. Road Improvements

- a. Bay Ave frontage upgrades required include landscaped and irrigated boulevard, LED streetlights, removal and placement of deteriorated sidewalk curb and gutter as needed, pavement removal and replacement, and re-location or adjustment of existing utility appurtenances if required to accommodate the upgrading.
- b. Ellis St frontage upgrades required include landscaped and irrigated boulevard, LED streetlights, burial of overhead wires, removal and placement of deteriorated sidewalk curb and gutter as needed, pavement removal and replacement, and re-location or adjustment of existing utility appurtenances if required to accommodate the upgrading.
- c. Existing crosswalk ramp at the Bay Ave and Ellis St intersection is to be replaced with a new crosswalk ramp is to be designed as per the BC Active Transportation Guidelines and must include a tactile strip.
- d. Care must be taken to avoid asphalt scaring. Replacement of damaged works and restoration will be at the developer's expense. The extent of the restoration works will be determined by the City Engineer once construction is completed.
- e. All Landscape and Irrigation plans require design and inspection by a Qualified Professional registered with the BCSLA and the IIABC. Landscape and irrigation plans require approval by the Development Engineering Branch at the same time as other "issued for construction" drawings.
- f. Streetlights must be installed on all public roads. All streetlighting designs require approval by the Development Engineering Branch at the same time as other "issued for construction" drawings.

5. Electric Power and Telecommunication Services

- a. The electrical and telecommunication services to this building/property must be installed in an underground duct system, and the building must be connected by an underground service. It is the developer's responsibility to make a servicing application with the respective electric power, telephone, and cable transmission companies to arrange for these services, which would be at the applicant's cost.

9. Geotechnical Report

- a. Provide a comprehensive geotechnical report, prepared by a Professional Engineer competent in the field of hydro-geotechnical engineering to address the items below: **NOTE: The City is relying on the Geotechnical Engineer's report to prevent any damage to property and/or injury to persons from occurring as a result of problems with soil slippage or soil instability related to this proposed subdivision.**
- b. The Geotechnical report must be submitted prior to submission of Engineering drawings or application for subdivision approval.
 - i. Area ground water characteristics, including any springs and overland surface drainage courses traversing the property. Identify any monitoring required.

- ii. Site suitability for development.
 - iii. Site soil characteristics (i.e. fill areas, sulphate content, unsuitable soils such as organic material, etc.).
 - iv. Any special requirements for construction of roads, utilities, and building structures.
 - v. Recommendations for items that should be included in a Restrictive Covenant.
 - vi. Recommendations for roof drains and perimeter drains.
 - vii. Recommendations for erosion and sedimentation controls for water and wind.
 - viii. Any items required in other sections of this document.
- c. Should any on-site retaining walls surpass the following limits, an Over Height Retaining Wall Permit will be required:

“Retaining walls on all lots, except those required as a condition of subdivision approval, must not exceed a height of 1.2 m measured from natural grade on the lower side, and must be constructed so that any retaining walls are spaced to provide a 1.2 m horizontal separation between tiers. The maximum number of tiers is two with a maximum total height of 2.4 m. Any multi-tier structure more than 2 tiers must be designed and constructed under the direction of a qualified professional engineer.”

The design of all retaining walls is to conform with Engineer & Geoscientists British Columbia’s Professional Practice Guidelines for Retaining Wall Design. Submission requirements for the Over Height Retaining Wall Permit include Engineer of Record documents (Appendix A of Retaining Wall Design Guideline) and any necessary independent reviews (as per EGBC’s Documented Independent Review of Structural Designs).

6. Site – Related Issues

- a. Only one driveway access with a maximum driveway width of 11 m, design as per SS-C7 for non-residential use, will be permitted and must be from Bay Ave. Access is required to be a minimum of 15 m from the property line of the adjoining road.
- b. Provide all necessary Statutory Rights-of-Way for any utility corridors as required.
- c. If applicable an oil interceptor must be installed to remove oil prior to leaving this property and entering the COK sanitary and/or drainage system

7. Design and Construction

- a. Design, construction supervision and inspection of all off-site civil works and site servicing must be performed by a Consulting Civil Engineer and all such work is subject to the approval of the City Engineer. Drawings must conform to City standards and requirements.
- b. Engineering drawing submissions are to be in accordance with the City’s “Engineering Drawing Submission Requirements” Policy. Please note the number of sets and drawings required for submissions.
- c. Quality Control and Assurance Plans must be provided in accordance with the Subdivision, Development & Servicing Bylaw No. 7900 (Part 5 and Schedule 3).

DP21-0135 Bay Ave 437

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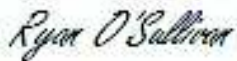
- d. A "Consulting Engineering Confirmation Letter" (City document 'C') must be completed prior to submission of any designs.
- e. Before any construction related to the requirements of this subdivision application commences, design drawings prepared by a professional engineer must be submitted to the City's Development Engineering Department. The design drawings must first be "Issued for Construction" by the City Engineer. On examination of design drawings, it may be determined that rights-of-way are required for current or future needs.

8. Servicing Agreements for Works and Services

- a. A Servicing Agreement is required for all offsite works and services on City lands in accordance with the Subdivision, Development & Servicing Bylaw No. 7900. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings and estimates for the required works. The Servicing Agreement must be in the form as described in Schedule 2 of the bylaw.
- b. Part 3, "Security for Works and Services", of the Bylaw, describes the Bonding and Insurance requirements of the Owner. The liability limit is not to be less than \$5,000,000 and the City is to be named on the insurance policy as an additional insured.
- c. A Servicing Agreement had been executed for the offsite works associated with a previous Development Application for this property, DP17-0073. As DP17-0073 has been closed a new Servicing Agreement will be required for the current Application, DP21-0135. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings and up to date estimates for the required works.

10. Charges and Fees

- a. Development Cost Charges (DCC's) are payable.
- b. Fees per the "Development Application Fees Bylaw" include:
 - i. Street Marking/Traffic Sign Fees: at cost (to be determined after detailed design completed).
 - ii. Survey Monument, Replacement Fee: \$1,200.00 (GST exempt) – only if disturbed.
 - iii. Engineering and Inspection Fee: 3.5% of offsite construction value (plus GST).



Ryan O'Sullivan
Development Engineering Manager

SK

EcoLock Design Rationale Statement

EcoLock is a five story, 10,440 m² personal-storage facility proposed for Kelowna, British Columbia, Canada that uses a new model to support responsible urban living. The building provides remote storage for individuals and businesses in an environment designed to the highest environmental standard for buildings and communities, while enhancing neighborhood character with cutting edge architecture and material use. The structure is planned for net-zero energy, along with other achievements that provide a model for a low carbon construction, high performance, waste diversion, healthy materials, support for local culture and the arts, biodiversity enhancement, and best practices for low impact development (LID) at the site level. The project aspires to achieve Petal-level Living Building Challenge (LBC) certification (the world's most stringent green building program that exceeds LEED), and has applied to the Canada Green Building Council Zero Carbon Pilot Program.



Figure 1 Ellis Street Elevation

The following describes the project in more detail:

Urban Design

The five-story project uses a compact form and is rational in plan. The design makes the most of its corner site, with vehicular access, loading, and parking to the north and providing an active, two-story storefront along Ellis Street to engage the pedestrian realm. The two-story storefront along Ellis accommodates lobby spaces, office and sales, along with educational components that describe the green features of the building. These spaces intend to create a vibrant, active storefront along the majority of Ellis Street to enhance Kelowna's downtown and create a new model for similar facilities that raise the bar aesthetically and functionally.

On the Ellis Street façade, display windows are provided to support local artists - an ethos that is important to the Ecolock brand. On the northeast corner of the site, the lobby extends beyond the building, forming a prow-like building element which provides a human-scaled feature at the most visible corner of the site.

Along the north side of the building, off-street parking and loading spaces and a screened trash enclosure, create an orderly back of house area. The loading areas are protected from the elements by the building above. All areas are designed with no concealed spaces, for urban pedestrian safety. The facility office area has direct views along the north facade and east facing lobby helping to create 'eyes on the street' which will help make the neighborhood safer. The south and west facades are boxed in by future buildings, which are simple and plain, close to the property line, and fenced against unauthorized entry.

The site landscaping approach incorporates drought tolerant native landscaping, storm water diversion bio-swales, grey water irrigation, permeable pavers and a 35m² urban agriculture component - a Living Building Challenge requirement. This project will focus on fruits for human consumption that also support pollinators and migratory birds.

Design and Construction

The design of the building is contemporary, with a two-story lobby on the north-half facing Ellis Street. Like a museum or theater, both of which do not require windows programmatically, the project uses glazing and windows, where they do occur, for maximum benefit and design effect. Above the lobby, and on the upper levels along the north façade, internal corridors are expressed with full height glass. These vertical bands of glazing provide orientation and a sense of safety to users of the facility. Each floor will use color for wayfinding. This color, expressed through the windows, is a primary design element for the building. In the spirit of showcasing all of the integrated sustainable building systems and materials, additional ornamentation has been kept to a minimum, instead expressing and celebrating the building as an inspirational example of the Living Building Challenge and ecologically responsible design. Projected canopies protect tall glass surfaces along Ellis street, with the south facing photovoltaic array on the high roof expressed along the parapet line. The building is designed according to universal design principles. A ramp is provided from the parking area to the lobby. The second-floor toilets are accessed via elevator.



Figure 2 Ecolock Sustainability Diagram

Energy, Conservation and Materials

The project is being designed to exceed its own annual net energy demand through a net metered photovoltaic array, making the building 'net positive' and carbon free in its operations. It will be a combustion free and smoke free facility with exemplary air quality. The building enclosure will be high performance, low carbon, and free of toxic materials.

Windows are also Declare labeled, high performance, pultruded fiberglass, insulated units, that open for natural ventilation. Metal surfaces feature high performance coatings on the building, and weathered steel when in contact with the ground.

The mechanical systems will consume considerably less energy than comparable facilities due to the high-performance envelope. Energy Recovery Ventilation (ERV) units will use exhaust ventilation to temper incoming air. Electrical lighting will use occupancy sensing LED sources. Water, a precious resource, will be used wisely. The acoustically private toilet rooms are designed for individual use. The toilets are positioned on level two to facilitate a low flow toilet system for maximum water conservation.

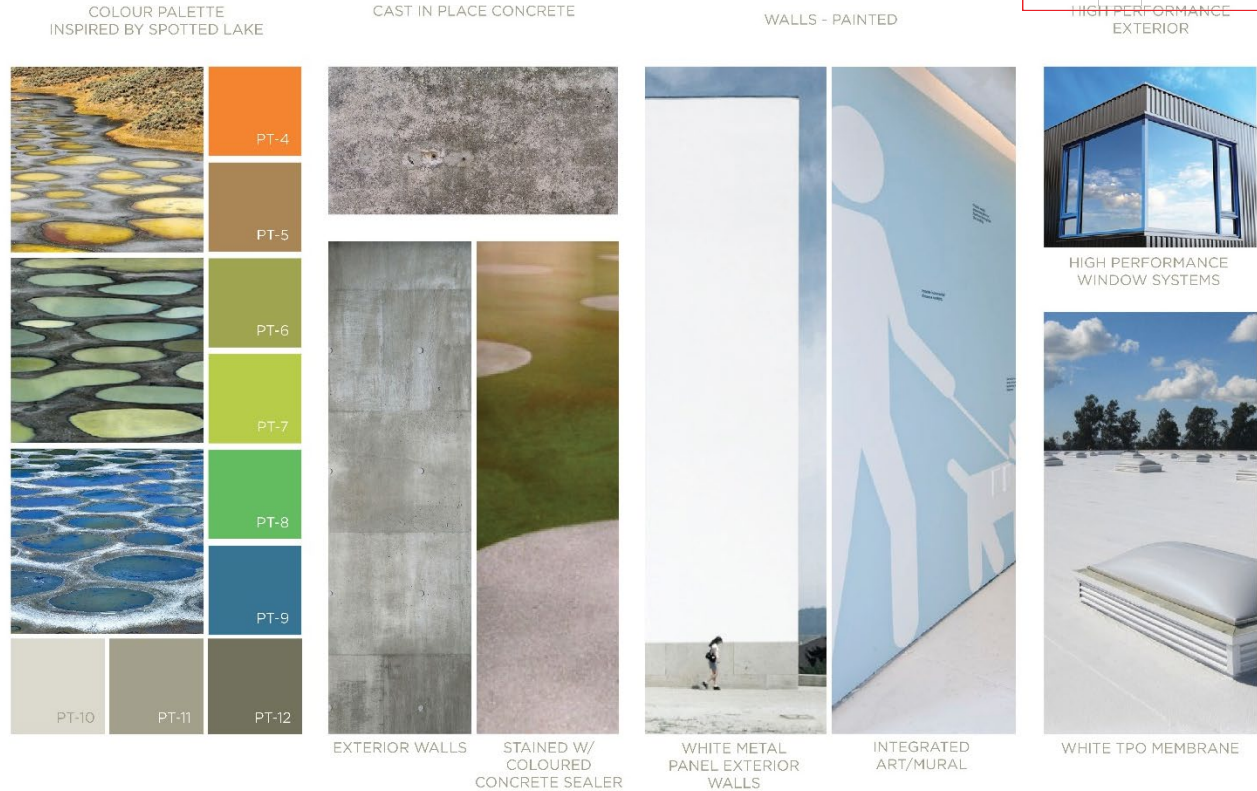


Figure 3 Colors inspired by the Spotted Lakes

Arts and Place

The Okanagan Valley has a rich history of abundance in minerals and fertile soils. The internal and exterior color scheme is inspired by the Spotted Lake, 131 Km south of Kelowna. The lake is unique in how local weather patterns and the deposition of minerals has resulted in a vivid color palette and a refuge for migratory birds. First Nations people called the lakes Kliluk.

Education about the Living Building Challenge, inviting the public to learn and encourage others to adopt similar environmentally responsible strategies for the built environment. The local arts will be celebrated through the display windows. The initial program's focus will be theme-based, such as the artistry of heirlooms, or how everyday objects, when displayed artfully, can be transformative. Building ownership intends to work with local arts coalitions to offer space to emerging artists, as well as established ones and thus help cultivate an even stronger community of local art than currently exists.



December 2, 2021
04-21-0512

Rich Brzezowski
Carbon Capture Mini-Storage (Kelowna) LP
Suite 202, 8440 Main Street
Vancouver, BC
V5X 3M3

VIA E-MAIL: brzz@me.com

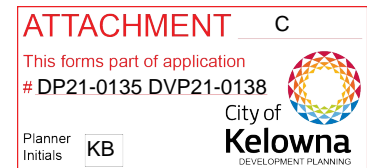
Dear Rick:

**Re: EcoLock Kelowna Self-Storage Facility – 437 Bay Avenue
Parking Assessment – Professional Opinion Letter**

As requested by you, I have reviewed the current Development Permit (DP) drawings for the self-storage facility you have proposed for development at 437 Bay Avenue in Kelowna, BC. I have also reviewed the parking assessment report dated September 28, 2017, that Bunt & Associates Engineering Ltd. (Bunt) had prepared for the previous development plan for this site that featured a 5-storey self-storage facility similar to what is proposed now, plus a “co-work” workplace component with 145 square metres of floor area.

Based on our parking database information available at that time, Bunt concluded that the 16 parking/loading spaces proposed for the previous would be sufficient to accommodate the parking/loading demand for the project other than for peak “month-end” conditions during the mid-day period at which time the self-storage and co-work components combined could potentially generate demand for 20+ vehicles and require some use of nearby street parking. It is important to note that about one-third of that peak parking demand estimate was associated with the “co-work” component of the project.

The current (December 2021) development plan in for the project features a 5-storey self-storage facility with 9,911 square metres with 990 storage lockers. There is no “co-work” space component with the new plan. A total of fifteen (15) parking/loading spaces are planned, including two (2) accessible stalls, ten (10) regular parking stalls, and three (3) truck/van loading bays.



For this new development scenario, Bunt is of the opinion that the proposed fifteen parking/loading spaces, including will be sufficient to accommodate the anticipated peak demand condition for the facility. This conclusion is based on review of the analysis conducted with the 2017 study and more recent parking/loading data collected by Bunt in 2018 for self-storage facilities in the City of Vancouver.

I trust that our input here will be of assistance. Please do not hesitate to contact me should you have any questions.

Yours truly,
Bunt & Associates

Peter Joyce, P.Eng.
Principal



ATTACHMENT C

This forms part of application
DP21-0135 DVP21-0138

Planner Initials **KB**



City of
Kelowna
DEVELOPMENT PLANNING

Ecolock Self Storage and Coworking Development, Kelowna, BC Parking and Loading Rationale

Final Report

Prepared for
Carbon Capture Mini Storage LP

Date
September 28, 2017

Project No.
6226.01

September 28, 2017
04-17-6226-01

Don Redden
Carbon Capture Mini Storage LP
206 - 15388 24 Avenue
Surrey, BC
V4E 2J2

Dear Don:

**Re: Ecolock Self Storage, Kelowna, BC
Parking & Loading Rationale**

Dear Don:

**Re: Ecolock Self Storage
Parking & Loading Rationale**

As requested, Bunt & Associates Ltd. (Bunt) has carried out a Parking & Loading Rationale for the Development Permit Text Amendment as part of the proposed redevelopment of 437 Bay Avenue in Kelowna, BC. The attached report provides a summary of our findings.

We trust that the information provided in this report will be of assistance to you. Thank you for engaging Bunt in this work and please get in touch should you have any questions.

Yours truly,
Bunt & Associates



Peter Joyce, P.Eng.
Principal

CORPORATE AUTHORIZATION

Prepared By: Bethany Dobson, MScP, EIT
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Facsimile: +1 604 685 6579

Approved By: Peter Joyce, P,Eng.
Principal
Date: 2017-09-28
Project No. 6226.01
Status: Final Report

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1. INTRODUCTION

1.1 Background

Carbon Capture Mini Storage LP (Carbon Capture) is proposing to develop the site located at 437 Bay Avenue in Kelowna, shown in **Exhibit 1.1**. The 5-storey mixed use building will feature a self storage facility and also include an area for 'coworking' office space. Currently, the site is being used for industrial equipment and vehicle storage.

With the increasing amount of condominium/apartment residential development occurring in this area of Kelowna, both the self storage and coworking space will provide a convenient location for nearby residents seeking either or both the services of these two types of use. The near proximity of the proposed development to this higher density residential use and area employment uses as well is expected to moderate the amount of vehicle traffic and parking activity generated by the two uses, which is consistent with the sustainable objectives of the City of Kelowna and will serve as an example for other sustainable developments to follow.

As part of the Development Permit Text Amendment requirement, Bunt & Associates Ltd. (Bunt) is providing a Parking & Loading Rationale to explore the foreseeable needs of the development. Site generated vehicle traffic volumes are expected to be relatively low and the City of Kelowna is not requiring a traffic impact analysis for the development.

1.2 Proposed Development

The site plan is shown in **Exhibit 1.2** and **Table 1.1** summarizes the proposed land uses for the development used for this report. The coworking space includes individual working 'touchdown' desks and meeting rooms.

Table 1.1: Proposed Land Uses

LAND USE	FLOOR AREA
Self Storage space	6,624 m ² (895 lockers)
Coworking Office space	145 m ²

1.3 Purpose of Study

The purpose of this report is outlined as follows:

1. To review the anticipated parking and loading demand of the proposed self-storage facility;
2. To review the anticipated parking demand of the coworking component of the development; and
3. To review the parking supply of the proposed development and assess this supply against the anticipated parking demand during typical operations and peak times.

2. EXISTING CONDITIONS

The site is located at the north end of Kelowna's downtown area. Although this area has historically been primarily industrial, it is changing to include a number of higher density residential and commercial developments.

2.1 Transit

The area is serviced by the "No. 2 North End Shuttle" which travels northbound along Ellis Street. Ellis Street fronts the site and there is a bus stop less than 100m away. The route service information is summarized in **Table 2.1**.

Table 2.1: Existing Transit Service Frequency

ROUTE		WEEKDAY SERVICE SPAN		HEADWAY (MIN.)				
#	DIRECTION	START	END	AM	MID-DAY	PM	EVENING	WEEKEND
2	North End Shuttle	7:38 AM	10:09 PM	30 min	30 min	30 min	60 min	30 min

The future 2030 Transit Plan Map from Kelowna's *Official Community Plan* identifies Richter Street and Wendell Place to be part of the Primary Transit Network, which will have service every 15 minutes for 15 hours/day every day of the week. The corner of Richter Street & Wendell Place is about 400m (approximately 5 minutes walking distance) from the site.

2.2 City of Kelowna Mode Splits

The *2013 Okanagan Travel Survey Findings & Comparison to 2007 Baseline* summarizes travel patterns for the Okanagan region, including Kelowna as a sub-region. As shown in **Figure 2.1**, the survey found that the proportion of automobile (driver + passenger) trips have decreased to approximately 82% down from 87% in 2007 while sustainable modes (bus, walk, bike) have increased from 11% up to 17%. The driver mode split was determined to be 66% in 2013.

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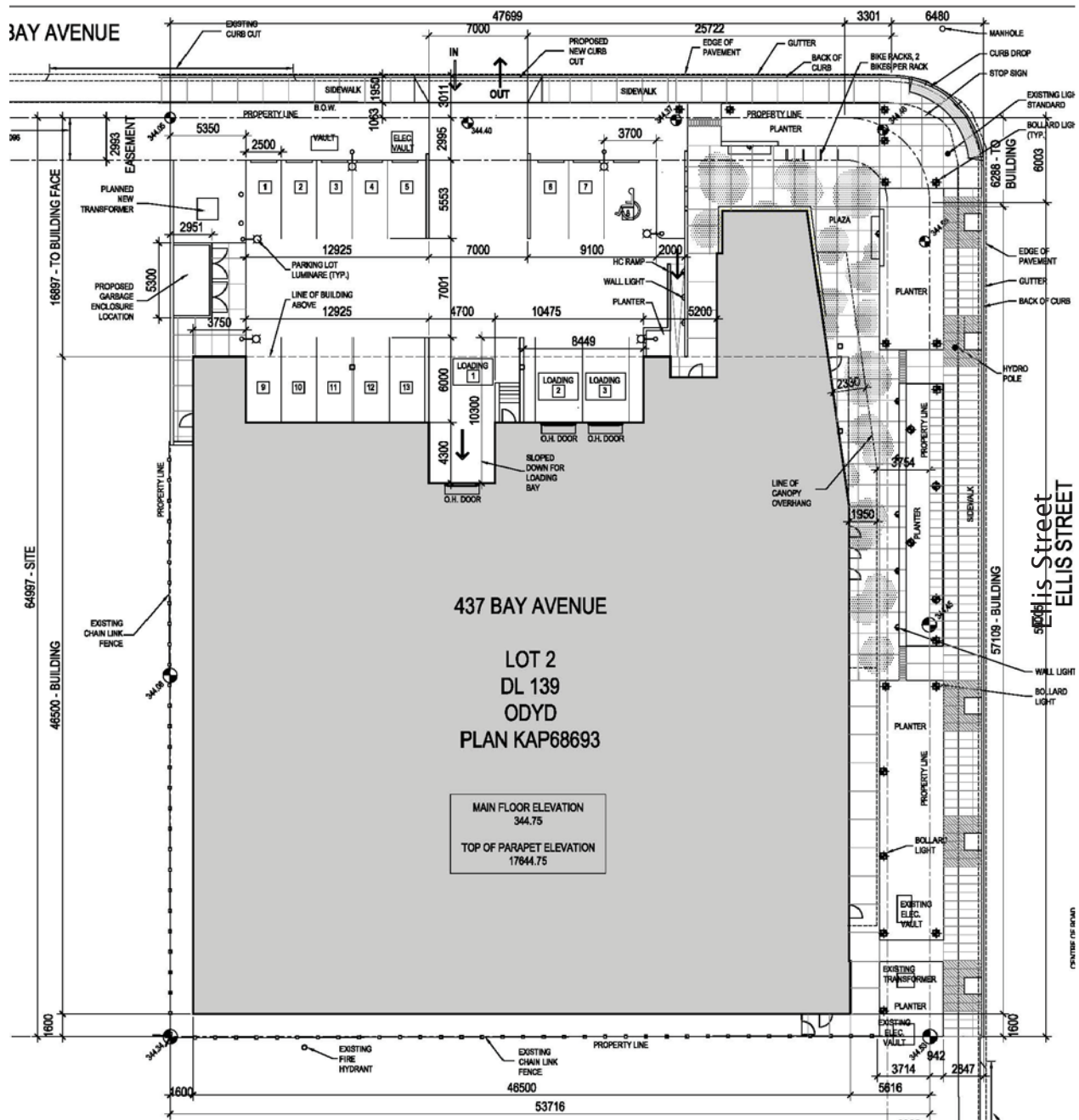
Exhibit 1.1 Peak Site Location

EcoLock Self Storage Parking & Loading Rationale
6226.01
September 2017





Bay Avenue



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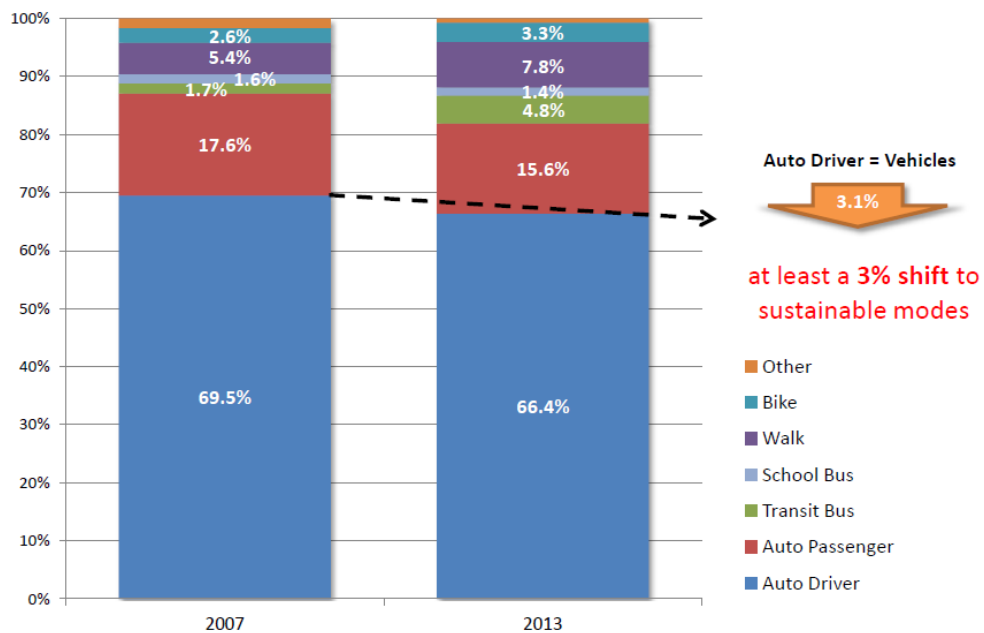
Exhibit 1.2 Site Plan

EcoLock Self Storage Parking & Loading Rationale
6226.01
September 2017



Figure 2.1: Kelowna Mode Split¹

Trip Mode Trend (24hr, Kelowna trip origins)



¹ 2013 Okanagan Travel Survey Findings & Comparison to 2007 Baseline
<<https://www.smarttrips.ca/sites/files/6/docs/related/2013-okanagantravelsurvey.pdf>>

3. PARKING REVIEW

3.1 Preamble

Self-storage as a use is not explicitly addressed within the Kelowna Zoning Bylaw. The self-storage parking and loading demand will be estimated using Bunt database information including observations of parking and loading activity at similar personal-storage facilities within Metro Vancouver.

“Coworking” offices typically provide office space and meeting rooms for tenants to rent for periods of time, ranging from a short one-time use to an ongoing lease. Because of its unique operation, the parking demand is not expected to align with the general “office” use set out in the Kelowna Zoning Bylaw. Instead, this report will estimate the parking demand using a first principles methodology based on the anticipated usage and occupancy, as well as tenant travel patterns and mode split.

The following sections outline the ‘off street’ minimum parking supply requirements of the City of Kelowna’s Zoning Bylaw as they apply to the proposed development, and also provides an analysis of the anticipated parking demand for the self storage and coworking office space components of the project.

3.2 Self Storage

3.2.1 Bylaw Requirements

The off-street parking requirements set out in the City of Kelowna’s Zoning Bylaw do not include a rate for self storage land use; the closest use is ‘warehousing and storage’ in the industrial section. A review of Metro Vancouver municipalities yielded various bylaw rates for ‘mini-warehouses,’ ‘commercial storage,’ and ‘self-storage.’ These are summarized in **Table 3.1** along with the number of parking stalls that each would require from the proposed development.

The table above shows a wide variance in parking requirements for storage units ranging from eight to nearly 90 parking spaces/loading bays. The City of Abbotsford is the only municipality that includes a bylaw rate specifically for self storage, which would require eight parking stalls for the proposed development. Because of this broad variation, we believe using actual parking data is more useful for determining the appropriate amount of parking to be provided.

3. PARKING REVIEW

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3.2 Self Storage

3.2.1 Bylaw Requirements

The off-street parking requirements set out in the City of Kelowna’s Zoning Bylaw do not include a rate for self storage land use; the closest use is ‘warehousing and storage’ in the industrial section. A review of Metro Vancouver municipalities yielded various bylaw rates for ‘mini-warehouses,’ ‘commercial storage,’ and ‘self-storage.’ These are summarized in **Table 3.1** along with the number of parking stalls that each would require from the proposed development.

The table above shows a wide variance in parking requirements for storage units ranging from eight to nearly 90 parking spaces/loading bays. The City of Abbotsford is the only municipality that includes a bylaw rate specifically for self storage, which would require eight parking stalls for the proposed development. Because of this broad variation, we believe using actual parking data is more useful for determining the appropriate amount of parking to be provided.

Table 3.1: Self Storage Facilities - Municipal Bylaw Comparisons

MUNICIPALITY	BYLAW USE	RATE	PARKING STALLS
City of Abbotsford	Self-storage	1 space per 800 m ² of GFA	8
District of North Vancouver	Mini-warehousing	1 per 535 m ² of GFA	12
City of Richmond	Commercial storage	0.5 space per 100 m ² of Gross Leasable Floor Area up to 2,000 m ² , plus 0.2 per additional 100 m ²	19
City of Kelowna	Industrial – warehousing & storage	0.5 spaces per 100 m ² GFA, minimum 5	33
City of Coquitlam	Mini-warehouses	A space per 100 m ² of GFA	66
City of Burnaby	Mini-warehouses	1 space for each 10 storage units, or one for each 186 m ² of GFA, whichever is greater	89
City of Vancouver	Mini-storage warehouse	For visitors, a minimum of 2 spaces, situated in proximity to the office, at least one of which is a Class B loading space; for office use, a minimum of 1 space for each 100 m ² of GFA up to 300 m ² and an additional space for each additional 50 m ² of GFA; and, for each caretaker who resides on the premises, 1 additional space	3 including 1 Class B truck
		Class A loading spaces (car parking): 1 per 620m ² GFA Class B loading spaces (single unit truck): 1 per 1,860m ² GFA	11 Class A 4 Class B

3.2.2 Bunt Parking Database

In 2013, Bunt surveyed six self-storage locations to identify their parking and loading demand characteristics. Four of the units were in Metro Vancouver and two were in Calgary. They ranged in size from 812 to 1,462 storage units. The statistics and parking provisions are outlined in **Table 3.2**.

Table 3.2: Bunt Survey Data – Self Storage Parking and Loading Supply and Utilization

LOCATION	M ² (NET)	# OF UNITS	TRUCK LOADING BAYS	CAR/VAN LOADING	PARKING (STAFF & CUSTOMER)		PEAK UTILIZATION
North Vancouver	8,816	1,032	5	4	7		n/a
West Vancouver	6,711	812	3	4	8		98%
Coquitlam	9,171	973	3	4	16		85%
Vancouver	11,948	1,372	5	2	5		86%
Calgary	13,307	1,462	4	0	5		81%
Calgary	12,410	1,443	4	2	9		
Averages	10,394	1,182	4.0	2.7	9.5	2.0	-
PROPOSED FACILITY	6,624	895	3.0 SPACES	2.1	5.7	1.5	-
				9.3 SPACES			

For the six facilities surveyed, the average facility size was 10,394 square metres with an average storage locker count of 1,182 units. For this 'typical facility' the number of truck loading bays was 4 and the number of automobile parking spaces provided was approximately 12 stalls for use by customers and employees.

3.2.3 Proposed Base Requirement

The proposed development will have 6,624m² (71,295 sq ft) of leasable storage space and 895 storage lockers as set out in **Table 3.3** and is about 25% smaller than the 'typical' facility described in the previous section.

Table 3.3: Proposed Self Storage Facility - Locker Mix

TYPE [FT]	LOCKER MIX	AREA [M ²]	AREA [SQ FT]	LOCKERS
5x5	20%	416	4,474	179
5x10	25%	1039	11,184	224
10x10	30%	2494	26,843	268
10x15	25%	2675	28,794	224
		71,309	6,625	895

Applying this 25% downward adjustment to the loading and parking provisions of the larger, typical facility identified in Section 3.2.2, yields a supply provision recommended for the proposed Kelowna facility of 3 truck and light truck/van loading bays and 9-10 car parking spaces for the combined use of customers enquiring at the storage facility office and/or accessing their storage lockers, and facility staff. This condition would be anticipated toward end of month when self storage activity is more pronounced. Outside of this end of month peak condition, the usage levels are anticipated to be more typically up to 2 truck and light truck/van loading bays in use and 5-6 cars parked during the midday period.

The recommended allocation of this loading/parking supply is summarized in **Table 3.4**.

Table 3.4: Self Storage Midday Parking Demand

	PEAK (END OF MONTH)	OTHER TIMES
Truck and van loading bays	3	2
Customer parking spaces	7-8	3-4
Staff parking spaces	2	2
	12-13 SPACES	7-8 SPACES

3.3 Coworking Office Space

3.3.1 Bylaw Requirements

Coworking office space is a relatively new office type use and not yet included in any BC municipality's zoning/parking bylaws. It is not directly comparable to traditional office space because users come and go more frequently and stay for shorter periods of time. As such, no bylaw comparison is provided in our report.

3.3.2 Parking Demand

To better understand the parking characteristics of coworking facilities, Bunt reached out to a successful coworking space called the 'Hive' in the Gastown area of downtown Vancouver. Anecdotally, the Director of Operations told us that the space tends to peak at approximately 75% of its total user base between 10 AM and 3 PM on weekdays.

As outlined previously, in 2013 the mode split for Kelowna was 66% automobile drivers. The proposed development is providing ample bicycle parking and facilities to encourage cycling with the aim of achieving a 50% automobile driver mode split. More information on the proposed bicycle facilities with the new development is included in Section 4.

3.3.3 Proposed Base Requirement

For conventional office space a 145 sq.m. floor area would typically accommodate up to 7-8 persons at 200 square feet per person. For the less structured coworking office format with its touchdown space for individual users and the two meeting rooms, it is not unreasonable to anticipate a more efficient usage of space and potentially up to 20 persons as a peak midday condition including staff. While direct application of BC Building Code maximum occupancy loads would suggest potentially up to approximately 50 person loads in the building, this level of activity would not be practical except on rare occasions.

Multiplying this 20 person 'practical capacity' with an assumed 75% typical daytime occupancy rate and 50% automobile driver mode split yields a midday parking demand estimate of approximately 7-8 vehicles between 10 AM and 3 PM on weekdays. Outside of this weekday, midday period and on weekends, the coworking use parking demand is anticipated to be typically in the range of 3-4 vehicles.

3.4 Shared Parking Review

Self storage and coworking have different parking demand profiles in regards to when each use needs the most parking during. The goal of shared parking is for a single parking space to serve more than one individual use at different, non-conflicting times of the day. By providing sufficient parking from a demand perspective through this sharing of spaces, the negative aspects of land and other resources dedicated to parking can be minimized.

As indicated previously, self storage use typically peak at the end of the month primarily on weekends and evenings, while typically coworking peaks from 10 AM – 3 PM on weekdays.

The anticipated parking demand for each use is summarized in **Table 3.5** below for the different time periods under consideration.

Table 3.5: Proposed Facility - Shared Parking Analysis – Parking and Loading Spaces Required

USE	END OF MONTH		TRUCK LOADING DEMAND	
	Weekday Midday	Evenings & Weekends	Weekday Midday	Evenings & Weekends
Self Storage	12-13	12-13	7-8	7-8
Coworking	7-8	3-4	7-8	3-4
TOTALS	19-25 SPACES	15-17 SPACES	14-16 SPACES	10-12 SPACES

As indicated, other than for the end of month peak activity period for self storage facilities, the weekday and weekend parking demand for the self storage facility and coworking office spaces is anticipated to be in the range of 10-16 spaces for car parking and loading. For the end of the month period, the peak demand for vehicle parking and truck and light truck/van loading spaces is estimated to be in the range of 19-25 spaces during the midday period, and 15-17 spaces during the early evening and on weekends.

3.5 Proposed Parking Supply

The proposed number of parking stalls is provided below in **Table 3.6**.

Table 3.6: Proposed Parking Supply

TYPE	STALLS
Accessible	1
Full Size	12
Truck Loading Bay (Full Size)	1
Car Loading Bay (Medium Size)	2
	16

With the 16 on-site parking/loading spaces proposed (13 parking spaces and 3 truck/van loading bays), the ‘end of month’ high activity period 19-25 parking spaces/loading bays required could potentially rely on up to 9 on-street parking spaces during the midday period. By evening time and on weekends, however, the reliance on street parking would be minimal if at all.

Outside of the peak ‘end of month’ activity period for the self storage facility, the weekday midday and evening/weekend parking/loading demand is anticipated to be in the range of 10-16 vehicles and able to be fully accommodated on site with no reliance on street parking.

3.6 Transportation Demand Management

Transportation Demand Management (TDM) is defined as the “application of strategies and policies to reduce travel demand (specifically that of single-occupancy private vehicles), or to redistribute this demand in space or in time”². A successful TDM program can influence travel behaviour away from Single Occupant Vehicle (SOV) travel during peak periods towards more sustainable modes such as High Occupancy Vehicle (HOV) travel, transit, cycling or walking. The responsibility for implementation of TDM measures can range across many groups, including regional and municipal governments, transit agencies, private developers, residents/resident associations or employers.

3.6.1 Cycling Facilities

Well managed, secure, accessible and covered bicycle parking will be provided as part of the development plan. Class I bicycle parking is intended to be long term and secure, including bicycle lockers or rooms equipped for bicycle storage. Class II is intended for short term visitors and includes racks or easily accessible lockers. The bylaw requirements are summarized in **Table 3.7**.

Table 3.1: Bicycle Parking Bylaw Requirement

LAND USE	DENSITY [M ²]	CLASS I RATE	CLASS II RATE	CLASS I	CLASS II
GENERAL INDUSTRIAL USES	10,270	-	0.30 PER 100M ² GLA	-	31

Based on the provisions of the City of Kelowna Zoning Bylaw, the development requires zero Class I and 31 Class II bicycle parking spaces, which are not reflective of the users’ needs. Instead, the developer proposes to go above-and-beyond the City’s bicycle requirement by providing 36 Class I spaces and 8 Class II spaces.

Furthermore, to demonstrate leadership in promoting bike usage, the bicycle room will be designed to encourage cycling through ease of use and location on Level 1. It will include both horizontal and vertical bike stalls as well as overhead gear lockers. Shower facilities will be provided on Level 2.

² FHWA Travel Demand Management <<http://ops.fhwa.dot.gov/tdm/index.htm>>

4. CONCLUSIONS

- The City of Kelowna Zoning Bylaw does not specifically provide an off-street minimum parking supply requirement for the two component uses proposed for the development, namely self storage facility and coworking office space.
- Based on Bunt parking database information, the typical parking demand for the proposed development (self storage and coworking space combined) is predicted to be in the range of 14-16 spaces for vehicle parking and truck/van loading during the weekday daytime, and between 10-12 spaces in the evening and the weekend daytime period.
- For the few days at the end of each month when activity at self storage facilities is typically busiest, the predicted parking demand for the development is predicted to increase to between 19-25 spaces during the weekday daytime, and between 15-17 spaces during the early evening and on weekends.
- The development plan provides a total of 16 spaces on-site include 3 truck and light truck/van loading bays plus 13 car parking spaces all located on the site with a single driveway access to Bay Avenue.
- The proposed 16 loading/parking spaces for the development are anticipated to be sufficient to accommodate the weekday daytime, evening and weekend demand associated with the planned development for most of the time. The exception would be for the few weekdays at the end of each month where the midday loading/parking demand of 19-25 vehicles will potentially require use of a limited amount of street parking (fewer than 10 spaces).
- To promote bicycle usage and reduce vehicle parking demand, the project is proposing to provide additional bike parking well beyond the 31 Class II space requirement of the Zoning Bylaw. The proposed 36 Class I (covered and secured) spaces and 8 Class II spaces, together with end of trip change room, lockers and shower facilities, should be quite effective in encouraging bike trips to the building, particularly for the coworking component of the project.

* * * * *



Development Permit & Development Variance Permit DP21-0135 DVP21-0138

This permit relates to land in the City of Kelowna municipally known as

437 Bay Avenue

and legally known as

Lot 2 District Lot 139 Osoyoos Division Yale District Plan KAP68693

and permits the land to be used for the following development:

Commercial Storage

with variances to the following Sections of Zoning Bylaw No. 8000

The present owner and any subsequent owner of the above described land must comply with any attached terms and conditions.

Date of Council Decision January 18, 2022
Decision By: COUNCIL
Development Permit Area: Comprehensive Development Permit Area (Arterial – Ellis Street)
Existing Zone: I4 – Central Industrial
Future Land Use Designation: IND - Industrial

This is NOT a Building Permit.

In addition to your Development Permit, a Building Permit may be required prior to any work commencing. For further information, contact the City of Kelowna, Development Services Branch.

NOTICE

This permit does not relieve the owner or the owner's authorized agent from full compliance with the requirements of any federal, provincial or other municipal legislation, or the terms and conditions of any easement, covenant, building scheme or agreement affecting the building or land.

Owner: Carbon Capture Mini-Storage (Kelowna) GP Ltd., Inc.No. BC1070157
Applicant: Bench Site Design Inc.
Planner: K.Brunet

Terry Barton
Community Planning Department Manager
Planning & Development Services

Date

1. SCOPE OF APPROVAL

This Development Permit applies to and only to those lands within the Municipality as described above, and any and all buildings, structures and other development thereon.

This Development Permit is issued subject to compliance with all of the Bylaws of the Municipality applicable thereto, except as specifically varied or supplemented by this permit, noted in the Terms and Conditions below.

The issuance of a permit limits the permit holder to be in strict compliance with regulations of the Zoning Bylaw and all other Bylaws unless specific variances have been authorized by the Development Permit. No implied variances from bylaw provisions shall be granted by virtue of drawing notations that are inconsistent with bylaw provisions and that may not have been identified as required Variances by the applicant or Municipal staff.

2. CONDITIONS OF APPROVAL

- a) The dimensions and siting of the building to be constructed on the land be in accordance with Schedule "A";
 - b) The exterior design and finish of the building to be constructed on the land be in accordance with Schedule "B";
 - c) Landscaping to be provided on the land be in accordance with Schedule "C"; and
 - d) The applicant be required to post with the City a Landscape Performance Security deposit in the form of a "Letter of Credit" in the amount of 125% of the estimated value of the landscaping, as determined by a Registered Landscape Architect.
- AND THAT Variances to the following section of Zoning Bylaw No. 8000 be granted in accordance with Schedule "A":

Table 8.3.4: Section 8 – Parking and Loading, Table 8.3 - Required Off-Street Parking Requirements, Industrial:

To vary the required minimum number of parking stalls from 102 stalls to 12 stalls.

Table 8.4: Section 8 - Parking and Loading, Off-Street Loading, Minimum Loading Required:

To vary the required minimum number of loading stalls from 6 stalls to 3 stalls.

This Development Permit is valid for two (2) years from the date of approval, with no opportunity to extend.

3. PERFORMANCE SECURITY

As a condition of the issuance of this Permit, Council is holding the security set out below to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Developer and be paid to the Developer or his or her designate if the security is returned. The condition of the posting of the security is that should the Developer fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the Municipality may enter into an agreement with the property owner of the day to have the work carried out, and any surplus shall be paid over to the property owner of the day. Should the Developer carry out the development permitted by this Permit within the time set out above, the security shall be returned to the Developer or his or her designate. There is filed accordingly:

- a) An Irrevocable Letter of Credit **OR** certified cheque in the amount of **\$55,562.50**

Before any bond or security required under this Permit is reduced or released, the Developer will provide the City with a statutory declaration certifying that all labour, material, workers' compensation and other taxes and costs have been paid.

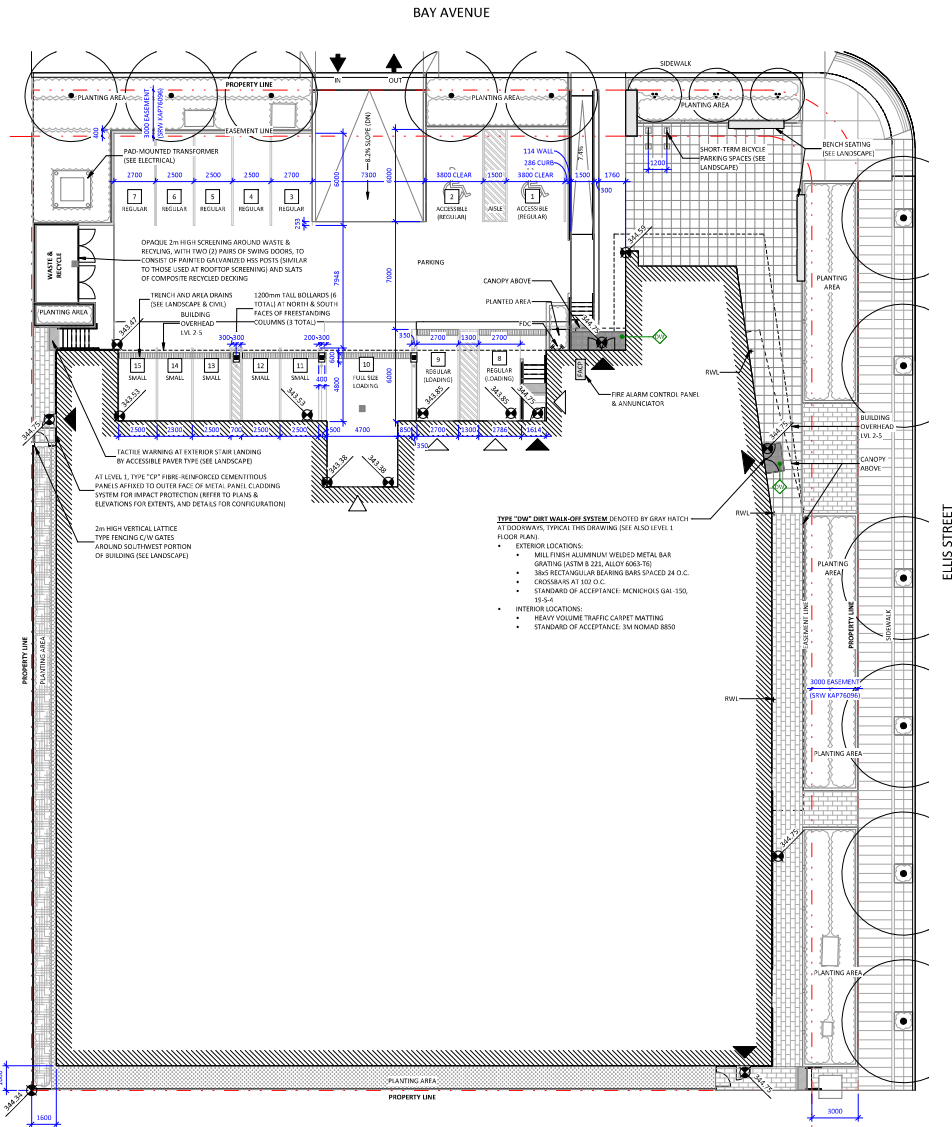
5. INDEMNIFICATION

Upon commencement of the works authorized by this Permit the Developer covenants and agrees to save harmless and effectually indemnify the Municipality against:

- a) All actions and proceedings, costs, damages, expenses, claims, and demands whatsoever and by whomsoever brought, by reason of the Municipality said Permit.

All costs, expenses, claims that may be incurred by the Municipality where the construction, engineering or other types of works as called for by the Permit results in damages to any property owned in whole or in part by the Municipality or which the Municipality by duty or custom is obliged, directly or indirectly in any way or to any degree, to construct, repair, or maintain.

**The PERMIT HOLDER is the CURRENT LAND OWNER.
 Security shall ONLY be returned to the signatory of the
 Landscape Agreement or their designates.**

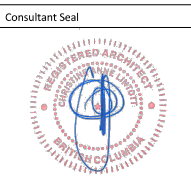


- TYPE "TOP" OBT WALL-OFF SYSTEM** PHOTOED BY GRAY HATCH AT SIDEWALK. TYPICAL THIS DRAWING SEE ALSO LEVEL 1 FLOOR PLAN.
- EXTERIOR LOCATIONS:
 - MILL FINISH ALUMINUM WELDED METAL BAR GRATING (ASTM B 221, ALLOY 6063-T6)
 - 36x5 RECTANGULAR BEARING BARS SPACED 24 O.C.
 - CHAINS AT 100 O.C.
 - STANDARD OF ACCEPTANCE: MONROE'S GR4-150, 15-S-4
 - INTERIOR LOCATIONS:
 - HEAVY VOLUME TRAFFIC CARPET MATTING
 - STANDARD OF ACCEPTANCE: 333/NOVAD 8850

1 SITE PLAN
 1:150

Issue	Date
DEVELOPMENT PERMIT APPLICATION	26 APR 2021

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EcoLock Self-Storage
 437 Bay Avenue, Kelowna BC V1Y 7S3

SITE PLAN

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ELLIS AT BAY INTERSECTION -VIEW TO EAST



ELLIS AT BAY INTERSECTION -NORTHWEST CORNER



ELLIS AT BAY INTERSECTION -NORTH PANORAMA

SCHEDULE A
 This forms part of application
 # DP21-0135 DVP21-0138
 City of Kelowna
 DEVELOPMENT PLANNING
 Planner Initials KB

Christine Lintott Architects Inc.
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Issue: DEVELOPMENT PERMIT APPLICATION Date: 26 APR 2021

Revision No. Description Date

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EcoLock Self-Storage

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CONTEXT PHOTOS

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ELLIS AT BAY INTERSECTION -SOUTHWEST CORNER (SUBJECT SITE)



ELLIS STREET -VIEW TO WSW (SUBJECT SITE FRONTAGE)



ELLIS STREET -VIEW TO NORTHWEST (SUBJECT SITE FRONTAGE)



ELLIS STREET -VIEW TO NORTH (SUBJECT SITE FRONTAGE)



BAY STREET -VIEW TO EAST (SUBJECT SITE FRONTAGE)



ELLIS STREET -VIEW TO SOUTH (SUBJECT SITE FRONTAGE)



ELLIS STREET -VIEW TO NNW (SUBJECT SITE CORNER)



ELLIS STREET - VIEW TO NORTH (FROM NEIGHBOURING PROPERTY)



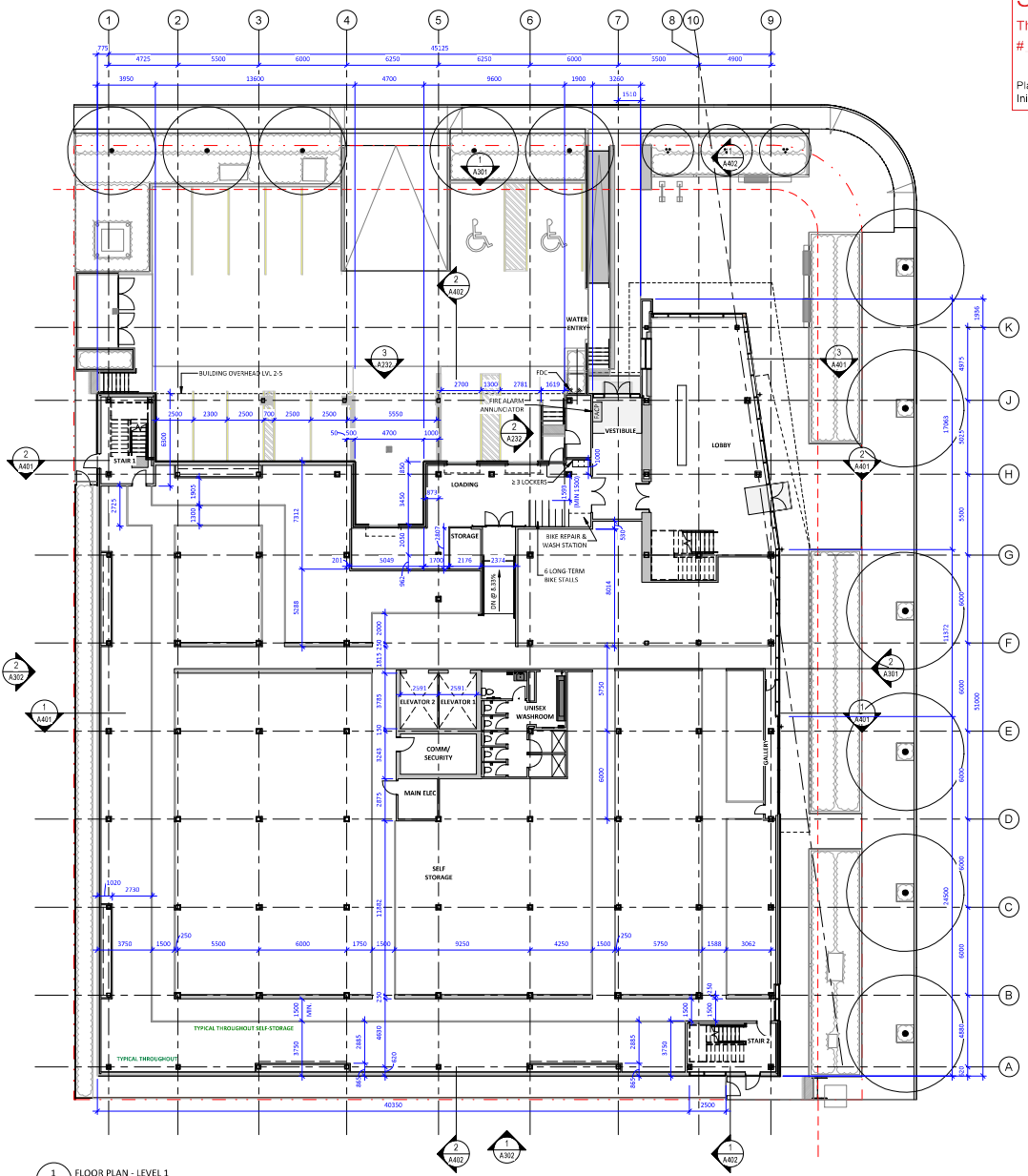
ELLIS STREET -VIEW TO NORTH (SUBJECT SITE AT LEFT)



ELLIS STREET -APPROACH FROM SOUTH



ELLIS AT RECREATION INTERSECTION & BIKE TRIAL -PANORAMA TO NORTH



1 FLOOR PLAN - LEVEL 1
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SCHEDULE B

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DP21-0135 DVP21-0138

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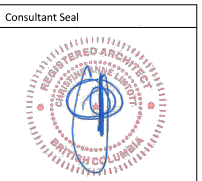
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DEVELOPMENT PLANNING

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DP REVISION	13 OCT 2021

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1	DP/DVP REVISION	2021 10 13



EcoLock Self-Storage

437 Bay Avenue, Kelowna BC V1Y 7S3

FLOOR PLAN - LEVEL 1

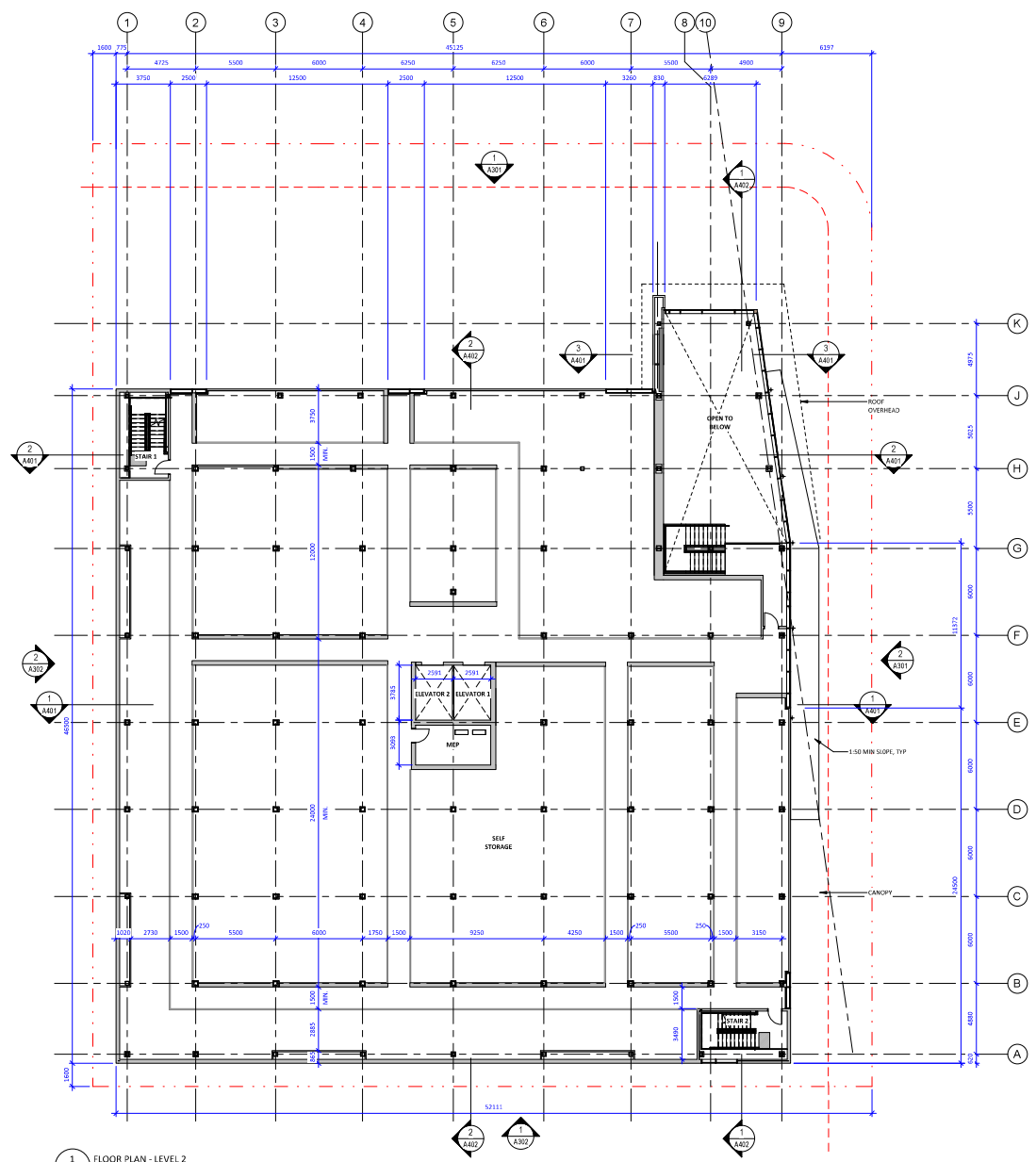
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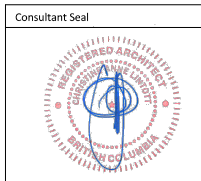
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1 FLOOR PLAN - LEVEL 2
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1	DP/DVP REVISION	2021 10 13



EcoLock Self-Storage
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FLOOR PLAN - LEVEL 2

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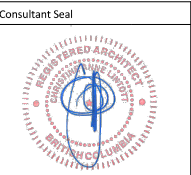


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1	Tender Addendum #1	2018-12-10



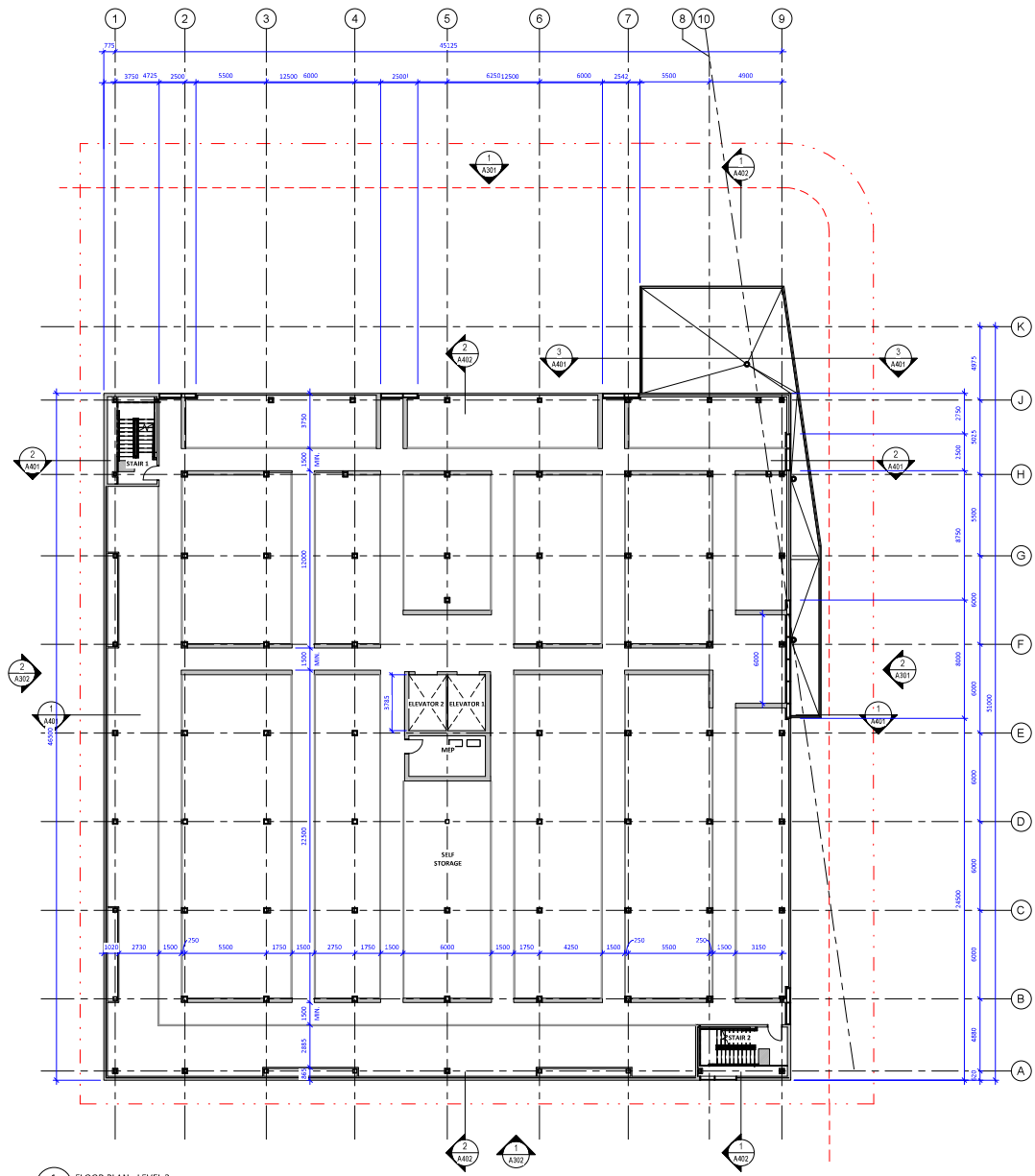
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FLOOR PLAN - LEVEL 3

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1 FLOOR PLAN - LEVEL 3
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 DEVELOPMENT PLANNING

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Issue	Date
DEVELOPMENT PERMIT APPLICATION	26 APR 2021

Revision		
No.	Description	Date
1	Tender Addendum #1	2018-12-10

Consultant Seal



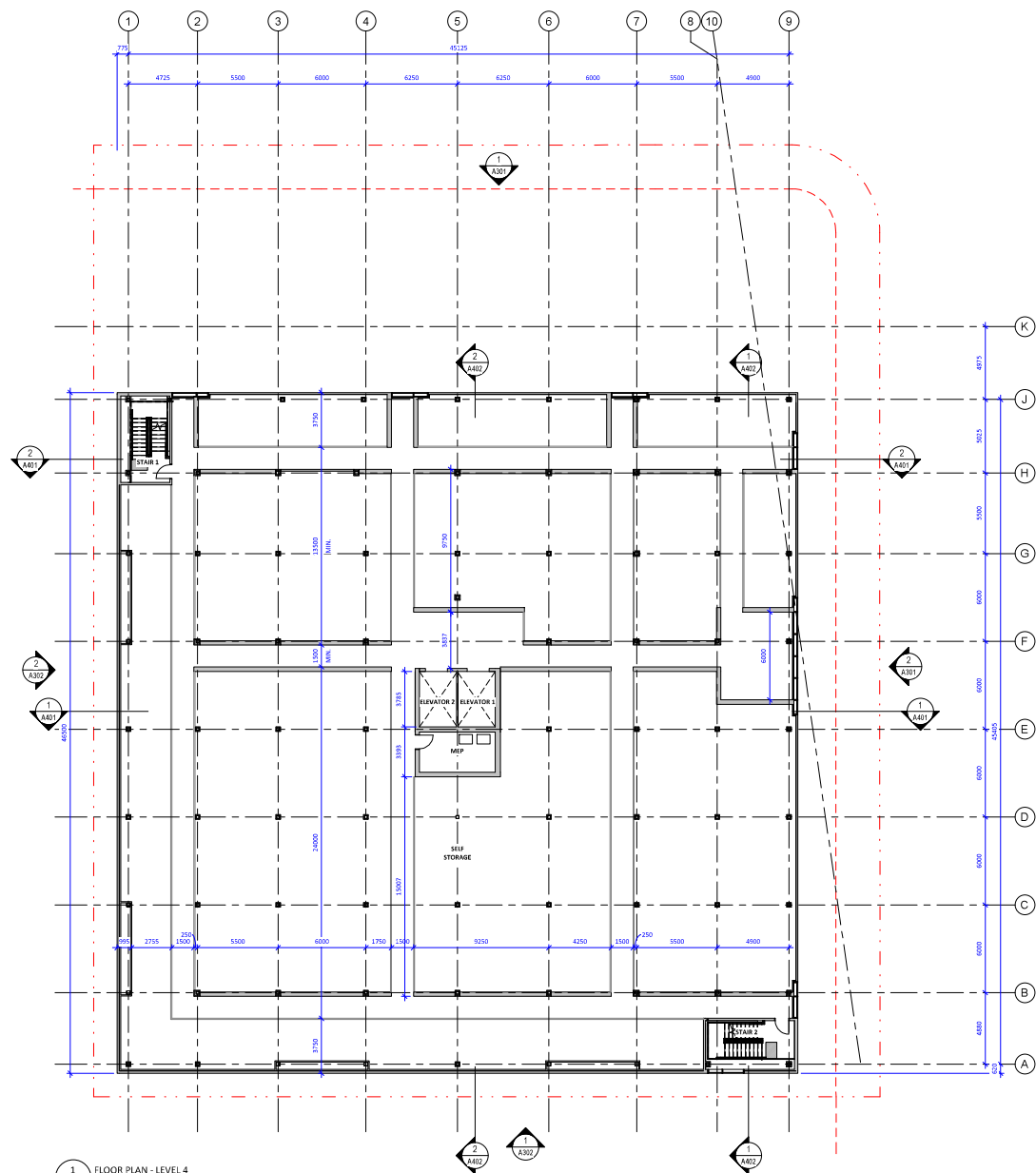
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FLOOR PLAN - LEVEL 4

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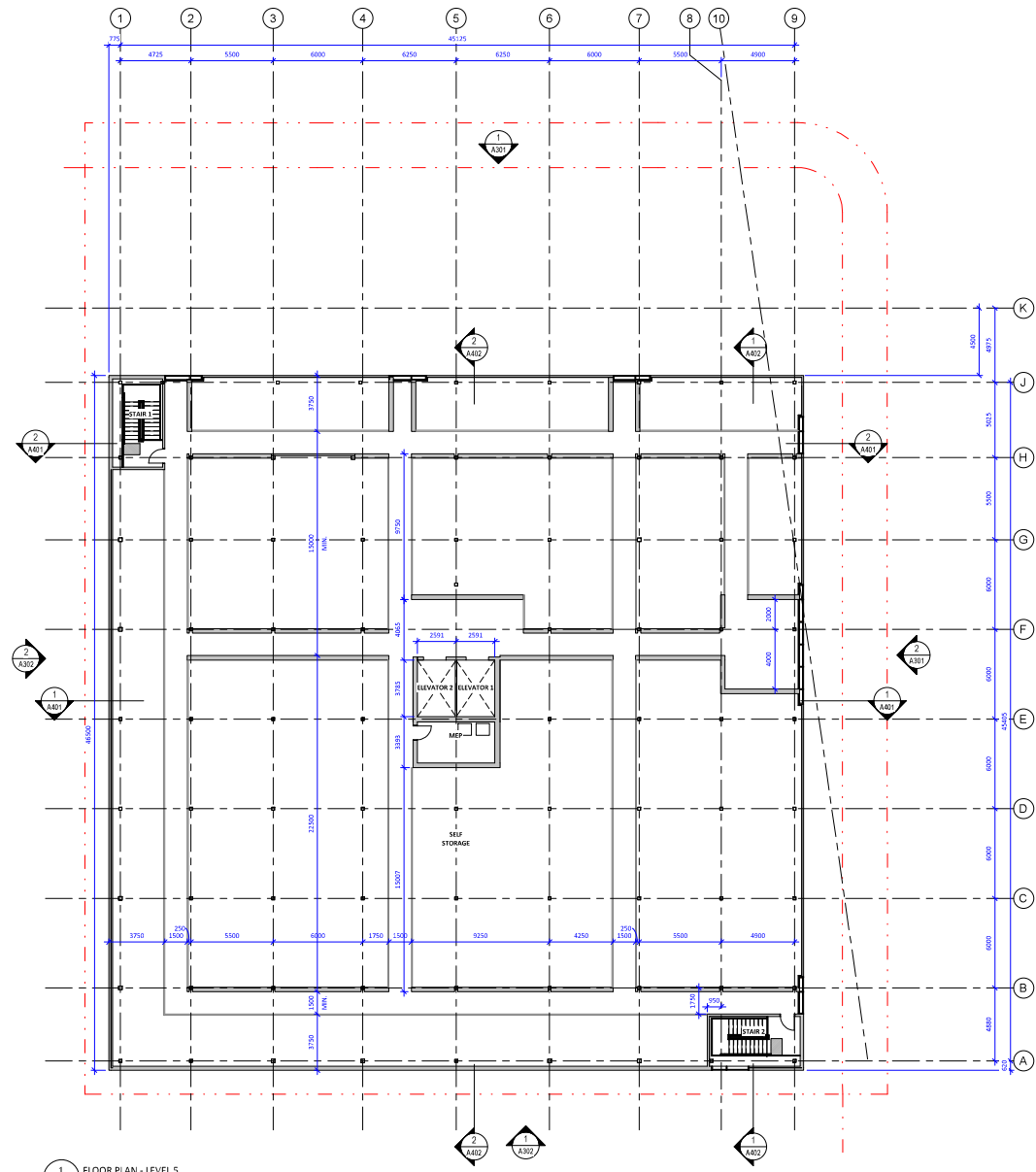
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1 FLOOR PLAN - LEVEL 4
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SCHEDULE B
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 DEVELOPMENT PLANNING

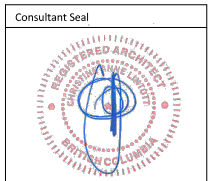
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1 FLOOR PLAN - LEVEL 5
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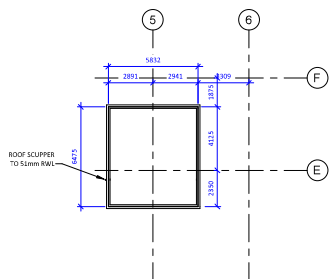
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FLOOR PLAN - LEVEL 5

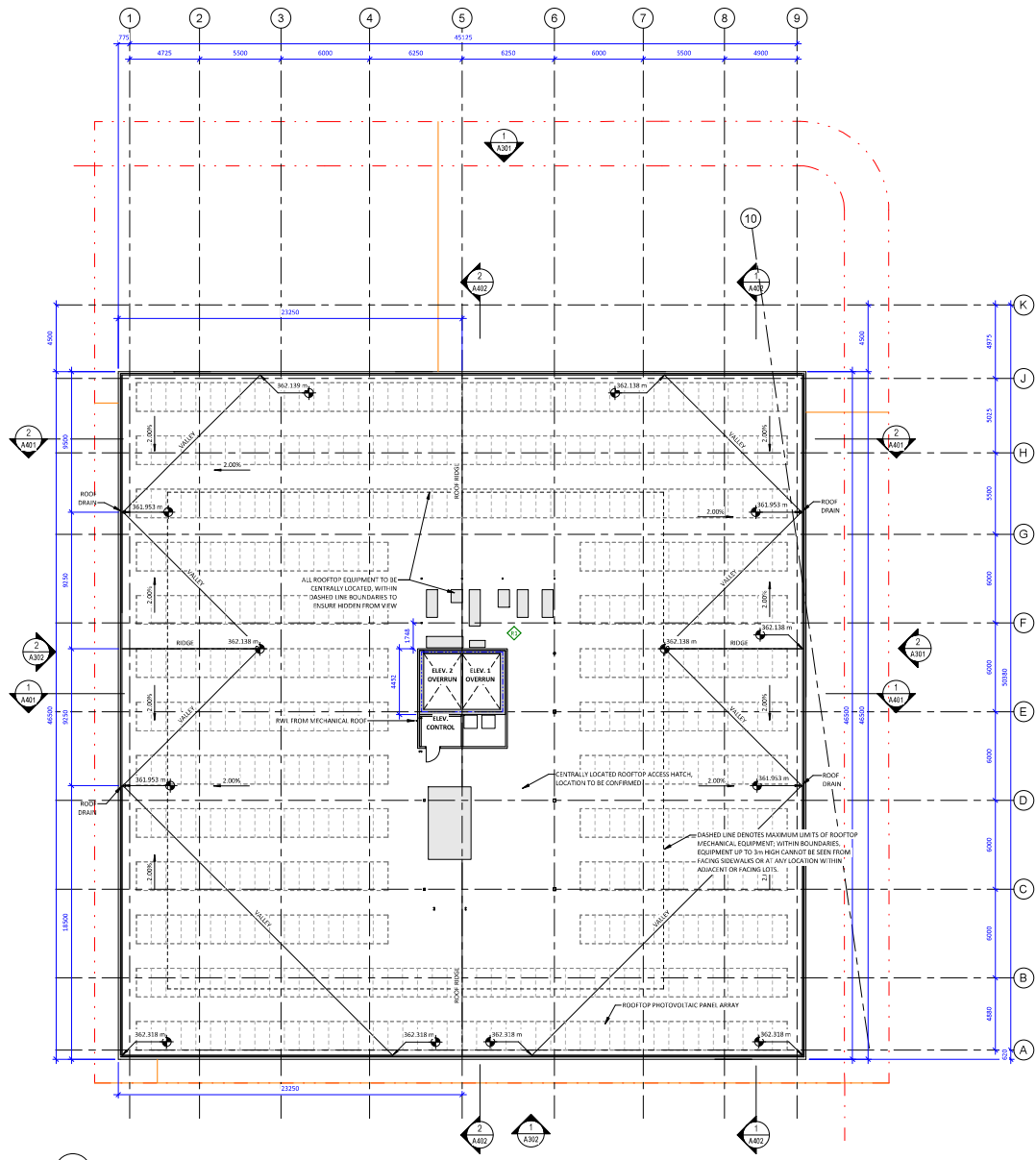
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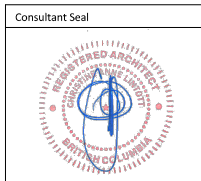
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Planner Initials KB
City of Kelowna DEVELOPMENT PLANNING

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EcoLock Self-Storage
437 Bay Avenue, Kelowna BC V1Y 7S3

ROOF PLAN

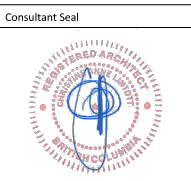
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Checked by	CL

A206
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Issue	Date
DEVELOPMENT PERMIT APPLICATION	25 APR 2021

Revision No.	Description	Date

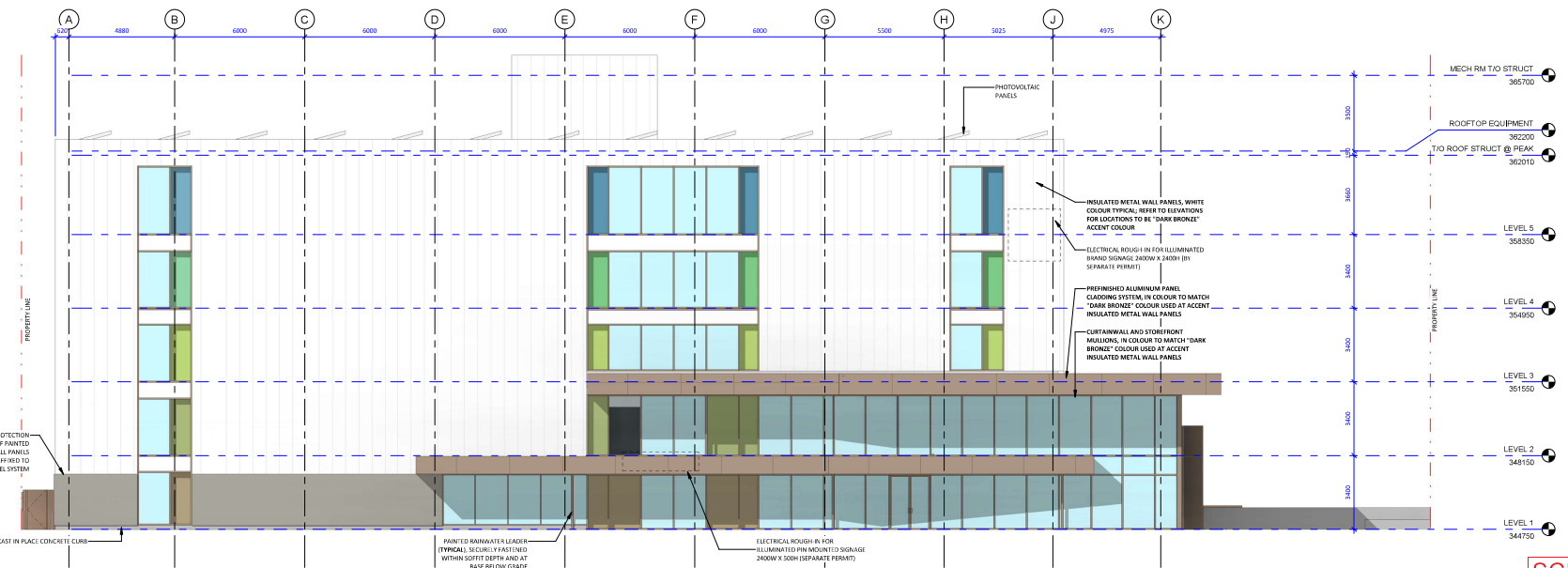
SCHEDULE B
 This forms part of application # DP21-0135 DVP21-0138
 City of Kelowna
 DEVELOPMENT PLANNING
 Planner Initials: KB



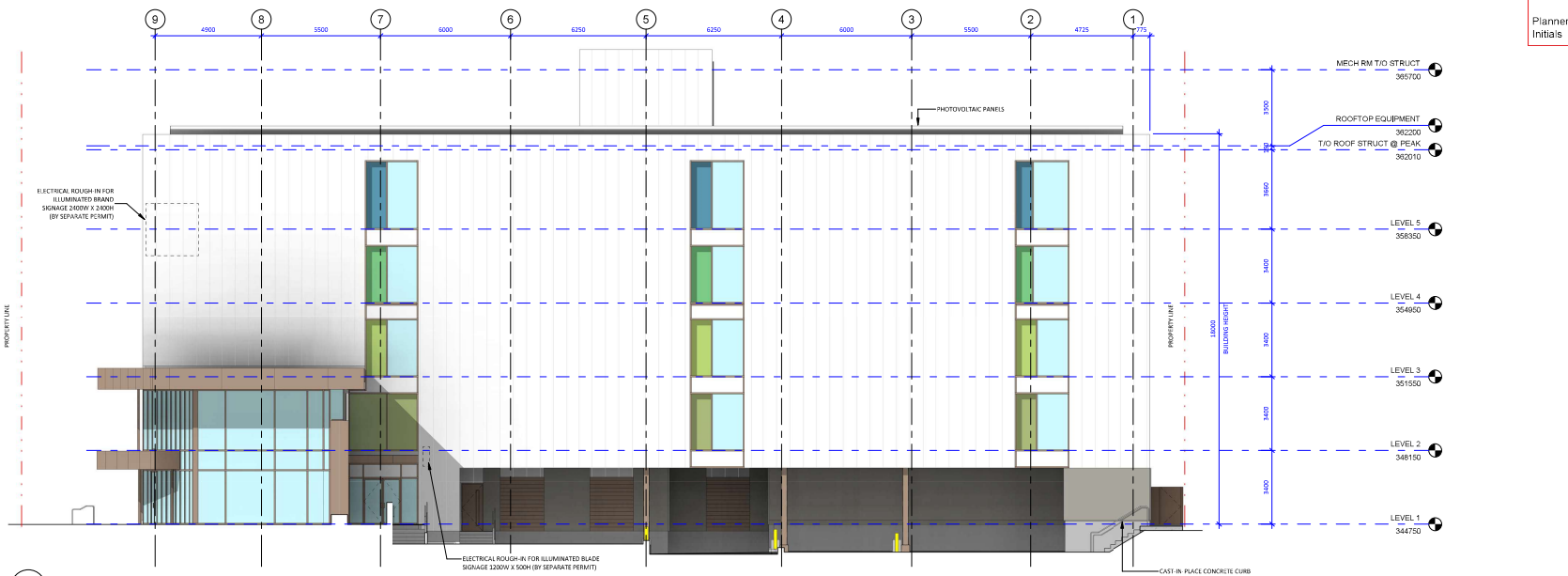
EcoLock Self-Storage
 437 Bay Avenue, Kelowna BC V1Y 7S3

EXTERIOR ELEVATIONS

Date	2021-04-26 9:45:11 AM
Drawn by	TK
Checked by	CL
A301	
Scale	1 : 100



2 ELEVATION - EAST
 A201 1 : 100



1 ELEVATION - NORTH
 A201 1 : 100

Christine Lintott Architects Inc.



Suite 1 - 864 Queens Avenue, Victoria, BC V8T 1M5
Telephone: 250.384.1569
www.lintottarchitect.ca

Issue Date

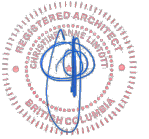
DEVELOPMENT PERMIT APPLICATION 25 APR 2021

Revision

No. Description Date

SCHEDULE B
This forms part of application
DP21-0135 DVP21-0138
City of Kelowna
Planner Initials KB

Consultant Seal



EcoLock Self-Storage

437 Bay Avenue, Kelowna BC V1Y 7S3

EXTERIOR ELEVATIONS

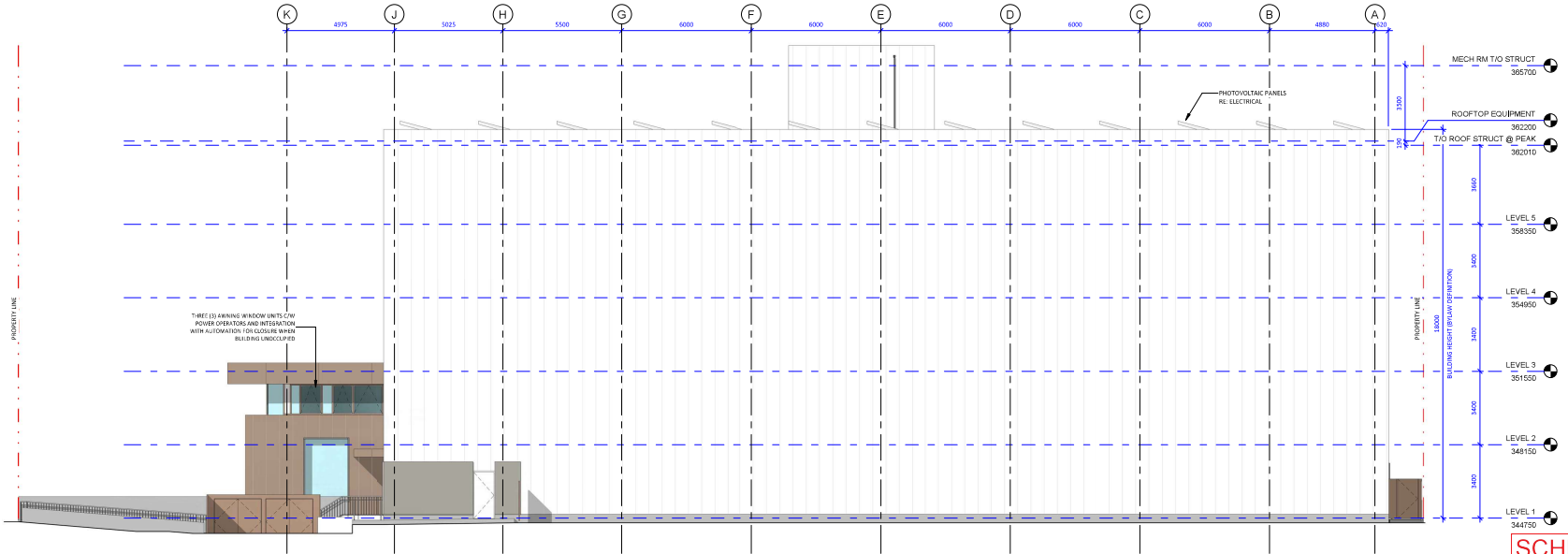
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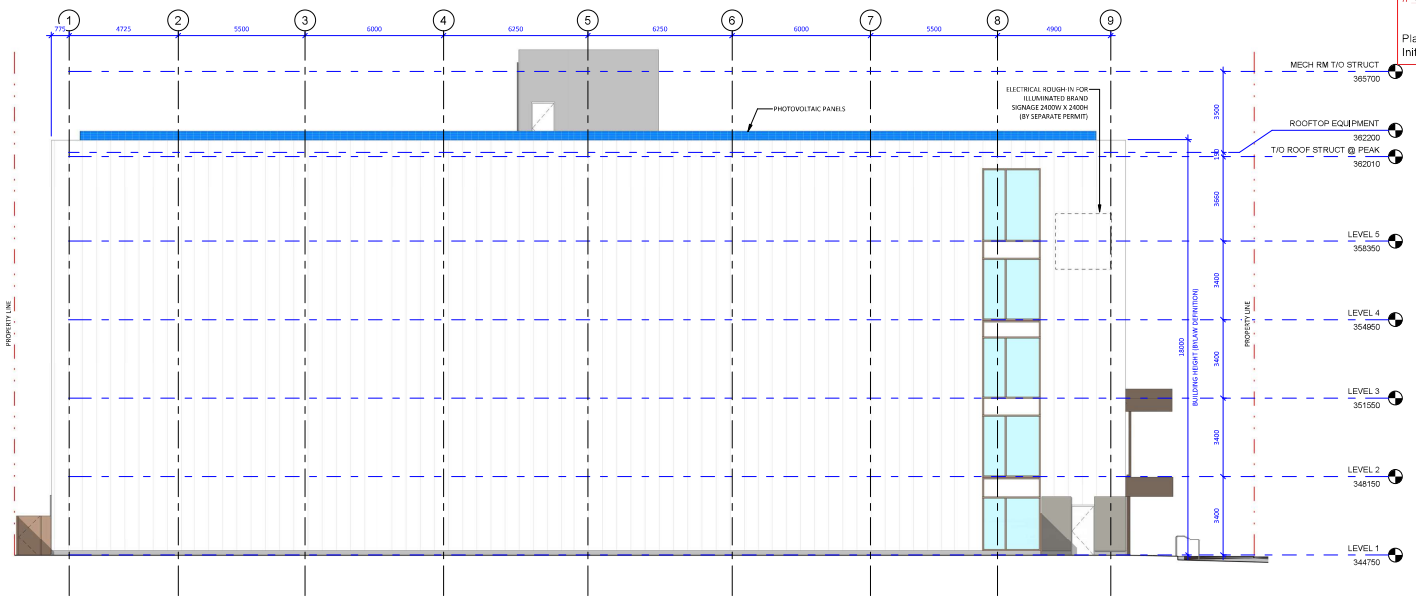
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A302

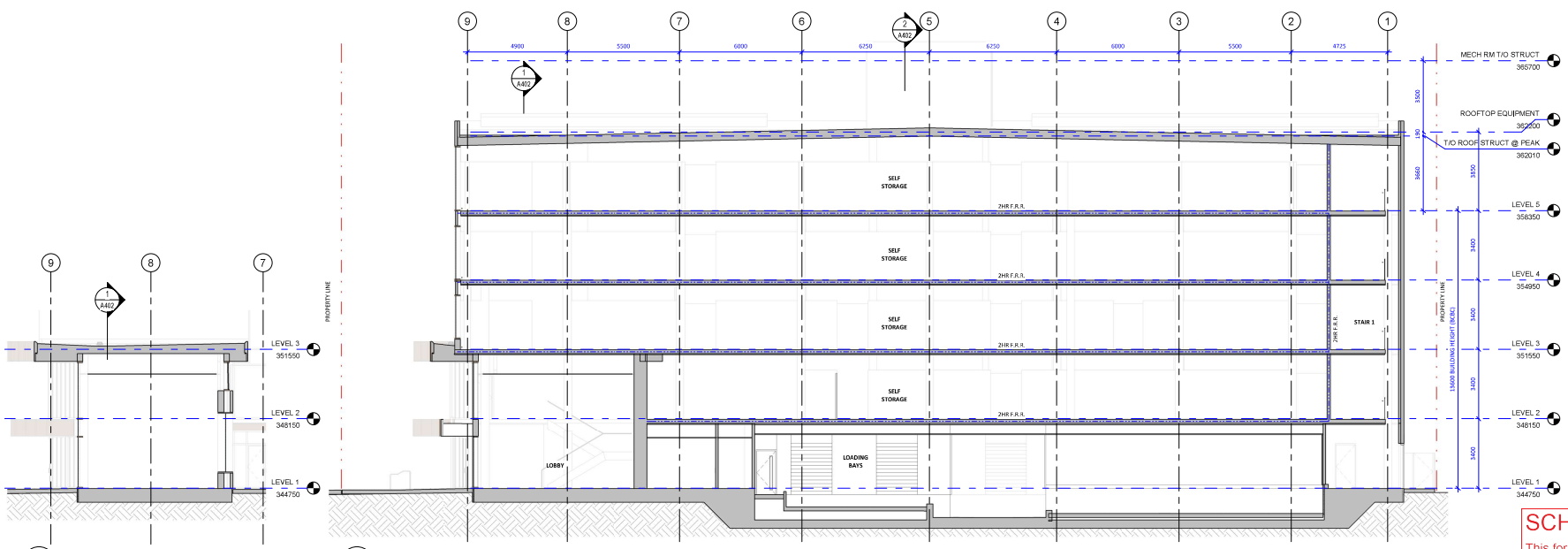
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2 ELEVATION - WEST
A201 1:100

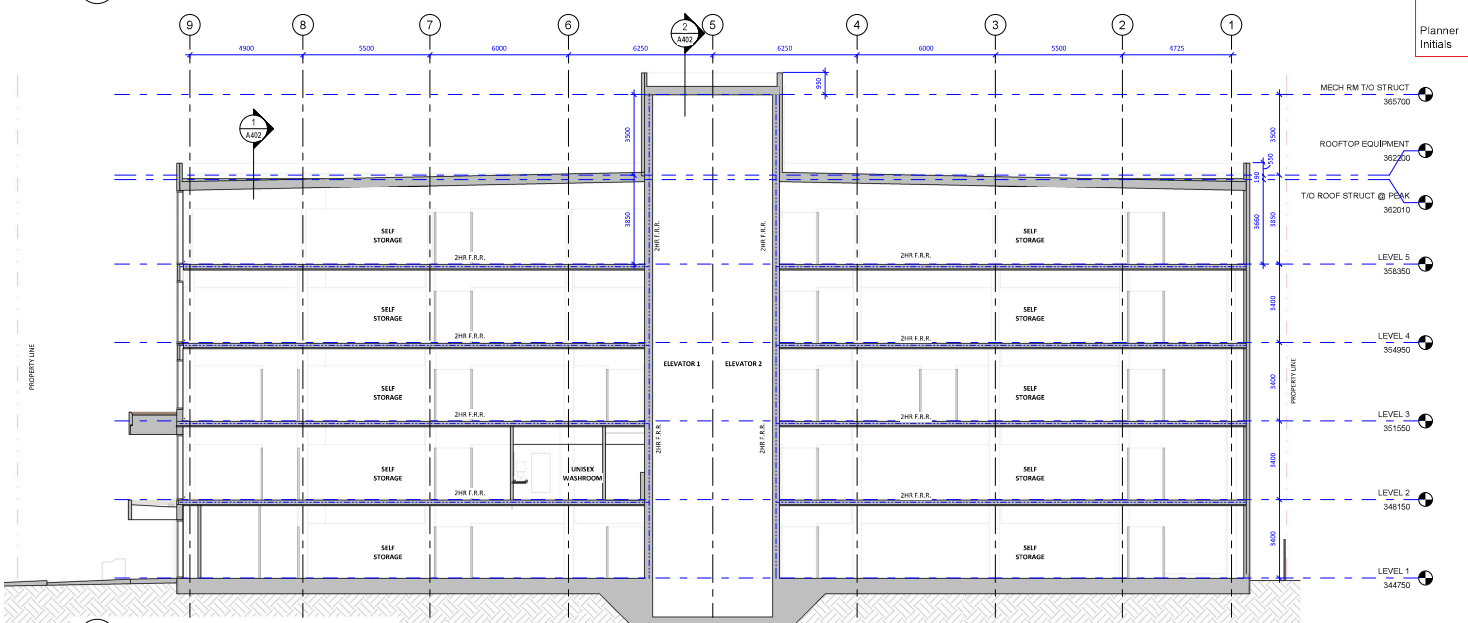


1 ELEVATION - SOUTH
A201 1:100



3 BUILDING SECTION - EAST/WEST AT LOBBY (FACING SOUTH)
A201 1:100

2 BUILDING SECTION - EAST/WEST ALONG 'H' (FACING SOUTH)
A201 1:100



1 BUILDING SECTION - EAST/WEST ALONG 'E' (FACING SOUTH)
A201 1:100

Christine Lintott Architects Inc.

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Telephone: 250-384-1868
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Issue	Date
DEVELOPMENT PERMIT APPLICATION	26 APR 2021

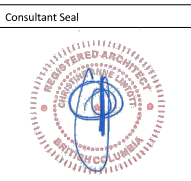
Revision No.	Description	Date
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SCHEDULE B

This forms part of application
DP21-0135 DVP21-0138

City of Kelowna
DEVELOPMENT PLANNING

Planner Initials KB



EcoLock Self-Storage

437 Bay Avenue, Kelowna BC V1Y 7S3

BUILDING SECTIONS

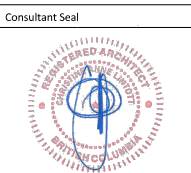
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Issue	Date
DEVELOPMENT PERMIT APPLICATION	26 APR 2021

Revision No.	Description	Date

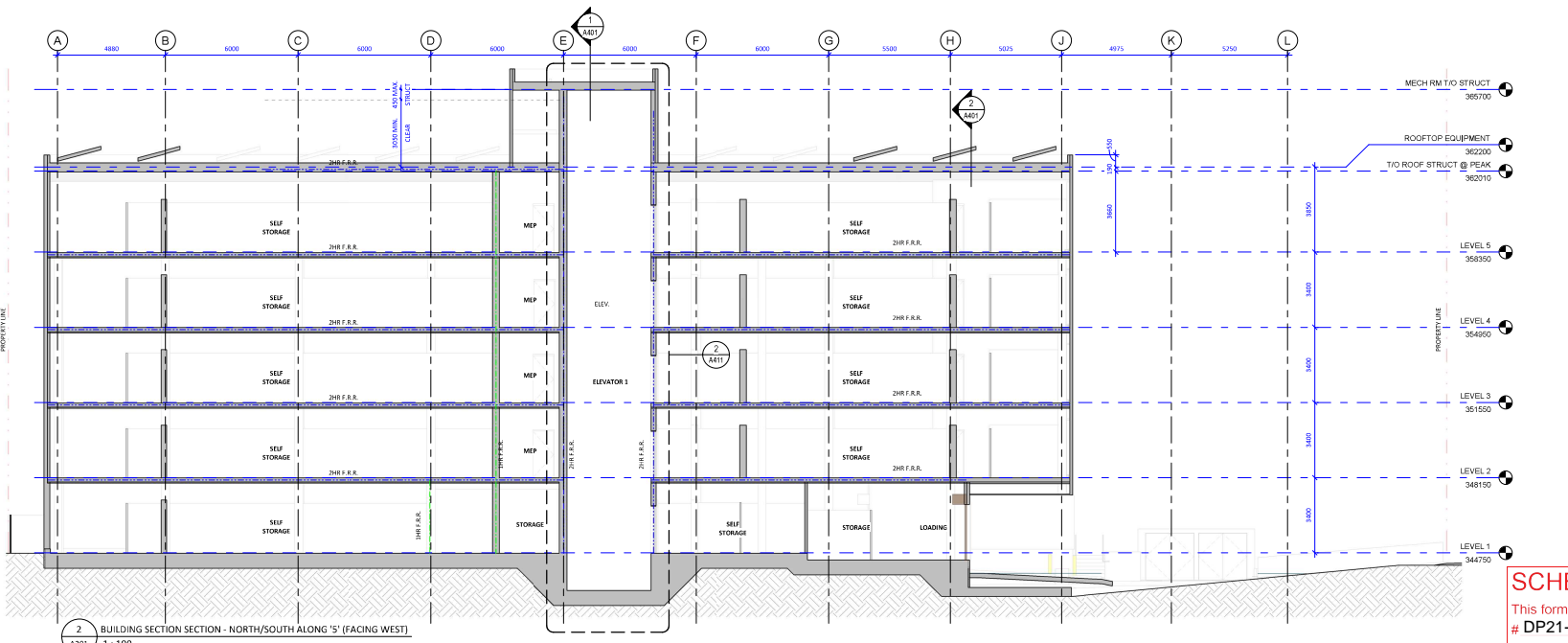
SCHEDULE B
 This forms part of application
 # DP21-0135 DVP21-0138
 City of Kelowna
 DEVELOPMENT PLANNING
 Planner Initials: KB



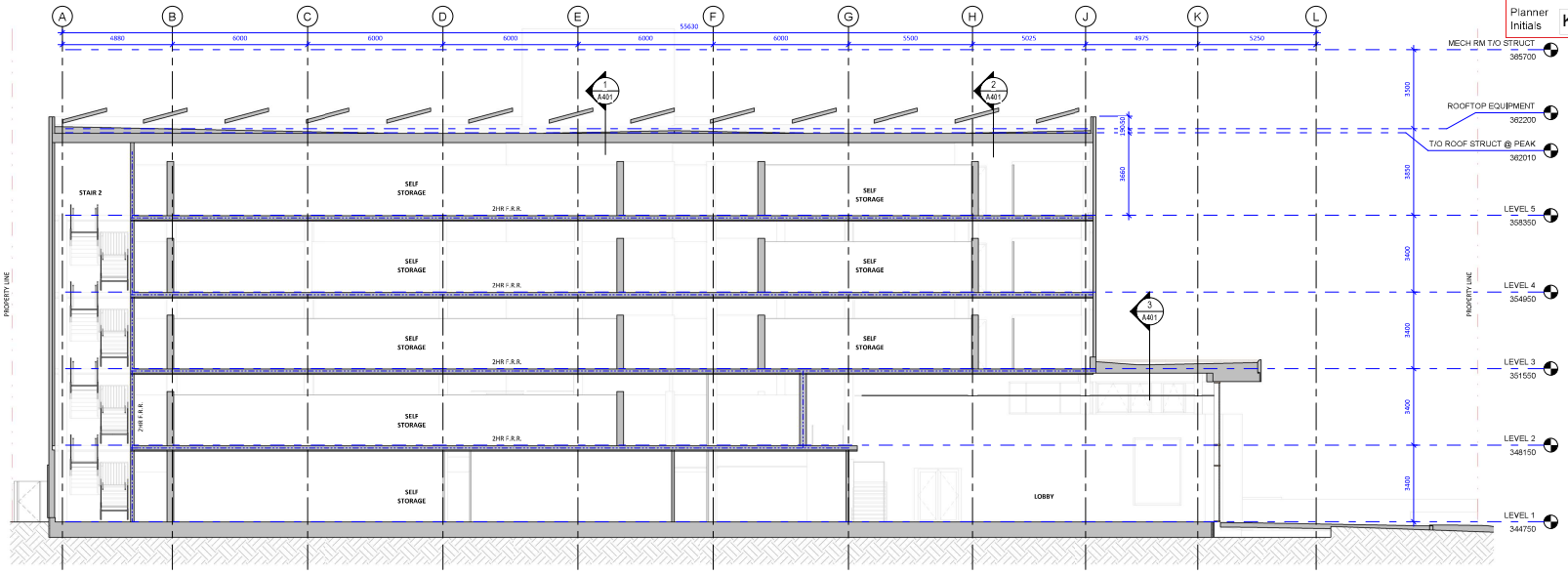
EcoLock Self-Storage
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BUILDING SECTIONS

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Drawn by	TK
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A402	
Scale	1 : 100



2
 A201
 1 : 100
 BUILDING SECTION SECTION - NORTH/SOUTH ALONG 'S' (FACING WEST)



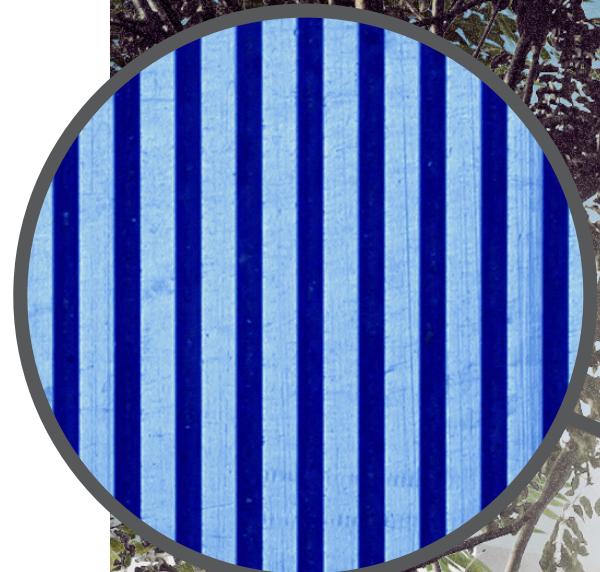
1
 A201
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 BUILDING SECTION SECTION - NORTH/SOUTH ALONG 'B' (FACING WEST)



SLATE GRAY SPANDREL

WHITE METAL PANELS

WARM WHITE METAL COLUMN



CAST IN PLACE CONCRETE

WEATHERED STEEL PLANTERS

PAINTED CORRUGATED METAL

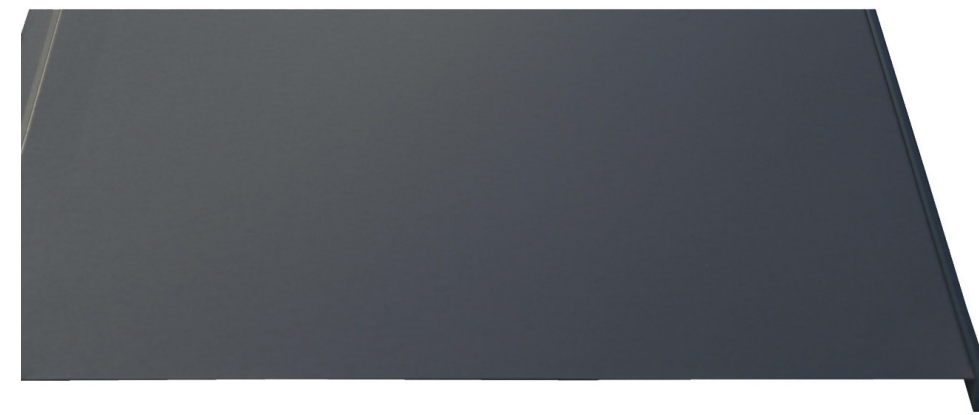
RECLAIMED DOUGLAS FIR



WHITE METAL PANELS



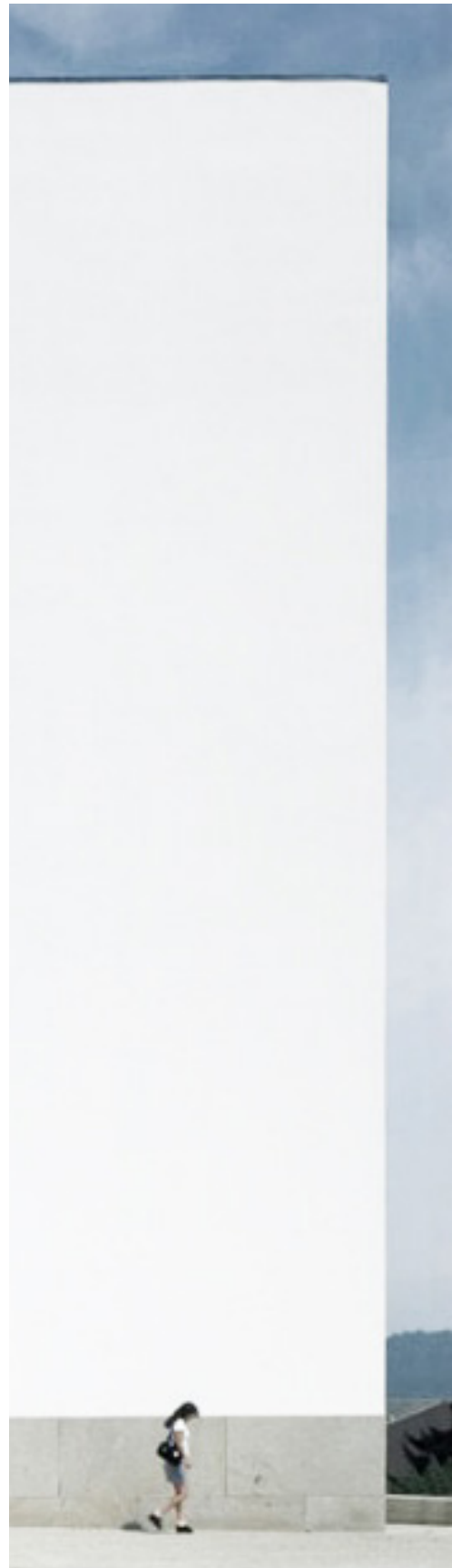
METAL PANELS



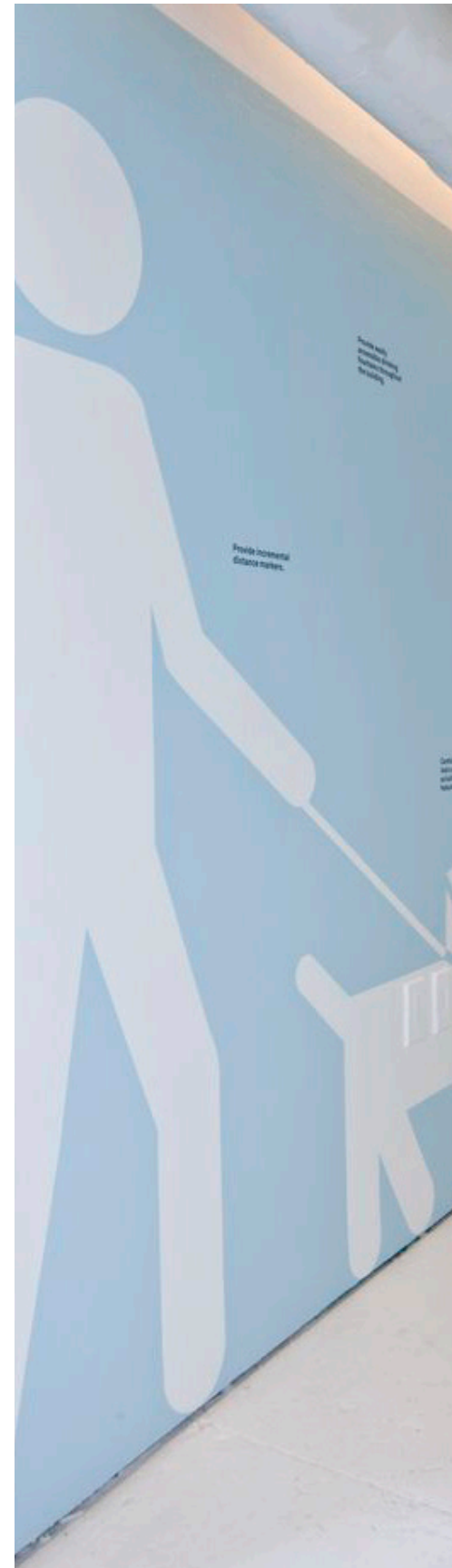
WEATHERED STEEL



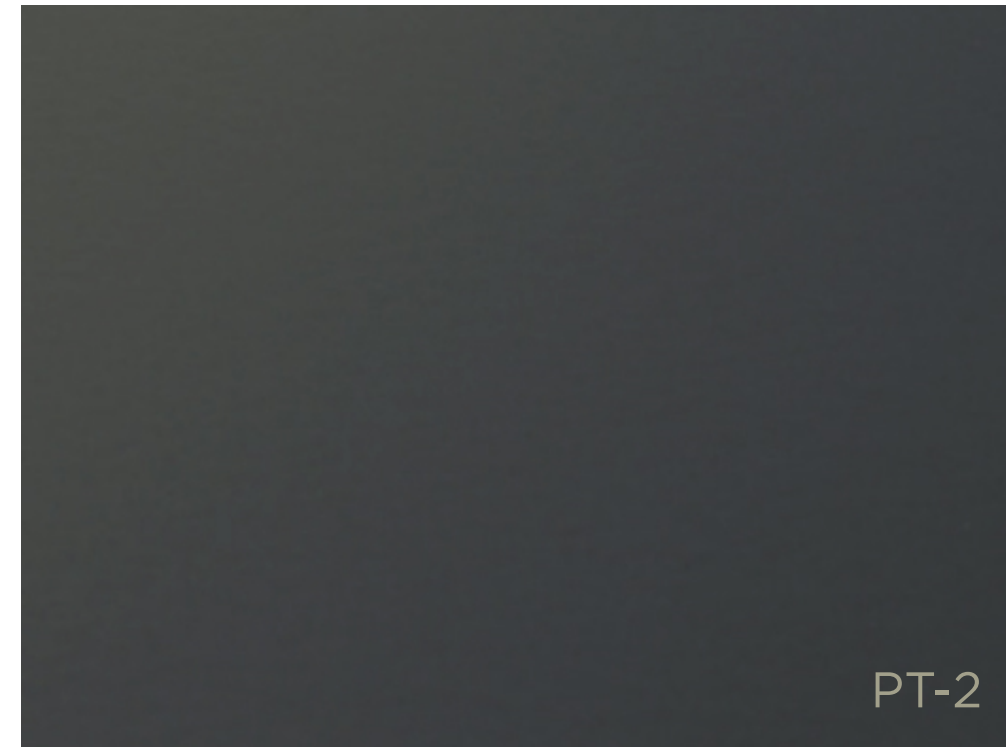
WOOD SLATTED CEILINGS



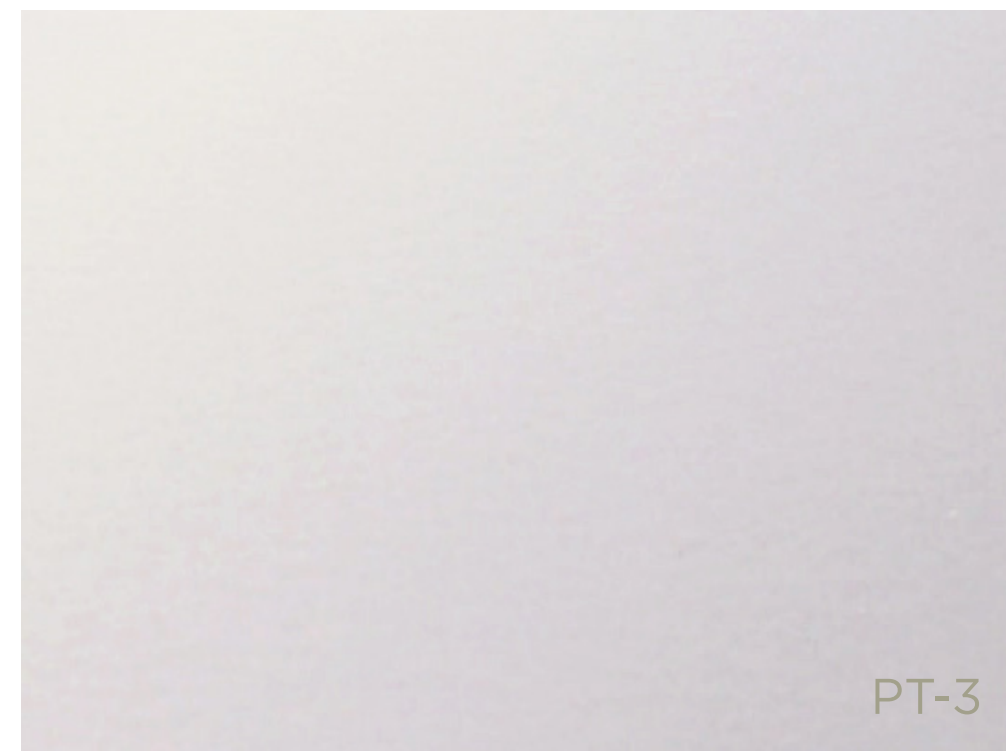
WHITE METAL
PANELED
EXTERIOR WALLS



INTEGRATED
ART/MURAL



SLATE GRAY FASCIA

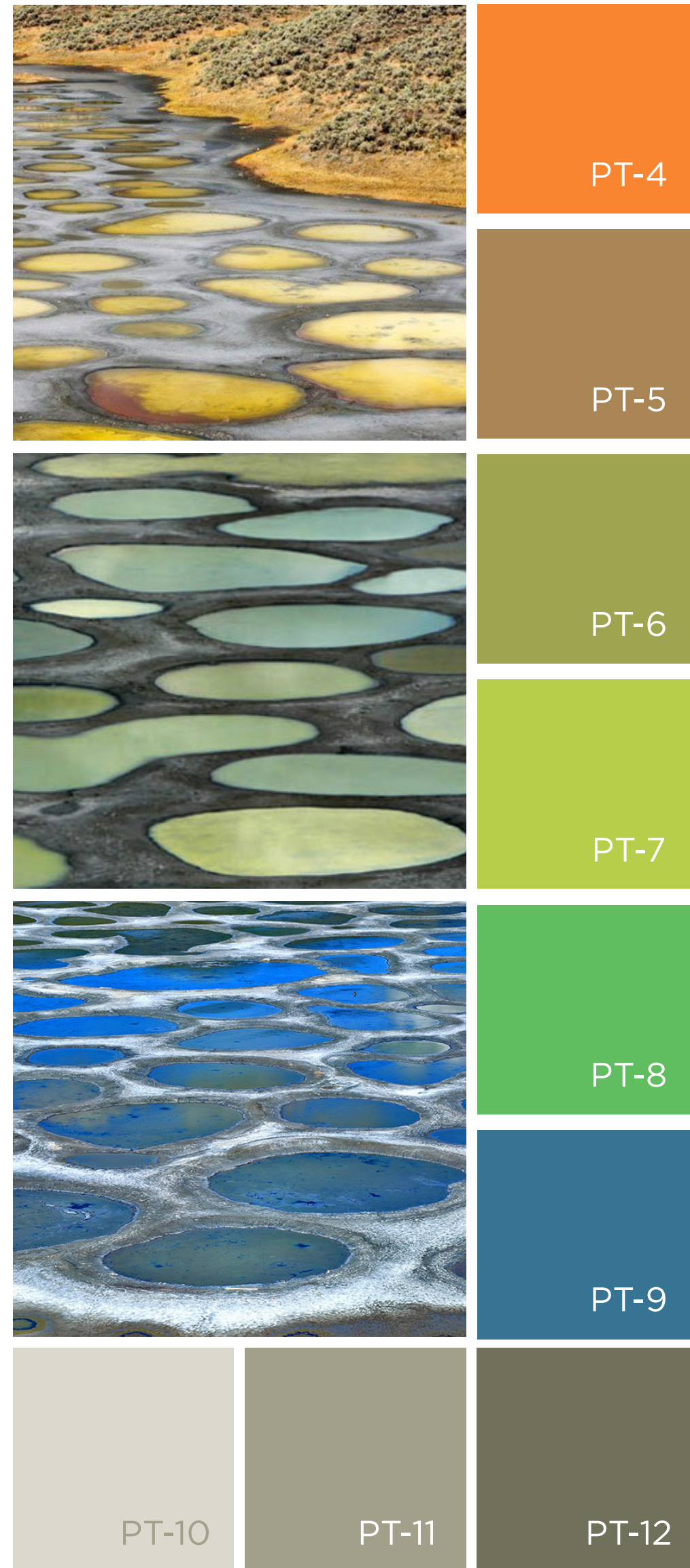


WARM WHITE COLUMN



CORTEN PLANTERS

COLOUR PALETTE
INSPIRED BY SPOTTED LAKE

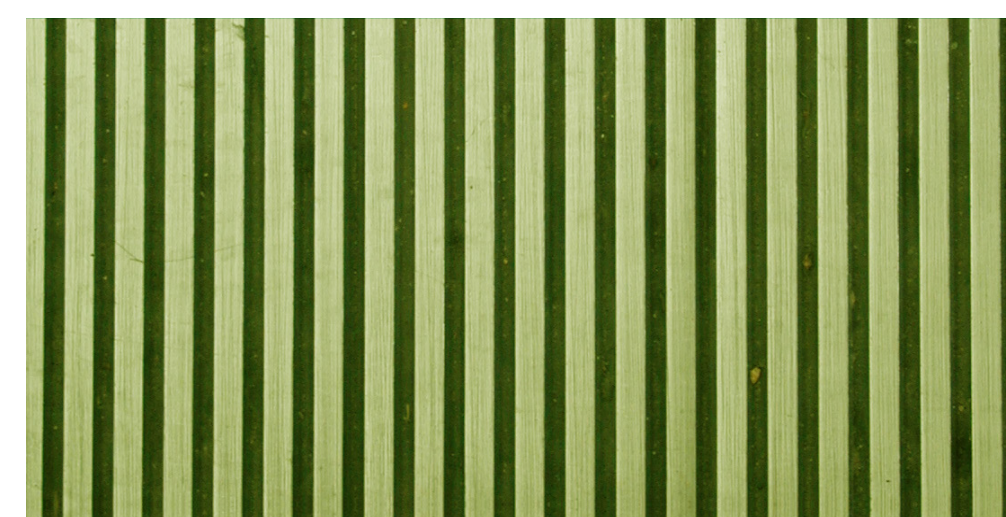
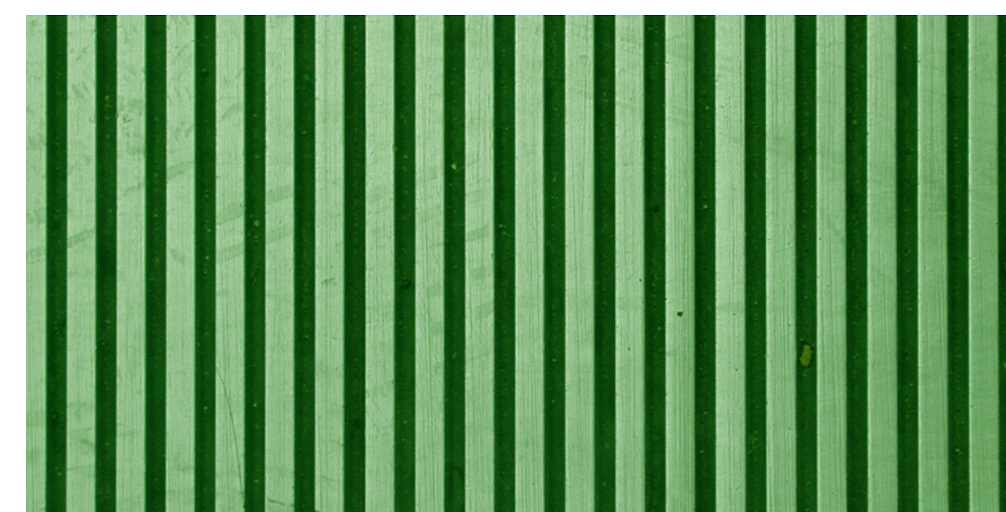
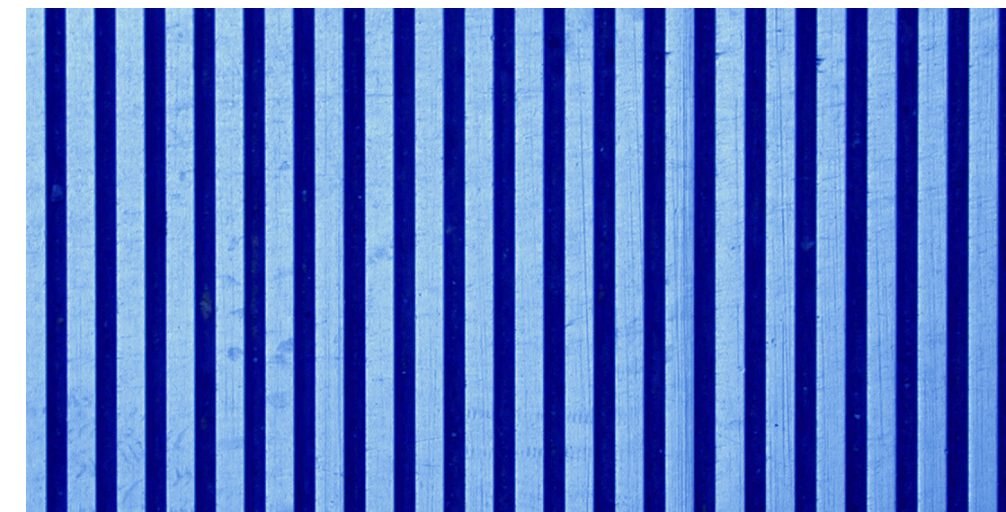
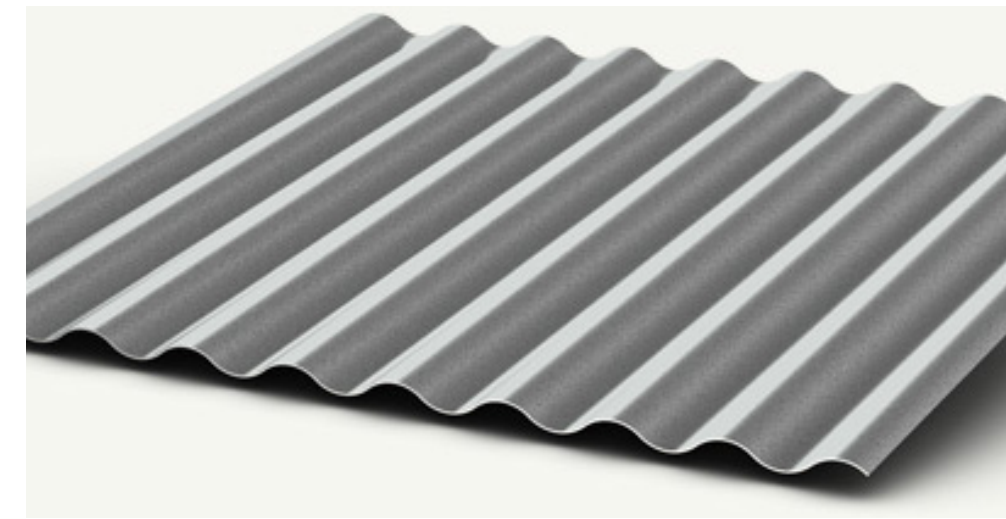


CAST IN PLACE CONCRETE



EXTERIOR WALLS STAINED W/
COLOURED
CONCRETE SEALER

CORRUGATED METAL



CORRUGATED METAL INTERIOR
WALLS - PAINTED

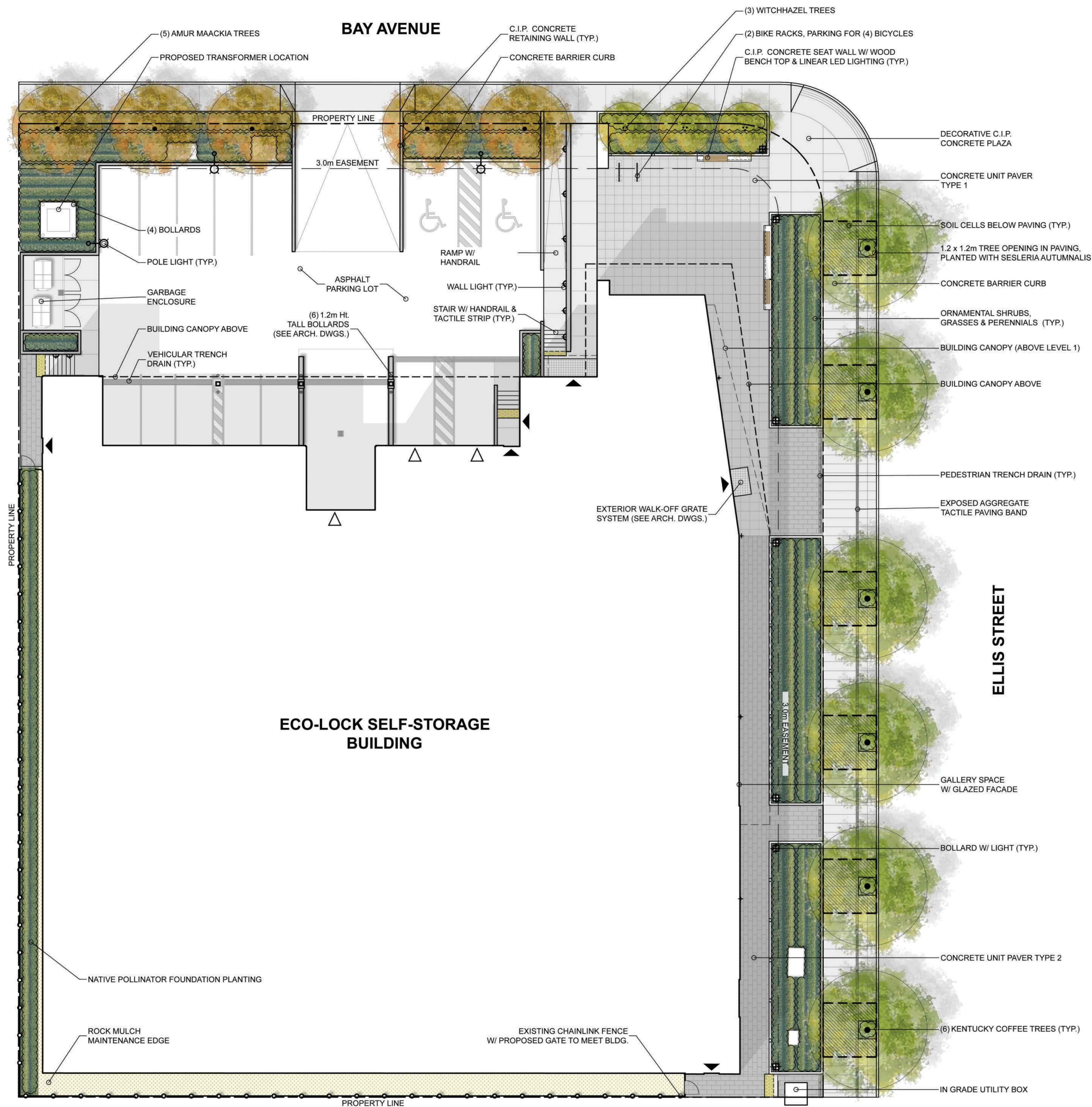
HIGH PERFORMANCE EXTERIOR



HIGH PERFORMANCE
WINDOW SYSTEMS



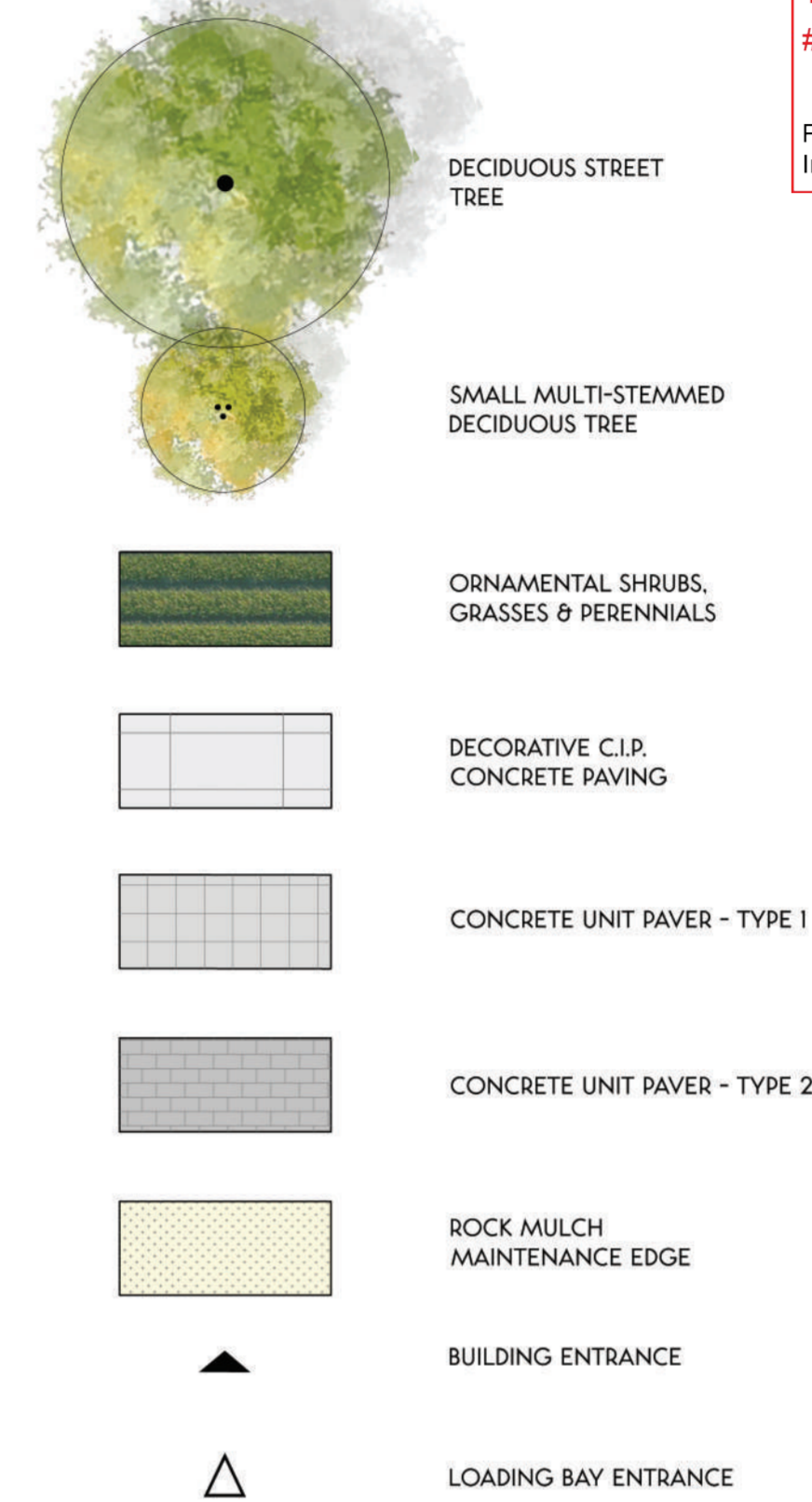
WHITE TPO MEMBRANE



DEVELOPMENT PERMIT NOTES:

- A. PLANT MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO MINIMUM STANDARDS ESTABLISHED IN THE LATEST EDITION OF THE CANADIAN LANDSCAPE STANDARDS, PUBLISHED BY C.I.N.A. AND C.S.L.A. AS WELL AS THE CITY OF KELOWNA LANDSCAPE STANDARDS IN BYLAW 7900.
- B. THE LANDSCAPE DESIGN DESIGNATED HEREIN IS CONCEPTUAL BUT REFLECTS THE MINIMUM CITY OF KELOWNA FORM AND CHARACTER REQUIREMENTS
- C. PLANT MATERIAL SELECTIONS ARE CONCEPTUAL ONLY. FINAL PLANTING SELECTIONS MAY VARY DEPENDING UPON AVAILABILITY AT THE TIME OF CONSTRUCTION.
- D. ALL PLANTING BEDS SHALL HAVE A MIN. OF 450mm (18") IMPORTED GROWING MEDIUM AND 75mm (3") OF COMPOSTED MULCH OR APPROVED EQUAL.
- E. A HIGH EFFICIENCY IRRIGATION SYSTEM SHALL BE INSTALLED FOR ALL ORNAMENTAL LANDSCAPE AREAS AND SHALL CONFORM TO THE CITY OF KELOWNA'S IRRIGATION STANDARDS IN BYLAW 7900.

LEGEND:



SCHEDULE C
 This forms part of application
 # DP21-0135 DVP21-0138
 City of Kelowna
 DEVELOPMENT PLANNING
 Planner Initials KB

ORNAMENTAL PLANT LIST:

TREES			
Botanical Name	Common Name	Size	Root
<i>Gymnocladus dioica</i> 'Espresso'	Kentucky coffee tree	6cm Cal.	B&B
<i>Hamamelis x intermedia</i> 'Pallida'	Witchhazel	1.8m Ht. Multi-Stem	B&B
<i>Maackia amurensis</i>	Amur maackia	6cm Cal.	B&B
SHRUBS			
Botanical Name	Common Name	Size	Root
<i>Ceanothus americanus</i>	New Jersey tea	#03 Cont./1.2m O.C.	Potted
<i>Ceanothus velutinus</i>	Snowbrush	#03 Cont./1.5m O.C.	Potted
<i>Erica carnea</i> 'Viveli'	Viveli heather	#03 Cont./0.5m O.C.	Potted
<i>Fothergilla gardenii</i>	Dwarf fothergilla	#03 Cont./1.2m O.C.	Potted
<i>Salix brachycarpa</i> 'Blue Fox'	Blue Fox willow	#03 Cont./1.2m O.C.	Potted
PERENNIALS & BULBS			
Botanical Name	Common Name	Size	Root
<i>Agastache rupestris</i>	Licorice mint	#01 Cont./0.45m O.C.	Potted
<i>Allium sphaerocephalon</i>	Round headed leek	Bulbs	n/a
<i>Anemone x hybrida</i> 'Honorine Jobert'	Japanese Anemone	#01 Cont./0.6m O.C.	Potted
<i>Asclepias tuberosa</i>	Butterfly weed	#01 Cont./0.45m O.C.	Potted
<i>Artemisia frigida</i>	Prairie sagewort	#01 Cont./0.45m O.C.	Potted
<i>Bergenia cordifolia</i>	Heartleaf bergenia	#01 Cont./0.45m O.C.	Potted
<i>Calamintha nepeta</i> ssp. <i>Nepeta</i>	Calamint	#01 Cont./0.6m O.C.	Potted
<i>Epimedium x rubrum</i>	Bishop's hat	#01 Cont./0.45m O.C.	Potted
<i>Helleborus x nigercors</i> 'Snow Love'	Hellebore	#01 Cont./0.6m O.C.	Potted
<i>Helopsis helianthoides</i> 'Tuscan Sun'	Ox-eye daisy	#01 Cont./0.3m O.C.	Potted
<i>Heuchera cylindrica</i>	Roundleaf alumroot	#01 Cont./0.45m O.C.	Potted
<i>Origanum 'Rosenkuppel'</i>	Marjoram	#01 Cont./0.45m O.C.	Potted
<i>Perovskia atriplicifolia</i> 'Little Spire'	Little Spire russian sage	#01 Cont./1.0m O.C.	Potted
<i>Sedum 'Lemonjade'</i>	Lemonjade stonecrop	#01 Cont./0.45m O.C.	Potted
GRASSES			
Botanical Name	Common Name	Size	Root
<i>Bouteloua gracilis</i> 'Blonde Ambition'	Blue grama	#01 Cont./0.45m O.C.	Potted
<i>Deschampsia cespitosa</i>	Tufted hair grass	#01 Cont./0.75m O.C.	Potted
<i>Sesleria autumnalis</i>	Autumn moor grass	#01 Cont./0.45m O.C.	Potted

*Umbrella pruned



Architect of Record:

Christine Lintott Architects
Suite 1 - 864 Queens Avenue
Victoria, BC, V8T 1M5
T 250 384 1969

Design Consultant:

McLennan Design
500 Winslow Way E, Suite 201
Bainbridge Island, WA 98110
206 219 3777

Design Consultant:



BENCH Site Design
4 - 1562 Water Street
Kelowna, BC V1Y 1J7
250 860 6778

Key Plan



Professional Seals

No.	Issue Description	YYYY-MM-DD
01	Issued for Review	2021-03-31
02	Issued for Review	2021-04-12
03	Issued for DP Application	2021-04-15
No.	Revision Description	YYYY-MM-DD

Drawn by YY Reviewed by XS

Project No. 21-012

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Sheet Title:

LANDSCAPE PLAN

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Sheet Number:

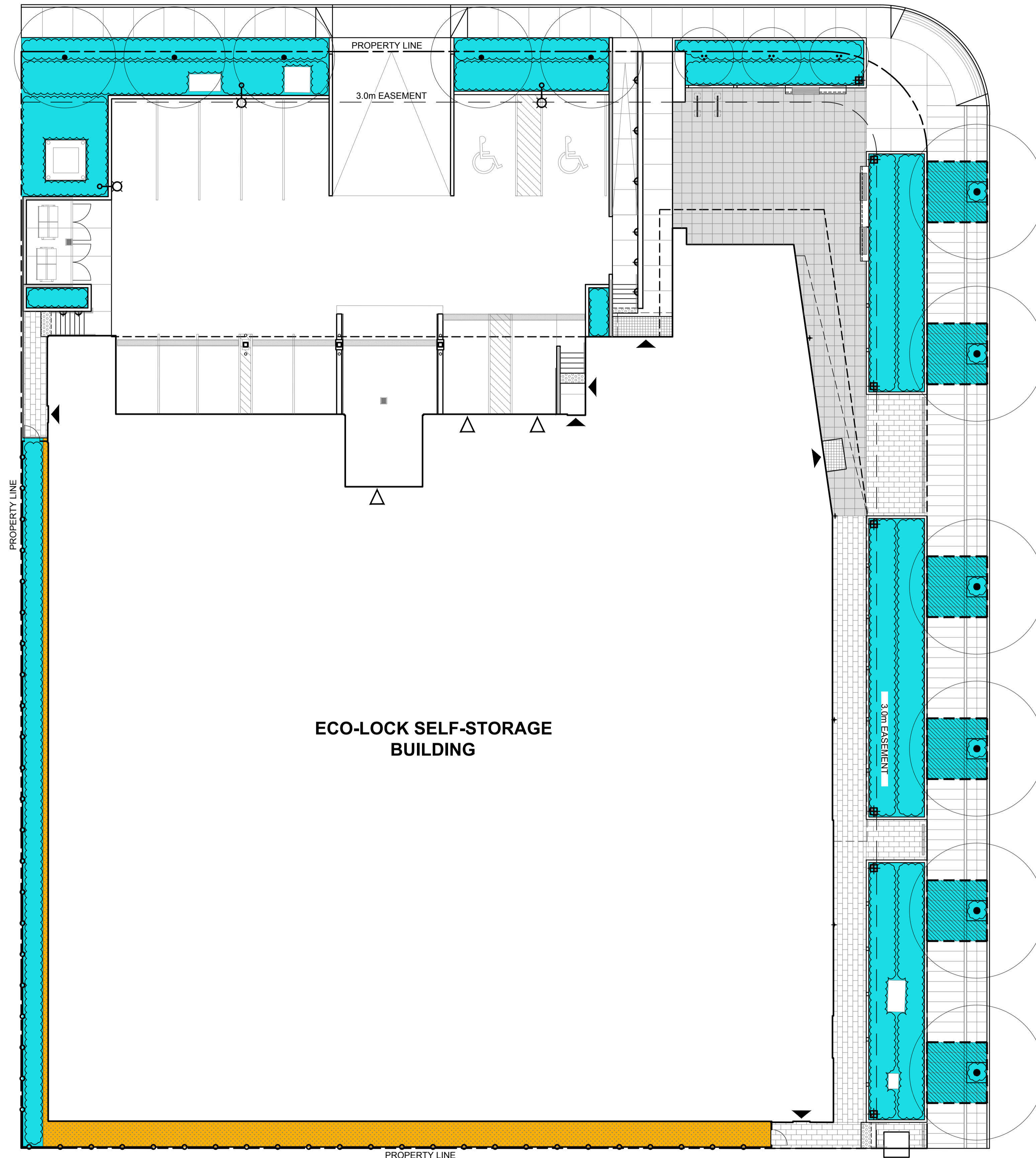
L - 101



NOT FOR CONSTRUCTION

6/22/2018 6:22:45 PM

BAY AVENUE



LEGEND:

- MODERATE WATER USE
- NO WATER USE - STONE MULCH

SCHEDULE C

This forms part of application
 # DP21-0135 DVP21-0138

Planner Initials **KB**



City of Kelowna
 DEVELOPMENT PLANNING

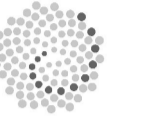


EcoLock Self Storage
 437 Bay Avenue
 Kelowna, BC, V1Y 7S3

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 Suite 1 - 864 Queens Avenue
 Victoria, BC, V8T 1M5
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 206 219 3777

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Key Plan



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No.	Revision Description	YYYY-MM-DD

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HYDROZONE PLAN

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