SCHEDULE A
This forms part of application
TA17-0007
DP17-0073
Planner Initials AC
City of Kelowna COMMUNITY PLANNING

SCHEDULE A – PROPOSED TEXT AMENDMENTS TO ZONING BYLAW 8000 – TA17-0007

Zoning Bylaw 8000				
No.	**Section**	**Existing Text**	**Proposed Text**	**Rationale**
1.	15.4 – I4 Central Industrial 15.4.2 Principal Uses	**Principal Uses** The **principal uses** in this **zone** are: (a) **analytical testing** (b) **animal clinics, major** (c) **auctioneering establishments** (d) **automotive and equipment repair shops** (e) **automotive and minor recreation vehicle sales/rentals** (f) **breweries and distilleries, major** (g) **breweries and distilleries, minor** (h) **broadcasting studios** (i) **bulk fuel depots** (j) **child care centre, major** (k) **concrete and asphalt plants** (l) **contractor services, limited** (m) **contractor services, general** (n) **custom indoor manufacturing** (o) **equipment rentals** (p) **fleet services** (q) **food primary establishment** (r) **gas bars** (s) **general industrial uses** (t) **industrial high technology research and product design** (u) **liquor primary establishment, minor** (v) **medical marihuana production facilities**	**Principal Uses** The **principal uses** in this **zone** are: (a) **analytical testing** (b) **animal clinics, major** (c) **auctioneering establishments** (d) **automotive and equipment repair shops** (e) **automotive and minor recreation vehicle sales/rentals** (f) **breweries and distilleries, major** (g) **breweries and distilleries, minor** (h) **broadcasting studios** (i) **bulk fuel depots** (j) **child care centre, major** (k) **commercial storage** (l) **concrete and asphalt plants** (m) **contractor services, limited** (n) **contractor services, general** (o) **custom indoor manufacturing** (p) **equipment rentals** (q) **fleet services** (r) **food primary establishment** (s) **gas bars** (t) **general industrial uses** (u) **industrial high technology research and product design** (v) **liquor primary establishment, minor** (w) **medical marihuana production**	See Report

		(w) **mobile catering food services** (x) **non- accessory parking** (y) **participant recreation services, indoor** (z) **pawnshop** (aa) **private clubs** (bb) **rapid drive-through vehicle services** (cc) **recycled materials drop-off centres** (dd) **service stations, major** (ee) **service stations, minor** (ff) **temporary parking lot** (gg) **utility services, minor impact** (hh) **warehouse sales**	**facilities** (x) **mobile catering food services** (y) **non- accessory parking** (z) **participant recreation services, indoor** (aa) **pawnshop** (bb) **private clubs** (cc) **rapid drive-through vehicle services** (dd) **recycled materials drop-off centres** (ee) **service stations, major** (ff) **service stations, minor** (gg) **temporary parking lot** (hh) **utility services, minor impact** (ii) **warehouse sales**	

EcoLock Design Rationale Statement

EcoLock is a five story, 10,270 m^2 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 m^2 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 widows, 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

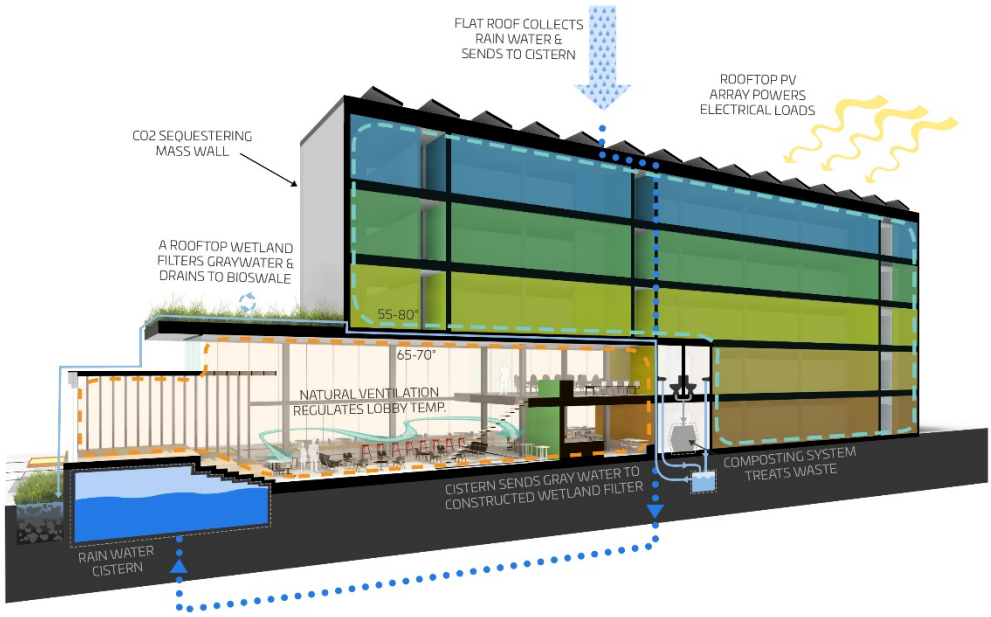

Figure 2 Ecolock Sustainability Diagram

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.

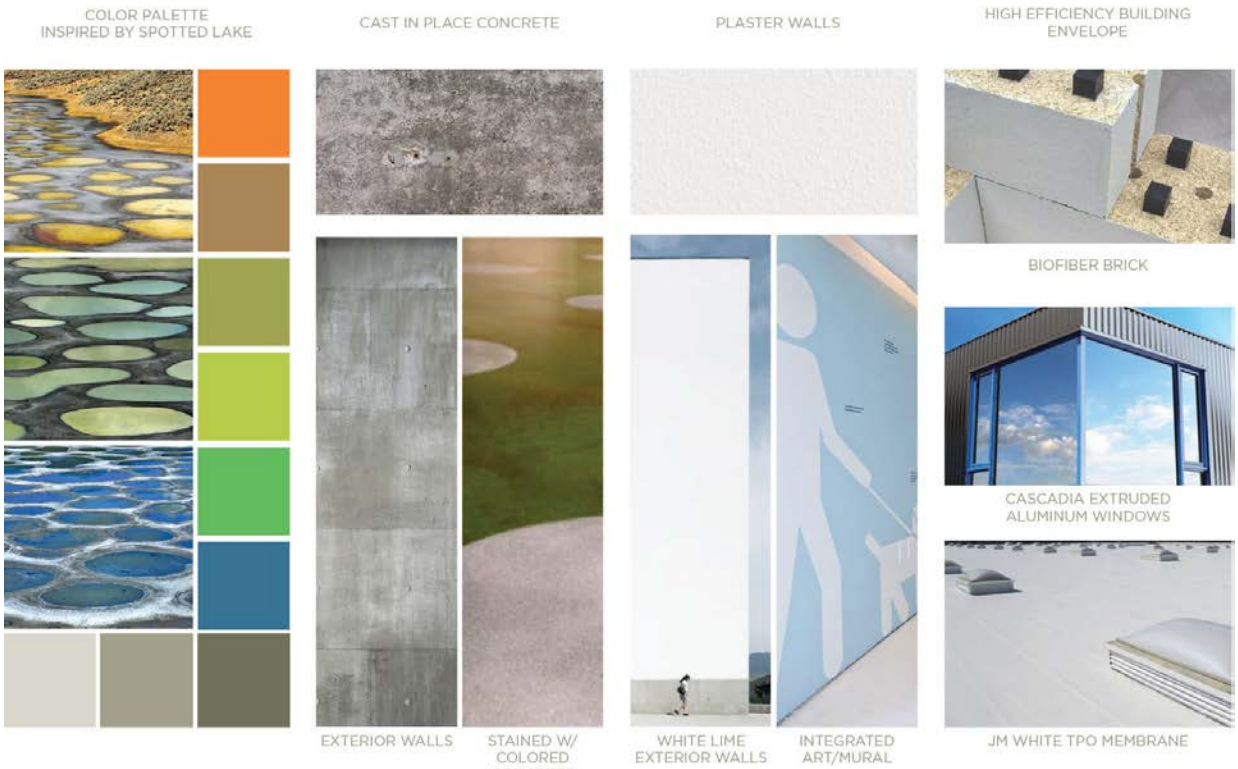

Figure 3 Colors inspired by the Spotted Lakes

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.

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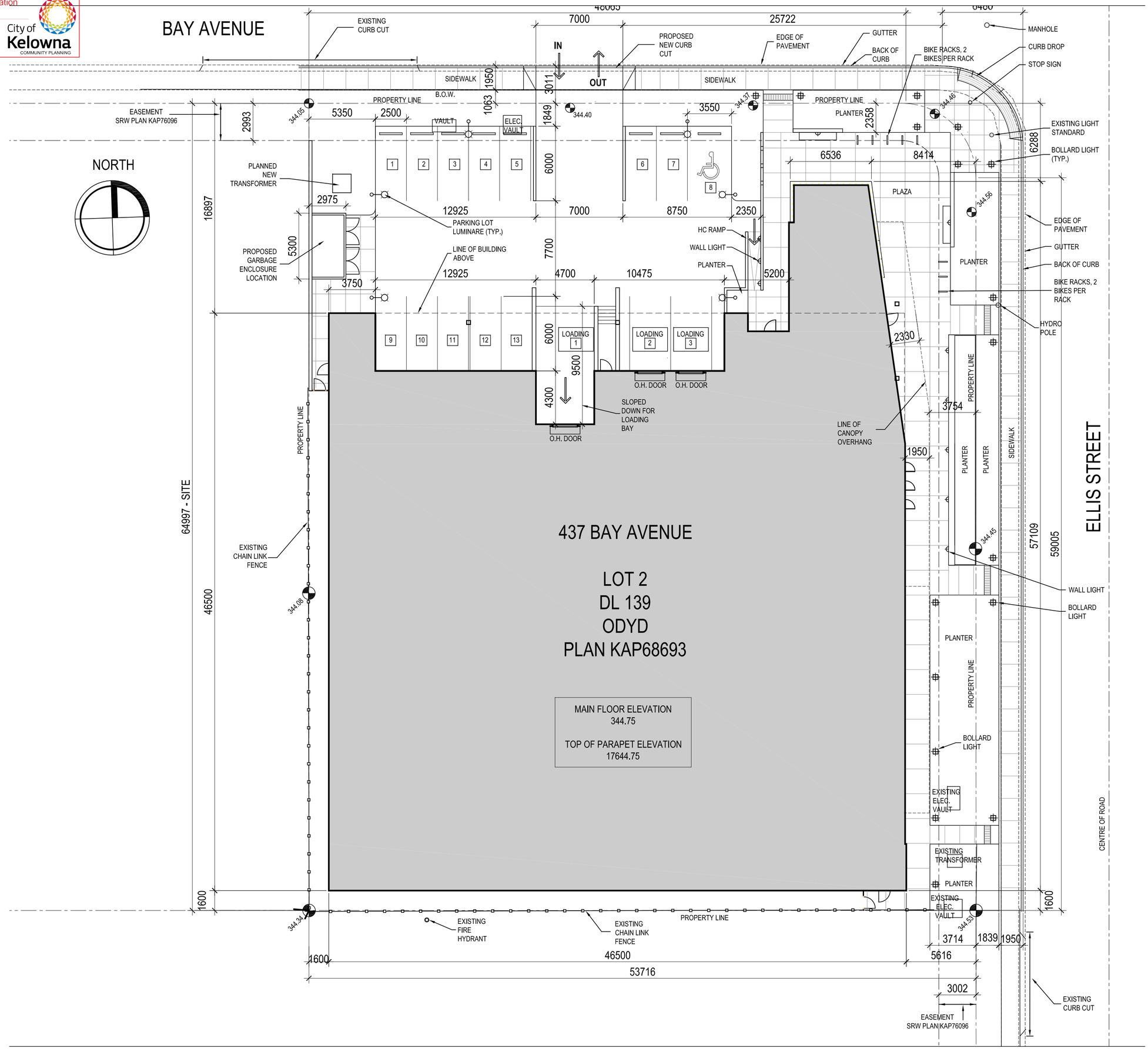

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EcoLock Self Storage

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
01	DPA	2017-03-17

No.	Revision Description	YYYY-MM-DD

Drawn by CAD Reviewed by DJA

Project No. 16032

Sheet Title:

Site Plan

Scale: 1:200

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

Sheet Number:

A-101

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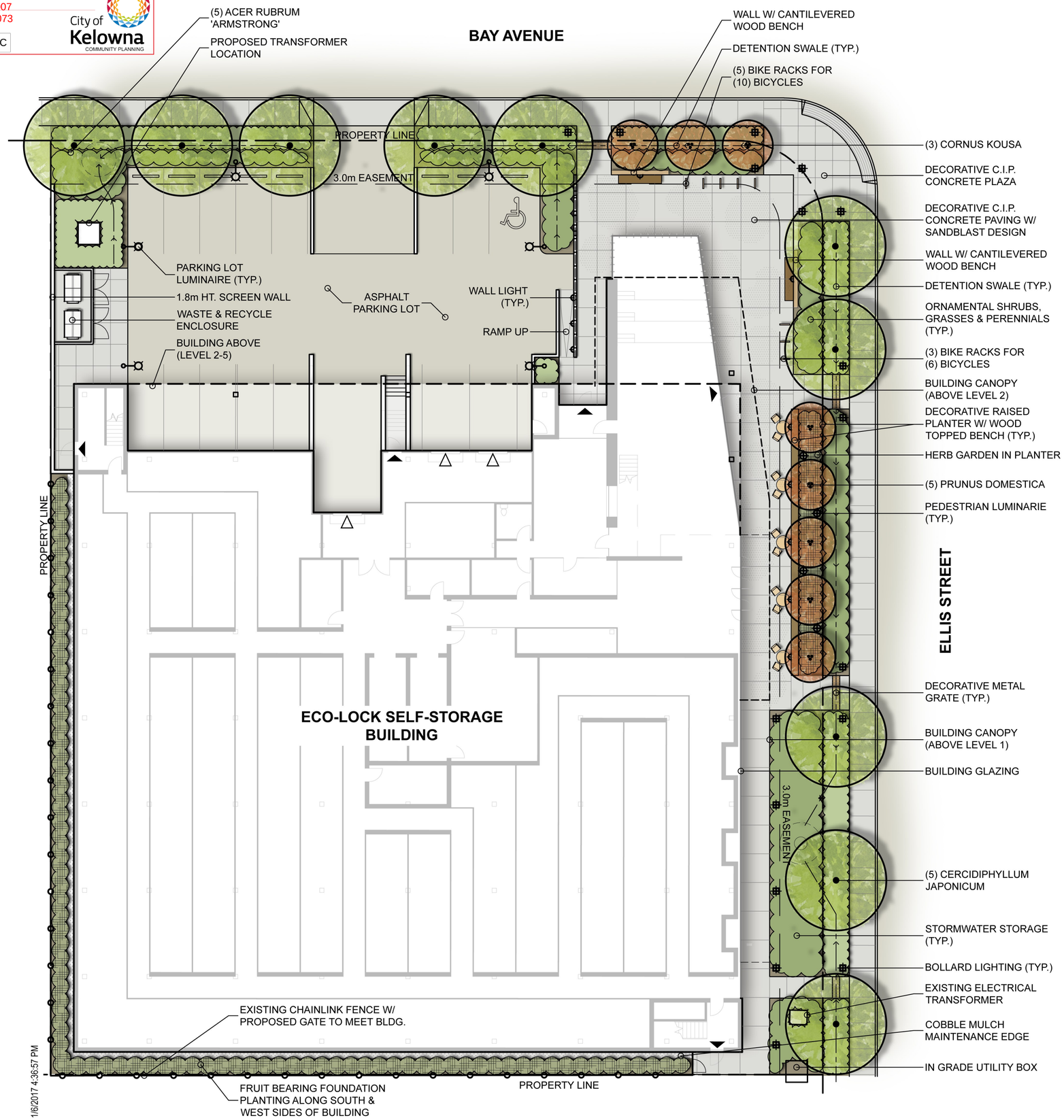

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DEVELOPMENT PERMIT NOTES:

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.N.T.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.

J 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:

DECIDUOUS STREET TREE

LOW FLOWERING TREE

ORNAMENTAL SHRUBS, GRASSES & PERENNIALS

DETENTION SWALE

URBAN AGRICULTURE (145m2)

DECORATIVE C.I.P. CONCRETE PAVING

MAIN BUILDING ENTRANCE

LOADING DOCK ENTRANCE

ORNAMENTAL PLANT LIST:

TREES

Botanical Name	Common Name	Size	Root
Acer rubrum 'Armstrong'	Armstrong red maple	6cm Cal.	B&B
Cercidiphyllum japonicum	Katsura tree	6cm Cal.	B&B
Cornus kousa	Japanese dogwood	4cm Cal.	B&B
Prunus domestica	Italian prune plum tree	3cm Cal.	B&B

SHRUBS

Botanical Name	Common Name	Size	Root
Cornus stolonifera 'Farrow'	Arctic Fire dogwood	#03 Cont./1.2m O.C.	Potted
Mahonia aquifolium	Oregon grape	#03 Cont./1.2m O.C.	Potted
Rosa rugosa 'Hansa'	Hansa rose	#03 Cont./1.5m O.C.	Potted

PERENNIALS & BULBS

Botanical Name	Common Name	Size	Root
Allium aflatunense 'Purple Sensation'	Purple Sensation ornamental onion	Bulbs	Potted
Achillea millefolium 'Terracotta'	Terra Cotta common yarrow	#01 Cont./0.6m O.C.	Potted
Aruncus aethusifolius	Dwarf Korean goat's beard	#01 Cont./0.45m O.C.	Potted
Bergenia cordifolia 'Winter Glow'	Heartleaf bergenia	#01 Cont./0.45m O.C.	Potted
Coreopsis verticillata 'Zagreb'	Threadleaf coreopsis	#01 Cont./0.45m O.C.	Potted
Eupatorium dubium 'Little Joe'	Dwarf Joe-pye weed	#01 Cont./0.9m O.C.	Potted
Iris sibirica 'Butter & Sugar'	Yellow & White Siberian iris	#01 Cont./0.6m O.C.	Potted
Salvia nemorosa 'Caradonna'	Caradonna meadow sage	#01 Cont./0.6m O.C.	Potted
Perovskia atriplicifolia 'Little spire'	Little Spire Russian sage	#01 Cont./1.0m O.C.	Potted
Tulipa 'Princess Irene'	Princess Irene triumph tulip	Bulbs	Potted

GRASSES

Botanical Name	Common Name	Size	Root
Deschampsia flexuosa 'Aurea'	Crinkled hair grass	#01 Cont./0.6m O.C.	Potted
Miscanthus sinensis 'Gracillimus'	Maiden grass	#01 Cont./1.0m O.C.	Potted
Panicum virgatum 'Northwind'	Northwind switch grass	#01 Cont./0.45m O.C.	Potted
Sesleria autumnalis	Autumn moor rass	#01 Cont./0.45m O.C.	Potted
Sporobolus heterolepsis 'Tara'	Prairie dropseed	#01 Cont./0.75m O.C.	Potted

HERBS

Botanical Name	Common Name	Size	Root
Allium schoenoprasum	Chives	#01 Cont./0.3m O.C.	Potted
Anthriscus cerefolium	Chervil	#01 Cont./0.45m O.C.	Potted
Artemisia dracunculus	Tarragon	#01 Cont./0.6m O.C.	Potted
Melissa officianlis	Lemon balm	#01 Cont./0.3m O.C.	Potted
Petroselinum neapolitanum	Italian parsley	#01 Cont./0.3m O.C.	Potted
Rumex acetosa	Blood veined sorrel	#01 Cont./0.45m O.C.	Potted

EcoLock Self Storage
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Architect of Record:

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3 -1331 Ellis Street
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t 250 868 9278

Design Consultant:

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

Key Plan

N

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	MAR 17/17

No.	Revision Description	YYYY-MM-DD

Drawn by LP Reviewed by KN

Project No. 16-044

Sheet Title:

LANDSCAPE PLAN

SCALE: 1 : 200

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

Sheet Number:

L-101

ATTACHMENT C
This forms part of application
TA17-0007
DP17-0073
Planner Initials AC
City of Kelowna
COMMUNITY PLANNING

EcoLock Self Storage

Comprehensive Development Permit Application to the City of Kelowna
17 March, 2017

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

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

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EcoLock Self Storage

437 Bay Avenue
Kelowna, BC, V1Y 7S3

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DiStefano Jaud Architecture

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3 -1331 Ellis Street
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Key Plan

Professional Seals

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

No.	Revision Description	YYYY-MM-DD

Drawn by BG Reviewed by DJA

Project No. 16032

Sheet Title:

COVER SHEET

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Sheet Number:

G-001

ecoLOCK SELF STORAGE

COLOUR & MATERIALS BOARD