
CITY OF KELOWNA
MEMORANDUM

ATTACHMENT A

This forms part of application
DP17-0073 DVP17-0074

Planner
Initials AC



Date: April 27, 2017
File No.: DP17-0073

To: Community Planning (AC)

From: Development Engineering Manager(JK)

Subject: 437 Bay Ave (*REVISED*) Proposed Commercial Storage Building

Development Engineering has the following comments and requirements associated with this application. The road and utility upgrading requirements outlined in this report will be a requirement of this development.

The Development Engineering Technologist for this project is Jason Angus.

1. Domestic Water and Fire Protection

- (a) The developer must engage a consulting mechanical engineer to determine the domestic and fire flow requirements of this development, and establish if the existing 200mm service can be utilized. Decommissioning of any unused water services and the installation of all new services will be at the applicant's cost.
- (b) A water meter is mandatory for this development and must be installed inside the 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 his cost.
- (c) Landscaped boulevards, complete with underground irrigation systems, must be integrated with the on-site irrigation system.

2. Sanitary Sewer

- (a) The developer must engage a consulting mechanical engineer to determine the requirements of this development, and establish if the existing 200mm service can be utilized. An inspection manhole must be installed on the service. Service upgrades will be at the owner's cost. The estimated cost of upgrading the service for bonding purposes is \$ **5,000.00**

3. Storm Drainage

- (a) The developer must engage a consulting civil engineer to provide a storm water management plan for the site, which meets the requirements of the Subdivision, Development and Servicing Bylaw No. 7900. The storm water management plan must also include provision of lot grading plan, minimum basement elevation (MBE), if applicable, and provision of a storm drainage service for the development and / or recommendations for onsite drainage containment and disposal systems. The existing lot is serviced with a 250mm diameter storm service. Only one service will be permitted for this development.



4. Road Improvements

- (a) Access driveway modifications and construction of additional commercial driveways will be at the applicant's cost. This work will require curb, gutter, sidewalk and ramp removal and replacement, boulevard landscaping and lamp-standard relocation. The work must be constructed to City of Kelowna Standards. Re-locate or adjust existing appurtenances if required to accommodate this construction. The estimated cost of this construction for bonding purposes is **\$ 20,000.00**
- (b) Frontage improvements on Bay Avenue and Ellis Street have been completed, *however relocation of the sidewalk must be moved to the property line so that the back of sidewalk is 0.3m off of property line and creating a 1.5m landscape boulevard complete with irrigation.* Care must be taken to avoid asphalt scarring. Protect existing curbs during construction. 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.

5. Road Dedication and Subdivision Requirements

- (a) Grant statutory rights of way if required for utility services.

6. Electric Power and Telecommunication Services

The electrical services to this development 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.

7. Engineering

Road and utility construction design, construction supervision, and quality control supervision of all off-site and site services including on-site ground recharge drainage collection and disposal systems, must be performed by an approved consulting civil engineer. Designs must be submitted to the City Engineering Department for review and marked "issued for construction" by the City Engineer before construction may begin.

8. Geotechnical Report

As a requirement of this application and building permit approval the applicant must provide a comprehensive geotechnical report prepared by a Professional Engineer qualified in the field of hydro-geotechnical survey to address the following:

- (a) Area ground water characteristics, including water sources on the site.
- (b) Site suitability for development; i.e. unstable soils, foundation requirements etc.
- (c) Drill and/or excavate test holes on the site and install piezometers if necessary. Log test hole data to identify soil characteristics, identify areas of fill if any. Identify unacceptable fill material, analyse soil sulphate content, identify unsuitable underlying soils such as peat, etc. and make recommendations for remediation if necessary.
- (d) List extraordinary requirements that may be required to accommodate construction of roads and underground utilities as well as building foundation designs.

- (e) A comprehensive geotechnical report was provided at the time of subdivision and extensive soil remediation was carried out. Additional geotechnical survey may be necessary for building foundations, etc.

9. Development Permit and Site Related Issues

- (a) An MSU standard size vehicle must be able to manoeuvre onto and off the site without requiring a reverse movement onto public roadways. If the development plan intends to accommodate larger vehicles movements should also be illustrated on the site plan.

10. Bonding and Levy Summary

(a) Bonding

Road access driveways.	\$ 20,000.00
Service upgrades	\$ 5,000.00

Total Bonding **\$ 25,000.00**

NOTE: The bonding amounts shown above are comprised of estimated construction costs escalated by 140% to include engineering design and contingency protection and are provided for information purposes only. The owner should engage a consulting civil engineer to provide detailed designs and obtain actual tendered construction costs if he wishes to do so. Bonding for required off-site construction must be provided as a condition of subdivision approval or building permit issuance, and may be in the form of cash or an irrevocable letter of credit, in an approved format.

The owner must also enter into a servicing agreement in a form provided by the City prior to 4th reading of the zone amending bylaw.

11. Administration Charge

An administration charge will be assessed for processing of this application, review and approval of engineering designs and construction inspection. The administration charge is calculated as 3.5% of Additional Off-Site Construction Cost, plus GST

ATTACHMENT A

This forms part of application
DP17-0073 DVP17-0074

Planner
Initials

AC


**City of
Kelowna**
COMMUNITY PLANNING

James Kay, P. Eng.
Development Engineering Manager
JA

October 11, 2017

Adam Cseke
Planner / City of Kelowna
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Re: Variance Rationale

DiStefano Jaud Architecture inc.
Carlo DiStefano Architect AIBC, AAA
Neil Jaud Architect AIBC, AAA, MRAIC, LEED
AP

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The EcoLock project is a new self-storage building incorporating adjunct co-work space. Located at 437 Bay Avenue the project seeks to re-envision the self-storage model not only programmatically but also by developing a net-zero structure that seeks to sequester carbon and minimize its impact on the community. Further design specific information has been provided in the Design Rationale Statement.

Parking Requirements

Currently there is no specific parking requirement for a modern self-storage building model in the local bylaws and as a result the parking requirements attributed to the building are those of General Industrial Use which calls for 2.0 stalls per 100m² of Gross Floor Area which would amount to 206 stalls required. A General Industrial use is typically an office warehouse type of development that may feature manufacturing and general regular office requirements as part of the maintaining of the business. This also typically brings a larger parking requirement associated with this use. These types of developments are also typically one floor developments spread over a larger area.

The Ecolock development with its occupancy of the self-storage component will be intermittently visited and consequently occupied by few users at any given time. The building is also stacked over 5 floors creating a larger overall gross area as related to the site area. The result is that the 206 stall requirement does not correspond to the use and requirements for the project.

Bunt & Associates have been engaged to analyze the self-storage and co-work uses related to parking requirements. Their full report is attached; however, we note below the following excerpts.

Bunt's report states the following two key points:

- *“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”*

Bunt’s report provides the analysis for the self-storage component which makes clear the anticipated use and demand for parking for this function in relation to the amount of parking and loading being provided in the design.

As part of the green design story of the project bike storage is designed in upscale fashion and end use amenities have also been introduced into the design. General Industrial uses only require Class II bicycle storage, the EcoLock project is implementing 31 Class I stalls along with storage lockers and showers as an end use amenity. As part of this implementation we examined the requirements of the City of Vancouver that has developed a more detailed set of criteria to encourage bicycle usage. The amount of Class I storage is in line with their requirements as is the 2 change/shower rooms provided.

With the co-work space marketed as touch down work spaces, it is anticipated that users would gravitate more towards alternate means of transportation such as bicycle usage. The project is also situated in a quickly changing area that is becoming home to a number of new very large scale residential developments. This change begun several years ago with such projects as Waterscapes, but now with 1151 Sunset, One Water Street and Ellis Parc all bringing further high density residential development to the immediate surrounding area. This growth is anticipated to continue as the area develops and becomes more densified. It is also anticipated that users of EcoLock’s self-storage and co-work space will draw from these new inhabitants. The likelihood of alternate transportation uses for those in close proximity expands accordingly.

Purpose built development for the long term

With the green initiative being infused into the project and the ability of the hemp block being used as one of the primary construction materials to continue to sequester carbon for 100 years, the project is being developed with a long-term stewardship for the city and environment alike. The building’s design is use specific and the market analysis of self-storage type facilities will ensure that the EcoLock project continues to provide storage for people’s belongings paralleling its storage of carbon for many years to come.

Yours sincerely,

Carlo DiStefano, Architect AIBC MAAA



EcoLock Design Rationale Statement

EcoLock is a five story, 10,270 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, water conservation and stewardship, 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. Making the most of its corner site, the design provides an active, two-story storefront along Ellis Street to activate the pedestrian realm, with vehicular access, loading and parking to the north. The two-story storefront along Ellis accommodates lobby spaces, office and sales, along with educational components that describe the green features of the building. The EcoLock business model also provides multiple positive amenities for users in the way of touch down spaces and two meeting rooms, which allow customers to interact with other users in a relaxed setting and to facilitate community and personalization. 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.

At the south corner of the Ellis Street façade, three display windows are provided to support local artists, an ethos that is important to the Ecolock brand. In the center of the block along Ellis, pivot doors in the facade allow patrons to access outdoor seating. On the northeast corner of the site, the lobby extends beyond the building, forming a prow-like terraced seating element that contains a large water cistern, providing storage for collected rainwater from roof surfaces as part of the building's advanced water conservation goals. This element provides a human-scaled feature at the most visible corner of the site and helps celebrate Kelowna's important connection to water and agricultural uses.

Along the north side of the building, off-street parking and loading spaces, along with 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 being boxed in by future buildings 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 35 m² 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 that does 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. Utilizing the clean flat nature of the interlocking carbon sequestering blocks, the façade is a series of modern simple plaster finished surfaces between the windows creating an effect of sculptural blocks stacked up as a 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 composting toilets are accessed via elevator.

Energy, Conservation and Materials

The project is being designed to exceed its own yearly 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. The large lime plaster surfaces use a new high performance building material, designed, patented and made in Canada. this material, called Just Bio-Fiber, is an autoclaved cellular block comprised of

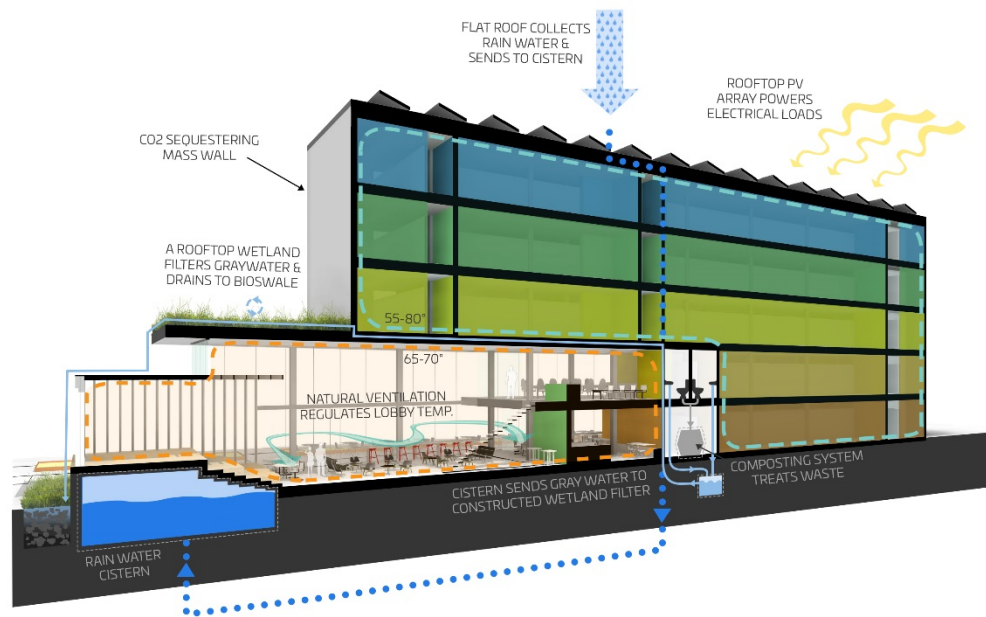


Figure 2 Ecolock Sustainability Diagram

industrial hemp, lime and a composite structural skeleton. This block sequesters substantial amounts of CO₂ in manufacture and gradually over time, and has passed rigorous standardized testing and approvals, including the Living Building Challenge Declare label for material transparency. 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, as a precious resource will be used wisely. The acoustically private toilet rooms are designed for individual use, with a unisex shared lavatory zone. The toilets are positioned on level two to facilitate a gravity based foam flush composting toilet system for maximum water conservation and to demonstrate cutting edge water and waste systems. A shower is provided on the ground floor for bicycle commuters. A rainwater and grey water system will further reduce potable water use to minimal amounts during the driest part of the year.

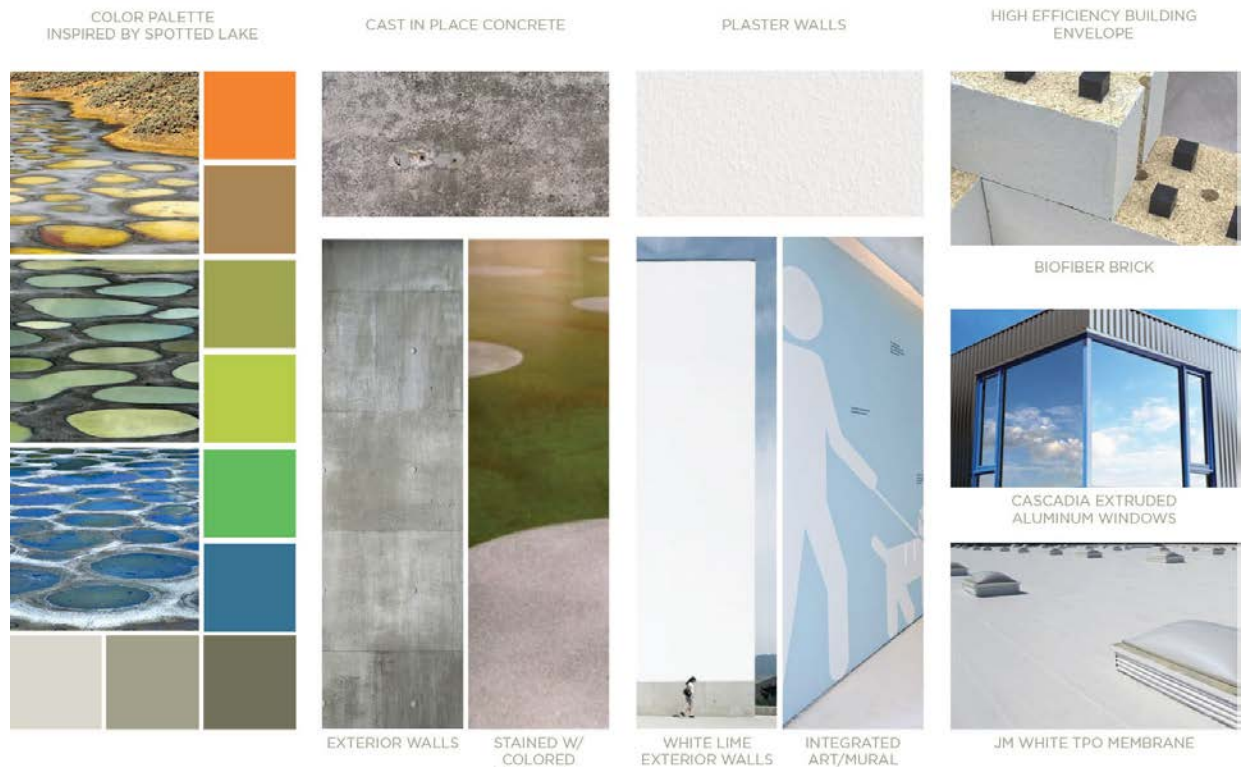


Figure 3 Colors inspired by the Spotted Lakes

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.

Like the lakes, The EcoLock building also collects water over varied surfaces, and supports biodiversity. At the lobby, a literal interpretation will occur in large colored patterns on the stained concrete floor.

Education about the Living Building Challenge and carbon sequestering bio-fiber block will occur in the lobby, 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 3 display windows. The initial programs focus will be themed-based, such as the artistry of heirlooms, or 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.



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

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

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TABLE OF CONTENTS

1.	INTRODUCTION	1
1.1	Background	1
1.2	Proposed Development	1
1.3	Purpose of Study	1
2.	EXISTING CONDITIONS	2
2.1	Transit	2
2.2	City of Kelowna Mode Splits	2
3.	PARKING REVIEW	6
3.1	Preamble	6
3.2	Self Storage	6
3.2.1	Bylaw Requirements	6
3.2.2	Bunt Parking Database.....	7
3.2.3	Proposed Base Requirement	8
3.3	Coworking Office Space	8
3.3.1	Bylaw Requirements	8
3.3.2	Parking Demand	9
3.3.3	Proposed Base Requirement	9
3.4	Shared Parking Review	9
3.5	Proposed Parking Supply.....	10
3.6	Transportation Demand Management	11
3.6.1	Cycling Facilities.....	11
4.	CONCLUSIONS.....	12

EXHIBITS

Exhibit 1.1: Site Location	3
Exhibit 1.2: Site Plan	4
Figure 2.1: Kelowna Mode Split	5

TABLES

Table 1.1: Proposed Land Uses	1
Table 2.1: Existing Transit Service Frequency	2
Table 3.1: Self Storage Facilities - Municipal Bylaw Comparisons	7
Table 3.2: Bunt Survey Data - Self Storage Parking and Loading Supply and Utilization	7
Table 3.3: Proposed Self Storage Facility - Locker Mix	8
Table 3.4: Self Storage Midday Parking Demand	8
Table 3.5: Proposed Facility - Shared Parking Analysis - Parking and Loading Spaces Required	10
Table 3.6: Proposed Parking Supply	10
Table 3.7: Bicycle Parking Bylaw Requirement	11

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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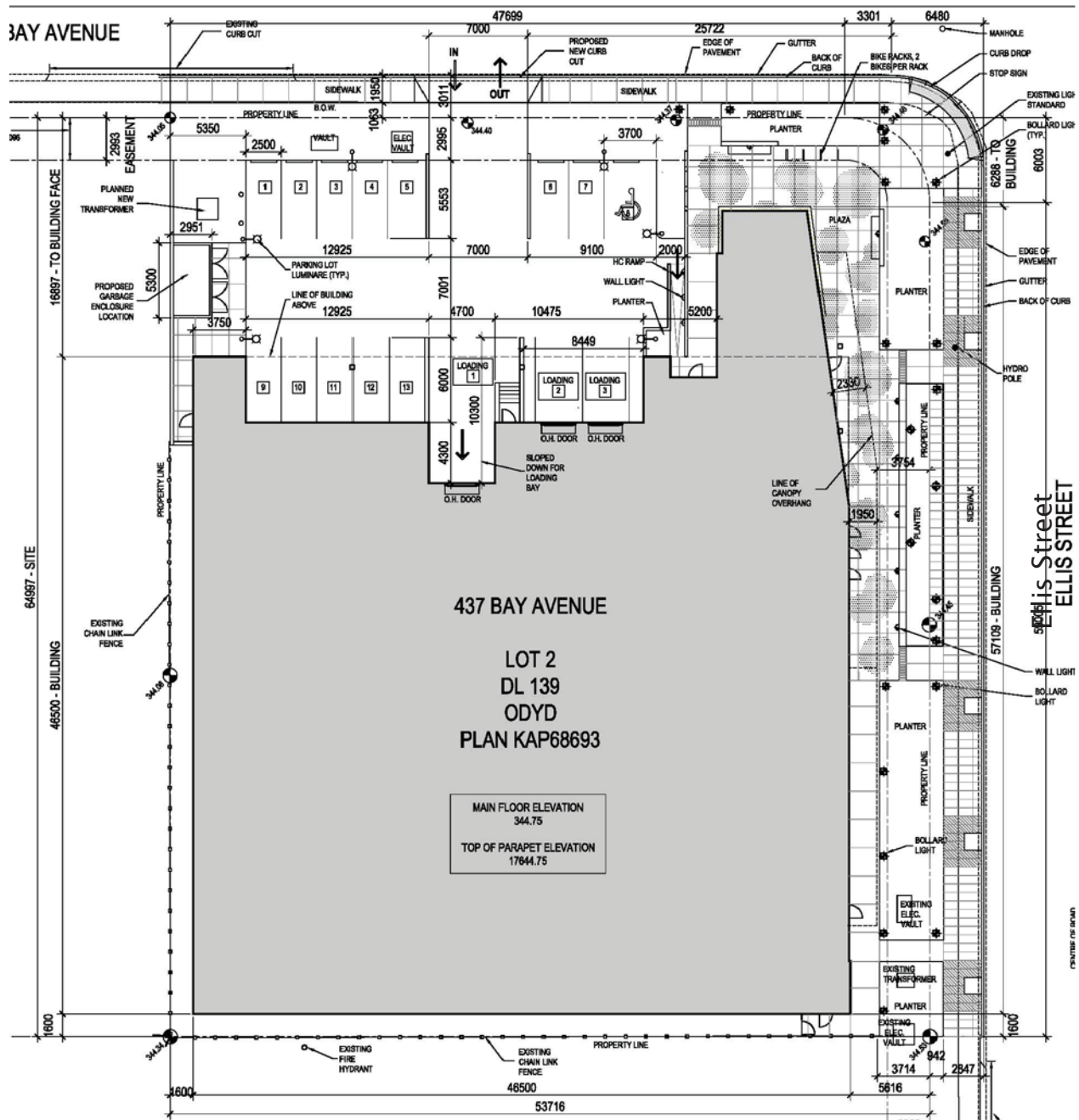
Exhibit 1.1 Peak Site Location

EcoLock Self Storage Parking & Loading Rationale
6226.01
September 2017





Bay Avenue



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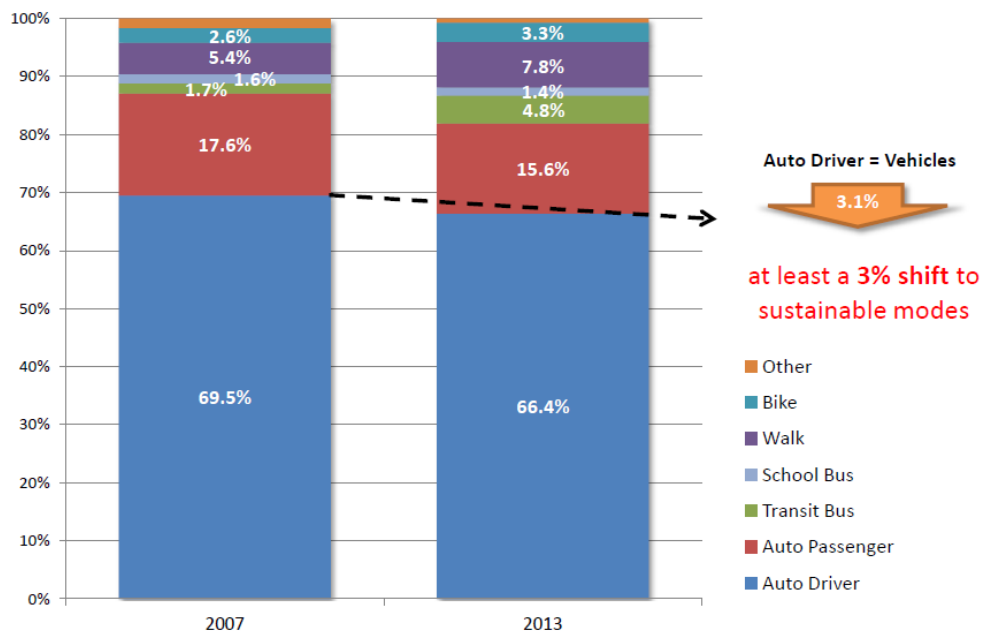
Exhibit 1.2 Site Plan

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.

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 DP17-0203 & DVP17-0233



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

437 Bay Ave

and legally known as

Lot 2 District Lot 139, ODYD, Plan KAP68693

and permits the land to be used for the development with variances to the following sections of the Zoning Bylaw 8000:

S.8 Table 8.1 Parking Schedule

To vary the minimum number of parking stalls provided from 204 stalls to 13 stalls.

S.8 Table 8.2 Loading Schedule

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

S.8 Table 8.3 Bicycle Parking Schedule

To reduce the minimum number of class 2 bicycle parking stalls provided from 31 stalls to 8 stalls.

The development has been approved subject to any attached terms and conditions, and to full compliance with the approved plans bearing the stamp of approval and the above described development permit number.

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

Date of Decision: December 5th 2017

Decision By: CITY COUNCIL

Issued Date: **DATE**

Development Permit Area: Comprehensive Development Permit Area

File Manager: AC

This permit will not be valid if development has not commenced within 2 years of the council approved Date of Decision.

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
Address: 206 – 15388 24th Ave
City: Surrey, BC
Phone: n/a

Ryan Smith, Community Planning Department Manager
Community Planning & Strategic Investments

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.

This Development Permit is valid for two (2) years from the Council Date of Decision if applicable, or Community Planning Department Manager 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 use 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 own 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) A Certified Cheque in the amount of **\$75,606.25** **OR**
- b) An Irrevocable Letter of Credit in the amount of **\$75,606.25**

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.

4. 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.**

SCHEDULE A&B
 This forms part of application
 # DP17-0073 / DVP17-0074

Planner Initials **AC**




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

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 - 1331 Ellis Street
 Kelowna, BC, V1Y 1Z9
 t 250 868 9278

Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
 Bainbridge Island, WA 98110
 t 206 219 5365

Key Plan

Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

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Project No. 16032

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Sheet Title:

COVER SHEET

Original drawing is 18x24. Do not scale contents of this drawing.

Sheet Number:

G-001



EcoLock Self Storage
 Comprehensive Development Permit Application to the City of Kelowna
 22 September, 2017

PROJECT ADDRESS: 437 Bay Avenue, Kelowna, BC V1Y 7S3
LEGAL DESCRIPTION: Lot 1 and 2, DL 139, ODYD, Plan KAP68693

PROJECT SUMMARY

1. PROJECT DESCRIPTION:

EcoLock is a five story, 10,270 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, water conservation and stewardship, 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.

2. APPLICABLE CODES & ORDINANCES:

Building Code: BCBC 2012
 Fire Code: BCFC 2012

British Columbia Building Code

- 3.1.17 Occupant Load
Warehouse - 28m² per person
- 3.2.2.72 Group F Division 2
Up to 6 storeys sprinklered
11,185m² - 5 storeys
- 3.4.2.5 Location of Exits
45m travel distance to at least one exit

3. BUILDING FIRE SUPPRESSION, ALARM, AND STANDPIPE SYSTEMS (BCBC Subsections 3.2.4 and 3.2.5):

Sprinklered System: YES
 Fire Alarm System: YES
 Standpipe System: YES

4. PROJECT SPECIFICS:

Legal Description:
Lot 1 and 2, DL 139, ODYD, Plan KAP68693

Municipal Address:
437 Bay Avenue
Kelowna, BC V1Y 7S3

Contact:
Carlo DiStefano, Architect, MAIBC, MAAA
DiStefano Jaud Architecture
3 - 1331 Ellis Street
Kelowna, BC
T: (250) 868-9278
F: (250) 868-9217
Email: carlo@distefanojaud.com

4. PROJECT SPECIFICS (continued):

Zoning:
I4 - Central Industrial

Areas:
Lot Area: 3,487m²
Building Footprint Area: 2,049m²

Coverage:
Allowable Coverage = 100%
Building Footprint Area / Lot Area = Lot Coverage (Buildings)
2,049 / 3,487 = 59% Coverage (Buildings)

Total Area (Including Paving) / Lot Area = Lot Coverage (Total)
2,685 / 3,487 = 77% Coverage (Total)

Floor Area Ratio:
Allowable F.A.R. = 1:3
Lot Area - 3,487 x 3 = 10,461m² Allowable Net Area to be Built
Total Building Area = 10,195m²

Setbacks:
Required Side Yard Setback: 0.0m
Side Yard Setback: 1.6m
Side Yard Setback (at Street): 6.3m

Required Front Yard Setback: 0.0m
Front Yard Setback: 5.7m

Required Rear Yard Setback: 0.0m
Rear Yard Setback: 1.6m

Height:
Allowable Height: 18.0m max.
Building Height: 17.3m max.

Parking Provided:
Handicapped = 1 Stall
Full Size = 12 Stalls
Full Size Loading Bay = 1 Stall
Medium Size Loading Bay = 2 Stalls
Total = 16 Stalls

Variance Request:
Varied for intended use.

Bicycle Parking Required:
Required Parking: Class II at 0.30 per 100m²
10,270 / 100 = 102.7
102.7 x 0.30 = 31 Class II Stalls
Provided = 36 Class I Stalls + 8 Class II Stalls

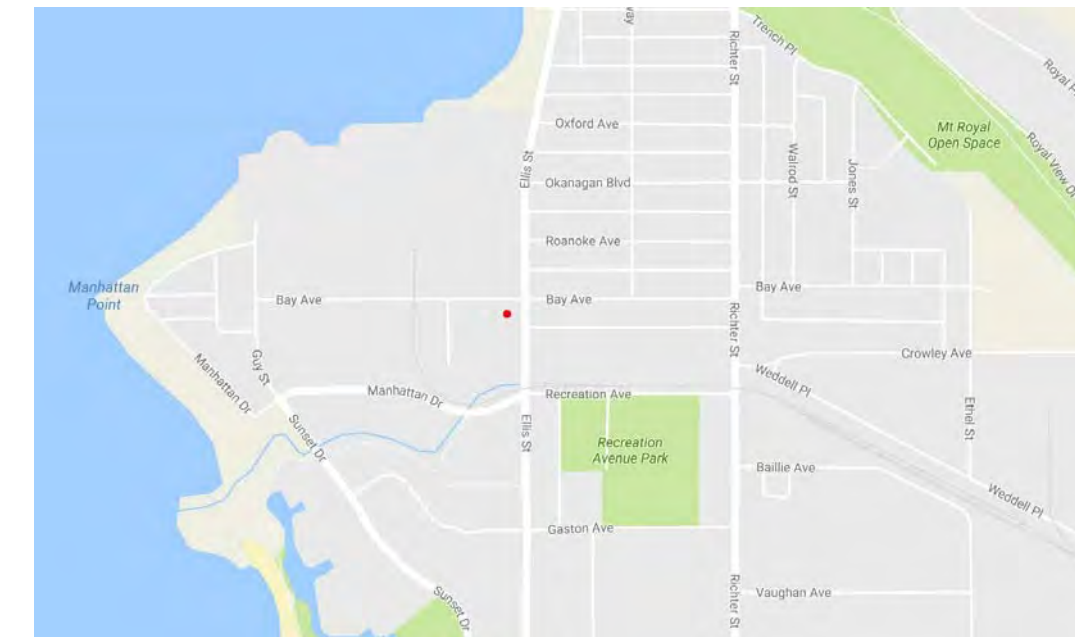
Variance Request:
Varied for intended use.

Lighting Provided:
All lighting shown will be dark sky style down lighting and light fixtures to be LED.

PROJECT LOCATION

PROJECT ADDRESS: 437 Bay Avenue, Kelowna, BC V1Y 7S3

LEGAL DESCRIPTION: Lot 1 and 2, DL 139, ODYD, Plan KAP68693



GROSS FLOOR AREA

FLOOR	AREA (m ²)
LEVEL 1	1,994
LEVEL 2	1,982
LEVEL 3	2,098
LEVEL 4	2,098
LEVEL 5	2,098
TOTAL GROSS AREA	10,270

SHEET LIST

NUMBER	SHEET NAME
G-001	COVER SHEET
G-002	PROJECT NOTES
L-101	LANDSCAPE PLAN
L-102	HYDROZONE PLAN
L-103	LANDSCAPE MATERIALS
A-101	SITE PLAN
A-201	FLOOR PLAN - LEVEL 1
A-202	FLOOR PLAN - LEVEL 2
A-203	FLOOR PLAN - LEVEL 3
A-204	FLOOR PLAN - LEVEL 4
A-205	FLOOR PLAN - LEVEL 5
A-241	ROOF PLAN
A-501	EXTERIOR ELEVATIONS
A-502	EXTERIOR ELEVATIONS
A-701	BUILDING SECTIONS
A-702	BUILDING SECTIONS
A-901	SITE PHOTOS
A-902	SITE PHOTOS



EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 - 1331 Ellis Street
Kelowna, BC, V1Y 1Z9
t 250 868 9278

Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
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t 206 219 5365

Key Plan

Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD
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Project No. 16032

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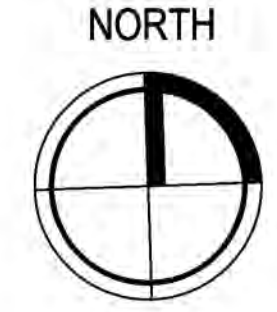
PROJECT NOTES

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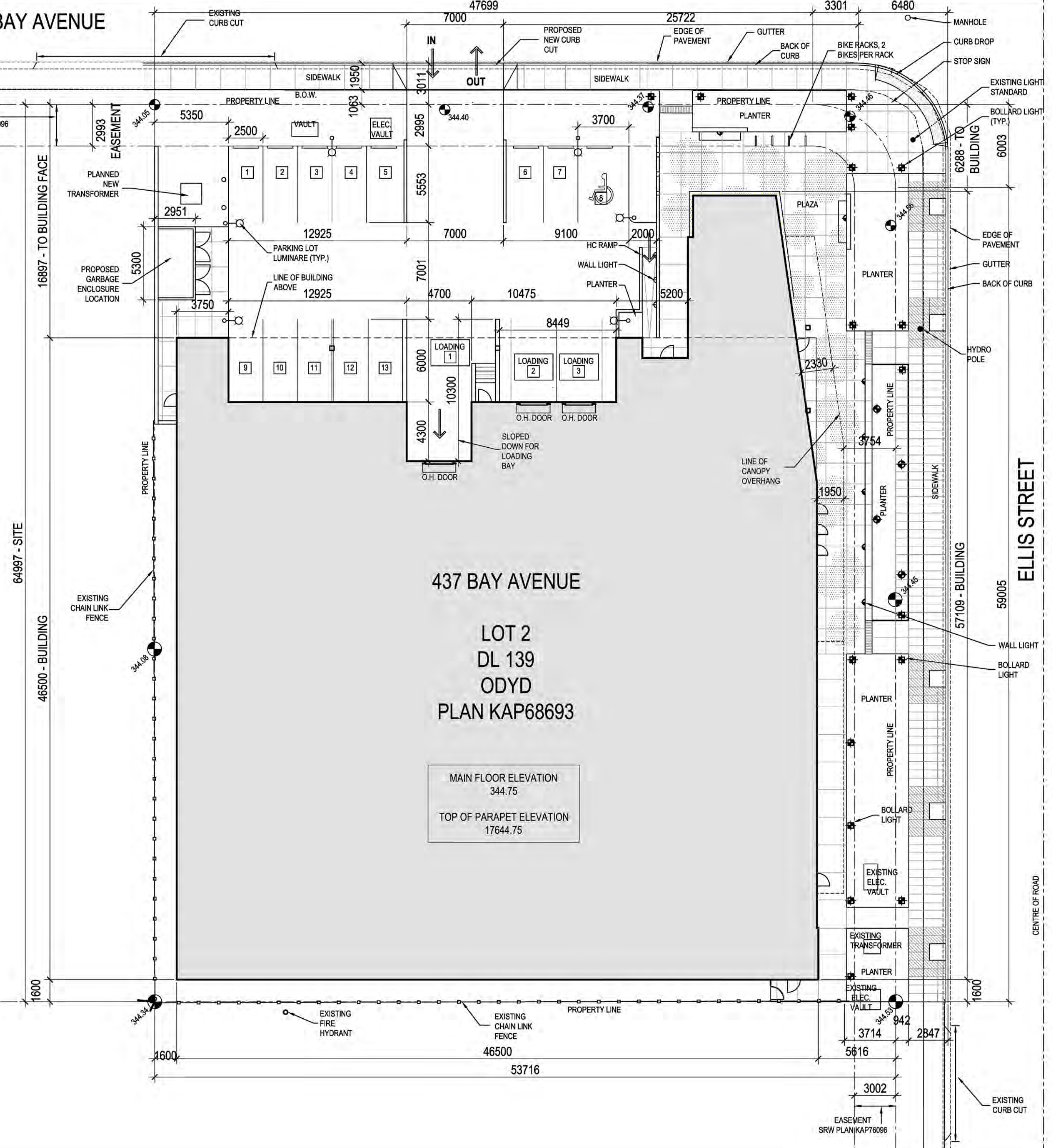
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G-002

BAY AVENUE



SCHEDULE A&B
This forms part of application
DP17-0073 / DVP17-0074
City of Kelowna
Planner Initials AC



437 BAY AVENUE
LOT 2
DL 139
ODYD
PLAN KAP68693

MAIN FLOOR ELEVATION
344.75
TOP OF PARAPET ELEVATION
17644.75



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

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DiStefano Jaud Architecture
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Design Consultant:
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Key Plan
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No.	Issue Description	YYYY-MM-DD
01	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

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Site Plan

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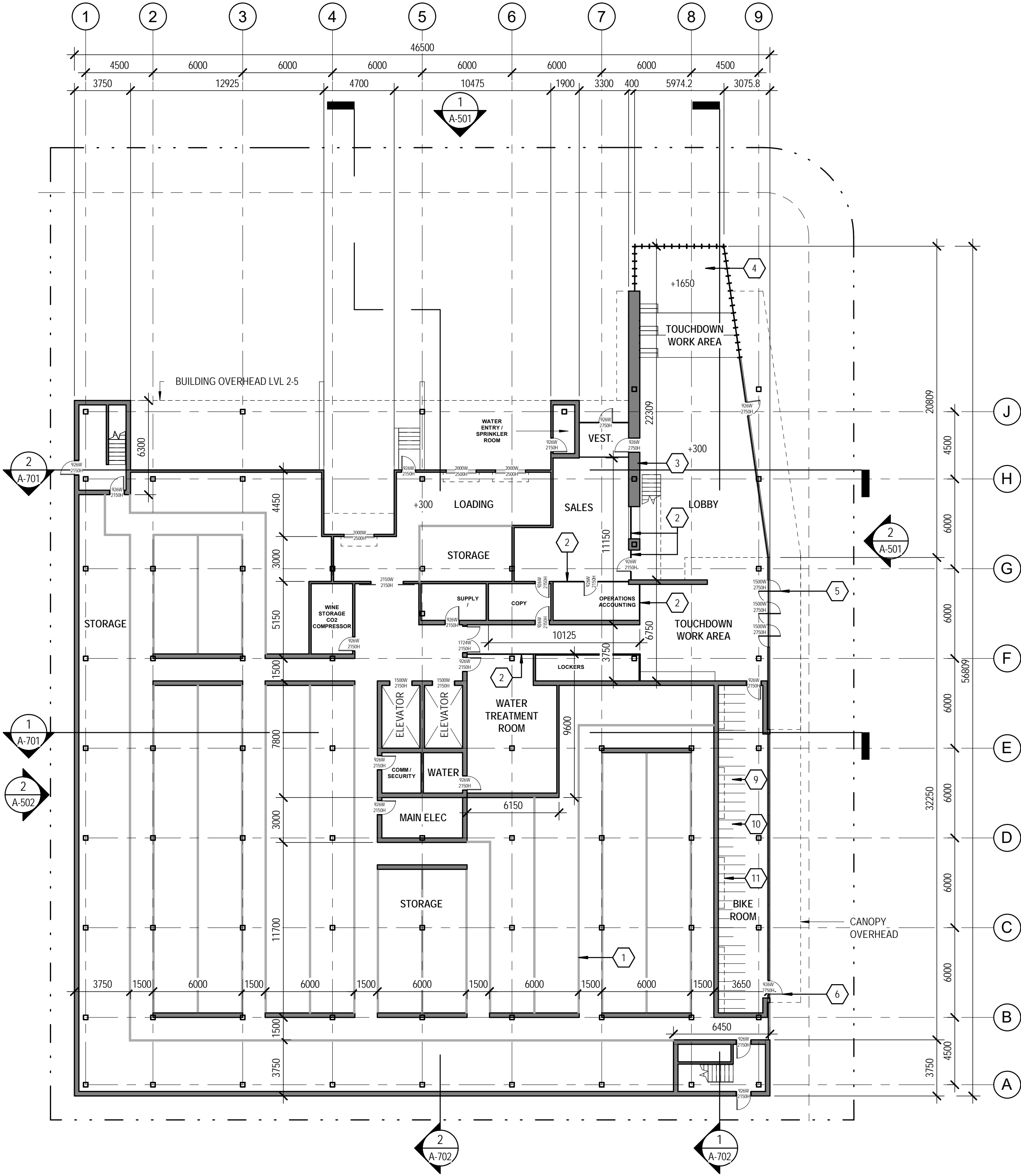
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SCHEDULE A&B

This forms part of application
DP17-0073 / DVP17-0074

Planner Initials **AC**



GENERAL NOTES

1. PROJECT ADDRESS:
437 BAY AVENUE
KELOWNA, BC V1Y 7S3
2. LEGAL DESCRIPTION:
LOT 1 AND 2
DL 139
ODYD
PLAN KAP68693



EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

Architect of Record:

**DiStefano Jaud
Architecture**

DiStefano Jaud Architecture

3 -1331 Ellis Street
Kelowna, BC, V1Y 1Z9
t 250 868 9278

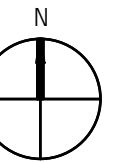
Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
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Key Plan



KEYNOTES LEGEND

1. CORRUGATED METAL STORAGE LOCKER SYSTEMS
2. VIEWING WINDOW
3. FEATURE WALL
4. RAISED SEATING PLATFORM WITH WATER CISTERN BELOW
5. GLASS PIVOT DOORS 1500W 2750H
6. KEYCODE ACCESS BIKE ROOM DOOR
7. CONSTRUCTED WETLAND
8. SECURED OPERABLE WINDOW PANEL FOR CONSTRUCTED WETLAND MAINTENANCE ACCESS
9. HORIZONTAL CLASS I BIKE STALL 600W 1800D
10. VERTICAL CLASS I BIKE STALL 600W 1000D
11. OVERHEAD BIKE GEAR LOCKERS

Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

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Project No. 16032

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Sheet Title:

FLOOR PLAN - LEVEL 1

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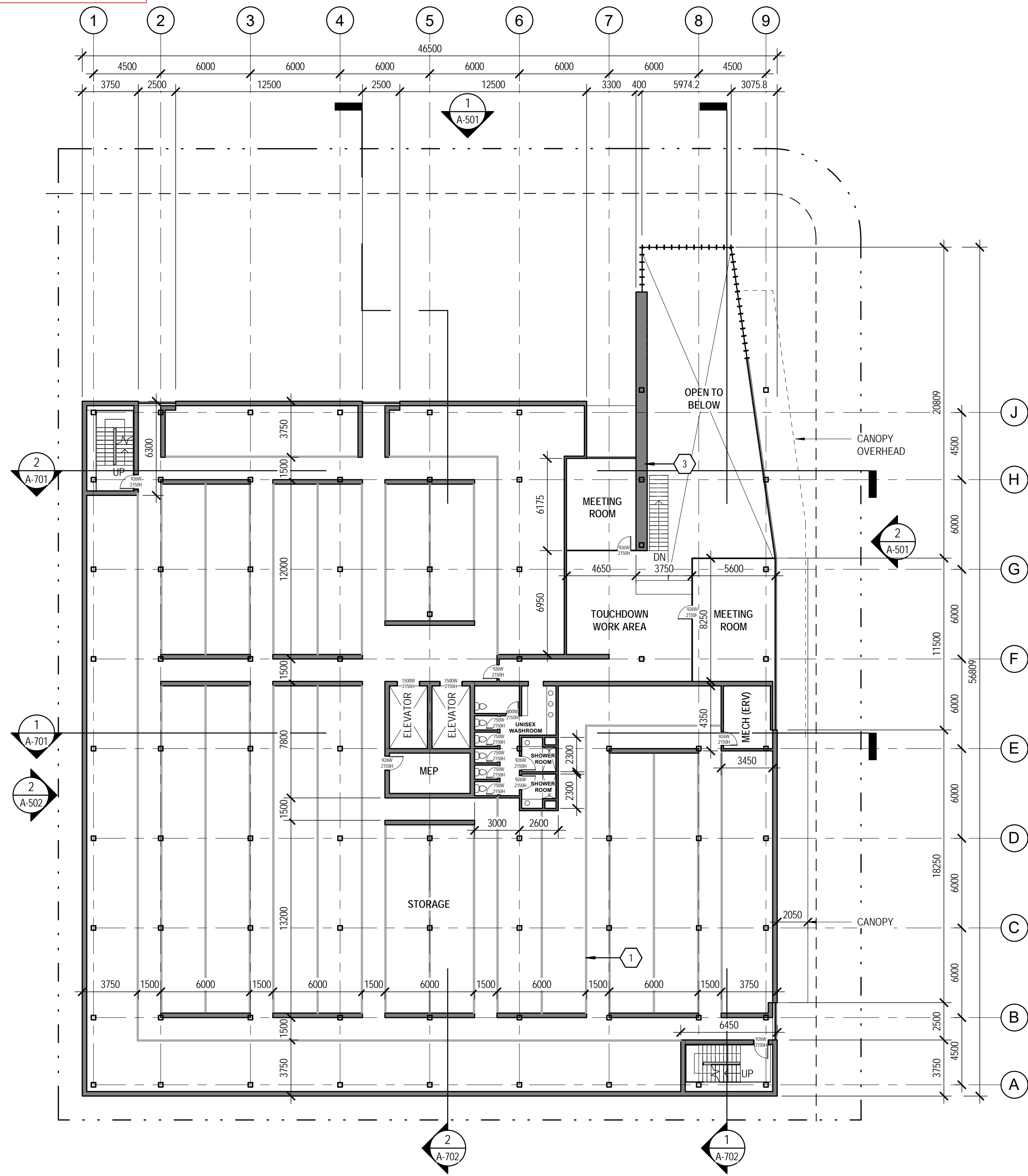
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SCHEDULE A&B

This forms part of application
DP17-0073 / DVP17-0074



Planner Initials AC



GENERAL NOTES

- PROJECT ADDRESS:
437 BAY AVENUE
KELOWNA, BC V1Y 7S3
- LEGAL DESCRIPTION:
LOT 1 AND 2
DL 139
ODYD
PLAN KAP68693

KEYNOTES LEGEND

- CORRUGATED METAL STORAGE LOCKER SYSTEMS
- VIEWING WINDOW
- FEATURE WALL
- RAISED SEATING PLATFORM WITH WATER CISTERN BELOW
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- OVERHEAD BIKE GEAR LOCKERS



EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 -1331 Ellis Street
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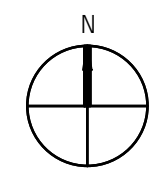
Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
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Key Plan



Professional Seals

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1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

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Sheet Title:

FLOOR PLAN - LEVEL 2

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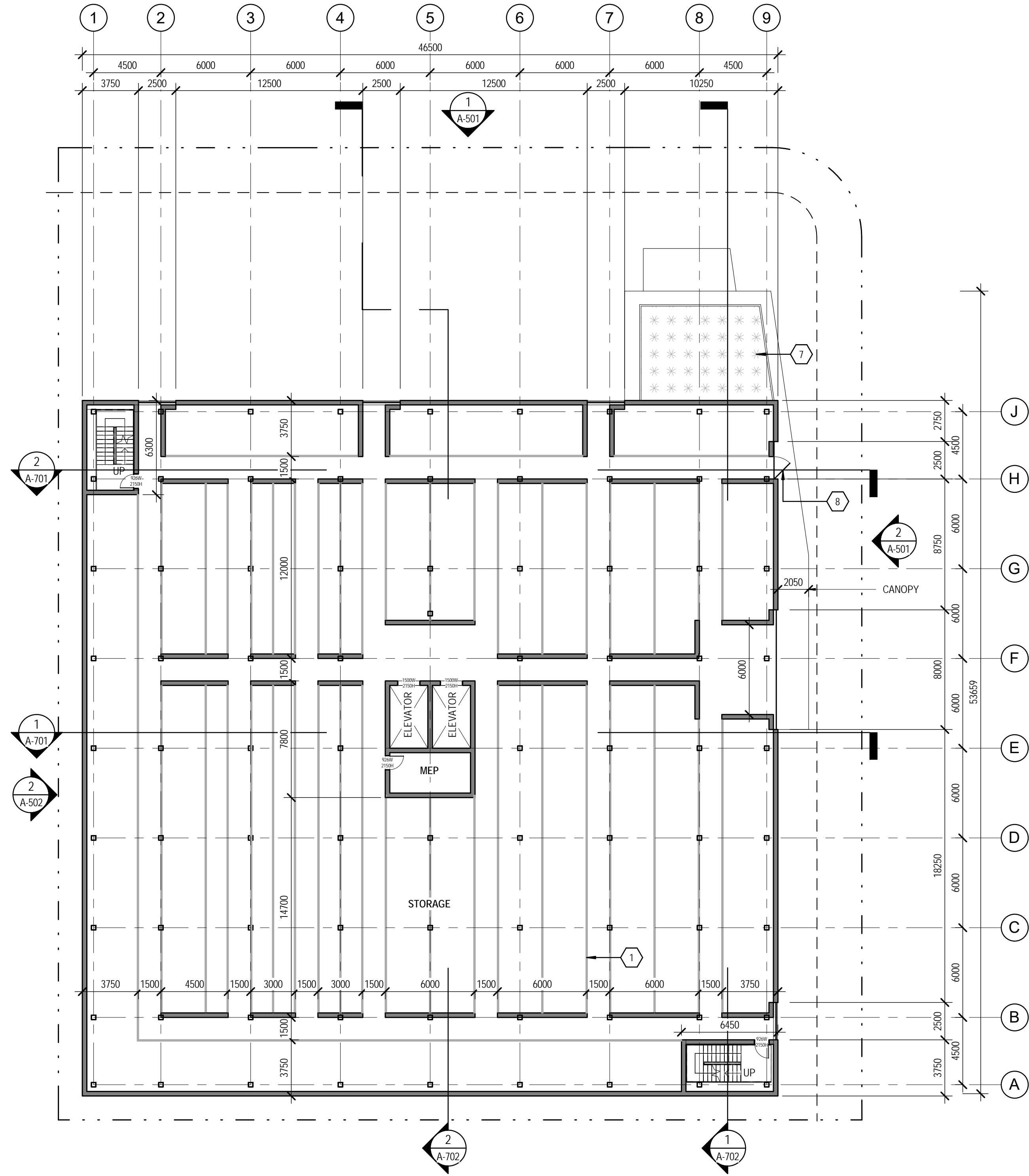
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SCHEDULE A&B

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DP17-0073 / DVP17-0074

Planner Initials AC



GENERAL NOTES

- PROJECT ADDRESS:
437 BAY AVENUE
KELOWNA, BC V1Y 7S3
- LEGAL DESCRIPTION:
LOT 1 AND 2
DL 139
ODYD
PLAN KAP68693

KEYNOTES LEGEND

- CORRUGATED METAL STORAGE LOCKER SYSTEMS
- VIEWING WINDOW
- FEATURE WALL
- RAISED SEATING PLATFORM WITH WATER CISTERN BELOW
- GLASS PIVOT DOORS 1500W 2750H
- KEYCODE ACCESS BIKE ROOM DOOR
- CONSTRUCTED WETLAND
- SECURED OPERABLE WINDOW PANEL FOR CONSTRUCTED WETLAND MAINTENANCE ACCESS
- HORIZONTAL CLASS I BIKE STALL 600W 1800D
- VERTICAL CLASS I BIKE STALL 600W 1000D
- OVERHEAD BIKE GEAR LOCKERS



EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

Architect of Record:



DiStefano Jaud Architecture

3 -1331 Ellis Street
Kelowna, BC, V1Y 1Z9
t 250 868 9278

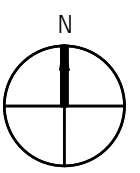
Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
Bainbridge Island, WA 98110
t 206 219 5365

Key Plan



Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

Drawn by BG Reviewed by DJA

Project No. 16032

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Sheet Title:

FLOOR PLAN - LEVEL 3

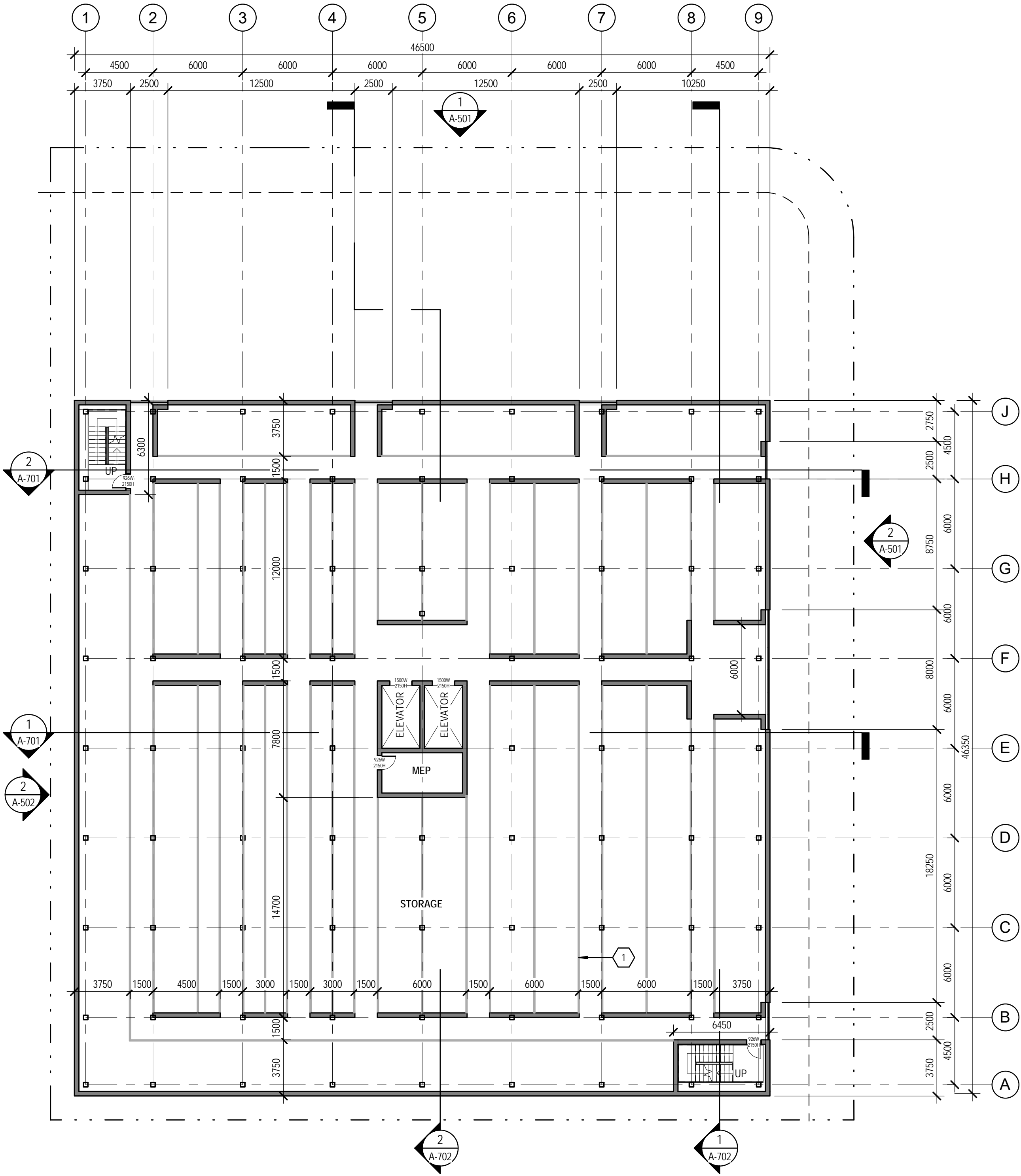
SCALE: 1:200

Original drawing is 18x24. Do not scale contents of this drawing.

Sheet Number:

A-203

9/22/2017 5:32:08 PM



GENERAL NOTES

- PROJECT ADDRESS:
437 BAY AVENUE
KELOWNA, BC V1Y 7S3
- LEGAL DESCRIPTION:
LOT 1 AND 2
DL 139
ODYD
PLAN KAP68693

KEYNOTES LEGEND

- CORRUGATED METAL STORAGE LOCKER SYSTEMS
- VIEWING WINDOW
- FEATURE WALL
- RAISED SEATING PLATFORM WITH WATER CISTERN BELOW
- GLASS PIVOT DOORS 1500W 2750H
- KEYCODE ACCESS BIKE ROOM DOOR
- CONSTRUCTED WETLAND
- SECURED OPERABLE WINDOW PANEL FOR CONSTRUCTED WETLAND MAINTENANCE ACCESS
- HORIZONTAL CLASS I BIKE STALL 600W 1800D
- VERTICAL CLASS I BIKE STALL 600W 1000D
- OVERHEAD BIKE GEAR LOCKERS



EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 -1331 Ellis Street
Kelowna, BC, V1Y 1Z9
t 250 868 9278

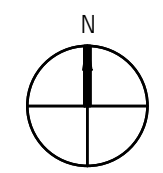
Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
Bainbridge Island, WA 98110
t 206 219 5365

Key Plan



Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

Drawn by BG Reviewed by DJA

Project No. 16032

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Sheet Title:

FLOOR PLAN - LEVEL 4

SCALE: 1:200

Original drawing is 18x24. Do not scale contents of this drawing.

Sheet Number:

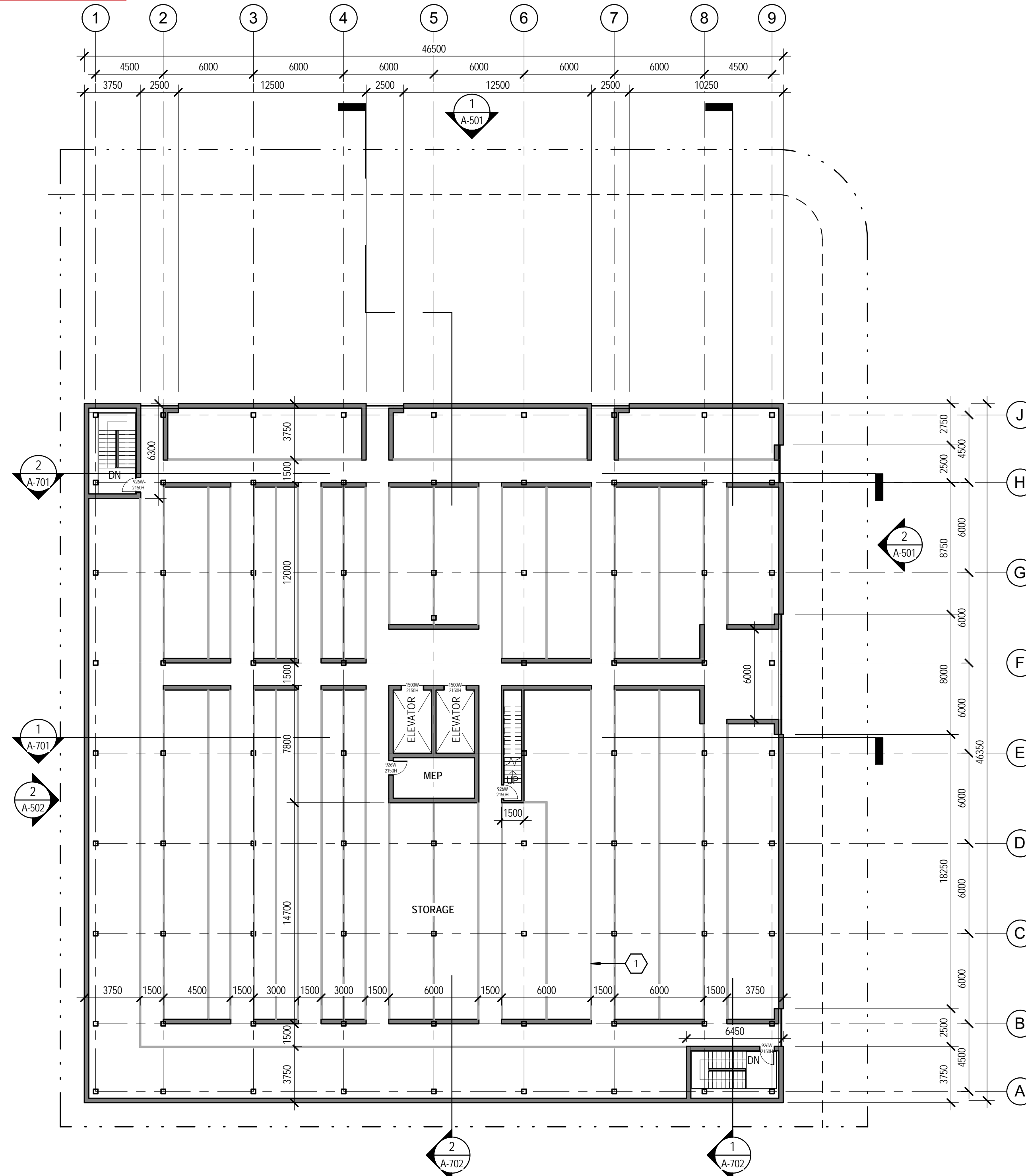
A-204

SCHEDULE A&B

This forms part of application

DP17-0073 / DVP17-0074

Planner Initials AC



GENERAL NOTES

- PROJECT ADDRESS:
437 BAY AVENUE
KELOWNA, BC V1Y 7S3
- LEGAL DESCRIPTION:
LOT 1 AND 2
DL 139
ODYD
PLAN KAP68693

KEYNOTES LEGEND

- CORRUGATED METAL STORAGE LOCKER SYSTEMS
- VIEWING WINDOW
- FEATURE WALL
- RAISED SEATING PLATFORM WITH WATER CISTERN BELOW
- GLASS PIVOT DOORS 1500W 2750H
- KEYCODE ACCESS BIKE ROOM DOOR
- CONSTRUCTED WETLAND
- SECURED OPERABLE WINDOW PANEL FOR CONSTRUCTED WETLAND MAINTENANCE ACCESS
- HORIZONTAL CLASS I BIKE STALL 600W 1800D
- VERTICAL CLASS I BIKE STALL 600W 1000D
- OVERHEAD BIKE GEAR LOCKERS



EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 -1331 Ellis Street
Kelowna, BC, V1Y 1Z9
t 250 868 9278

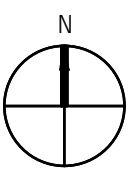
Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
Bainbridge Island, WA 98110
t 206 219 5365

Key Plan



Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

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Project No. 16032

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Sheet Title:

FLOOR PLAN - LEVEL 5

SCALE: 1 : 200

Original drawing is 18x24. Do not scale contents of this drawing.

Sheet Number:

A-205

9/22/2017 5:32:10 PM

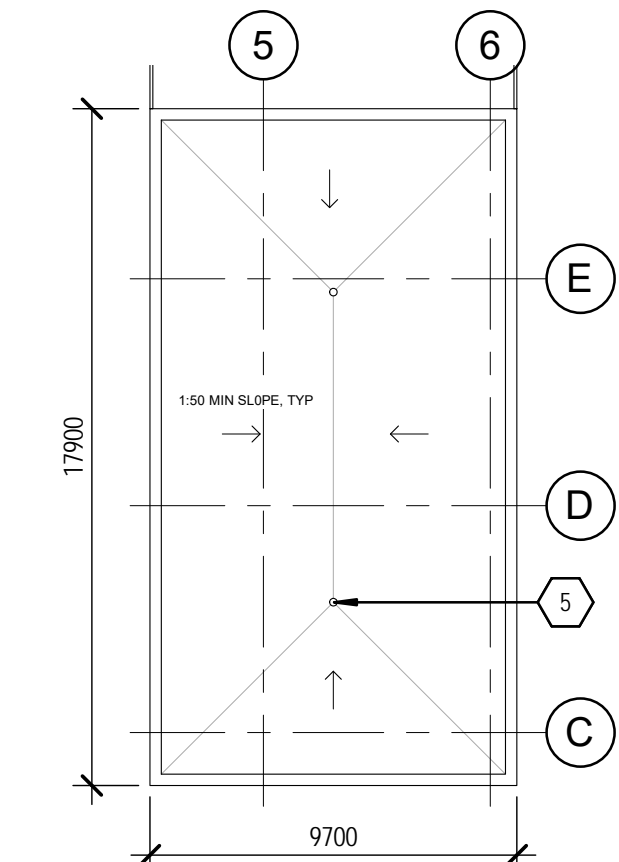
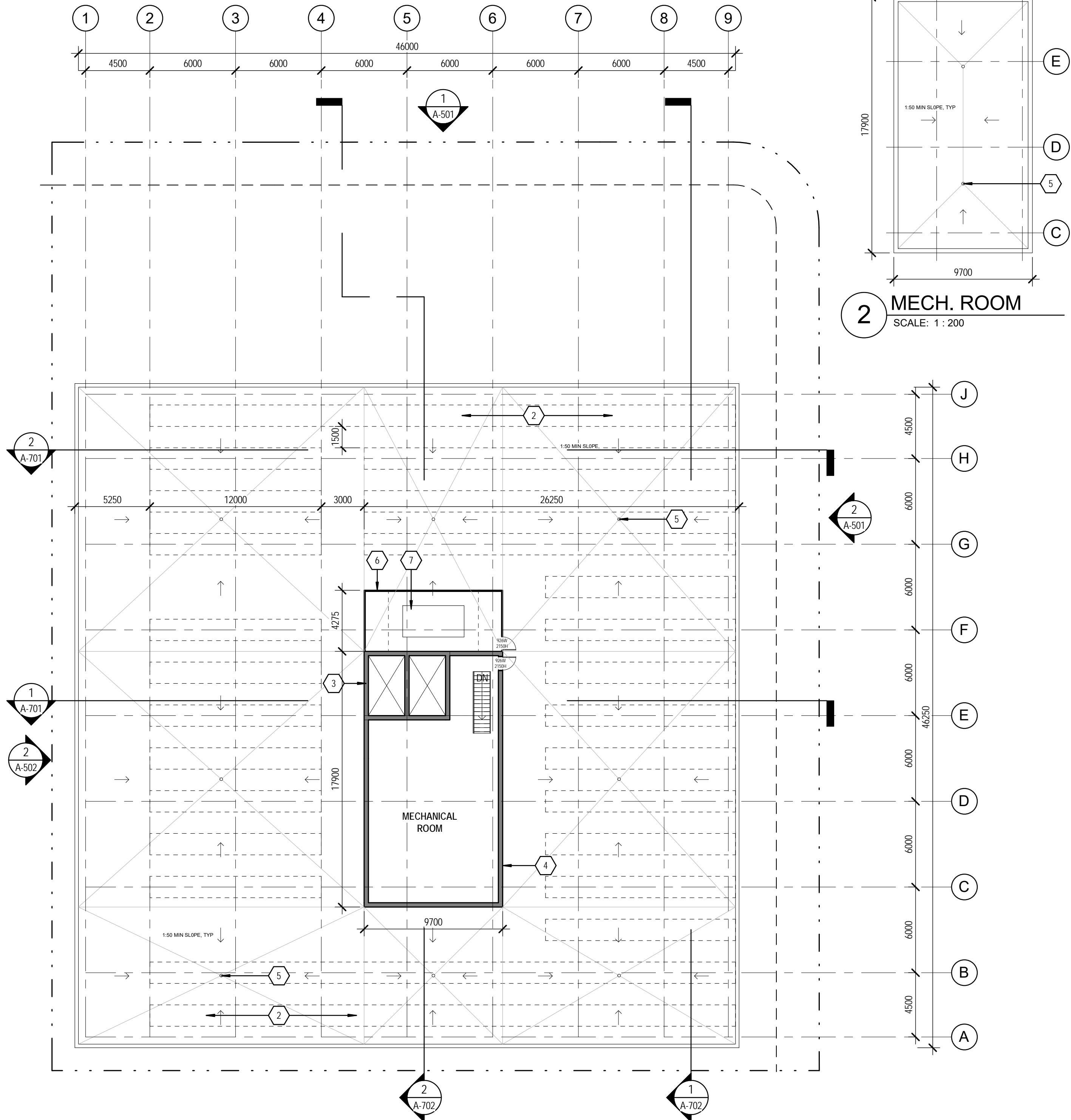
SCHEDULE A&B

This forms part of application
DP17-0073 / DVP17-0074



City of Kelowna
COMMUNITY PLANNING

Planner Initials AC



2 MECH. ROOM
SCALE: 1 : 200

GENERAL NOTES

- PROJECT ADDRESS:
437 BAY AVENUE
KELOWNA, BC V1Y 7S3
- LEGAL DESCRIPTION:
LOT 1 AND 2
DL 139
ODYD
PLAN KAP68693

KEYNOTES LEGEND

- ROOF ACCESS HATCH
- PHOTOVOLTAIC PANELS
- ELEVATOR OVERUN
- SCREENING FOR MEP PENTHOUSE
- ROOF DRAIN
- CORRUGATED METAL SCREEN
- AIR SOURCE HEAT PUMP
(2200W 4300L 2500H)



EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 -1331 Ellis Street
Kelowna, BC, V1Y 1Z9
t 250 868 9278

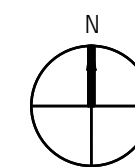
Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
Bainbridge Island, WA 98110
t 206 219 5365

Key Plan



Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

Drawn by BG Reviewed by DJA

Project No. 16032

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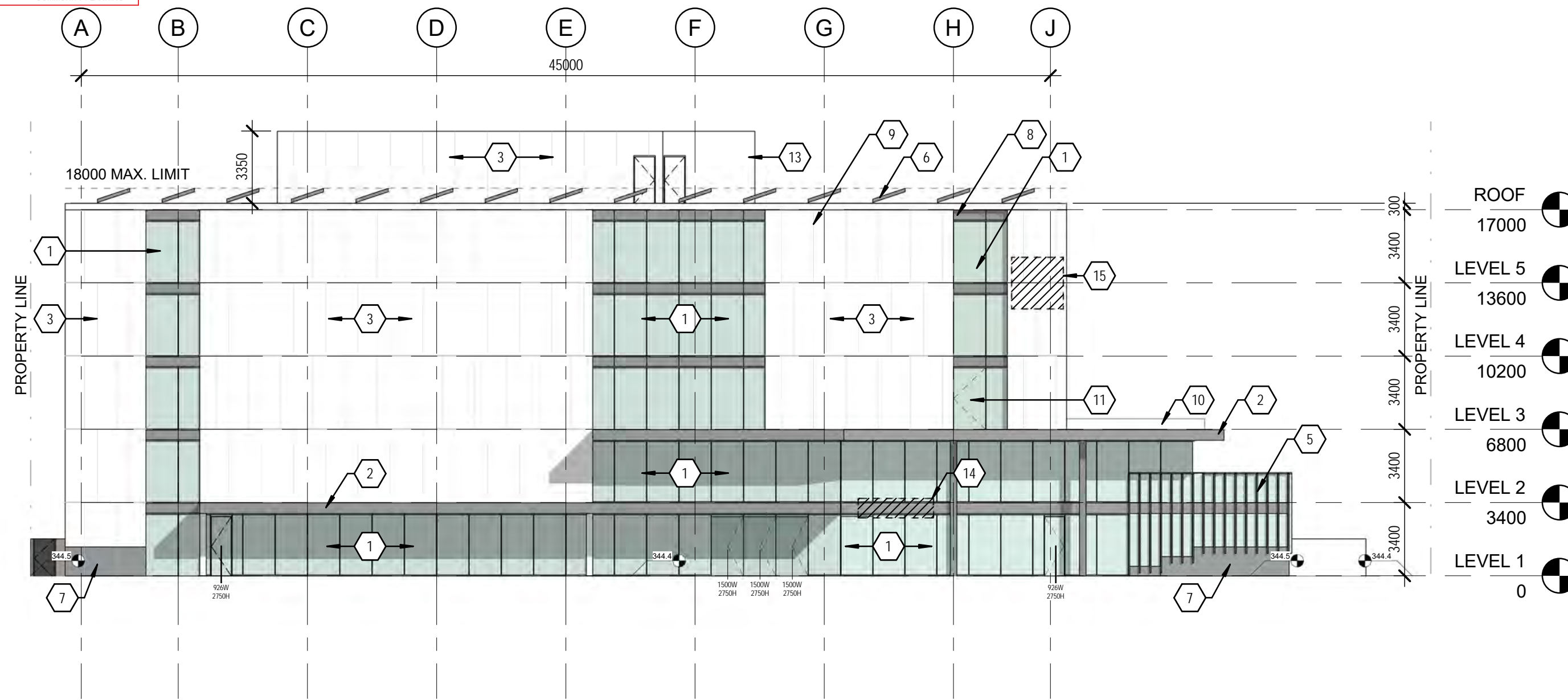
ROOF PLAN

SCALE: 1 : 200

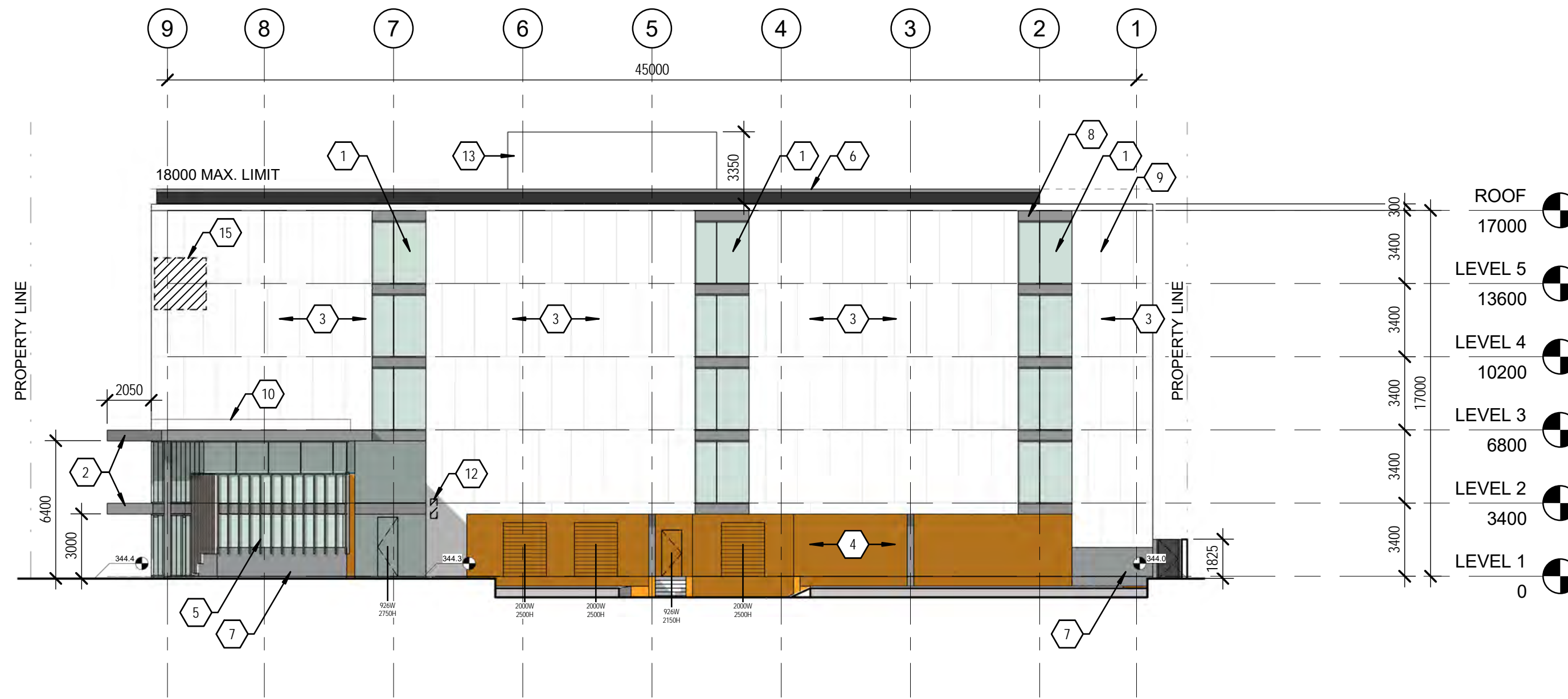
Original drawing is 18x24. Do not scale contents of this drawing.

Sheet Number:

A-241



2 EAST ELEVATION
 SCALE: 1 : 200



1 NORTH ELEVATION
 SCALE: 1 : 200

GENERAL NOTES

- PROJECT ADDRESS:
437 BAY AVENUE
KELOWNA, BC V1Y 7S3
- LEGAL DESCRIPTION:
LOT 1 AND 2
DL 139
ODYD
PLAN KAP68693

KEYNOTES LEGEND

- OPERABLE STOREFRONT SYSTEM WITH HIGH PERFORMANCE CLEAR GLAZING
- PRECAST CONCRETE
- ACB (AUTOCLAVED CELLULAR BLOCK) WITH INTEGRAL COLOR LIME PLASTER FINISH - WHITE, PT-1
- ACB (AUTOCLAVED CELLULAR BLOCK) WITH INTEGRAL COLOR LIME PLASTER FINISH - BRANDING COLOR, PT-4
- RECLAIMED TIMBER SCREEN
- PHOTOVOLTAIC PANELS
- CAST-IN-PLACE CONCRETE
- WOOD RAINSCREEN
- JOINT REVEALS AND EXPANSION JOINTS: FINAL LOCATIONS SUBJECT TO ENGINEERING AND AESTHETIC REFINEMENT
- CONSTRUCTED WETLAND
- SECURED OPERABLE WINDOW PANEL FOR CONSTRUCTED WETLAND MAINTENANCE ACCESS
- ILLUMINATED BLADE SIGNAGE 1200W 500H (SEE MATERIAL BOARDS)
- CORRUGATED METAL SCREEN
- ILLUMINATED PIN MOUNTED SIGNAGE 2400W 500H
- ILLUMINATED BRAND SIGNAGE 2400W 2400H



EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 - 1331 Ellis Street
Kelowna, BC, V1Y 1Z9
t 250 868 9278

Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
Bainbridge Island, WA 98110
t 206 219 5365

Key Plan

Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

Drawn by BG Reviewed by DJA

Project No. 16032

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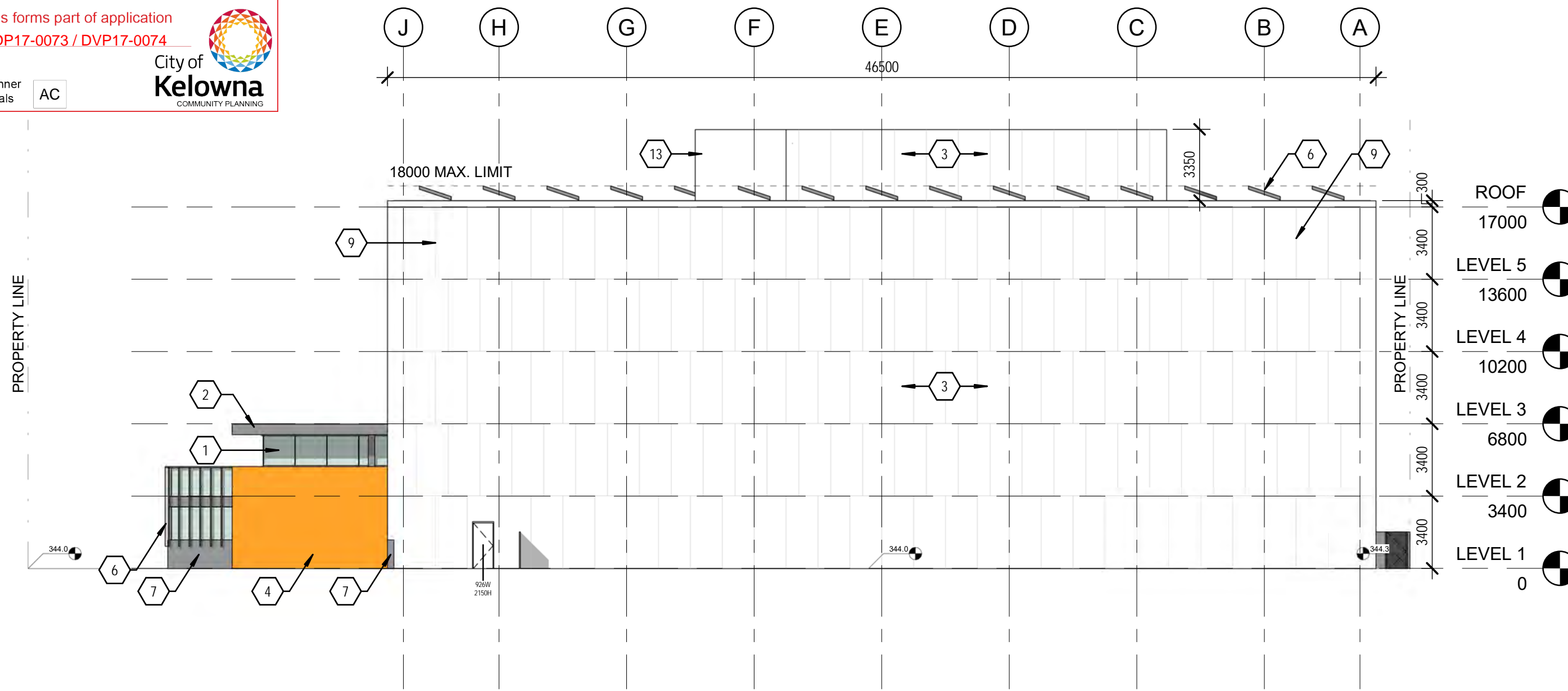
EXTERIOR ELEVATIONS

Original drawing is 18x24. Do not scale contents of this drawing.

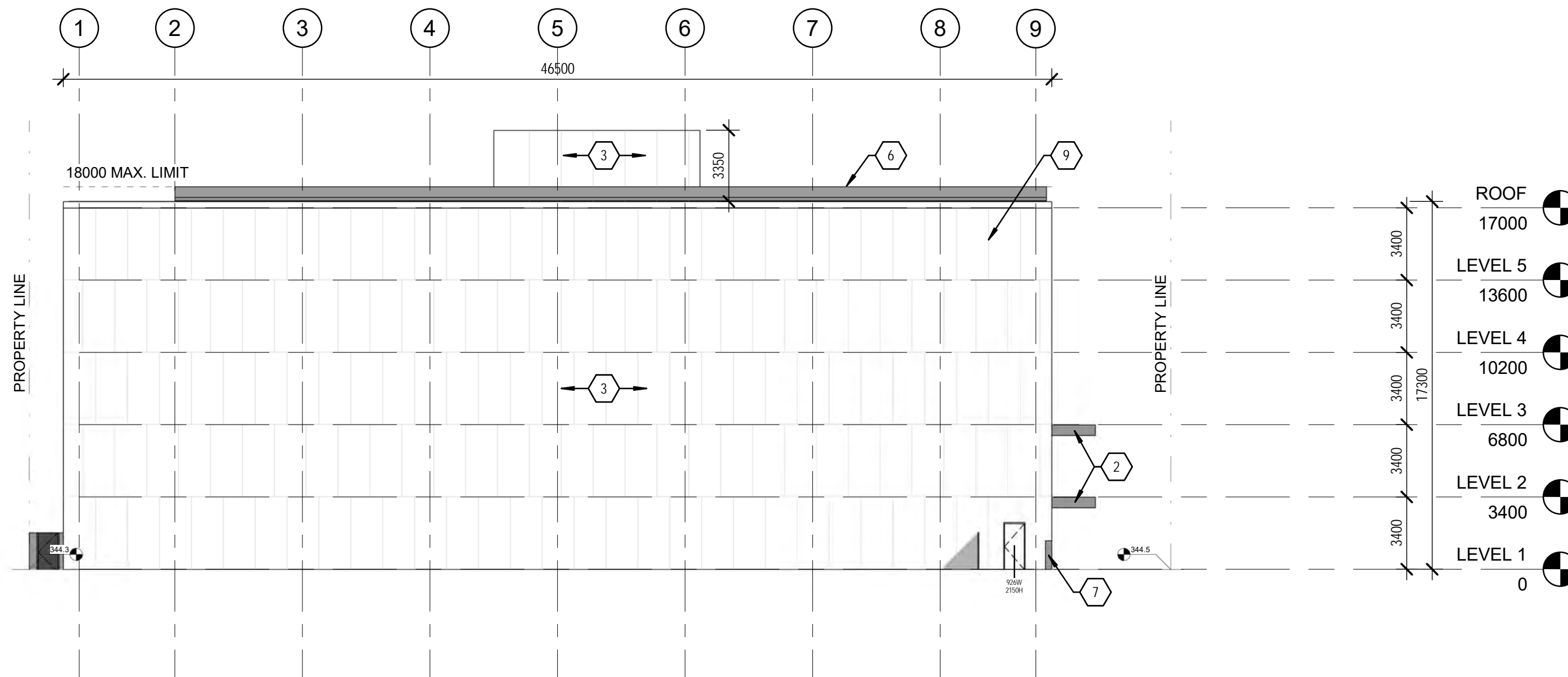
Sheet Number:

A-501

SCHEDULE A&B
 This forms part of application
 # DP17-0073 / DVP17-0074
 City of Kelowna
 COMMUNITY PLANNING
 Planner Initials AC



2 WEST ELEVATION
 SCALE: 1 : 200



1 SOUTH ELEVATION
 SCALE: 1 : 200

GENERAL NOTES

- PROJECT ADDRESS:
437 BAY AVENUE
KELOWNA, BC V1Y 7S3
- LEGAL DESCRIPTION:
LOT 1 AND 2
DL 139
ODYD
PLAN KAP68693

KEYNOTES LEGEND

- OPERABLE STOREFRONT SYSTEM WITH HIGH PERFORMANCE CLEAR GLAZING
- PRECAST CONCRETE
- ACB (AUTOCLAVED CELLULAR BLOCK) WITH INTEGRAL COLOR LIME PLASTER FINISH - WHITE, PT-1
- ACB (AUTOCLAVED CELLULAR BLOCK) WITH INTEGRAL COLOR LIME PLASTER FINISH - BRANDING COLOR, PT-4
- RECLAIMED TIMBER SCREEN
- PHOTOVOLTAIC PANELS
- CAST-IN-PLACE CONCRETE
- WOOD RAINSCREEN
- JOINT REVEALS AND EXPANSION JOINTS: FINAL LOCATIONS SUBJECT TO ENGINEERING AND AESTHETIC REFINEMENT
- CONSTRUCTED WETLAND
- SECURED OPERABLE WINDOW PANEL FOR CONSTRUCTED WETLAND MAINTENANCE ACCESS
- ILLUMINATED BLADE SIGNAGE 1200W 500H (SEE MATERIAL BOARDS)
- CORRUGATED METAL SCREEN
- ILLUMINATED PIN MOUNTED SIGNAGE 2400W 500H
- ILLUMINATED BRAND SIGNAGE 2400W 2400H



EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 - 1331 Ellis Street
Kelowna, BC, V1Y 1Z9
t 250 868 9278

Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
Bainbridge Island, WA 98110
t 206 219 5365

Key Plan

Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD
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Project No. 16032

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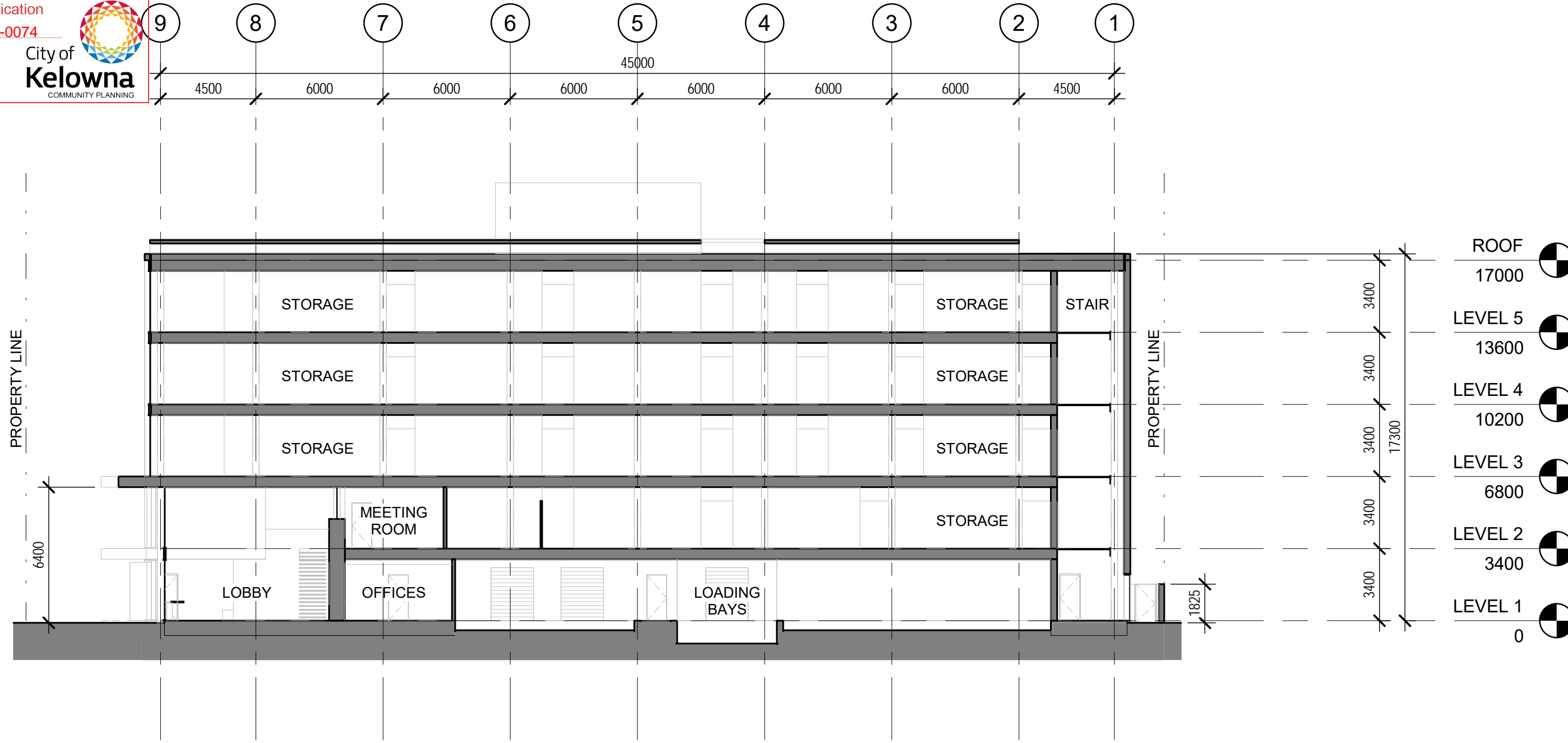
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EXTERIOR ELEVATIONS

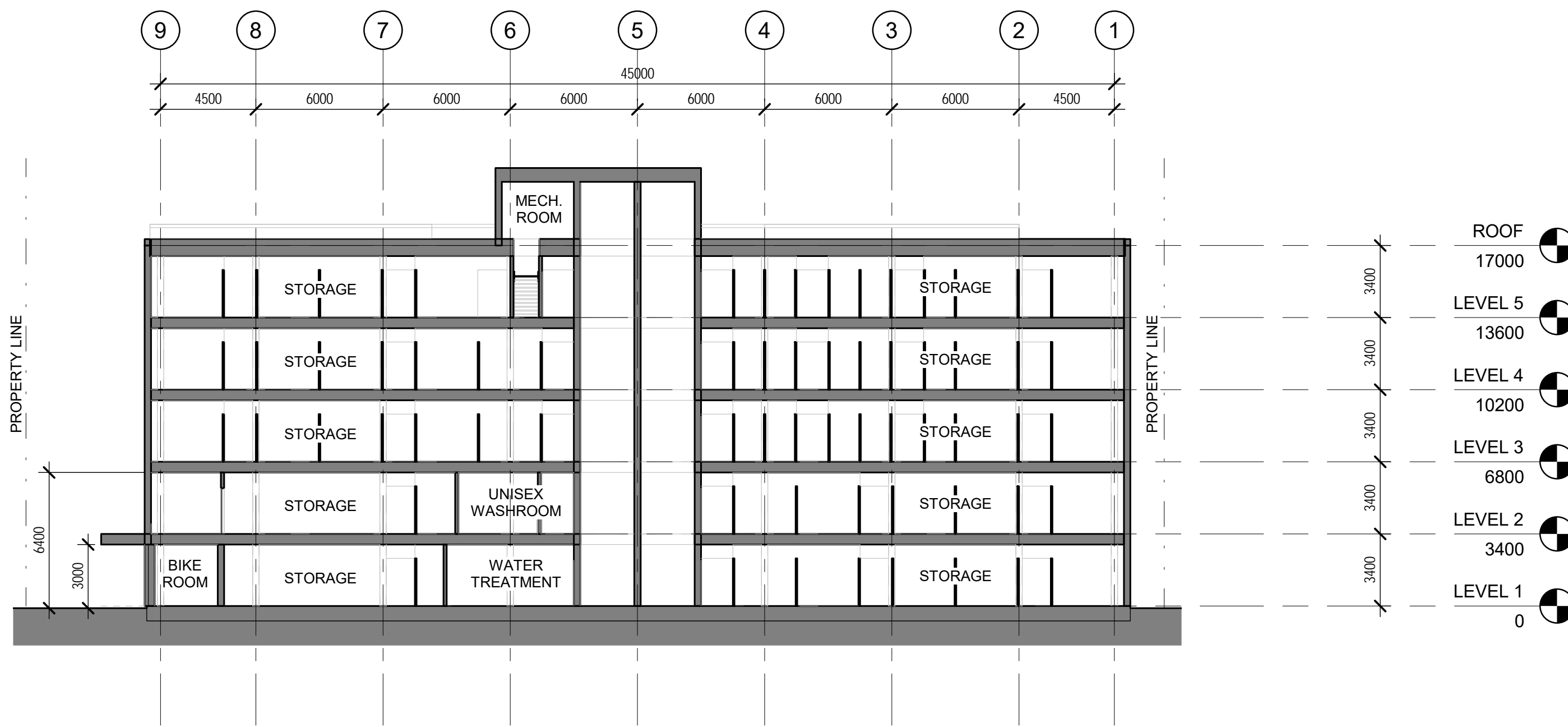
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Sheet Number:

A-502



2 SECTION E/W 2
 SCALE: 1 : 200



1 SECTION E/W 1
 SCALE: 1 : 200

GENERAL NOTES

- PROJECT ADDRESS:
 437 BAY AVENUE
 KELOWNA, BC V1Y 7S3
- LEGAL DESCRIPTION:
 LOT 1 AND 2
 DL 139
 ODYD
 PLAN KAP68693

KEYNOTES LEGEND

- FOR FUTURE USE



EcoLock Self Storage

437 Bay Avenue
 Kelowna, BC, V1Y 7S3

Architect of Record:



DiStefano Jaud Architecture

3 -1331 Ellis Street
 Kelowna, BC, V1Y 1Z9
 t 250 868 9278

Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
 Bainbridge Island, WA 98110
 t 206 219 5365

Key Plan

Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

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Project No. 16032

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Sheet Title:

BUILDING SECTIONS

Original drawing is 18x24. Do not scale contents of this drawing.

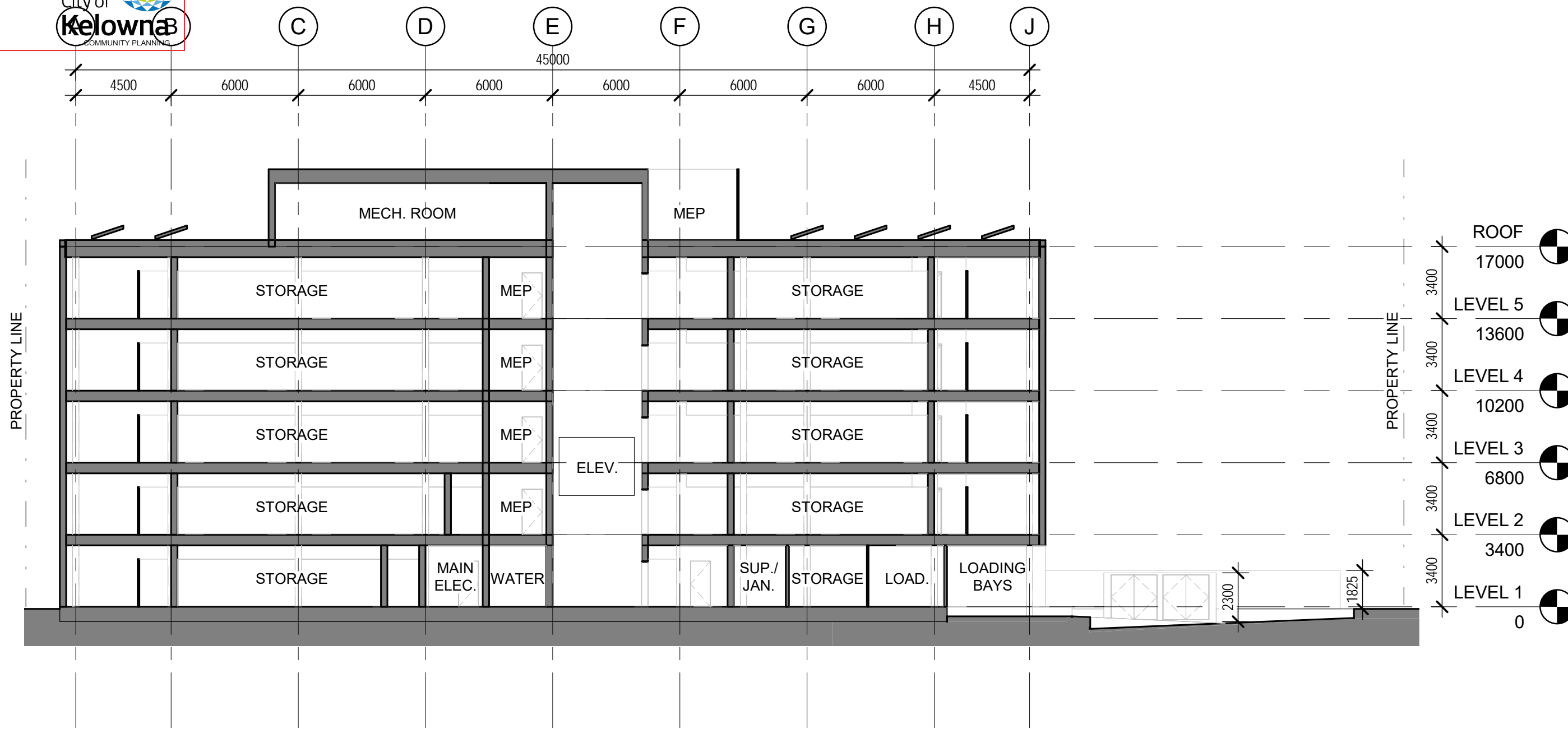
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A-701

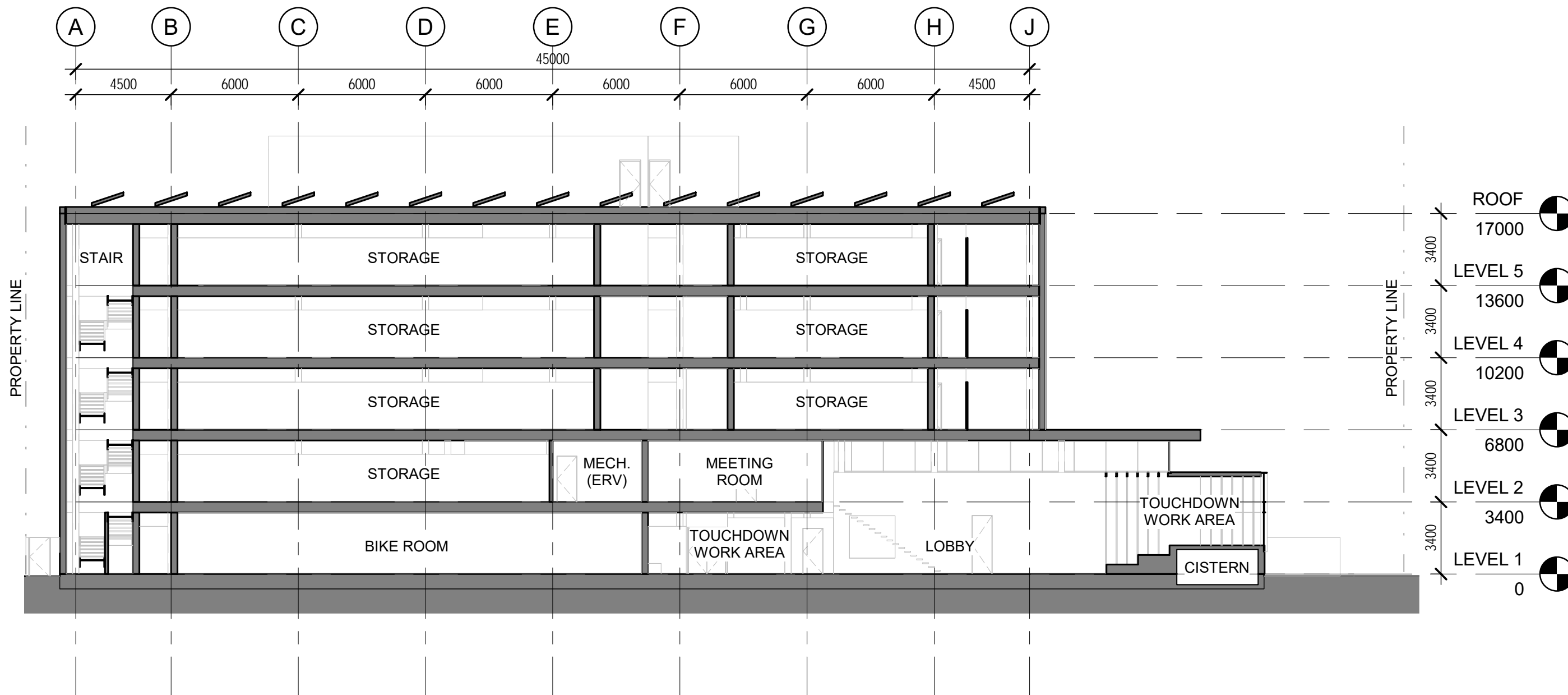
SCHEDULE A&B

This forms part of application
DP17-0073 / DVP17-0074

Planner Initials AC



2 SECTION N/S 2
SCALE: 1 : 200



1 SECTION N/S 1
SCALE: 1 : 200

GENERAL NOTES

- PROJECT ADDRESS:
437 BAY AVENUE
KELOWNA, BC V1Y 7S3
- LEGAL DESCRIPTION:
LOT 1 AND 2
DL 139
ODYD
PLAN KAP68693

KEYNOTES LEGEND

- FOR FUTURE USE



EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 -1331 Ellis Street
Kelowna, BC, V1Y 1Z9
t 250 868 9278

Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
Bainbridge Island, WA 98110
t 206 219 5365

Key Plan

Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

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Project No. 16032

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Sheet Title:

BUILDING SECTIONS

Original drawing is 18x24. Do not scale contents of this drawing.

Sheet Number:

A-702



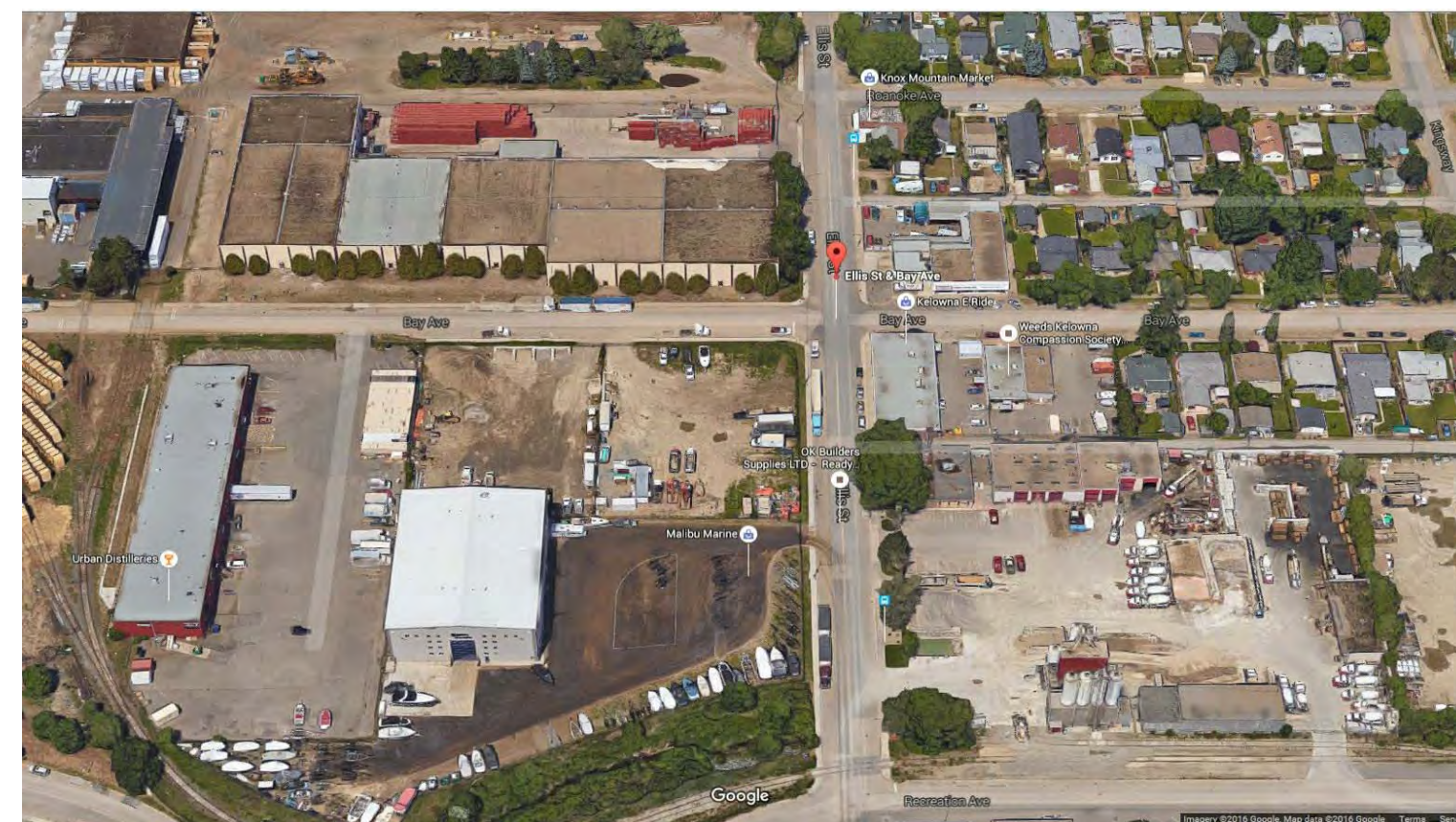
ELLIS & BAY INTERSECTION - NW CORNER



ELLIS & BAY INTERSECTION - NE & SE CORNERS



ELLIS & BAY INTERSECTION - SW CORNER (SITE)



AERIAL OF SITE AND SURROUNDING CONTEXT



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

Architect of Record:

DiStefano Jaud Architecture
 DiStefano Jaud Architecture
 3 - 1331 Ellis Street
 Kelowna, BC, V1Y 1Z9
 t 250 868 9278

Design Consultant:



McLennan Design
 175 Parfitt Way SW, Suite N160
 Bainbridge Island, WA 98110
 t 206 219 5365

Key Plan

Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD
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Project No. 16032

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Sheet Title:

SITE PHOTOS

Original drawing is 18x24. Do not scale contents of this drawing.

Sheet Number:

A-901

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 - 1331 Ellis Street
 Kelowna, BC, V1Y 1Z9
 t 250 868 9278

Design Consultant:



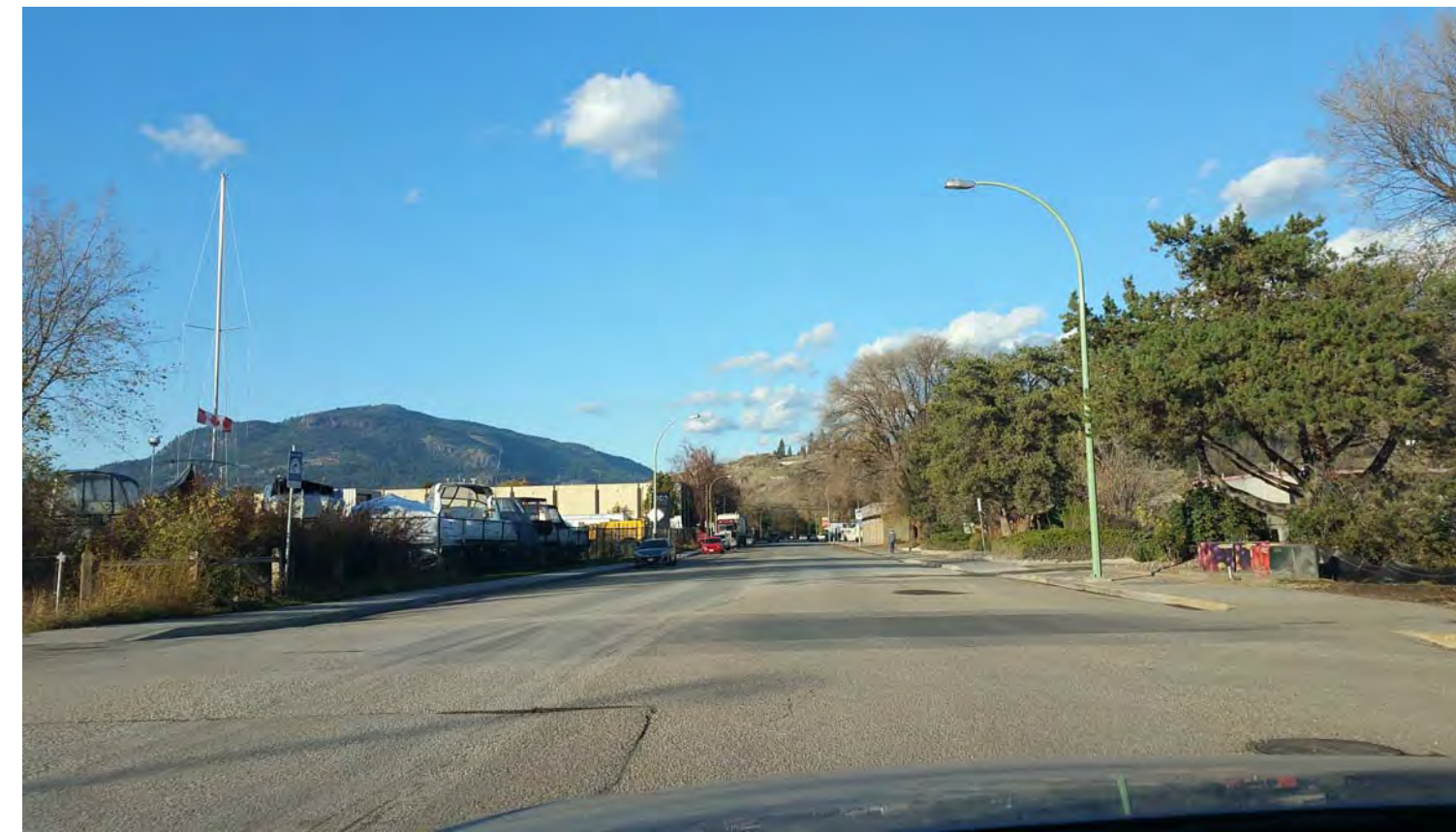
McLennan Design

175 Parfitt Way SW, Suite N160
 Bainbridge Island, WA 98110
 t 206 219 5365

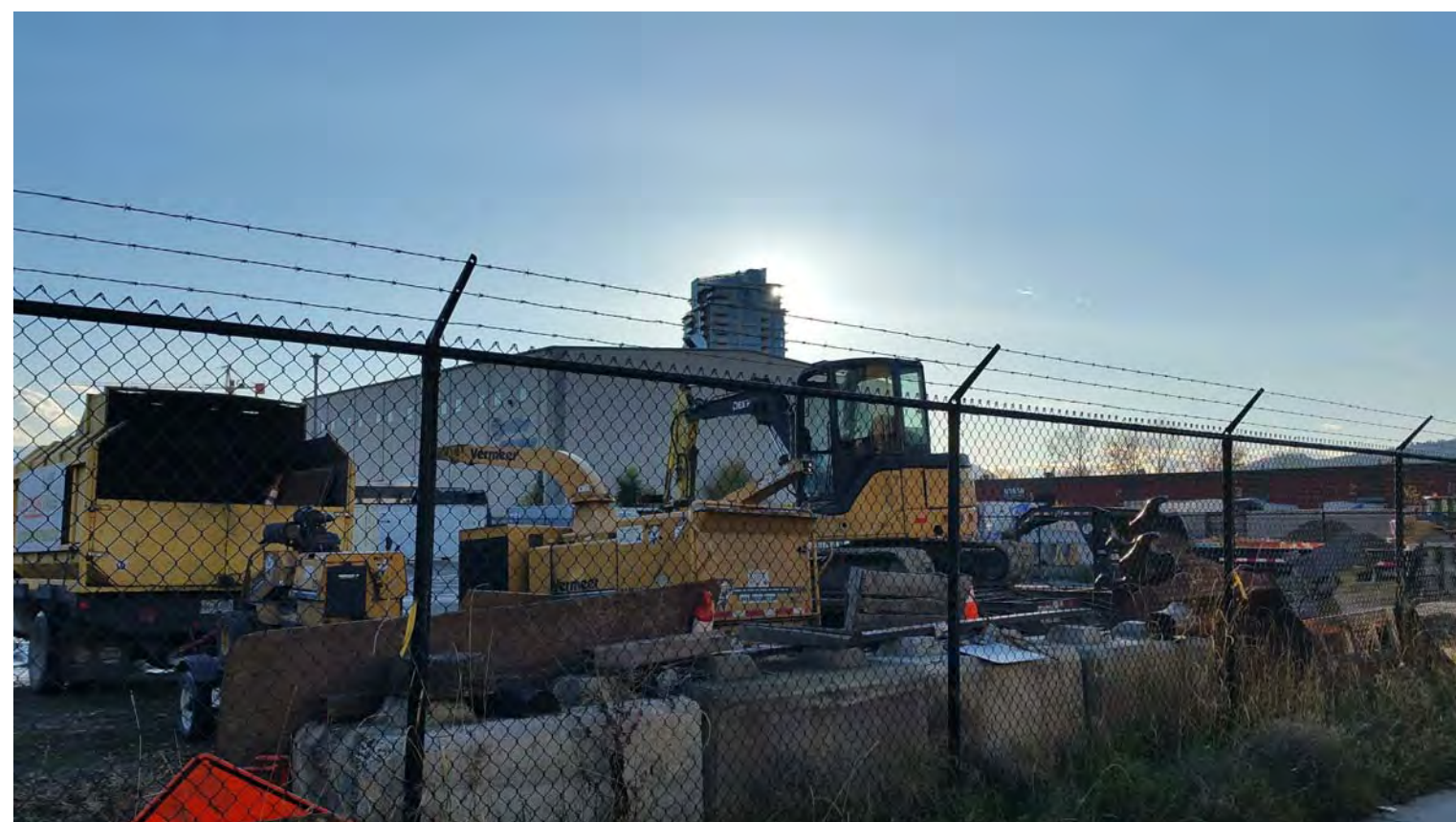
Key Plan



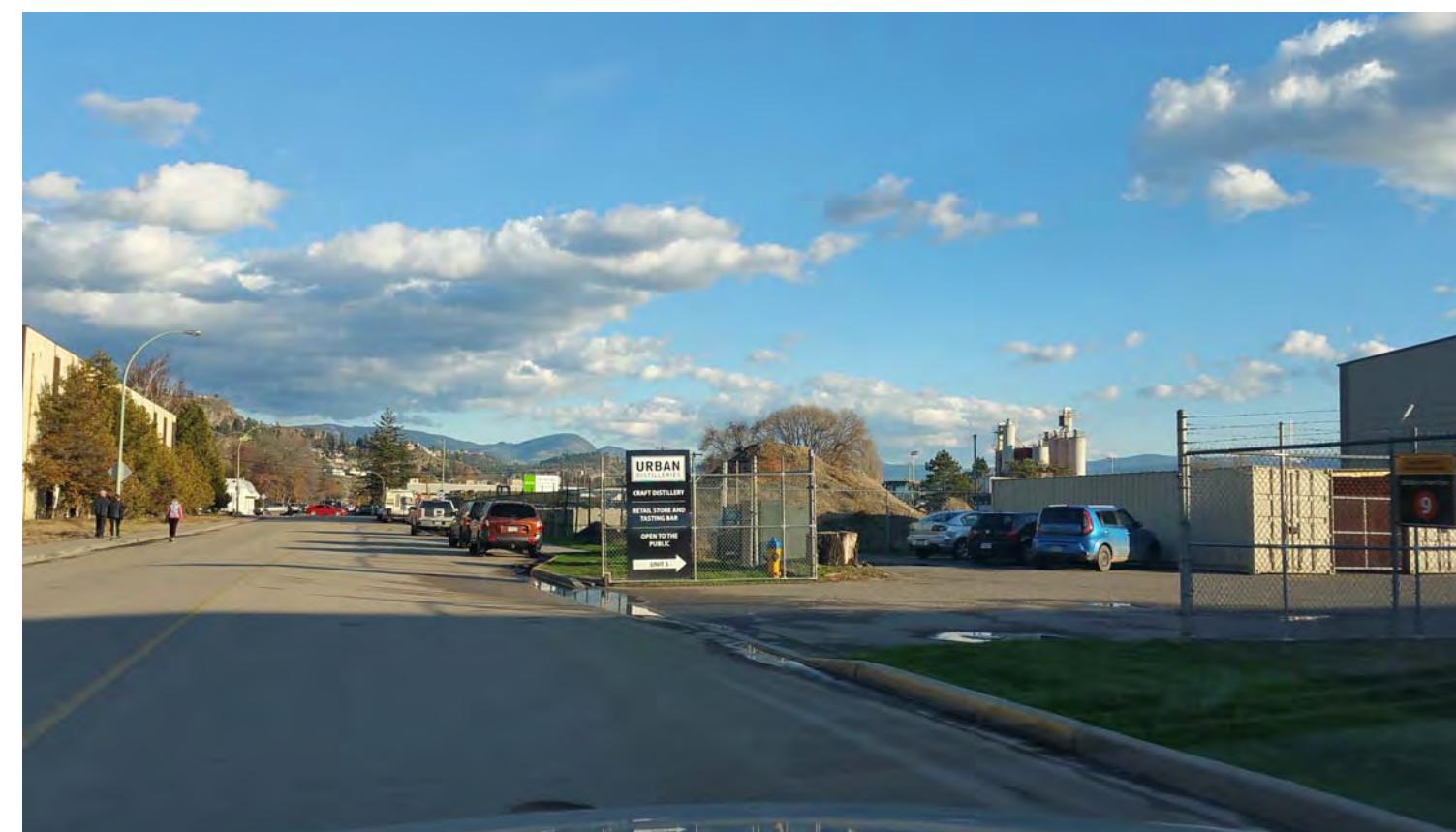
ELLIS STREET SIDE OF PROJECT SITE



ELLIS STREET APPROACH FROM THE SOUTH



BAY STREET SIDE OF PROJECT SITE



BAY STREET APPROACH FROM THE WEST

Professional Seals

No.	Issue Description	YYYY-MM-DD
1	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD
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Project No. 16032

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Sheet Title:

SITE PHOTOS

Original drawing is 18x24. Do not scale contents of this drawing.

Sheet Number:

A-902



SLATE GRAY SPANDREL

WHITE LIME PLASTER

WARM WHITE METAL COLUMN

RECLAIMED DOUGLAS FIR WOOD SCREEN

CAST IN PLACE CONCRETE

WEATHERED STEEL PLANTERS

PAINTED CORRUGATED METAL (Blue)

PAINTED CORRUGATED METAL (Green)

PAINTED CORRUGATED METAL (Light Green)

PAINTED CORRUGATED METAL

COLOUR & MATERIALS BOARD

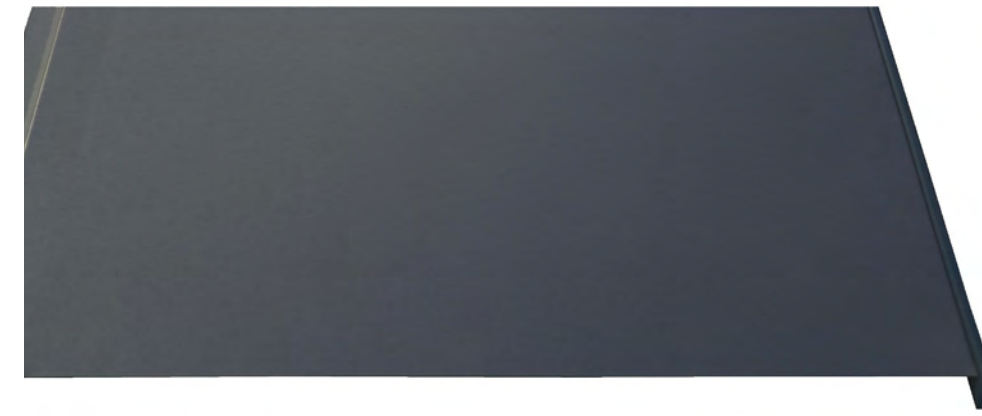
RECLAIMED DOUGLAS FIR



PLASTER WALLS



METAL PANELS



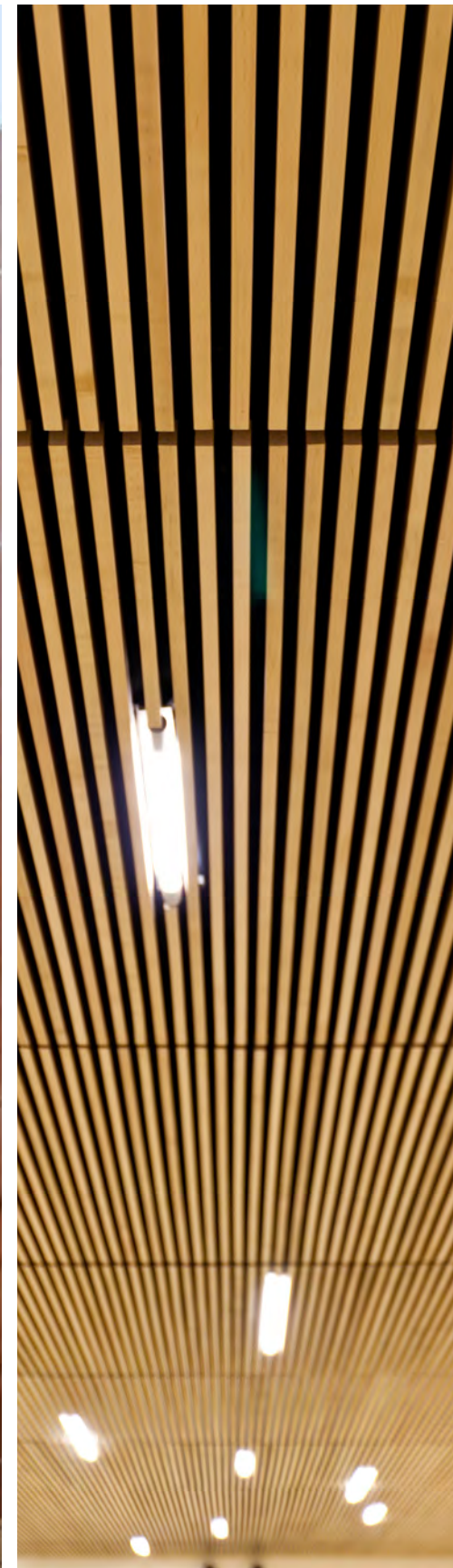
WEATHERED STEEL



SCHEDULE A&B
This forms part of application
DP17-0073 / DVP17-0074
Planner Initials AC
City of Kelowna
COMMUNITY PLANNING



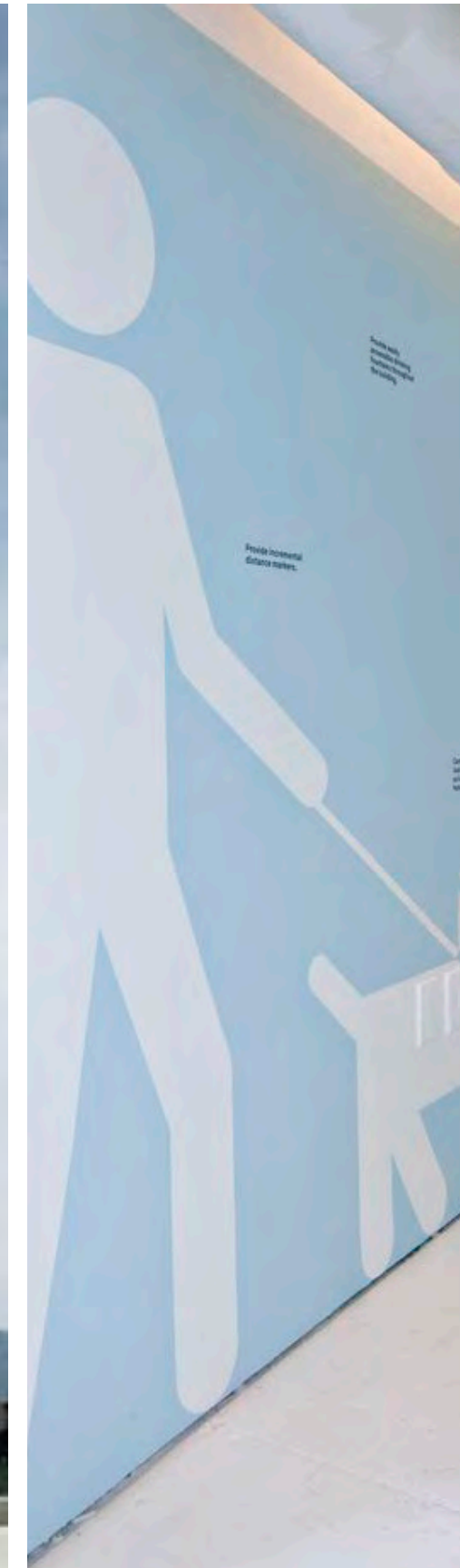
VERTICAL WOOD SCREENS



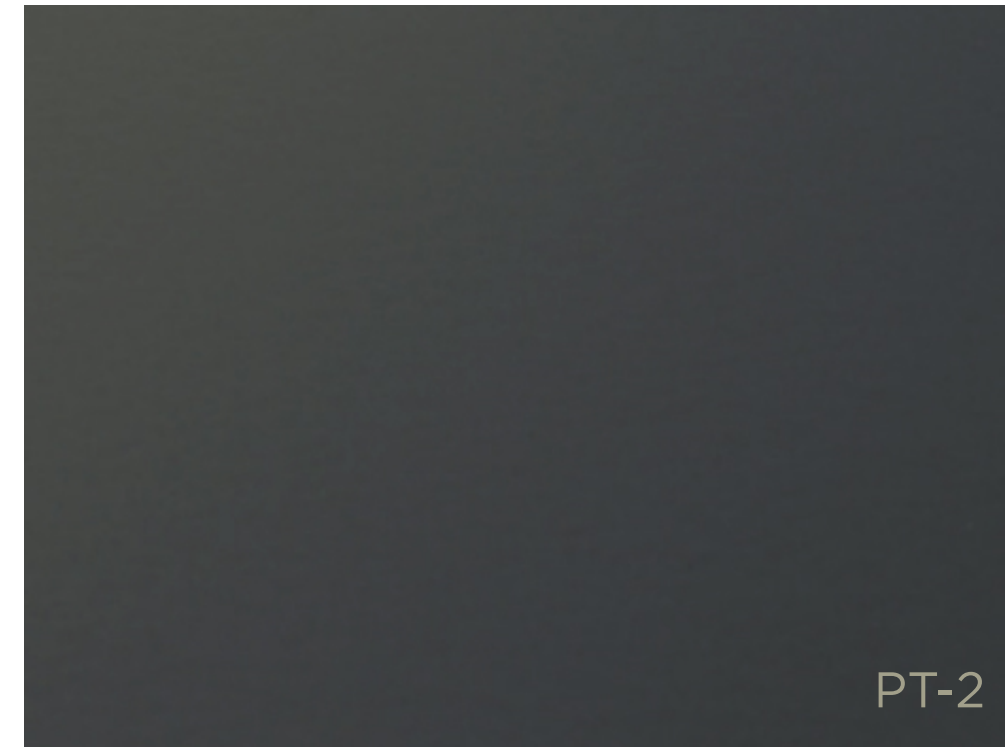
WOOD SLATTED CEILINGS



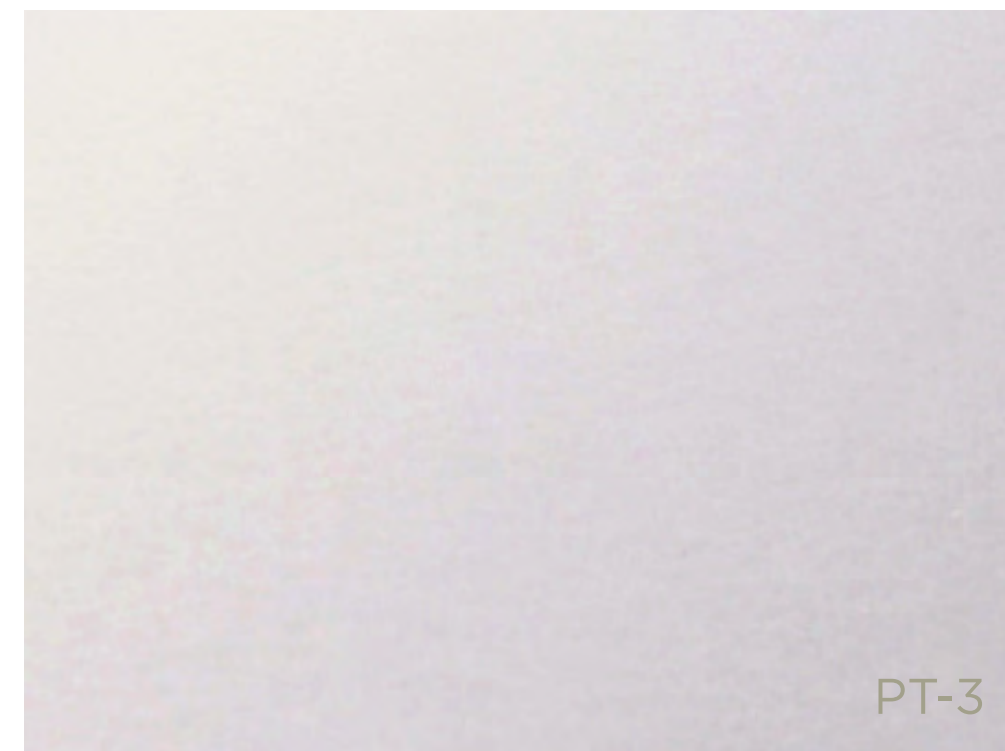
WHITE LIME EXTERIOR WALLS



INTEGRATED ART/MURAL



SLATE GRAY FASCIA



WARM WHITE COLUMN



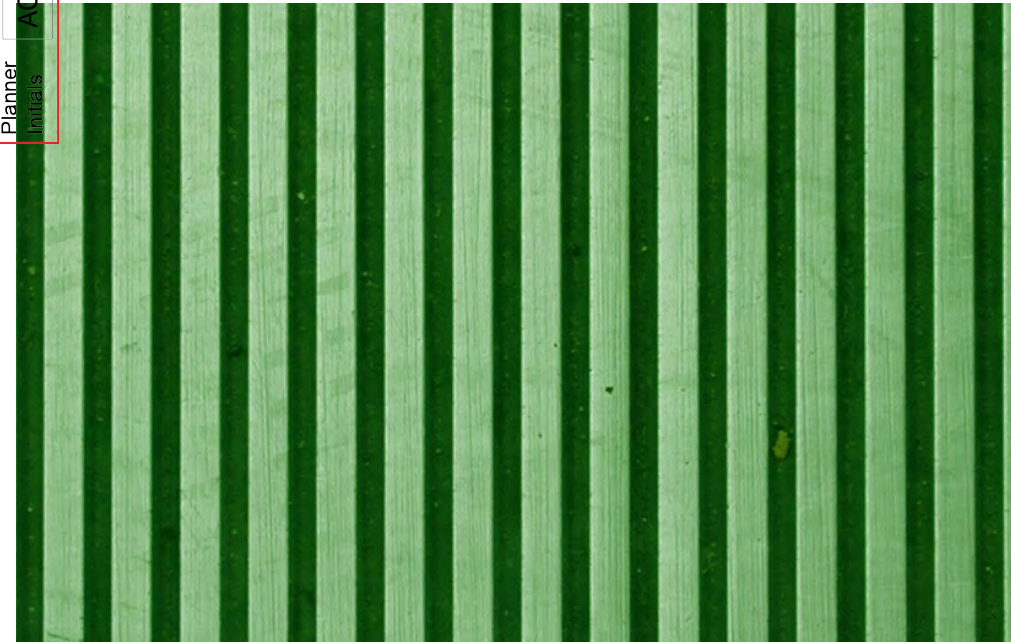
CORTEN PLANTERS

COLOUR PALETTE
INSPIRED BY SPOTTED LAKE

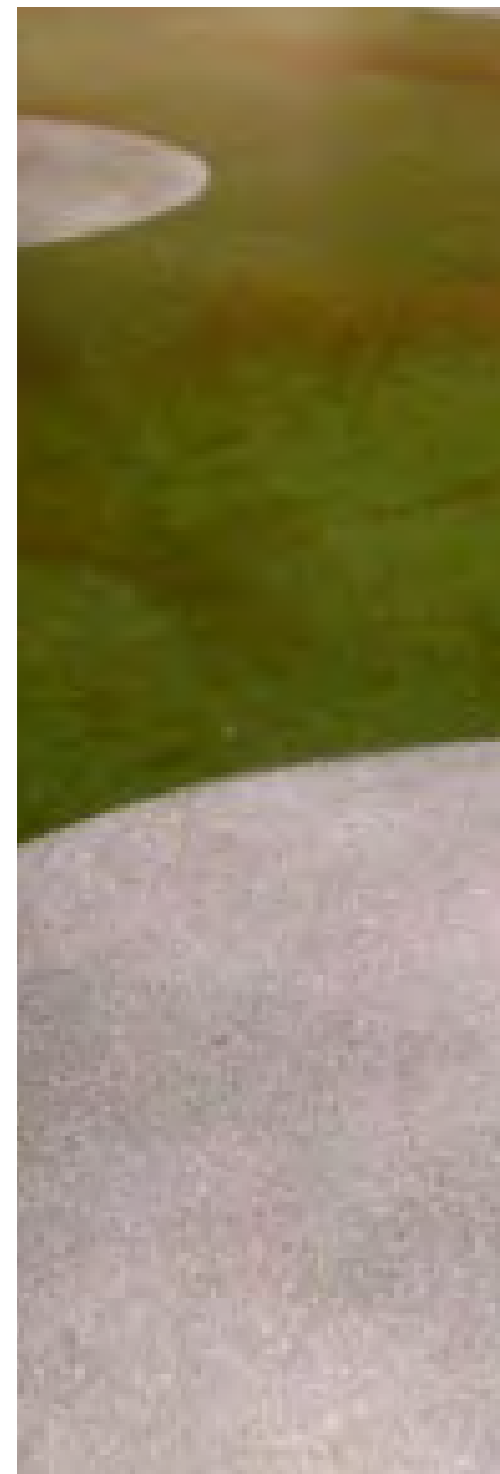
SCHEDULE A&B
This forms part of application
DP17-0073 / DVP17-0074
City of Kelowna
COMMUNITY PLANNING
Planner



CORRUGATED METAL INTERIOR
WALLS - PAINTED



EXTERIOR WALLS



STAINED W/
COLOURED
CONCRETE SEALER

SIGNAGE EXAMPLES



BLADE SIGNAGE



PIN MOUNTED SIGNAGE



BRAND SIGNAGE - WALL MOUNTED

HIGH EFFICIENCY BUILDING
ENVELOPE



BIOFIBER BRICK



CASCADIA WINDOW SYSTEMS



JM WHITE TPO MEMBRANE

SCHEDULE C

This forms part of application
DP17-0073 / DVP17-0074

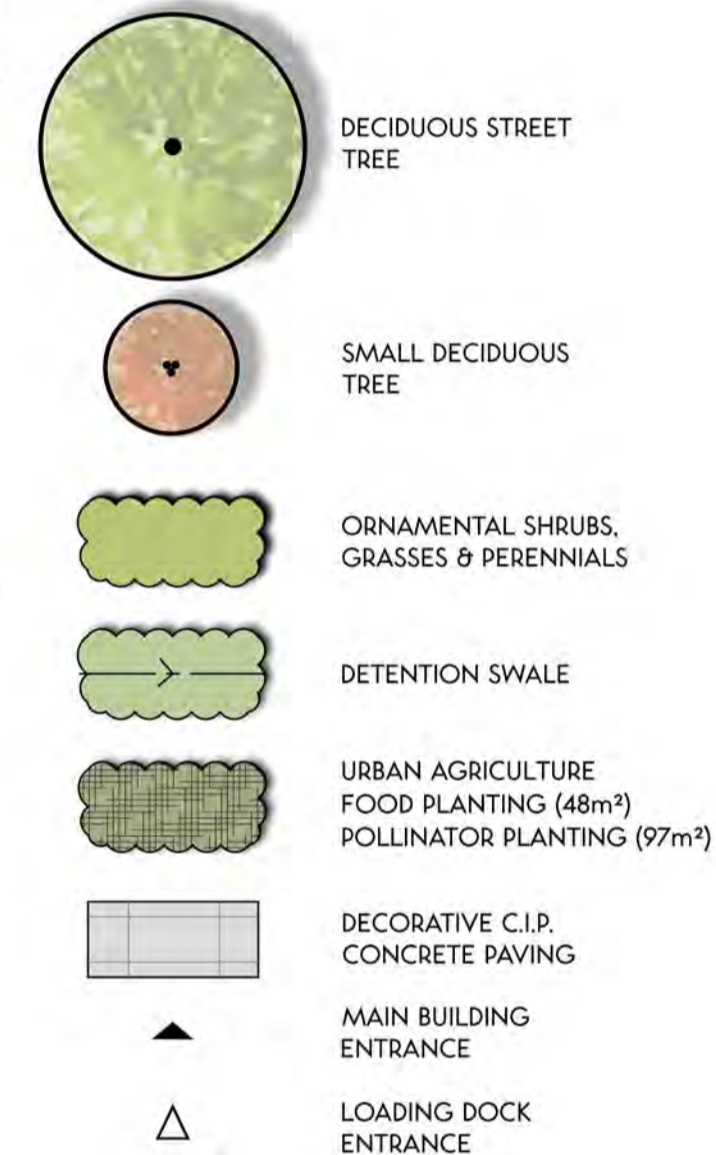
Planner Initials AC



DEVELOPMENT PERMIT NOTES:

- A PLANT MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO MINIMUM STANDARDS ESTABLISHED IN THE LATEST EDITION OF THE B.C. LANDSCAPE STANDARDS, PUBLISHED BY B.C.L.N.A. AND B.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 TREES SHALL BE INSTALLED IN DEFINED SOIL PITS OR PLANTING BED AREAS. ADEQUATE SOIL VOLUME SHALL BE PROVIDED BASED ON THE SPECIFIED TREE SPECIES AND LOCATION.
- E ORNAMENTAL SHRUB, GRASS AND PERENNIAL CLUSTERS ARE TO BE PLACED WITHIN DEFINED PLANTING BEDS. ALL PLANTING BEDS SHALL HAVE A MIN. OF 450mm (18") IMPORTED GROWING MEDIUM AND 75mm (3") OF COMPOSTED MULCH OR APPROVED EQUAL.
- F 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:



ORNAMENTAL PLANT LIST:

Key	Botanical Name	Common Name	Size	Root
TREES				
AAF	<i>Allium afflatunense</i> 'Purple Sensation'	Purple Sensation ornamental onion	Bulbs	Potted
AFR	<i>Acer x freemanii</i> 'Jeffersred'	Autumn Blaze maple	6cm Cal.	B&B
CJA	<i>Cercidiphyllum japonicum</i>	Katsura tree	6cm Cal.	B&B
CKO	<i>Cornus kousa</i>	Japanese dogwood	4cm Cal.	B&B
CAV	<i>Corylus avellana</i> *	Hazelnut	1.8m HT./#10 Cont.	B&B
SHRUBS				
CST	<i>Cornus stolonifera</i> 'Farrow'	Arctic Fire dogwood	#03 Cont./1.2m O.C.	Potted
MAQ	<i>Mahonia aquifolium</i>	Oregon grape	#03 Cont./1.2m O.C.	Potted
RRU	<i>Rosa rugosa</i> 'Hansa'	Hansa rose	#03 Cont./1.5m O.C.	Potted
PERENNIALS, BULBS & VINES				
AAF	<i>Allium afflatunense</i> 'Purple Sensation'	Purple Sensation ornamental onion	Bulbs	Potted
AMI	<i>Achillea millefolium</i> 'Tarnacotta'	Terra Cotta common yarrow	#01 Cont./0.6m O.C.	Potted
AEE	<i>Aruncus aethusifolius</i>	Dwarf Korean goat's beard	#01 Cont./0.45m O.C.	Potted
BCO	<i>Bergenia cordifolia</i> 'Winter Glow'	Heartleaf bergenia	#01 Cont./0.45m O.C.	Potted
CVE	<i>Coreopsis verticillata</i> 'Zagreb'	Threadleaf coreopsis	#01 Cont./0.45m O.C.	Potted
EDU	<i>Eupatorium dubium</i> 'Little Joe'	Dwarf Joe-pye weed	#01 Cont./0.9m O.C.	Potted
ISI	<i>Iris sibirica</i> 'Butter & Sugar'	Yellow & White Siberian iris	#01 Cont./0.6m O.C.	Potted
SNE	<i>Salvia nemorosa</i> 'Caradonna'	Caradonna meadow sage	#01 Cont./0.6m O.C.	Potted
PAT	<i>Perovskia atriplicifolia</i> 'Little Spire'	Little Spire Russian sage	#01 Cont./1.0m O.C.	Potted
TPR	<i>Tulipa</i> 'Princess Irene'	Princess Irene triumph tulip	Bulbs	Potted
GRASSES				
DFL	<i>Deschampsia flexuosa</i> 'Aurea'	Crinkled hair grass	#01 Cont./0.6m O.C.	Potted
MSI	<i>Miscanthus sinensis</i> 'Gracillimus'	Maiden grass	#01 Cont./1.0m O.C.	Potted
PVI	<i>Panicum virgatum</i> 'Northwind'	Northwind switch grass	#01 Cont./0.45m O.C.	Potted
SAU	<i>Sesleria autumnalis</i>	Autumn moor grass	#01 Cont./0.45m O.C.	Potted
SBR	<i>Sporobolus heterolepis</i> 'Tara'	Prairie dropseed	#01 Cont./0.75m O.C.	Potted
HERBS				
ASC	<i>Allium schoenoprasum</i>	Chives	#01 Cont./0.3m O.C.	Potted
ADR	<i>Artemisia dracunculoides</i>	Tarragon	#01 Cont./0.6m O.C.	Potted
PNE	<i>Petroselinum crispum</i> var. <i>neapolitanum</i>	Italian parsley	#01 Cont./0.3m O.C.	Potted
SOF	<i>Salvia officinalis</i>	Common sage	#01 Cont./0.6m O.C.	Potted
RAC	<i>Rumex sanguineus</i>	Blood veined sorrel	#01 Cont./0.45m O.C.	Potted

*Umbrella pruned



EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 -1331 Ellis Street
Kelowna, BC, V1Y 1Z9
t 250 868 9278

Design Consultant:



McLennan Design

175 Parfitt Way SW, Suite N160
Bainbridge Island, WA 98110
t 206 219 5365

Key Plan



Professional Seals

No.	Issue Description	YYYY-MM-DD
1	ISSUED FOR CONCEPT REVIEW	FEB 07/17
2	ISSUED FOR CONCEPT REVIEW	FEB 20/17
3	ISSUED FOR CONCEPT REVIEW	MAR 09/17
4	ISSUED FOR DEVELOPMENT PERMIT	SEP 28/17

No.	Revision Description	YYYY-MM-DD

Drawn by EB Reviewed by XS

Project No. 16-044

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Sheet Title:

LANDSCAPE PLAN

SCALE: 1 : 200

Original drawing is 18x24. Do not scale contents of this drawing.

Sheet Number:

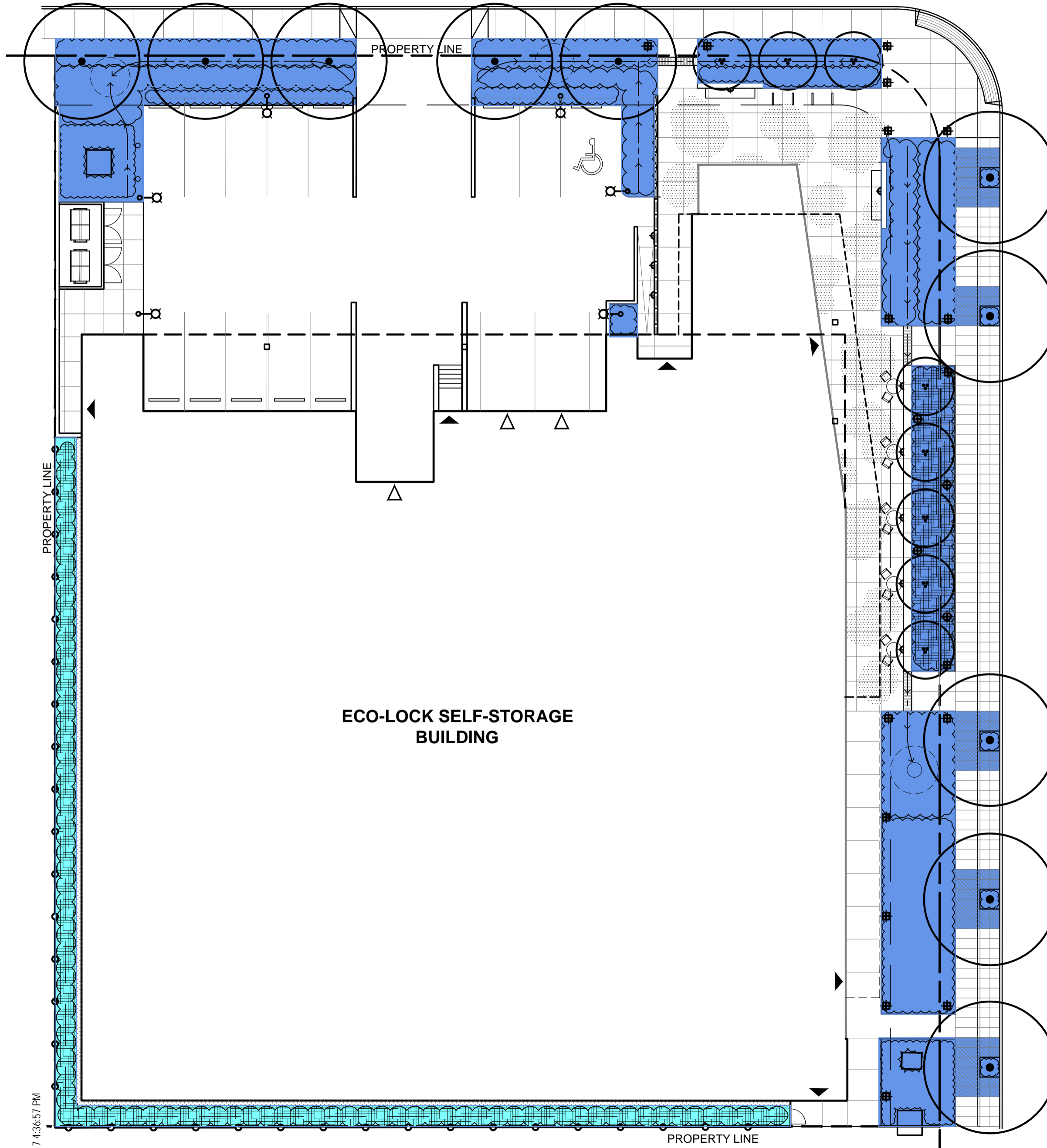
L-101

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BAY AVENUE

LEGEND:

- MODERATE WATER USE
- LOW WATER USE



ECO-LOCK SELF-STORAGE BUILDING

ELLIS STREET



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

Architect of Record:

DiStefano Jaud Architecture

DiStefano Jaud Architecture

3 -1331 Ellis Street
 Kelowna, BC, V1Y 1Z9
 t 250 868 9278

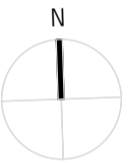
Design Consultant:



McLennan Design

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Sheet Title:

HYDROZONE PLAN

SCALE: 1 : 200

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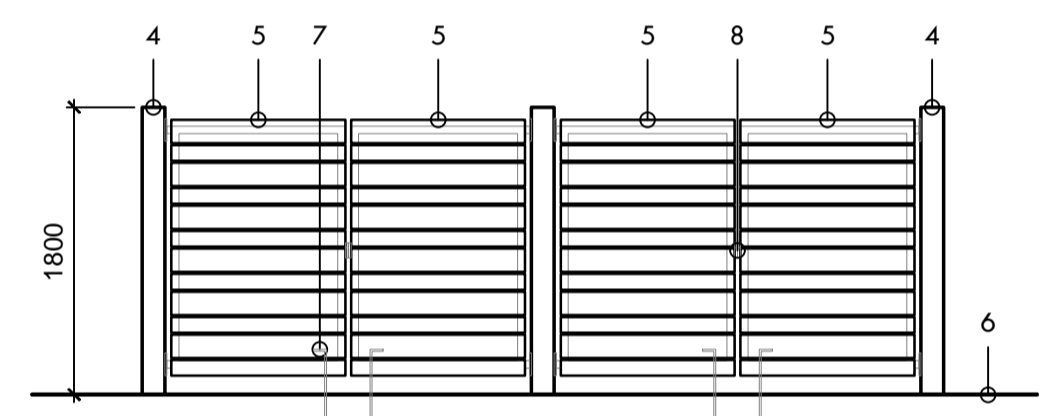
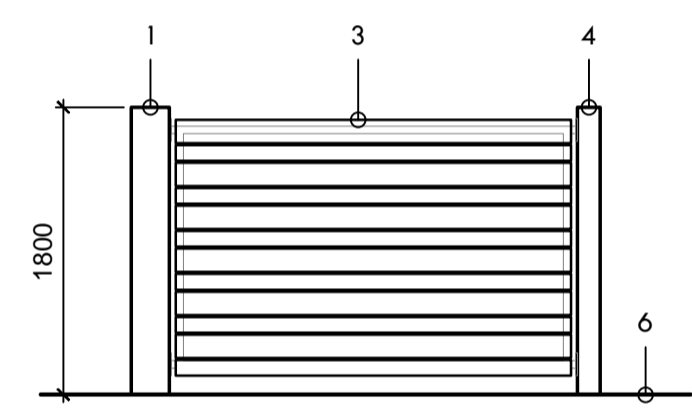
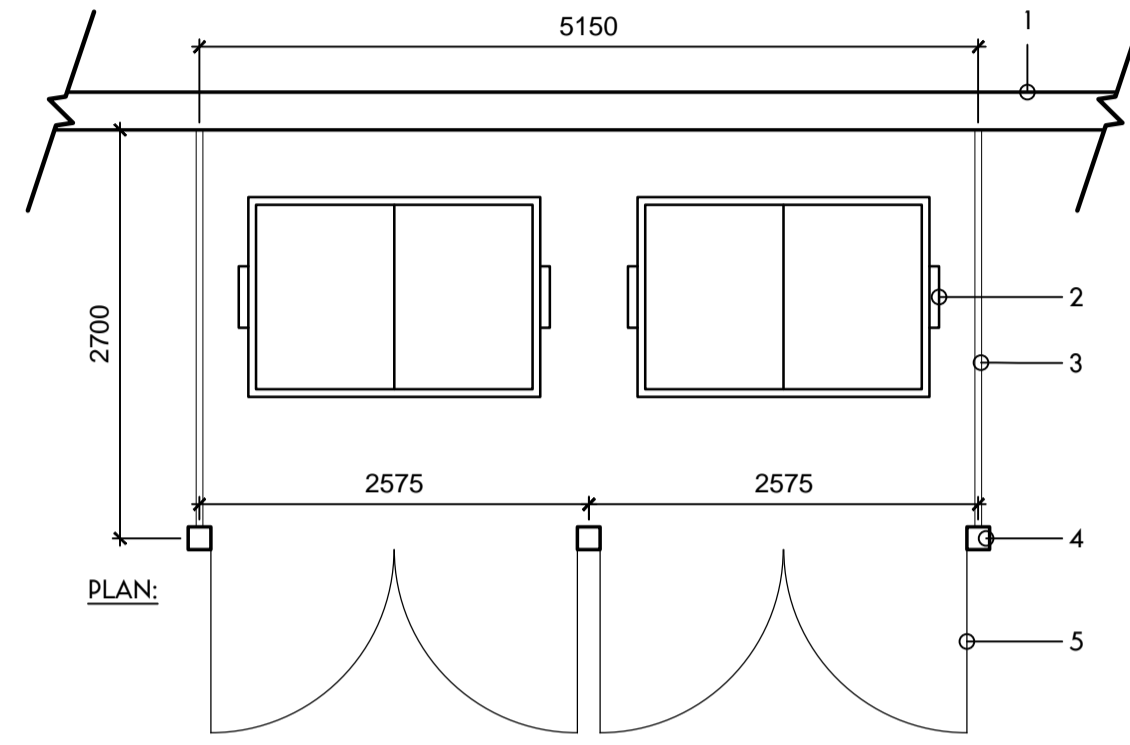
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L-102

SCHEDULE C
 This forms part of application
 # DP17-0073 / DVP17-0074
 Planner Initials **AC**
 City of **Kelowna**
 COMMUNITY PLANNING

- 1 1.8m C.I.P. CONCRETE SCREEN WALL
- 2 1220 x 1830 x 1525mm (4'X6'X5') STANDARD GARBAGE AND RECYCLING DUMPSTER
- 3 RECLAIMED WOOD FENCE PANEL W/ METAL FRAME
- 4 METAL CORNER / GATE POST
- 5 RECLAIMED WOOD GATE W/ METAL FRAME AND HINGES
- 6 FINISH GRADE
- 7 450mm (18") CANE BOLT GATE STOP
- 8 LOCKABLE LATCH

- NOTES**
- A ALL HARDWARE TO BE HOT DIPPED GALVANIZED STEEL
 - B ALL METAL TO BE POWDER COATED AND PAINTED TO MATCH ARCHITECTURAL METAL CLADDING COLOUR
 - C ALL RECLAIMED WOOD TO BE WOOD SURFACED WITH A MIN. OF (2) COATS OF ENVIRONMENTAL TECHNOLOGY INC., 'EX-74'



SIDE ELEVATION:

FRONT ELEVATION:

1 GARBAGE ENCLOSURE
L-103 SCALE 1:50

PLANTING STYLE:

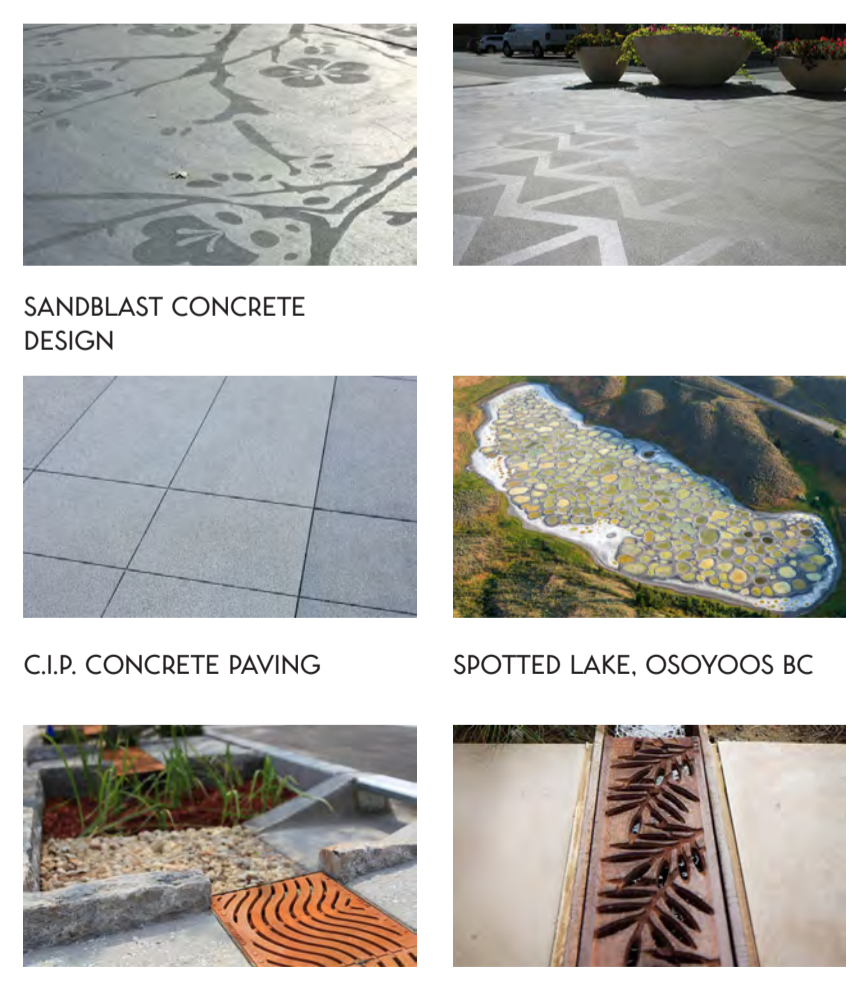


COMBINATION OF GRASSES / PERENNIALS



HERB GARDEN

PAVING:



SANDBLAST CONCRETE DESIGN

C.I.P. CONCRETE PAVING

STORMWATER DETENTION SWALE PAVING GRATE

LIGHTING:



BOLLARD LIGHT



WALL LIGHT



PEDESTRIAN / PARKING LOT LUMINAIRE

TREES:



CERCIDIPHYLLUM JAPONICUM



ACER X FREEMANII 'JEFFERSRED'



CORYLUS AVELLANA



CORNUS KOUSA



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

Architect of Record:



DiStefano Jaud Architecture
 3 -1331 Ellis Street
 Kelowna, BC, V1Y 1Z9
 t 250 868 9278

Design Consultant:



McLennan Design
 175 Parfitt Way SW, Suite N160
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Key Plan

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No.	Revision Description	YYYY-MM-DD

Drawn by **EB** Reviewed by **XS**

Project No. 16-044

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Sheet Title:

LANDSCAPE MATERIALS

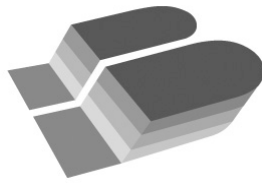
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Sheet Number:

L-103

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September 28, 2017

City of Kelowna
1435 Water Street
Kelowna, B.C.
V1J 1J4

SCHEDULE		C
This forms part of application # DP17-0073 / DVP17-0074		
Planner Initials	AC	 City of Kelowna COMMUNITY PLANNING

Attention: Community Planning & Real Estate Division

Project: EcoLock Self Storage

Please be advised that a landscape security bond of **\$75,606.25** will be required for the EcoLock Self Storage development project. This sum is equal to 125% of the estimated installed cost for all soft landscape. As per City of Kelowna requirements, the estimate includes trees, shrubs, grasses, perennials, topsoil, mulch, irrigation, and bicycle racks. Please see the attached Estimate of Probable Costs for Bonding for a detailed breakdown of these costs.

Should you require any additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Xenia Semeniuk'.

Xenia Semeniuk, BCSLA, CSLA, LEED AP ND
Registered Landscape Architect

cc
Carlo DiStefano, DiStefano Jaud Architecture
Don Redden, EcoLock Self Storage



SCHEDULE C

This forms part of application
 # DP17-0073 / DVP17-0074

Planner Initials **AC**

Eco-Lock Self Storage
Estimate of Probable Costs for Bonding

Prepared on: September 26, 2017

Items Description	Units	Qty.	Price	Item Total
1.0 Plant Material				
1.1 Trees				
1.1.1 6cm Cal.: Deciduous Tree	ea.	10	\$550.00	\$5,500.00
1.1.2 4cm Cal.: Deciduous Tree	ea.	3	\$400.00	\$1,200.00
1.1.3 1.8m Ht./#10 Pot: Deciduous Tree	ea.	5	\$300.00	\$1,500.00
			<i>Sub-Total</i>	<i>\$8,200.00</i>
1.2 Ornamental Shrubs, Perennials, Ground Covers				
1.2.1 #3 Pot: Shrubs (1.2m Spacing)	ea.	99	\$45.00	\$4,455.00
1.2.2 #1 Pot: Grasses (0.6m Spacing)	ea.	317	\$15.00	\$4,755.00
1.2.3 #1 Pot: Perennials & Herbs (0.6m Spacing)	ea.	634	\$15.00	\$9,510.00
			<i>Sub-Total</i>	<i>\$18,720.00</i>
			1.0 Total	\$26,920.00
2.0 Topsoil & Mulch				
2.1 Topsoil				
2.1.1 Shrub Bed Topsoil (450mm Depth)	m ³	222	\$50.00	\$11,100.00
2.1.2 Tree Pit Topsoil (1000mm Depth)	m ³	53	\$50.00	\$2,650.00
			<i>Sub-Total</i>	<i>\$13,750.00</i>
2.2 Mulch				
2.2.1 Odogrow Mulch (75mm Depth)	m ³	37	\$65.00	\$2,405.00
			<i>Sub-Total</i>	<i>\$2,405.00</i>
			2.0 Total	\$16,155.00
3.0 Servicing				
3.1 Irrigation				
3.1.1 Sleeving	l.s.	1	\$2,500.00	\$2,500.00
3.1.2 Point of Connection to Water Service	l.s.	1	\$1,500.00	\$1,500.00
3.1.3 Point of Connection to Electrical Service	l.s.	1	\$500.00	\$500.00
3.1.4 Control System	l.s.	1	\$2,500.00	\$2,500.00
3.1.5 Irrigation system (heads, pipes, valves)	m ²	494	\$15.00	\$7,410.00
			<i>Sub-Total</i>	<i>\$14,410.00</i>
			3.0 Total	\$14,410.00
4.0 Furnishings				
4.1 Site Furniture				
4.1.1 Bike Rack	ea.	4	\$750.00	\$3,000.00
			<i>Sub-Total</i>	<i>\$3,000.00</i>
			4.0 Total	\$3,000.00
			TOTAL	\$60,485.00
			Security Total (125%)	\$75,606.25



1435 Water Street
Kelowna, BC V1Y
1J4
250 469-8500
kelowna.ca

IRRIGATION APPLICATION

SCHEDULE C

This forms part of application
DP17-0073 / DVP17-0074

City of Kelowna
COMMUNITY PLANNING

APPLICATION IDENTIFICATION

Owner: Carbon Capture Mini-Storage (Kelowna) GP Ltd. Agent if applicable: Title: Company: BENCH Site Design Inc. City: Kelowna	Subject Address: 437 Bay Avenue Telephone: Fax No: Email: Mailing Address: Province: Postal Code:
---	---

Planner Initials: AC

LANDSCAPE WATER CONSERVATION CHECKLIST

Note: all boxes are to be checked - see instruction page

- Install Backflow prevention devices to meet City of Kelowna standards to isolate the outdoor irrigation system from the potable water system.
- Group planting into 'hydrozones' of high, medium and low water-use plants or unirrigated/unwatered areas.
- Minimize mown turf areas that are high water use areas - ideally to 50% of the landscape area or less - substitute with areas of lower water use treatments like unwatered native woods or meadow, mulch, spaced wood deck, pervious paving.
- Provide adequate topsoil or growing medium of depth and quality to meet the BC Landscape Standard, published by the BC Society of Landscape Architects and the BC Landscape and Nursery Association. General minimum depths over poor subsoils are 150mm for lawn and 300mm for shrubs groundcover.
- Group irrigation circuits/zones into 'hydrozones' of high, medium, and low or unirrigated areas consistent with the landscape planting plan. Provide a separate irrigation valve for each irrigated hydrozone.
- Minimize use of high-volume spray heads, and employ drip or low volume irrigation where practical.
- When spray or rotor irrigation is used, design and install head to head coverage in accordance with manufacturer's specifications, and avoid overspray outside landscape areas.
- Ensure matched precipitation rates within all irrigation circuits.
- Design and install pipe and head layout so flow velocity does not exceed 1.5 m/s, and to minimize elevation change or pressure variation in circuits. Provide check valves to stop low head drainage.
- Ensure irrigation mainlines are proved leak-free with hydrostatic tests.
- Provide pressure regulating devices to ensure irrigation outlets are operating at the manufacturer's optimum pressure range.
- Install - and program to minimize water use - 'Smart Controllers' to meet standards of the City of Kelowna Water Regulation Bylaw.
- Install an irrigation master shut-off valve (isolation valve) located outside the building in a location accessible to the City that when closed shall stop the supply of water from the potable water supply to the outdoor irrigation system and shall be capable of being closed and locked off by the City.

Applicant Notes on the Landscape Water Conservation Checklist:



1435 Water Street
Kelowna, BC V1Y 1J4
250 469-8500
kelowna.ca

IRRIGATION APPLICATION

SCHEDULE C

This forms part of application
DP17-0073 / DVP17-0074

Planner Initials: **AC**

LANDSCAPE WATER CONSERVATION TABLE

Applicant: **BENCH Site Design Inc.** Address: **4-1562 Water Street, Kelowna BC V1Y 1J7**

Step 1: Measure Total Landscape Area (LA)

Area of site that will absorb water: **545** sq.m.

Note: INCLUDE BOULEVARD, and proposed lawn, plants, mulch, PERVIOUS decks or paving. Do not include building areas, driveways, patios, decks or walks unless pervious.

Step 2: Divide Into Landscape Treatments*	Plant Factor	Irrig Efficiency	Hydrozone Area (Sq.m.)	% of Total LA	Estimated Water Use (cu.m.)
Note: each of the areas below are a 'HYDROZONE'	(PF)	(IE)	(HA)		(WU)
Unwatered Pervious Areas (not impervious paving)					
Mulch (Stone, bark or sand)	N/A	N/A	0	0%	N/A
Pervious deck (Spaced wood deck)	N/A	N/A	0	0%	N/A
Pervious paving (Granular paving)	N/A	N/A	0	0%	N/A
Naturalized meadow (wildflowers)	N/A	N/A	0	0%	N/A
Naturalized area (Existing natural area)	N/A	N/A	0	0%	N/A
Other: Restoration Area	N/A	N/A	0	0%	N/A
Swimming or ornamental pool	1	1	0	0%	0
Watered Planting Beds (shrubs or groundcover)					
<i>Planting Type</i>	<i>Irrig Efficiency</i>				
Low water use plants	High (Drip or Bubbler)	0.3	0.9	97%	32
Low water use plants	Low (Spray or Rotor)	0.3	0.7	0%	0
Moderate water use plants	High (Drip or Bubbler)	0.5	0.9	448%	249
Moderate water use plants	Low (Spray or Rotor)	0.5	0.7	0%	0
High water use plants	High (Drip or Bubbler)	0.7	0.9	0%	0
High water use plants	Low (Spray or Rotor)	0.7	0.7	0%	0
Watered Mown Lawn Areas					
Low	1	0.7	0	0%	0
Special Landscape Areas (SLA)					
Vegetable Garden	High (Drip or Bubbler)	1	0.9	0%	0
Vegetable Garden	Low (Spray or Rotor)	1	0.7	0%	0
Sports Lawn	Low (Spray or Rotor)	1	0.7	0%	0
Rainwater or Recycled Water Use	0.3	1	0	0%	0
Totals			545	100%	281
Special Landscape Area (SLA) Sub total			0		

*If proposed design conditions are not shown on the form please contact Water Smart at 250-868-3339

IRRIGATION APPLICATION

CALCULATE & COMPARE WATER BUDGET TO ESTIMATED WATER USE

Note: For Evapotranspiration (ETo) in Kelowna use 1000mm/yr

	Amount	Units
Total Landscape Area	545	sq.m.
Landscape Maximum Water Budget (WB)	545	cu.m./yr.
Estimated Landscape Water Use (WU)	281	cu.m./yr.
Under (-OVER) Budget (Must be under Water Budget WB)	264	cu.m./yr.
	OK	

SCHEDULE C

This forms part of application
DP17-0073 / DVP17-0074

Planner
Initials

AC


City of Kelowna
COMMUNITY PLANNING

I have identified and confirmed, by completing the attached 'Landscape Water Conservation Checklist' above, that the project will conform to current landscape and irrigation water conservation practices listed in the checklist. I also acknowledge that the landscape treatments of the project will conform to the Hydrozone areas identified by me in the 'Landscape Water Conservation Calculation Table' above.

Signature of Applicant

Date: 28-Sep-17

FOR CITY OF KELOWNA OFFICE USE ONLY

The Irrigation Application and calculations above satisfy the requirements of the Water Regulation Bylaw 10480 Section 4.4.2 and 4.4.3. and is hereby APPROVED with the signature of the Water Manager or designate.

Signature of Kelowna Water Smart designate
For Water Manager

Date: _____

Print Name

NOTE: Post Signed and approved application at Smart Controller for future reference