City of Richmond

Agenda

Development Permit Panel

Council Chambers, City Hall
6911 No. 3 Road

Thursday, October 17, 2019
3:30 p.m.

MINUTES

Motion to adopt the minutes of the Development Permit Panel meeting held on September 25, 2019.

1. DEVELOPMENT PERMIT 18-820689
(REDMS No. 6235708)

APPLICANT: Integrated Construction

PROPERTY LOCATION: 1600 Savage Road

Director's Recommendations

That an Environmentally Sensitive Area (ESA) Development Permit be issued at 1600 Savage Road in order to allow construction of a warehouse building on a site partially designated as an ESA.

2. DEVELOPMENT PERMIT 18-829234
(REDMS No. 6186767)

APPLICANT: Interface Architecture Inc.

PROPERTY LOCATION: 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway

Director's Recommendations

That a Development Permit be issued which would:

ITEM

1. *permit the construction of 28 townhouse units at 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway on a site zoned "Medium Density Townhouses (RTM2)"; and*

2. *vary the provisions of Richmond Zoning Bylaw 8500 to reduce the front yard setback to Steveston Highway from 6.0 m to 4.5 m for proposed Buildings #1 and #2 on the eastern half of the site, and from 6.0 m to 5.6 m for proposed Buildings #9 and #10 on the western half of the site.*

3. DEVELOPMENT PERMIT 19-850320

(REDMS No. 6271057)

APPLICANT: Greater Vancouver Sewerage and Drainage District

PROPERTY LOCATION: 1000 Ferguson Road

Director's Recommendations

That a Development Permit be issued at 1000 Ferguson Road in order to allow construction of a concrete dewatering pad and associated uses on a site designated as an Environmentally Sensitive Area.

4. New Business

5. Date of Next Meeting: October 30, 2019

ADJOURNMENT

City of Richmond

Minutes

Development Permit Panel
Wednesday, September 25, 2019

Time:	3:30 p.m.
Place:	Council Chambers Richmond City Hall
Present:	John Irving, Chair Laurie Bachynski, Director, Corporate Business Service Solutions Jim Young, Acting Director, Facilities

The meeting was called to order at 3:30 p.m.

Minutes

It was moved and seconded
That the minutes of the meeting of the Development Permit Panel held on September 11, 2019 be adopted.

CARRIED

1. DEVELOPMENT PERMIT 18-797026
HERITAGE ALTERATION PERMIT 18-797029
(REDMS No. 6201440)

APPLICANT: Eric Stedman Architect

PROPERTY LOCATION: 12060 & 12080 1st Avenue

INTENT OF PERMIT:

1. Permit the construction of a three-storey, mixed-use development at 12060 and 12080 1st Avenue on a site zoned "Steveston Commercial (CS3)";

2. Vary the provisions of Richmond Zoning Bylaw 8500 to:
   (a) increase the maximum permitted building height from 12 m to 14 m to allow stair and elevator access to the rooftop outdoor amenity area;
   (b) increase the total allowable maximum aggregate width of a recessed balcony opening on the front façade from 25% of the lot width to 32% of the lot width on the 2nd and 3rd storeys;
   (c) increase the allowable maximum aggregate area of all recesses and openings on the front façade from 33% to 35 %; and
   (d) reduce the minimum required vehicle manoeuvring aisle width in the parking area from 7.5 m to 6.7 m; and
3. Issuance of a Heritage Alteration Permit (HA 18-797029) at 12060 and 12080 1st Avenue in accordance with the Development Permit.

Applicant's Comments

Eric Stedman, Eric Stedman Architect, with the aid of a PowerPoint presentation (attached to and forming part of these Minutes as Schedule 1) provided background information on the proposed development and highlighted the following:

- the subject site consists of two lots, one of which contains a private garden;
- the proposed three-storey mixed-use building with a continuous recessed commercial storefront at ground level and two upper storeys of residential spaces is consistent with the existing zoning for the site;
- the front and rear building elevations are divided into two distinct facades to reflect the historic lot lines;
- four commercial retail units are provided on the ground floor;
- the building's architecture and details are inspired by historic buildings in the neighbourhood and reflect their heritage character;
- the proposed variance to increase the aggregate width of recessed balcony openings as a percentage of the lot width will allow for more daylight access into the upper level residential units;
- the proposed elevator and stair projections are located at the centre of the building to minimize their visual impact from all angles;
- a common outdoor amenity space is proposed on the building rooftop; and
- a significant amount of glass is proposed for the front and rear ground floor of the building to maximize visibility.

Caroline Kennedy, CJ Kennedy Landscape Design, briefed the Panel on the main landscape features of the project, noting that (i) additional angled on-street parking spaces fronting the building are proposed, (ii) linear pavers will be installed adjacent to the commercial frontage and rear residential entry, (iii) landscaping including interpretive heritage signs on the commercial frontage and at the rear of the site are intended to commemorate the history of the Sakata family house and garden, (iv) screened residential parking is proposed at the rear of the site, (v) permeable pavers will be installed for the residential and visitor parking spaces adjacent to the back of the building, (vi) replacement trees will be planted at the rear of the site and on the rooftop deck, and (vii) a landscaped common outdoor amenity area is proposed on the rooftop deck of the building.

Staff Comments

Wayne Craig, Director, Development, noted that (i) the proposed development is consistent with the existing zoning for the site, subject to the proposed variances, (ii) the development's proposed landscaping including installation of interpretive signage commemorates the existing house and garden of the Sakata family, (iii) the proposed variances are related to the building height, width of recessed balconies, overall area of recessed openings along the 1st Avenue frontage, and vehicle manoeuvring aisle width in the parking area at the rear of the site, (iv) the project was reviewed and supported by the Richmond Heritage Commission and Advisory Design Panel subject to their recommendations and comments, and (v) there is a Servicing Agreement associated with the proposed development for frontage works along 1st Avenue and the rear lane as well as for site services.

Gallery Comments

None.

Correspondence

None.

Panel Discussion

In reply to queries from the Panel, Mr. Stedman and Ms. Kennedy noted that (i) the proposed colour palette for the three-storey building is inspired by the colours of neighbouring heritage buildings, (ii) the front façade treatment has been carried around the south and rear elevations, (iii) the design of windows for the subject development reflects the windows of the heritage building containing the Post Office, (iv) the elevator structure has been designed to minimize its height and meet the standards of the Safety Code for Elevators and Escalators, and (v) the elevator structure on the rooftop is clad with shingle material consistent with the high-quality exterior cladding materials proposed for the building.

In reply to further queries from the Panel, the design team noted that (i) planting at the ground and rooftop levels reflect the heritage character of the Sakata family garden, (ii) the interpretive heritage signage at the rear of the site is visible from the rear lane, (iii) a mural will not be incorporated on the south wall of the building as the façade treatment is not consistent with the character of the buildings in Steveston Village, (iv) the decorative garden pattern trench drain along the building frontage helps commemorate the history of the Sakata family garden, (v) maintaining continuous access along the pedestrian arcade was a major consideration in the design of proposed landscaping along the 1st Avenue commercial frontage, (vi) the proposed landscaping is intended to achieve a garden feel with smaller massing of planting as opposed to standard landscaping, and (vii) hose bibs will be installed in the recessed balconies to allow for irrigation of future planting in those areas.

Panel Discussion

The Panel expressed support for the project, noting the applicant's significant effort to reflect the heritage character and history of the site and achieve the City's objectives through the design of the project.

Panel Decision

It was moved and seconded

1. ***That a Development Permit be issued which would permit the construction of a three-storey, mixed-use development at 12060 and 12080 1st Avenue on a site zoned "Steveston Commercial (CS3)";***

2. ***Vary the provisions of Richmond Zoning Bylaw 8500 to:***

   (a) increase the maximum permitted building height from 12 m to 14 m to allow stair and elevator access to the rooftop outdoor amenity area;

   (b) increase the total allowable maximum aggregate width of a recessed balcony opening on the front façade from 25% of the lot width to 32% of the lot width on the 2nd and 3rd storeys;

   (c) increase the allowable maximum aggregate area of all recesses and openings on the front façade from 33% to 35 %; and

   (d) reduce the minimum required vehicle manoeuvring aisle width in the parking area from 7.5 m to 6.7 m; and

3. ***That a Heritage Alteration Permit (HA 18-797029) be issued at 12060 and 12080 1st Avenue in accordance with the Development Permit.***

CARRIED

2. Date of Next Meeting: October 17, 2019

3. Adjournment

It was moved and seconded
That the meeting be adjourned at 4:10 p.m.

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Development Permit Panel of the Council of the City of Richmond held on Wednesday, September 25, 2019.

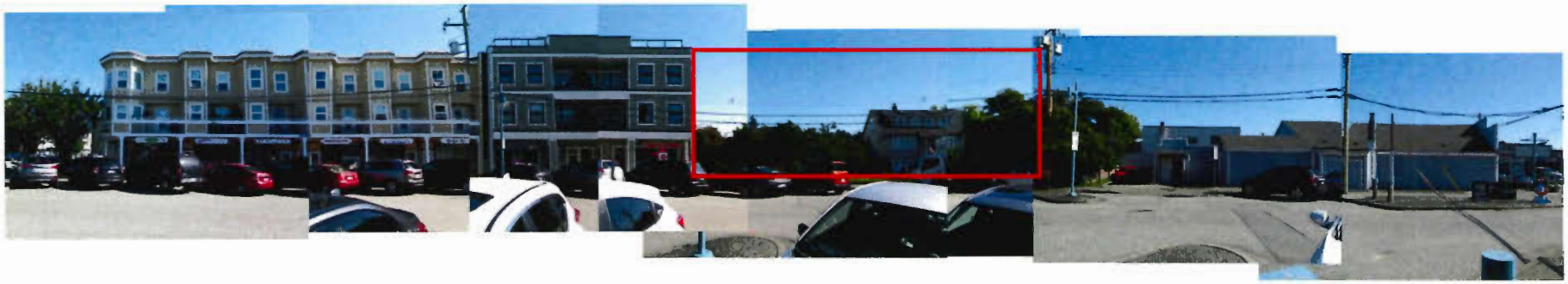
John Irving
Chair

Rustico Agawin
Committee Clerk

Sakata House and Garden

Between First Avenue and East Lane north of Moncton Street is a house and cultivated garden situated on two lots in the commercial core of Steveston Village. It is a unique reflection of the historic mixed use of the commercial core of the village, which included residential development. The single-family house, built circa 1946, and cultivated vegetable and flower gardens illustrate the one-time norm of self-sustainability in daily life, and reflect the suitability of the fertile land to support agricultural activities. The size of the property, which occupies two city lots, is also an indication of how the land was used and developed, in a residential context, to make ideal use of the streets and lanes in the village core.[2]

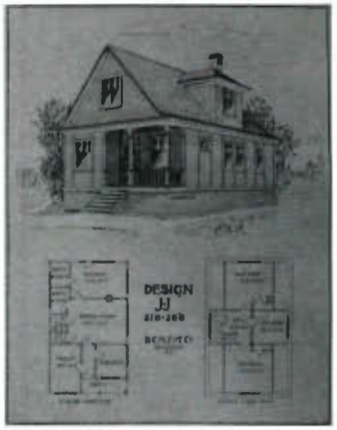
Steveston has, however, never been frozen in time. Whether as a result of fire, economic conditions, or shifting values, Steveston has changed and so have its buildings.[2] The current Steveston Area Plan encourages the development of the Village as a vibrant, mixed-use commercial centre. The longtime owner of the Sakata House and Garden proposes a new development, to suit their current needs, incorporating a high standard of livability in a mixed-use setting while maintaining the distinctive qualities and opportunities inherent in the neighbourhood, geography, and heritage.[1]



First Avenue - East Side

First Avenue - West Side

Lane Views



Simple plan book design similar to historic post office.

Example of white window opening trim and vertical trim matching siding colour.

Example of shingle upper storey.

Example of shingle upper storey. Note lack of lower trim board on window typical of historic examples.

Upper cornice example.

Storefront and signage example.

Example of cornice element and elevation module partially wrapping building end.

Example of stepped 'flat front' cornice.

No.	Description	Date
1	issued for DP/HAP	15/12/17
2	issued for DP/HAP Priority	12/3/18
3	issued for DP/HAP Priority	02/11/18
4	issued for DP/HAP Priority	01/2/19
5	issued for DP/HAP Priority	15/3/19
6	issued for DP/HAP Priority	19/3/19
7	issued for DP/HAP Priority	19/3/19

1 WEST ELEVATION
1/4" = 1'-0"

COLOUR SCHEDULE

1	Hardie colour: 'Sailcloth'
2	Hardie colour: 'Iron Grey'.
3	Hardie colour: 'Arctic White'.
4	Hardie colour: 'Light Mist'.
5	Corbel, clear sealer finish
6	Hardie colour: 'Light Mist'

Note: Colours are selected from manufacturer pre-mixed cementitious product range. Painted finish to be cut to match.

MATERIAL / ASSEMBLY KEY

F1	Shingle siding, 5" exposure	G1	Windows: double glazed
F2	Fibre cement panel, board and batten exposure varies	G2	Windows and doors, double glazed
F3	Trim, exposure varies	G3	Storefront glazing, double glazed
F4	Trim, exposure varies	G4	Storefront entry doors and sidelights
F6	Pre-finished metal flashing	G5	Glass guard, 42" ht.
F6	Stained 1x6 wood soffit/wall	G6	Solar shading
F7	Architectural concrete: sealed	G7	Skylight glazing, double glazed
F8	Fibre cement panel, board and batten exposure varies	G8	Signage location
F9	Pre-finished metal cornice	D1	Insulated metal door and frame
F10	Concrete block, sealed	E*	Pre-finished metal louvre

ESA

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Project Title:

12060, 12080 1ST AVE
SAKATA GARDENS
STEVESTON, BC

Drawing Title:

ELEVATIONS

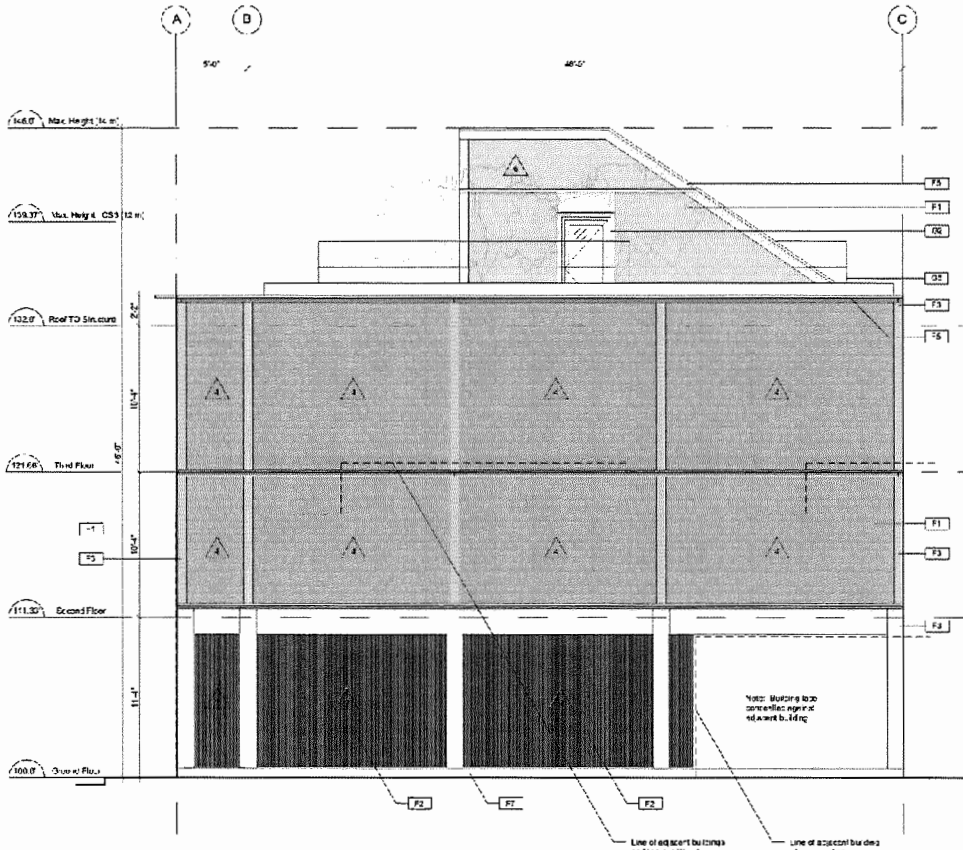
Scale: As noted
Date: 08/17
Check: ES

Drawing No.

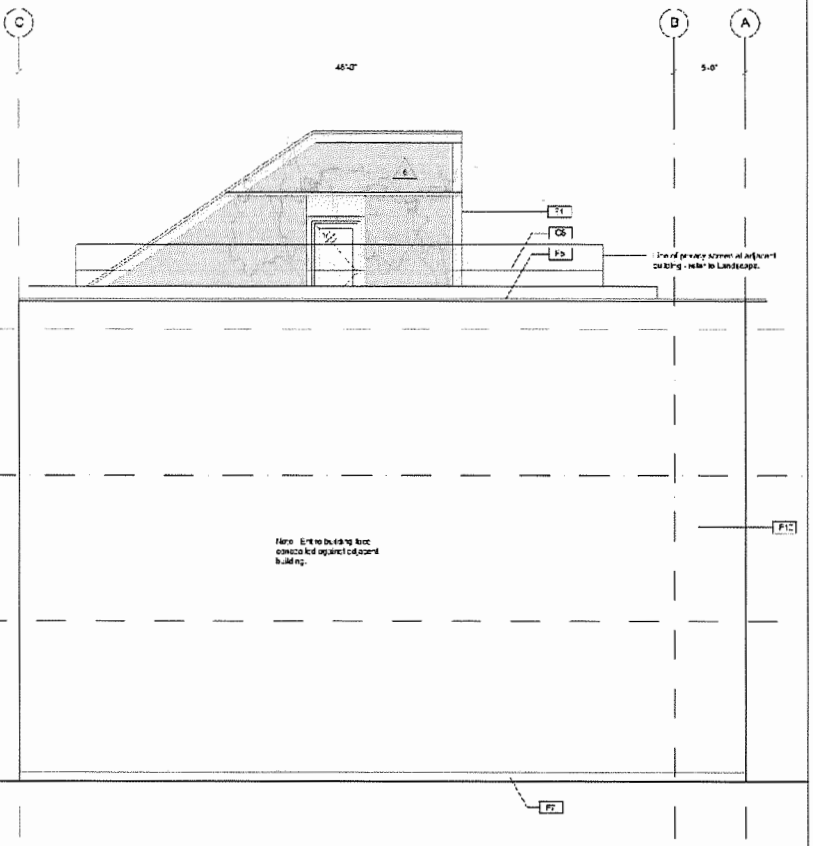
A7

Revision No.

No.	Description	Date
1	issued for DP/HAP	19/12/17
2	issued for DP/HAP Priority	12/6/18
3	issued for DP/HAP Priority	6/11/18
4	issued for DP/HAP Priority	01/2/19
5	issued for DP/HAP Priority	19/3/19
6	issued for DP/HAP Priority	19/5/19
7	issued for DP/HAP Priority	19/8/19



1 SOUTH ELEVATION
1/4" = 1'-0"



1 NORTH ELEVATION
1/4" = 1'-0"

COLOUR SCHEDULE

1. Hardie colour: "Sail cloth"
2. Hardie colour: "Iron Grey"
3. Hardie colour: "Arctic White"
4. Hardie colour: "Night Mist"
5. Gedhi, clear satin finish
6. Hardie colour: "Night Mist"

Note: Colours are selected from manufacturers standard pre-finished cementitious precast range. Painted finish present to match.

MATERIAL / ASSEMBLY KEY

F1	Shingle siding 6" exposure	G1	Windows, double glazed
F2	Fibre cement panel, board and batten exposure varies	G2	Windows and doors, double glazed
F3	Trim, exposure varies	G3	Storefront glazing, double glazed
F4	Trim, exposure varies	G4	Storefront entry doors and sidelights
F5	Pre-finished metal flashing	G5	Guard rail, 42" H
F6	Stained T&G wood ceiling/wall	G6	Solar shading
F7	Architectural concrete sealed	G7	Skylight glazing, double glazed
F8	Fibre cement panel, board and batten exposure varies	G8	Signage location
F9	Pre-finished metal cornice	G1	Painted metal door and trim
F10	Concrete block, sealed	F7	Pre-finished metal louver

ESA

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Project Title:

12060, 12080 1ST AVE
SAKATA GARDENS
STEVESTON, BC

Drawing Title:

ELEVATIONS

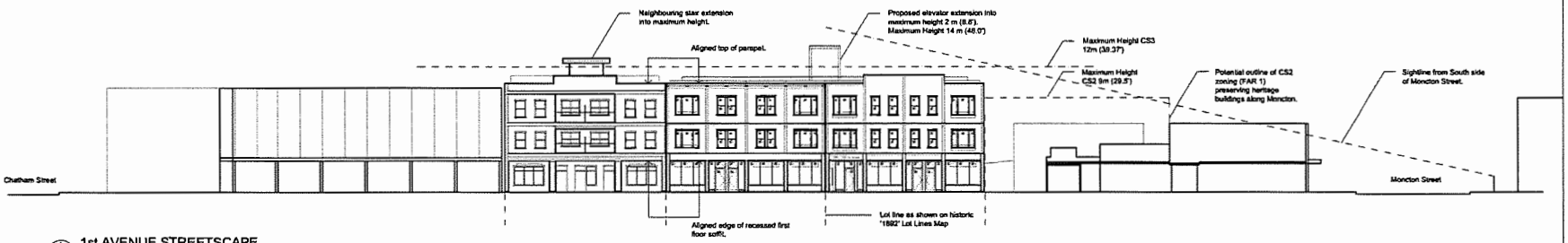
Scale: As noted
Date: 08/17
Check: FP

Drawing No.

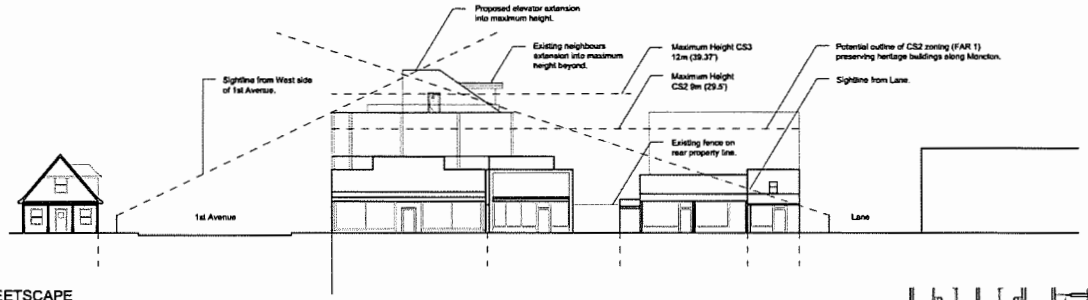
A9

Revision No. 7

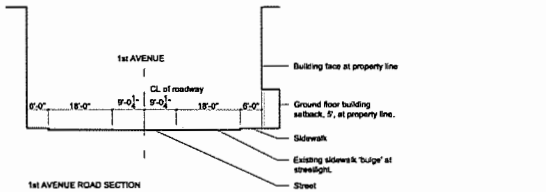
No.	Description	Date
1	Issued for DP/HAP Prior-to	12/08/18
2	Issued for DP/HAP Prior-to	02/11/18
3	Issued for DP/HAP Prior-to	01/02/19



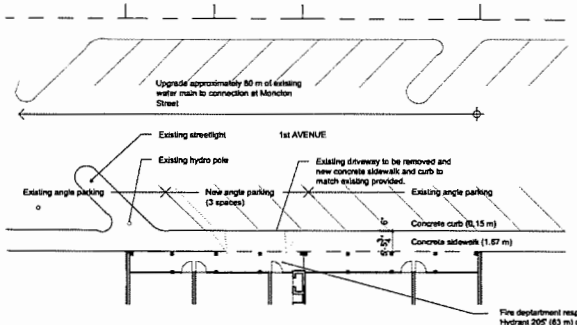
1 1st AVENUE STREETSCAPE
1/16" = 1'-0"



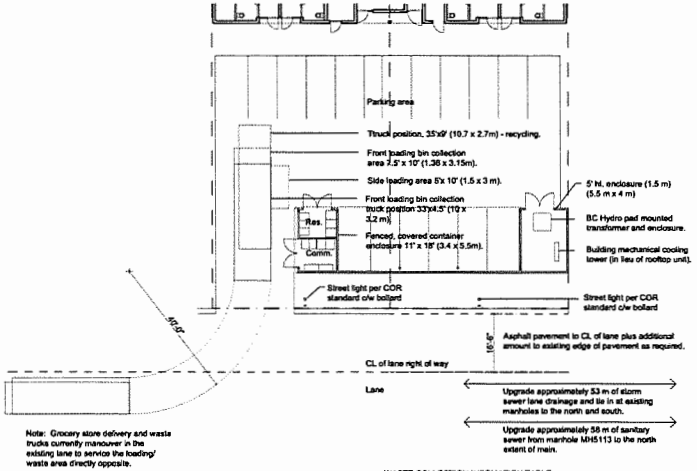
2 MONCTON STREETSCAPE
1/16" = 1'-0"



1st AVENUE ROAD SECTION



4 ROAD FUNCTIONAL PLAN
1/16" = 1'-0"



Note: Grocery store delivery and waste trucks currently manouver in the existing lane to service the loading/ waste area directly opposite.

WASTE COLLECTION INFOMATION TABLE

Enclosure size: 10.5' x 17.5' (3.2 x 5.3m)
Location: At grade, in parking area incorporated into residential parking carport.
Access: Double gate x 2
Number of units: 4 residential, 4 commercial
Requirements based on COR review:

Type of waste	Residential	Commercial
Garbage	1x360 L	1x 1 cu.yard
Cardboard	1x360 L	1x 1 cu.yard
Paper	1x360 L	1x360 L
Containers	1x360 L	1x360 L
Glass Containers	1x120 L	NA
Food Scraps	1x240 L	1x240 L
Refundable Containers	1x240 L	1x240 L
Grease	NA	NA, No Restaurants

Total area required with x 2.25 manouvering factor: 166.141 sq.ft. (5.985 sq.m. + 9.45 sq.m.)
Area provided: 180.75 sq.ft. (16.79 sq.m.)

3 WASTE MANAGEMENT OVERLAY/ ROAD (LANE) FUNCTIONAL PLAN
1/16" = 1'-0"

ESA

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Project Title:

12060, 12080 1ST AVE
SAKATA GARDENS
STEVESTON, BC

Drawing Title:

STREETSCAPES AND SECTIONS

Scale: As noted
Date: 08/18
Check: ES

Drawing No.
A1a

Revision No. 3

No.	Description	Date
1	issued for DP/HAP	1/12/17
2	issued for DP/HAP Prior to	12/6/18
3	issued for DP/HAP Prior to	6/11/18
4	issued for DP/HAP Prior to	01/2/19
5	issued for DP/HAP Prior to	1/2/19
6	issued for DP/HAP Prior to	15/2/19
7	issued for DP/HAP Prior to	19/2/19

1 EAST ELEVATION
1/8" = 1'-0"

COLOUR SCHEDULE

1	Hardie colour, 'Sailcloth'
2	Hardie colour, 'Iron Gray',
3	Hardie colour, 'Arctic White',
4	Hardie colour, 'Light Mist',
5	Cedar, clear satin finish
6	Hardie colour, 'Light Mist'

Note: Colours are selected from manufacturers pre-finished cementitious precast range. Painted finish ceramic finish.

MATERIAL / ASSEMBLY KEY

F1	Shingle siding, 5" exposure	D1	Windows, double glazed
F2	Fibre cement panel, beam and batten exposure varies	D2	Windows and doors, double glazed
F3	Trim, exposure varies	G5	Storefront glazing, double glazed
F4	Trim, exposure varies	G4	Storefront entry doors and sidelights
F5	Pre-finished metal flashing	G5	Glass guard, 42" ht
F6	Stained T&G wood soffit wall	G6	Solar shading
F7	Architectural concrete, sealed	G7	Skylight glazing, double glazed
F8	Fibre cement panel, beam and batten exposure varies	G8	Signage location
F9	Prefinished metal cornice	D1	Painted metal door and frame
F10	Concrete block, sealed	E1	Pre-finished metal louvre

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Project Title:

12060, 12080 1ST AVE
SAKATA GARDENS
STEVESTON, BC

Drawing Title:

ELEVATIONS

Scale: As noted
Date: 08/17
Check: FF

Drawing No.

A8

Revision No. 7

CJKennedy Landscape Design

Pavers at Entries- Abbotsford Piazza Series

Broom finish concrete sidewalk to match adjacent

Inset pavers - Long linear pattern to reflect historic wood planking to mark door entries

Decorative planters with colourful plant material

Bench- Maglin MLB1055 High Density Paper- Charcoal

Bike Rack- Cora

WL= Wall Light
SL= Recessed Soffit Light
● = Bollard Light
PL = Area Light

Parking Lot Area Light LED

Decorative Garden Pattern Trench drain (to meet Heritage Panel direction)

Broom finish concrete sidewalk

Linear Pavers to reflect historic wood planking

Trees in continuous soil trench

Curb Cut or Flush Curb for Accessibility

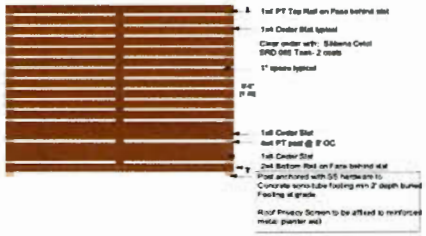
Permeable Pavers- Natural with Charcoal Lines for Retail Parking (plus visitor)

Flush Concrete Band

6' Visual Screening for Parking lot- Cedar Slat Fence

Bollard Small- Rooftop Light

Wall/Column Mounted Light



6' Tall Screening Fence at Grade

Carport structure for residential parking with visual screening for Garbage, recycling and utilities- screen to match fence. Refer to Arch for further details

Planted rain garden - utilizing perennial species from existing garden when suitable for rain garden environment

Issue	Date
Issue for DP Prior-to	15-03-2018
Issue for DP Prior-to	14-02-2018
Issue for DP Prior-to	02-11-2018
Issue for DP Prior-to	12-08-2018
Issue for DP	15-12-2017
Issue for Review	17-11-2017
Issue for Review	24-10-2017
Issue for Review	13-10-2017
Issue for Review	20-09-2017
Issue for Review	13-09-2017

rNo — Revision No; rDate — Date

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Client: Sekata Gardens

Project Title: Sekata Gardens

Drawing Title: Landscape Concepts Ground Level

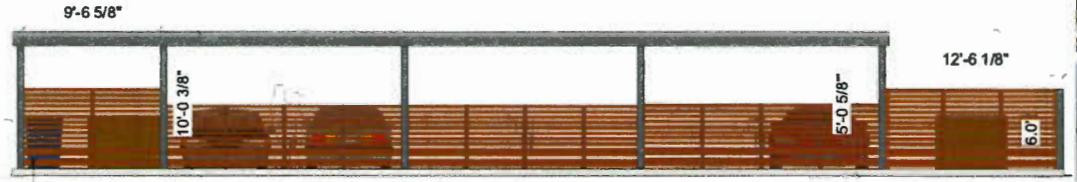
Drawn By: CJK

Checked By:

Scale: 1/8"=1'

Job No.

Sheet No.: L1



garbage and recycling storage with painted metal slats (non-combustible) to replicate fence

Carport West Side Elevation
Scale 1/4"=1'

Permeable pavers

Swedish columnar aspen- informal arrangement

Raised garden style planting

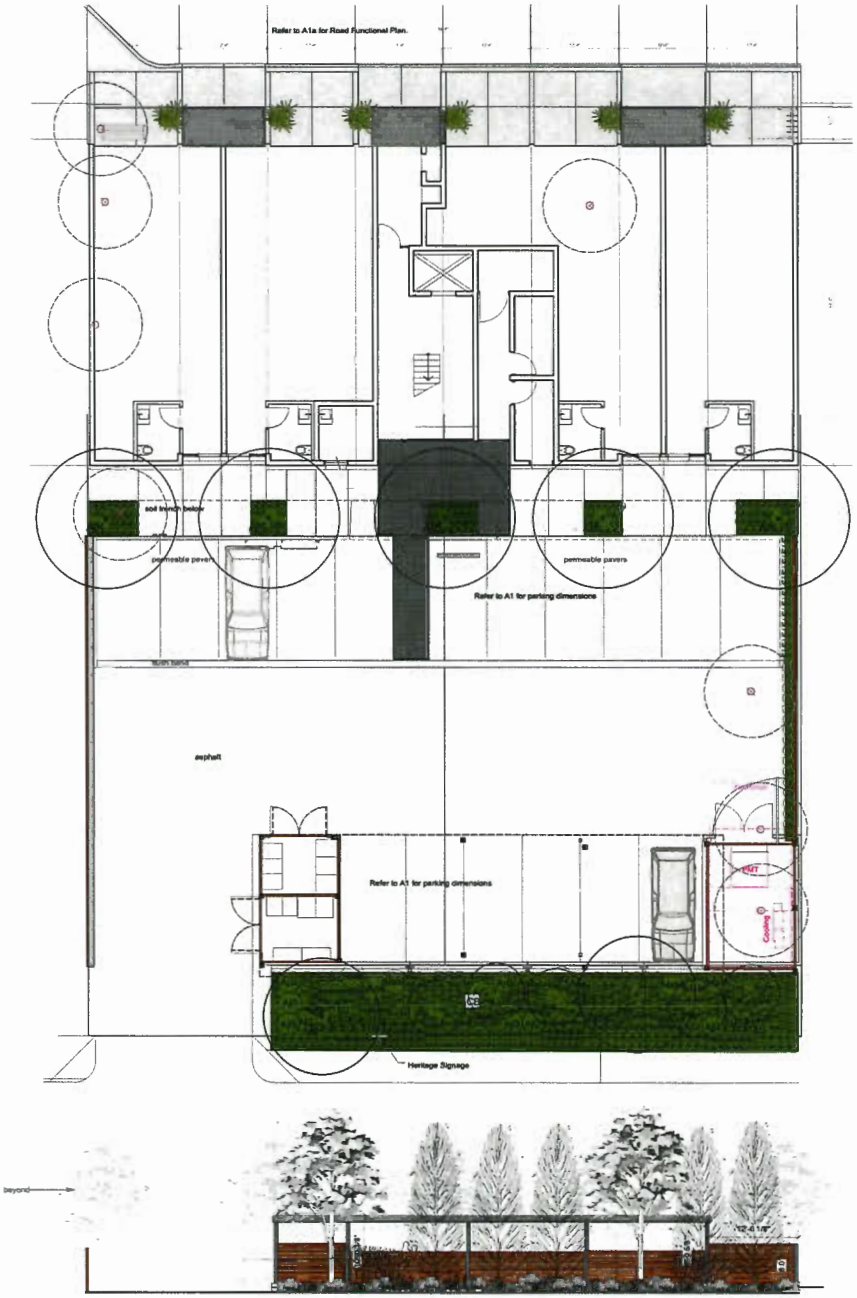
NOTE: In an effort to commemorate the existing Gardens- some existing plant material has been removed and is temporarily heeled into the owners garden. Viable perennials will be relocated into the new garden and some may be donated towards other gardens thus illustrated planting plan may adjust slightly based on the condition of re-used perennials.

Perennials that have been salvaged so far include: anemones, iris, crocosmia, tradescantia, primula, hosta, mondo grass., roses wall flower, columbines, goldenrod, heleborus, misc bulbs.

Colourful Planting in Pots along 1st

Plant List

ID	Qty	Botanical Name	Common Name	Size
Trees				
AcS	4	Acer palmatum 'Sango-kaku'	Coral Bark Maple	2m ht.
AcK	5	Acer rubrum 'Karpick'	Karpick Red Maple	8cm cal.
Ns	2	Nyssa sylvatica	Black Gum	10cm cal.
Pot	5	Populus tremuloides Erecta	Columnar Trembling Aspen	8cm cal.
Shrubs				
AG	13	Azalea japonica 'Gumpo White'	Gumpo White Azalea	#2 pot
Mn	34	Mahonia nervosa	Longleaf Mahonia	#2 pot
NdF	5	Nandina domestica 'Fire Power'	Fire Power Heavenly Bamboo	#2 pot
Groundcovers, Vines, Ferns, Perennials and Grasses				
Ap	9	Adiantum pedatum	Maidenhair Fern	#1 pot
Ax	18	Anemone x hybrid	Japanese Anemone	#1 pot
Bc	52	Bergenia cordifolia	Heartleaf Bergenia	#1 pot
BcR	40	Bergenia cordifolia 'Rotblum'	Red Bloom Elephant Ears	#1 pot
CaK	4	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	#2 pot
Cb	36	Carex buchananii	Leatherleaf Sedge	#1 pot
Cf	6	Carex flacca	Blue Creeping Sedge	#1 pot
CoE	82	Carex oshimensis 'Everglow'	Sedge	#1 pot
EQ	20	Echinacea Cheyenne Spirit	Cheyenne Spirit Coneflower	#1 pot
FgE	59	Festuca glauca 'Elijah Blue'	Blue Fescue	#1 pot
HmA	16	Hakonechloa macra 'Aureola'	Japanese Forest Grass	#1 pot
H	18	Helleborus	Hellebore	#1 pot
HC	9	Heuchera 'Cherries Jubilee'	Coral Bells	#1 pot
HeC	9	Heuchera 'Crème Brulee'	Crème Brulee Coral Bells	#1 pot
Is	46	Iris siberica	Siberian Iris	#1 pot
Jec	54	Juncus effusus Spiralis	Corkscrew Juncus	#1 pot
MsM	6	Miscanthus sinensis 'Morning Light'	Morning Light Maiden Grass	#3 pot
Ob	112	Ophiopogon planiscapus 'Nigrescens'	Black Mondo Grass	#1 pot
Os	119	Oxalis oregana	Redwood Sorrel	#1 pot
Rh	24	Rudbeckia hirta	Black-eyed Susan	#1 pot
Sm	14	Sanguisorba menziesii	Alaskan Burnet	#1 pot
SaF	66	Sedum album 'Faro Fern'	Swedish Stonecrop	#1 pot
SlA	104	Sedum rupestre 'Angelina'	Angelina stonecrop	#1 pot
SlM	20	Sedum telephium 'Matrona'	Autumn Stonecrop	#1 pot
Sc	6	Solidago 'Crown of Rays'	Goldenrod	#1 pot
Sl	170	Stipa tenuissima	Mexican Feather Grass	#1 pot
hatch	485sf	Nets Sedum Mat Mix		



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Issue for DP Prior-to	04-09-2019
Issue for DP Prior-to	25-04-2019
Issue for DP Prior-to	15-03-2019
Issue for DP Prior-to	14-02-2019
Issue for DP Prior-to	02-11-2018
Issue for DP Prior-to	12-08-2018
Issue for DP	15-12-2017
Issue for Review	17-11-2017
Issue for Review	24-10-2017
Issue for Review	13-10-2017
Issue for Review	20-09-2017
Issue for Review	15-09-2017

Revision No.	Date

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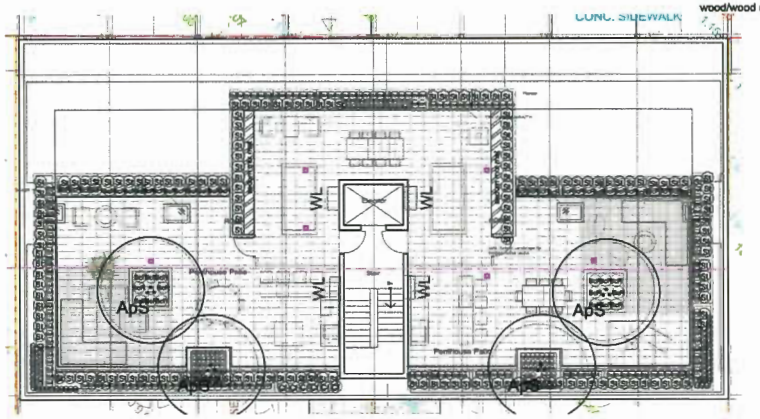
Client:
Sakata Gardens

Project Title:
Sakata Gardens

Drawing Title:
Landscape Concepts

Drawn By: CJK
Checked By:
Scale: 1/8"=1'
Job No.: 2017-0910

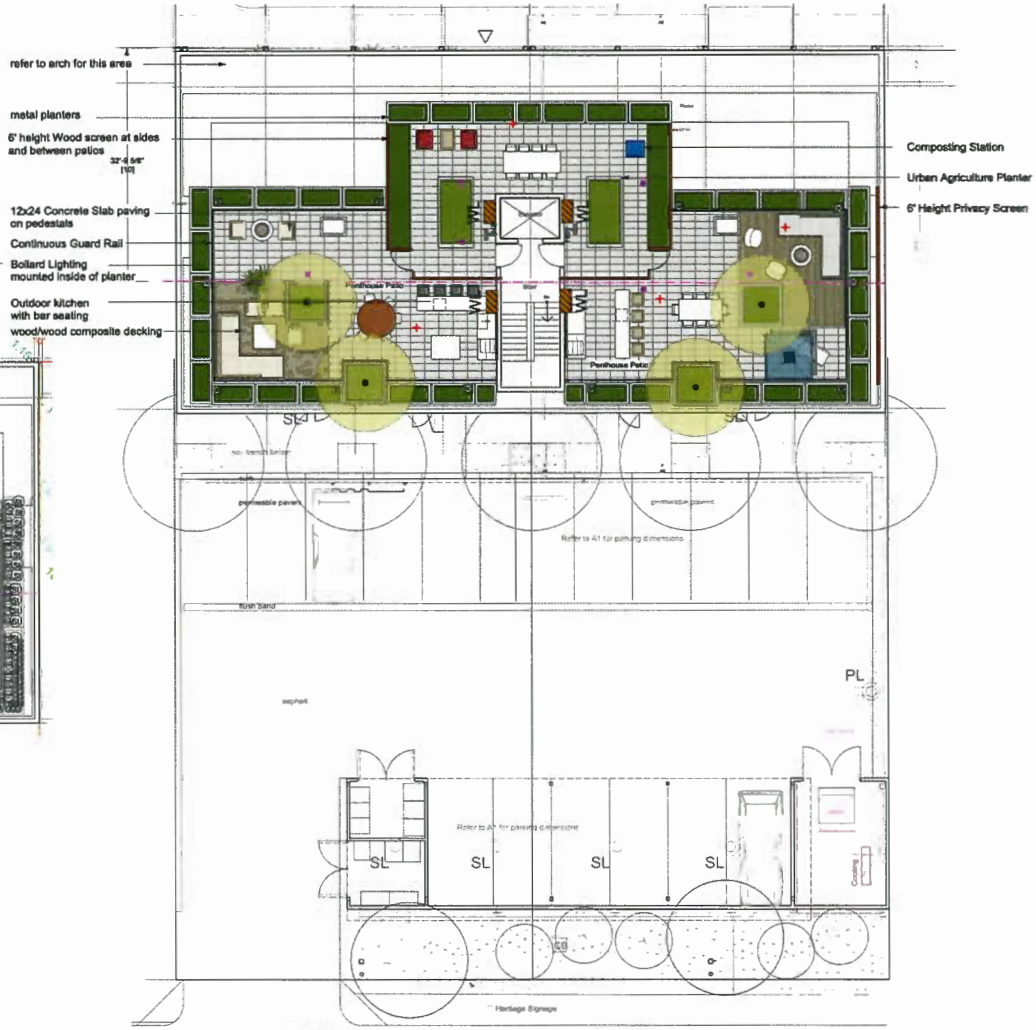
Sheet No.:
L2



Roof Deck Planting

Metal Planter with Guard on Rooftop

Privacy Screen to match ground level fence



Roof Deck

Mixed Paving to define space

Outdoor Kitchen

Semi-private divider/screen

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Issue for DP Prior-to	05-09-2019
Issue for DP Prior-to	04-09-2019
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Client:

Sakata Gardens

Project Title:

Sakata Gardens

Drawing Title:

Landscape Concepts
Roof Top Level

Project North:

Drawn By: CJK

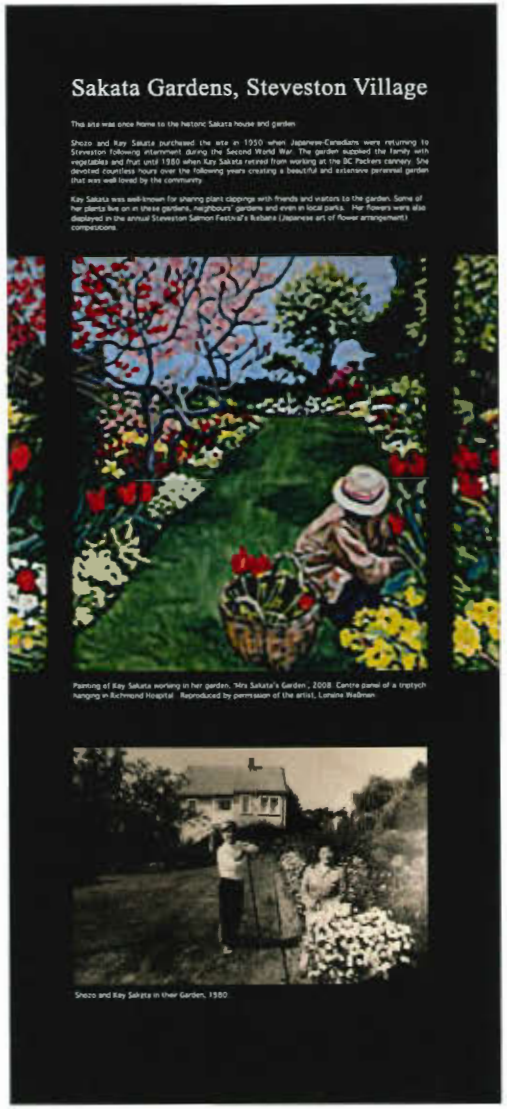
Checked By:

Scale: 1/8"=1'

Job No.: 2017-0910

Sheet No.:

L3



Heritage sign proposed for First Avenue.

Heritage sign proposed for Lane.

City of Richmond

Report to Development Permit Panel

To:	Development Permit Panel	**Date:**	September 25, 2019
From:	Wayne Craig Director of Development	**File:**	DP 18-820689
Re:	**Application by Integrated Construction for an Environmentally Sensitive Areas Development Permit at 1600 Savage Road**		

Staff Recommendation

That an Environmentally Sensitive Area (ESA) Development Permit be issued at 1600 Savage Road in order to allow construction of a warehouse building on a site partially designated as an ESA.

Wayne Craig
Director of Development

WC:je
Att. 6

Staff Report

Origin

Integrated Construction has applied to the City of Richmond for an Environmentally Sensitive Area (ESA) Development Permit to construct a 2,918 m^2 (31,415 ft^2) warehouse building at 1600 Savage Road (Attachment 1). As the construction would impact an ESA, a Development Permit is required prior to Building Permit approval.

The site is currently developed as a paved parking lot. No rezoning is needed as the proposed use is consistent with the 'Light Industrial (IL)' zone.

Development Information

Please refer to the attached Development Application Data Sheet (Attachment 2) for a comparison of the proposed development data with the relevant Bylaw requirements.

Background

Development surrounding the subject site is as follows:

- to the north across River Road, City-owned land zoned Light Industrial (IL) and designated as Environmentally Sensitive Area (ESA);
- to the east, an industrial building on a lot zoned 'Light Industrial (IL)' and partially designated as ESA;
- to the south, an industrial building with outdoor storage on a lot zoned 'Light Industrial (IL)'; and
- to the west across Savage, an industrial building on a lot zoned 'Light Industrial (IL)'.

Staff Comments

The proposed scheme attached to this report has satisfactorily addressed the significant Environmentally Sensitive Area (ESA) issues and other staff comments identified as part of the review of the subject Development Permit application (DP Plans 1, 2, 3, 4.a, 4.b and 5). In addition, it complies with the intent of the applicable sections of the Official Community Plan and is generally in compliance with the Light Industrial (IL) zone. No variances are being sought through this ESA Development Permit application.

Advisory Design Panel

As the scope of this Development Permit does not involve any building design components, the application has not been reviewed by the Advisory Design Panel.

Analysis

Site Planning

1600 Savage Road is a 5,257 m^2 (1.3 acre) parcel zoned Light Industrial (IL) and designated Industrial in the Official Community Plan. An Environmentally Sensitive Area (ESA)

designation is present on portions of the property and requires that a Development Permit be issued prior to construction. There are two distinct ESA on site: the northern ESA (approximately 788 m^2/8,482 ft^2), which is predominantly 'Upland Forest' with a small sliver of 'Shoreline' ESA along the northern property line; and a central, disconnected ESA (approximately 198 m^2/2,131 ft^2) that is entirely classified as 'Upland Forest' (Attachment 3).

The applicant proposes to remove the Upland Forest ESA at the centre of the site to enable development of a warehouse with associated office space, loading and surface parking. The proposed two storey warehouse is 2,918 m^2 (31,415 ft^2) and 11.1 m (36.5 ft) in height. The proposal includes four loading bays: two located on either side of the front elevation in order to serve separate operational requirements of the business. Two vehicle driveways are proposed from Savage Road to facilitate loading from each of the loading areas; one at the southern corner of the site (currently existing) and a second access to the north near River Road.

To compensate for removing the central ESA area, the applicant proposes to establish two new ESA areas on-site (DP Plan 1):

- 305 m^2 (3,283 ft^2) of new ESA contiguous with the existing northern portion of Upland ESA; and
- 109 m^2 (1,173 ft^2) of new, discontinuous ESA along the western property boundary adjacent Savage Road.

Net gain in total ESA over the site would be 216 m^2 (2,325 ft^2). Additional compensation measures proposed include the removal of invasive species and replanting of native species within the existing ESA to be retained and within the new ESA to be established.

ESA Environmental Inventory

The City of Richmond identifies the Environmentally Sensitive Area (ESA) on this site as predominantly 'Upland Forest' with a small sliver of 'Shoreline' ESA along the northern property line. The northern portion of Upland Forest ESA is contiguous with ESA designated on the neighbouring parcel to the east (totalling approximately 1,900 m^2/20,451 ft^2). Both are contiguous with the Shoreline and Intertidal ESAs associated with the Fraser River to the north, which form a 'hub' in the Ecological Network Management Strategy.

An environmental inventory and assessment report was submitted by Aquaterra Environmental Ltd. (July, 2019). The environmental inventory, completed in the winter of 2018 and spring of 2019, found the site to be primarily disturbed and generally flat with no defining geological or topographical features. No watercourses were found on site, although a dry ditch was observed immediately north of the site within the City road dedication, and a Riparian Management Area (RMA) protected watercourse was observed to the west across Savage Road. The Fraser River is located less than 50 m north of the site.

Within the small portion of on-site Shoreline ESA, vegetation was found to consist of riparian vegetation, including: mature black cottonwood, red alder, red-osier dogwood and paper birch trees.

The areas classified as Upland Forest, both the northern and the central ESA areas, were found to be degraded habitat with established invasive species throughout. The northern ESA, which is proposed to be protected, consists of non-native Norway maple, as well as native Western red cedar, black cottonwood, lodgepole pine, Western red pine and red alder, with an understory impacted by invasive species and dominated by Himalayan blackberry. Invasive species cover was found to be approximately 60%. The trees were found to be generally intact and providing cover and habitat for terrestrial species such as birds and small mammals.

The central ESA, which is proposed to be removed, consists of 15 conifer trees, including lodgepole pine, Western red cedar and Western red pine. The understory consists of large cleared areas with invasive Himalayan blackberry and cherry laurel. Invasive species cover was found to be approximately 50%. The central ESA was found to have little habitat value as a result of its small size and isolation from other habitat areas, marginal understory cover and anthropogenic disturbance from being situated within a parking lot.

Limited bird activity was observed during the field assessments; direct observations were limited to Northwestern crow, with one inactive crow's nest observed within a row of off-site trees to the west. One bald eagle site was observed approximately 300 m east of the site along the Fraser River. According to Aquaterra, site redevelopment is not anticipated to impact bald eagles or their nesting success.

No mammals, amphibians, reptiles or invertebrates were directly observed.

Tree Inventory

The applicant has submitted a Certified Arborist's report which identifies on-site and off-site tree species, assesses tree structure and condition, and provides recommendations for tree retention and removal relative to the proposed development. The report assesses 54 bylaw-sized trees on the subject property, 4 trees on the neighbouring property, and 5 trees on City property. (Attachment 4).

Tree Removal

30 on-site trees are proposed to be removed, including 15 trees from the central ESA area and 15 trees located on-site but outside the ESA. The City's Tree Preservation Coordinator has reviewed the arborist report and has the following comments:

- 1 tree (tag# 704), a 48 cm Norway maple, exhibits a significant crack in the main trunk and is now a high hazard. This tree should be removed as soon as possible.
- 4 trees (tag# 728, 729, 730 and 731), all Norway maples ranging from 20 – 25 cm, are in poor condition (sparse canopy) and conflict with the proposed development. Remove and replace.
- 15 trees (tag# 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724 and 725) located in the central ESA are in good condition but conflict with the proposed development. Remove and replace.
    - 6 are lodgepole pines ranging from 30 – 60 cm (#711, 719, 720, 721, 724 and 725);

  - 8 are Western redcedars, ranging from 40 – 50 cm (#712, 713, 714, 715, 716, 717, 722 and 723); and
  - 1 is a 25 cm Western red pine (#718).

- 10 trees (tag# 701, 702, 703, 705, 706, 707, 708, 709, 726 and 727), all Norway maples in good condition, ranging from 30 – 48 cm, conflict with the proposed development. Design alternatives were assessed to protect tree tag #701, 702, 703, 705, 706, 707, 708, and 709, however, insufficient area is available to accommodate trees as well as the required parking and drive aisle. The applicant has committed to replacing trees closer to the western property line. Tree tag #726 and 727 conflict with the proposed building footprint.
- Replacement trees should be provided at a 2:1 ratio as per the OCP.
- If required replacement trees cannot be accommodated on-site, a cash-in-lieu contribution in the amount of $500/tree to the City's Tree Compensation Fund for off-site planting is required.

Tree Retention

24 on-site trees and 4 off-site trees are proposed to be retained and protected on site. The City's Tree Preservation Coordinator has reviewed the arborist report and has the following comments:

- 2 trees (tag # 710 and 737), are located on-site but outside the ESA. Tree tag #737 is a significant tree in good condition. These are to be retained and protected.
- 22 trees (tag # 738, 739, 740, 741, 742, 743, 744, 745,746, 749, 752,753, 754, 755, 756, 757, 758, 759, 760, 761, 762, and 763) located in the northern ESA are in good condition. These are to be retained and protected.
- 4 trees (tag # 747, 748, 450, and 751) located on the neighbouring site are to be retained and protected.
- Retained trees should be protected as per City of Richmond Tree Protection Information Bulletin Tree-03.

City Trees

5 trees (tag # 732, 733, 734, 735, 736) located on City property were assessed by Parks Arboriculture staff.

- 4 trees (tag # 732, 733, 734 and 736) are to be retained.
- 1 tree (tag # 735) is a 10 cm caliper tree that has been pruned for hydro lines and conflicts with development. Compensation of $650 is required to remove the tree for the City to plant two new trees at or near the development site.

Tree Protection

The applicant is to submit a tree management plan showing the trees to be retained and the measures taken to protect them during development stage (Attachment 4). To ensure that the

trees identified for retention are protected at the development stage, the applicant is required to complete the following items:

- Prior to approval of the Development Permit, the applicant is required to submit a tree security of $10,000 for the four City trees to be protected.

- Prior to issuance of the Development Permit, the applicant is to register legal agreements on title to ensure protection and retention of the modified ESA, including protection of trees be retained on-site (tag # 710, 737, 738, 739, 740, 741, 742, 743, 744, 745,746, 749, 752,753, 754, 755, 756, 757, 758, 759, 760, 761, 762, and 763) and submit landscape security for the restoration works

- Prior to issuance of the Development Permit, the applicant is to submit to the City a contract with a Certified Arborist for the supervision of all works conducted within or in close proximity to tree protection zones. The contract must include the scope of work required, the number of proposed monitoring inspections at specified stages of construction, any special measures required to ensure tree protection, and a provision for the arborist to submit a post-construction impact assessment to the City for review.

- Prior to any works on the subject site, the applicant is to ensure installation of tree protection fencing around all trees to be retained. Tree protection fencing must be installed to City standard in accordance with the City's Tree Protection Information Bulletin Tree-03 prior to any works being conducted on-site, and remain in place until construction and landscaping on-site is completed.

Tree Replacement

The applicant wishes to remove 30 on-site trees (tag #701, 702, 703, 704, 705, 706, 707, 708, 709, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730 and 731). The 2:1 replacement ratio would require a total of 60 replacement trees. The applicant has proposed to plant 26 trees in the proposed development. The required replacement trees are to be of the following minimum sizes, based on the size of the trees being removed as per Tree Protection Bylaw No. 8057.

Table 1: Tree Replacement Calculation

No. of Replacement Trees	Minimum Caliper of Deciduous Replacement Tree	Minimum Height of Coniferous Replacement Tree
2	8 cm	4 m
14	9 cm	5 m
8	10 cm	5.5 m
2	11 cm	6 m

To satisfy the 2:1 replacement ratio established in the OCP, the applicant will contribute a total of $17,000 to the City's Tree Compensation Fund for the remaining thirty-four trees that cannot

be accommodated on the subject property after redevelopment. An additional $650 is required in compensation for one City tree to be removed.

As part of the Development Permit application, the applicant must provide a Landscape Plan prepared by a registered Landscape Architect, which must include the agreed upon replacement trees. The City will collect a Landscape Security prior to issuance of the Development Permit based on the cost estimate for the works, including a 10% contingency, provided by the Landscape Architect.

Proposed Environmentally Sensitive Area Compensation

To compensate for removal of 198 m^2 of ESA, the applicant proposes to add 414 m^2 (4,456 ft^2) of new ESA, and complete landscape restoration and enhancement as follows (DP Plans 1, 2, 3, 4.a, 4.b and 5):

- removal of Himalayan blackberry and other invasive plant species within the existing northern ESA to be protected (approximately 788 m^2 /8,482 ft^2 of the site) and within the new ESA to be created, Attachment 5;

- expansion of the northern ESA by 305 m^2 (93,283 ft^2) and enhancing both the new and existing ESA at the north of the site (totalling 1,093 m^2/11,765 ft^2). Proposed plant species include:

    - 4 large western redcedar trees (5.0 - 5.5 m in height);
    - 10 large Douglas fir trees (5.5 - 6.0 m in height);
    - 345 native shrubs including 54 salal, 67 Oregon grape, 47 baldhip rose, 55 oceanspray, 58 salmonberry, 64 common snowberry plants; and
    - 1059 perennial plants, including 120 vanilla leaf, 160 pacific bleeding heart, 214 sword fern, 284 small flowered alumroot, 80 large leaved lupine, and 201 pink fawn lily.

  Plant density is proposed to be 1.3 plants/m^2 in addition to the existing trees to be retained.

- designation, enhancement and protection of 109 m^2 (1,173 ft^2) of non-contiguous ESA with native plant species, including:
    - 6 large western redcedar trees (5.0 m in height);
    - 5 large Douglas fir trees (5.0 m in height);
    - 87 native shrubs including 42 salal, 35 Oregon grape, 4 baldhip rose, 2 salmonberry, 4 common snowberry plants.

  Plant density is proposed to be 0.9 plants/m^2.

Table 2: Balance Sheet

ESA Area	ESA Existing	ESA Loss	ESA Gain	FINAL ESA
Northern ESA	788 m^2 (8482 ft^2)	0	305 m^2 (3,283 ft^2)	1,093 m^2 (11,765ft^2)
Central ESA	198 m^2 (2,135 ft^2)	198 m^2 (2,135 ft^2)	0	0
New ESA along Savage Road	0	0	109 m^2 (1,177 ft^2)	109 m^2 (1,177 ft^2)
TOTAL	**986 m^2 (10,613 ft^2)**	**198 m^2 (2,135 ft^2)**	**414 m^2 (4,456 ft^2)**	**1,202 m^2 (12,938 ft^2)**

The proposal represents a net gain of 216 m^2 (2,325 ft^2) in habitat area (ratio of 2:1), with a net gain in function by augmenting the upland forest with a new densely planted, natural area to be protected as ESA. Enhancement will support utilization by a variety of terrestrial species, including small and medium-sized mammals, birds and invertebrates. Improvements are anticipated to improve foraging potential, cover, nesting, and direct and indirect utilization by wildlife as a home range for resident and migratory species.

To ensure that the proposed enhancements have the best chance of survival and that invasive species are controlled, monitoring and annual reporting by a Qualified Environmental Professional will occur for three years following completion of the landscape restoration plan.

Development Permit Considerations include bonding for the landscape restoration costs and success monitoring, installation of temporary tree and ESA protective fencing, and the registration of legal agreements to ensure protection and retention of the modified ESA (Attachment 6).

An existing covenant (BP 245419), associated with a previously issued Development Permit (DP 99-170971) and registered over the existing, northern ESA for the protection of the native vegetation, is to be discharged as a condition of this Development Permit. The new legal agreement, noted above, will reflect updated conditions, including the proposed modified ESA boundary and enhancements.

Engineering Comments

A Servicing Agreement will not be required for this development. Utility connections and frontage improvements will be addressed through a Work Order at the time of Building Permit, including completing new water and stormwater connections. At the time of future installation of any private utilities, all above-ground utility boxes (transformers, kiosk, etc) required to service the development will be situated within the development site. Utility alignments and connections must be approved by Engineering.

Registration of a new 13 m Statutory Right of Way for access, construction and maintenance of future road, dike and utility works is a consideration of the Development Permit. The dyke SRW will overlap with the ESA protective covenant. The covenant will prohibit any excavation or construction within the SRW and provide the City with unrestricted vehicular and man access to all areas of the SRW. Any future impacts to ESA as a result of the ultimate dyke cross section will be addressed at that time.

An existing flood plain covenant (BP 245434), associated with a previously issued Development Permit (DP 99-170971), is to be discharged as a condition of this Development Permit. A new flood protection covenant agreement reflecting current City standards is a condition of this Development Permit.

Financial Impact

The application results in an insignificant Operational Budget Impact (OBI) for off-site City infrastructure (such as road works, waterworks, storm sewers, sanitary sewers, street lights, street trees and traffic signals).

Conclusion

The applicant proposes to remove a total of 198m^2 (2,325 ft^2) from the Environmentally Sensitive Area (ESA) to allow development of a warehouse and associated parking, loading and office. Compensation is proposed through a combination of additional ESA designation on-site, planting of 414 m^2 of newly established ESA area with native trees, shrubs and plants, and invasive species management and replanting of 788 m^2 (8,482 ft^2) of existing ESA. The total net gain in area would be 216 m^2 (2,325 ft^2) with a total of 1,202 m^2 (12,938 ft^2) of enhanced ESA (new and existing).

As the proposed landscape restoration plan would result in a net gain in ESA area and function, staff recommend that the Development Permit be endorsed, and issuance by Council be recommended.

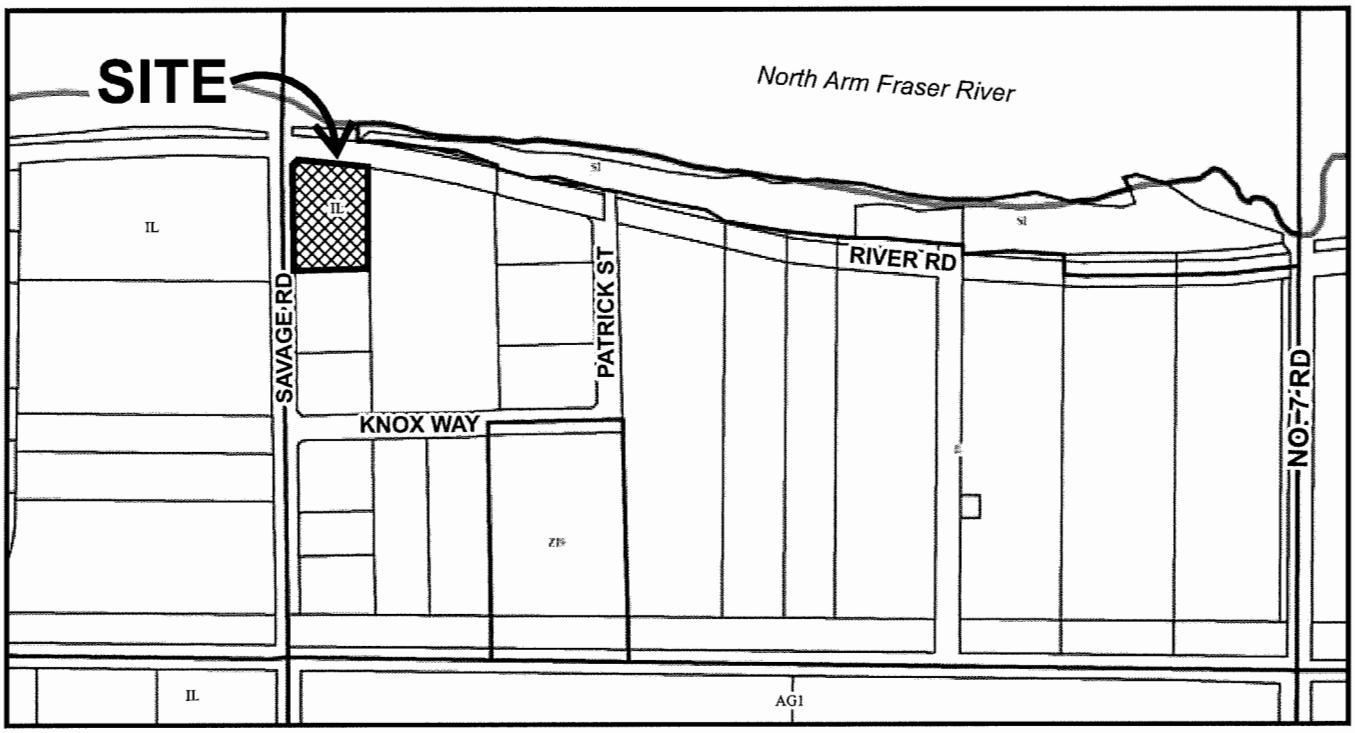
Jeanette Elmore
Planner 2

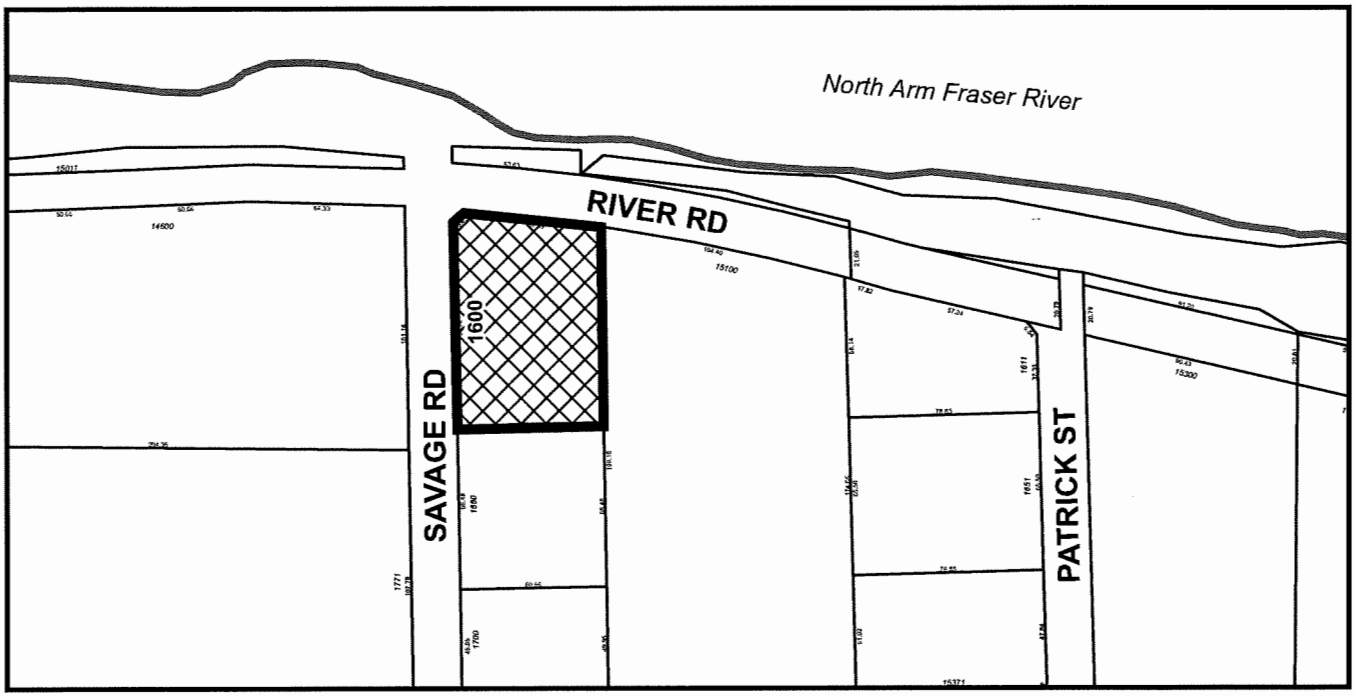
JE:cas

Attachments:

- Attachment 1: Location Map
- Attachment 2: Data Sheet
- Attachment 3: ESA Context Plan
- Attachment 4: Tree Management Plan
- Attachment 5: Location of Invasive Plant Species
- Attachment 6: Development Permit Considerations

City of Richmond





DP 18-820689

Original Date: 05/22/18

Revision Date: 05/23/18

Note: Dimensions are in METRES

City of Richmond

Development Application Data Sheet

Development Applications Department

DP 18-820689 **Attachment 2**

Address: 1600 Savage Road

Applicant: Integrated Construction Owner: 10647462 Canada Ltd.

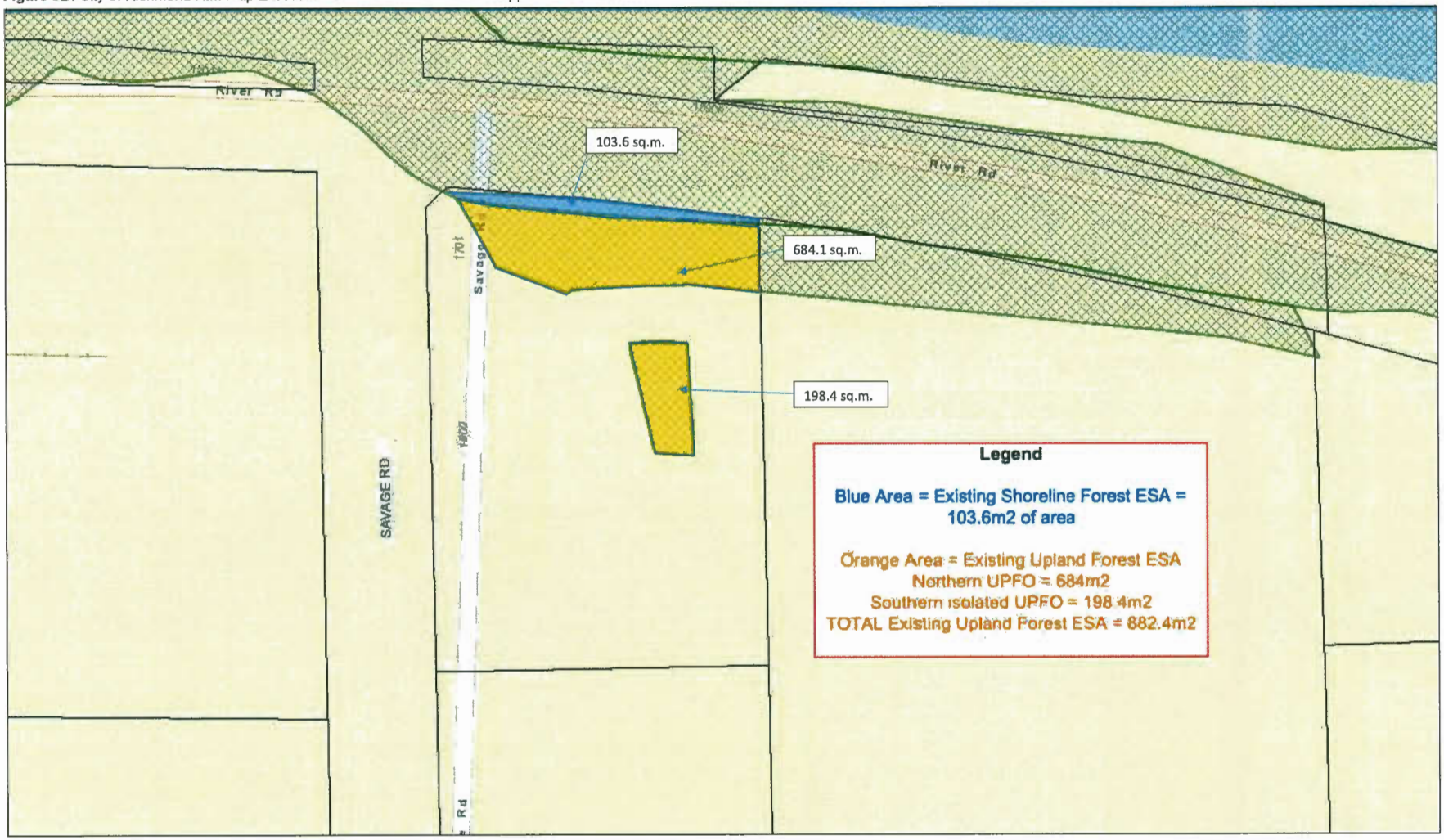
Planning Area(s): Bridgeport

Floor Area: Gross: 2,918m^2 Net: 2,918 m^2

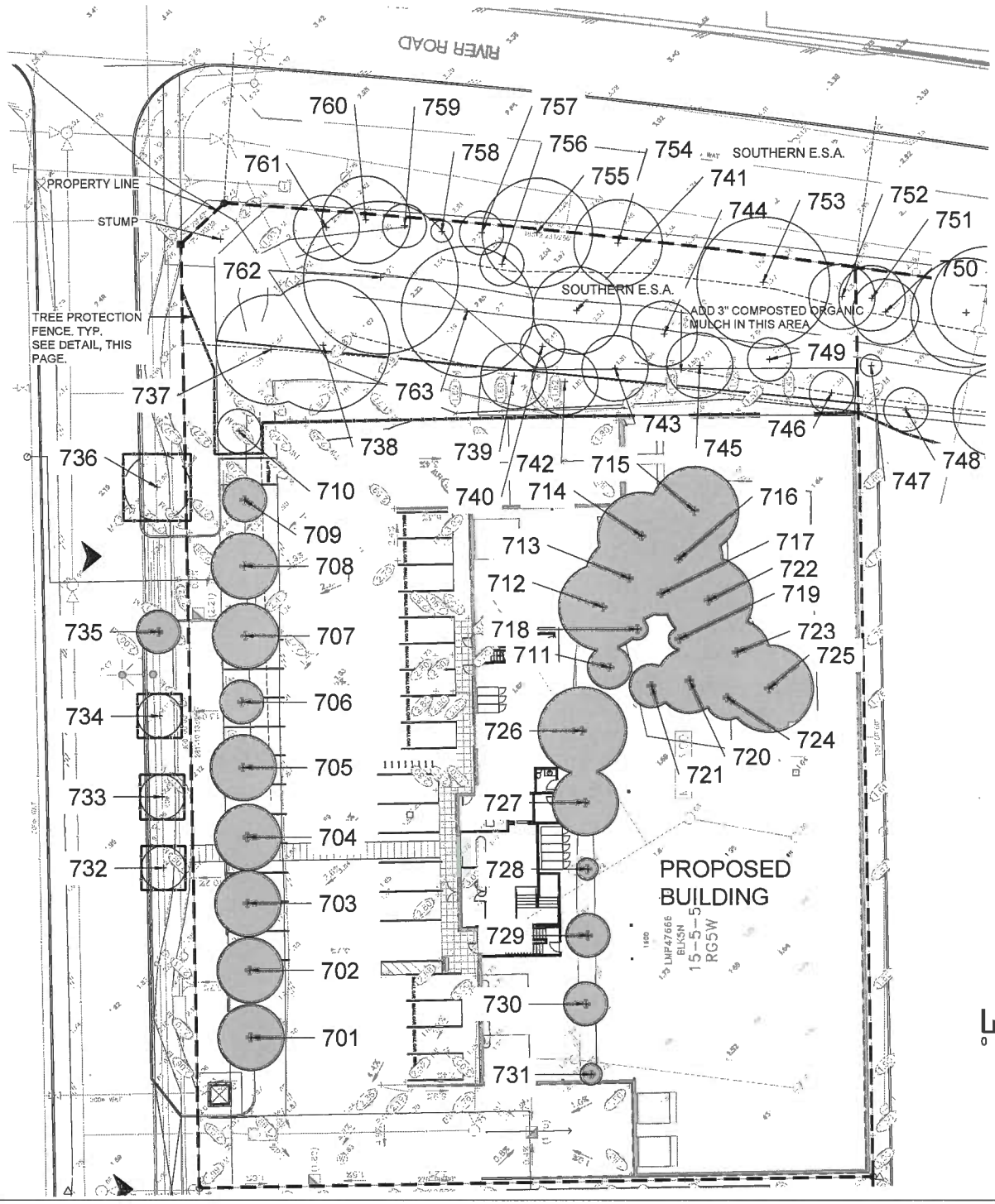
	Existing	Proposed
Site Area:	5,257 m^2	5,257 m^2
Land Uses:	Surface parking lot	Warehouse
OCP Designation:	Industrial	No change
Zoning:	Light Industrial (IL)	No change

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 1.0	0.55	none permitted
Lot Coverage:	Max. 60%	42%	none
Setback – Front Yard:	Min. 3.0 m	Min. 3.0 m	none
Setback – Exterior Side Yard:	Min. 3.0 m	Min. 3.0 m	none
Setback – Interior Side Yard:	No minimum	0.3 m	none
Setback – Rear Yard:	No minimum	0.32 m	none
Height (m):	Max. 12.0 m	Max. 11.12	none
Off-Street Parking Spaces:	Min. 30	30	none
Off-Street Parking Spaces (accessible):	Min. 1	1	none
Total Off-Street Parking Spaces:	Min. 31	31	none
Loading Spaces:	Min: 1 large/1 Medium	2 Large/2 medium	none
Bicycle Parking Spaces:	Class 1: 8 spaces Class 2: 8 spaces	Class 1: 8 spaces Class 2: 8 spaces	none

Figure 5B: City of Richmond RIM Map ESA Results – Green Cross-hatch: Mapped ESA Areas.



ATTACHMENT 3



LEGEND

- EXISTING TREE PROPOSED FOR REMOVAL
- EXISTING TREE TO BE RETAINED
- TREE PROTECTION FENCING
- 19 TREE TAG/NO.

0 5 10 15 20 m

Krahn GROUP OF COMPANIES

KD Planning & Design Ltd

NO	DATE (d/m/y)	DESCRIPTION:
8	26/06/2019	REISSUED FOR PERMIT
7	23/06/2019	REISSUED FOR PERMIT
6	23/05/2019	REISSUED FOR PERMIT
5	17/04/2019	REISSUED FOR PERMIT
4	12/04/2019	REISSUED FOR PERMIT
3	29/11/2018	ISSUED FOR BP
2	25/04/2018	ISSUED FOR DP
1	13/02/2018	ISSUED FOR REVIEW

ISSUES & REVISIONS

SEAL

Assessment Done Feb. 07, 2018
By Shan Tennyson,
I.S.A. # ON-0969A

N

PROJECT NAME

SAVE ROAD SPEC

PROJECT ADDRESS

1600 SAVAGE ROAD,
RICHMOND, B.C.

DRAWING TITLE

TREE MANAGEMENT PLAN

SCALE:	1:250 AT ARCH C SIZE
DRAWN:	RM
CHECKED:	BT
PROJECT No:	180084

DRAWING NO

T1

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ATTACHMENT 4

TABLE 1. TREE INVENTORY - SAVAGE ROAD PROPERTY

*The tree health and structural condition ratings are as follows and are based on factors that could include one or a combination of:

Poor Condition – Severe Canopy dieback, significant lean, decayed, missing leader, significant disease or parasitic plant presence

Fair Condition – Moderate Canopy dieback and/or lean, limb defects, multiple stems, moderate foliage damage from stress, moderate damage from disease or parasite.

Good condition – Healthy vigorous growth, no or minor visible defects or damage

TREE OR TAG #	BOTANICAL NAME	COMMON NAME	DBH (cm)	CANOPY RAD. (m)	STEMS	CONDITION*	COMMENTS	RECOMMENDATION
701	Acer platanoides	Norway Maple	39	3	1	Good-Fair	Pruned	Remove for Development
702	Acer platanoides	Norway Maple	34	3	1	Good	Pruned, slight lean	Remove for Development
703	Acer platanoides	Norway Maple	48	3	1	Good	Pruned, slight lean	Remove for Development
704	Acer platanoides	Norway Maple	48	3	1	Poor	Crack in trunk, pruned	Remove for Condn/Development
705	Acer platanoides	Norway Maple	38	3	1	Fair	Pruned, dieback	Remove for Development
706	Acer platanoides	Norway Maple	35	2	1	Fair	Pruned, dieback	Remove for Development
707	Acer platanoides	Norway Maple	49	3	1	Fair	Pruned, dieback, has birds nest	Remove for Development
708	Acer platanoides	Norway Maple	44	3	1	Fair	Pruned, dieback, corrected lean, broken branches	Remove for Development
709	Acer platanoides	Norway Maple	37	2	1	Fair	Pruned, dieback on one side, uncorrected lean	Remove for Development
710	Acer platanoides	Norway Maple	3@ 25, 1@ 15	2	4	Fair	Pruned, dieback, growing into tree wire and rebar	Retain and Protect
711	Pinus contorta	Lodgepole Pine	40	2	1	Good-Fair	Shaded dieback one side	Remove for Development
712	Thuja plicata	Western Red Cedar	45	4	1	Good		Remove for Development
713	Thuja plicata	Western Red Cedar	45	4	1	Good		Remove for Development
714	Thuja plicata	Western Red Cedar	50	4	1	Good	Minor shaded dieback	Remove for Development
715	Thuja plicata	Western Red Cedar	50	4	1	Good		Remove for Development
716	Thuja plicata	Western Red Cedar	45	4	1	Good	Shaded dieback	Remove for Development
717	Thuja plicata	Western Red Cedar	40	2	1	Good		Remove for Development
718	Pinus resinosa	Western Red Pine	25	1	1	Poor	Shaded dieback	Remove for Development
719	Pinus contorta	Lodgepole Pine	35	1	1	Poor	Shaded dieback, corrected lean	Remove for Condn/Development
720	Pinus contorta	Lodgepole Pine	45	3	1	Fair-Poor	Shaded dieback	Remove for Condn/Development
721	Pinus contorta	Lodgepole Pine	30	2	1	Poor	Leader missing, dieback, leaning	Remove for Development
722	Thuja plicata	Western Red Cedar	52	4	1	Good	Shaded dieback	Remove for Development
723	Thuja plicata	Western Red Cedar	40	3	1	Poor	Some canopy dieback, fruiting bodies, holes in trunk indicate insect infestation, likely internal decay	Remove for Condn/Development
724	Pinus contorta	Lodgepole Pine	60	2	1	Fair	Shaded dieback, one stem removed, corrected lean	Remove for Development
725	Pinus contorta	Lodgepole Pine	55	4	1	Good-Fair	Shade dieback, corrected lean	Remove for Development
726	Acer platanoides	Norway Maple	40	4	1	Good	Pruned	Remove for Development
727	Acer platanoides	Norway Maple	30	3	1	Fair	Pruned, Dieback	Remove for Development
728	Acer platanoides	Norway Maple	25	1	1	Fair	Pruned	Remove for Development
729	Acer platanoides	Norway Maple	25	2	1	Fair	Dieback, Leaning	Remove for Development
730	Acer platanoides	Norway Maple	25	2	1	Poor	Missing leader, broken limbs, dieback, large trunk cavity	Remove for Condn/Development
731	Acer platanoides	Norway Maple	20	1	1	Poor	Broken limbs, dieback, heavily pruned	Remove for Condn/Development
732	Acer freemanii	Freeman's Maple	10	2	1	Good-Fair	Leaders all pruned due to hydro lines	Retain and Protect
733	Acer freemanii	Freeman's Maple	10	2	1	Good-Fair	Leaders all pruned due to hydro lines	Retain and Protect
734	Acer freemanii	Freeman's Maple	10	2	1	Good-Fair	Leaders all pruned due to hydro lines	Retain and Protect
735	Acer freemanii	Freeman's Maple	10	2	1	Good-Fair	Leaders all pruned due to hydro lines	Remove for Development
736	Acer freemanii	Freeman's Maple	17	3	1	Good-Fair	Leaders all pruned due to hydro lines	Retain and Protect
737	Acer species	Maple	40	5	1	Good	Pruned on one side	Retain and Protect
738	Acer platanoides	Norway Maple	45	6	1	Good		Retain and Protect
739	Pseudotsuga menziesii	Douglas fir	50	3	1	Good	Shaded dieback	Retain and Protect
740	Pseudotsuga menziesii	Douglas fir	45	2	1	Fair-Poor	Significant dieback	Retain and Protect
741	Pseudotsuga menziesii	Douglas fir	30	4	1	Fair	Shaded dieback, slight lean	Retain and Protect
742	Pseudotsuga menziesii	Douglas fir	45	3	1	Good	Shaded dieback on one side	Retain and Protect

TREE OR TAG #	BOTANICAL NAME	COMMON NAME	DBH (cm)	CANOPY RAD. (m)	STEMS	CONDITION*	COMMENTS	RECOMMENDATION
743	Pseudotsuga menziesii	Douglas fir	50	3	1	Good-Fair	Shaded dieback on one side	Retain and Protect
744	Pseudotsuga menziesii	Douglas fir	60	3	1	Good-Fair	Dieback, one sided growth	Retain and Protect
745	Pseudotsuga menziesii	Douglas fir	60	3	1	Good-Fair	Dieback, one sided growth	Retain and Protect
746	Populus trichocarpa	Black Cottonwood	75	2	1	Fair	Ivy on trunk	Retain and Protect
747	Populus trichocarpa	Black Cottonwood	70	1	1	Poor	Ivy on trunk	Retain and Protect
748	Pseudotsuga menziesii	Douglas fir	70	2	1	Good-Fair	Ivy on trunk, some dieback	Retain and Protect
749	Populus trichocarpa	Black Cottonwood	75	2	1	Fair	Shaded dieback	Retain and Protect
750	Alnus rubra	Red Alder	50	3	1	Good-Fair	Ivy on trunk	Retain and Protect
751	Alnus rubra	Red Alder	1 Broken, 1@ 45, 1@ 40	3	3	Good-Fair	Shaded dieback, ivy on trunk	Retain and Protect
752	Alnus rubra	Red Alder	1@ 10, 1@ 15, 1@ 20, 1@ 35	3	4	Good-Fair	Shaded dieback, ivy on trunk	Retain and Protect
753	Alnus rubra	Red Alder	60	6	1	Good		Retain and Protect
754	Acer macrophyllum	Big Leaf Maple	45	4	1	Good	Dieback	Retain and Protect
755	Acer macrophyllum	Big Leaf Maple	70	5	1	Good-Fair	Dieback	Retain and Protect
756	Alnus rubra	Red Alder	20.5	2	1	Good		Retain and Protect
757	Alnus rubra	Red Alder	22	2	1	Poor	Missing leader	Retain and Protect
758	Alnus rubra	Red Alder	20.5	1	1	Good-Fair	Dieback	Retain and Protect
759	Alnus rubra	Red Alder	1@ 22, 1@ 15	2	2	Good-Fair	Corrected lean	Retain and Protect
760	Alnus rubra	Red Alder	41	4	1	Good	Shaded dieback	Retain and Protect
761	Populus trichocarpa	Black Cottonwood	22	2	1	Good		Retain and Protect
762	Acer platanoides	Norway Maple	55	7	1	Good		Retain and Protect
763	Acer platanoides	Norway Maple	50	6	1	Good-Fair	Shaded Dieback, Pruned	Retain and Protect

Figure 9: 1600 Savage Road - May 2019 Invasive Plant Mapping

5/28/2019, 9:54:33 AM

Street Names
Air Parcels
Strata
Parcels (black line)
City Hall
Fire Stations
Police Stations
Ambulance Stations

1:500

0 30 60 120 ft

0 5 10 20 m

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

AquaTerra Environmental Ltd.
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ATTACHMENT 5

ATTACHMENT 6

City of Richmond

Development Permit Considerations

Development Applications Department
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 1600 Savage Road **File No.:** DP 18-820689

Prior to approval of the Development Permit, the developer is required to complete the following:

1. Receipt of a Letter of Credit for landscaping and tree retention security in the amount of $36,247.20 based on the cost estimate provided in the Environmental Impact Assessment (Aquaterra Environmental, July 30, 2019) including 10% contingency.
2. City acceptance of the developer's offer to voluntarily contribute $17,650 to the City's Tree Compensation Fund for the planting of replacement trees within the City.
3. Submission of a Contract entered into between the applicant and a Certified Arborist for supervision of any on-site works conducted within the tree protection zone of the trees to be retained. The Contract should include the scope of work to be undertaken, including: the proposed number of site monitoring inspections, and a provision for the Arborist to submit a post-construction assessment report to the City for review.
4. Submission of a Tree Survival Security to the City in the amount of $10,000 for the four City trees to be retained.
5. Installation of appropriate tree protection fencing around all trees to be retained as part of the development prior to any construction activities, including building demolition, occurring on-site.
6. Installation of appropriate Environmentally Sensitive Area (ESA) protection fencing and silt control fencing at the boundary of the ESA as proposed by the Development Permit, per the ESA Changes Plan L2.2 (August 22, 2019) prior to any construction activities, including building demolition, occurring on-site.
7. Submission of a Contract entered into between the applicant and a Qualified Environmental Professional to monitor and provide annual reporting to the City on the ESA for three years following City approval of substantial completion.
8. The granting of a 13 m wide statutory right-of-way along the northern property line for the purpose of access, construction, and maintenance of future road, dike, and utility works by the City. The SRW shall prohibit any excavation or construction within the SRW and provide the City with unrestricted vehicular and man access to all sections of the SRW.
9. Registration of a flood plain covenant on title identifying a minimum habitable elevation of 3.0 m GSC.
10. Registration of a legal agreement on title to identify the modified ESA and to ensure that landscaping is retained and planted as identified within the Environmental Impact Assessment (Aquaterra Environmental, July 30, 2019) and will not be abandoned or removed.
11. Registration of a legal agreement on title to allow City access to the property in case the works identified within the Environmental Impact Assessment (Aquaterra Environmental, July 30, 2019) are not completed, maintained or monitored as proposed.
12. Discharge of Covanant BP245419.
13. Discharge of Covenant BP245434.

Prior to Building Permit Issuance, the developer must complete the following requirements:

1. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
2. Incorporation of accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
3. Complete works to be done at the developer's sole cost via City Work Order:
   - *Water Works:*

Initial: _____

a) Using the OCP Model, there is 424 L/s of water available at a 20 psi residual at the Savage Road frontage. Based on your proposed development, your site requires a minimum fire flow of 250 L/s.

b) The Developer is required to:
   i) Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage building designs.
   ii) Provide a right-of-way for the water meter. Minimum right-of-way dimensions to be the size of the meter box (from the City of Richmond supplementary specifications) + any appurtenances (for example, the bypass on W2o-SD) + 0.5 m on all sides. Exact right-of-way dimensions to be finalized during the building permit process.
   iii) Install a water meter on the existing water service connection. Water meter to be located onsite in a right-of-way.

• *Storm Sewer Works:*

a) The Developer is required to:
   i) Confirm the capacity and condition (via video inspection) of the existing storm connection near the south property line. If the existing storm connection is adequate to serve the proposed development, at the City's digression, the existing connection may be retained to serve the proposed development. A new inspection chamber will be required. If the existing storm connection is not adequate to serve the proposed development, the existing connection shall be capped and a new storm connection complete with inspection chamber shall be installed by the City at the developer's cost.

•*Sanitary Sewer Works*

a) The Developer is required to:
   i) Confirm the capacity and condition (via video inspection) of the existing sanitary connection at the south property line. If the existing connection is adequate to serve the proposed development, at the City's digression, the existing connection may be retained to serve the proposed development. If the existing connection is not adequate to serve the proposed development, the existing connection shall be replaced by the City at the developer's cost.

b) At Developer's cost, the City is to:
   i) Replace the sanitary inspection chamber at the south property line with a 1050 mm manhole.

•*Frontage Works*

a) The Developer is required to:
   i) Coordinate with BC Hydro, Telus and other private communication service providers:
      (1) To pre-duct for future hydro, telephone and cable utilities on all road frontages.
      (2) Before relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
      (3) To underground overhead service lines.
      (4) To locate/relocate all above ground utility cabinets and kiosks required to service the proposed development, and all above ground utility cabinets and kiosks located along the development's frontages, within the developments site (see list below for examples). A functional plan showing conceptual locations for such infrastructure shall be included in the development design review process. Please coordinate with the respective private utility companies and the project's lighting and traffic signal consultants to confirm the requirements (e.g., statutory right-of-way dimensions) and the locations for the aboveground structures. If a private utility company does not require an aboveground structure, that company shall confirm this via a letter to be submitted to the City. The following are examples of statutory right-of-ways that shall be shown on the architectural plans/functional plan:
         - BC Hydro PMT – 4.0 x 5.0 m
         - BC Hydro LPT – 3.5 x 3.5 m
         - Street light kiosk – 1.5 x 1.5 m
         - Traffic signal kiosk – 2.0 x 1.5 m
         - Traffic signal UPS – 1.0 x 1.0 m

Initial: _____

- Shaw cable kiosk – 1.0 x 1.0 m
- Telus FDH cabinet – 1.1 x 1.0 m

4. If applicable, payment of latecomer agreement charges associated with eligible latecomer works.
5. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.

Note:

* This requires a separate application.

- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

  All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

  The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contains prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

Signed

Date

City of Richmond

Development Permit

No. DP 18-820689

To the Holder: Braden Smith

Property Address: 1600 Savage Road

Address: 4610 Marine Drive
Burnaby, BC V5J 3G2

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1, 2 , 3, 4.a., 4.b, and 5, attached hereto.
4. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
5. As a condition of the issuance of this Permit, the City is holding the security in the amount of $36,247.20 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 Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
6. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.

Development Permit
No. DP 18-820689

To the Holder:	Braden Smith
Property Address:	1600 Savage Road
Address:	4610 Marine Drive Burnaby, BC V5J 3G2

7. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

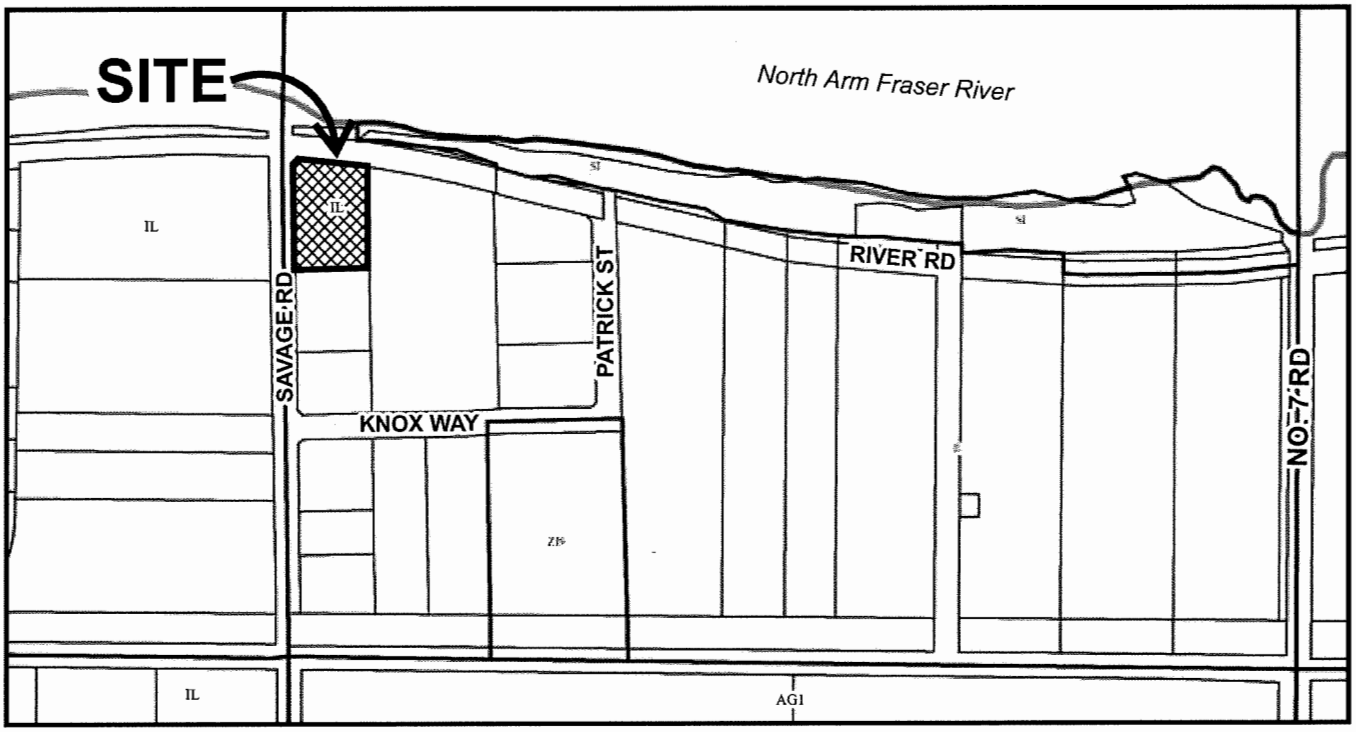
   This Permit is not a Building Permit.

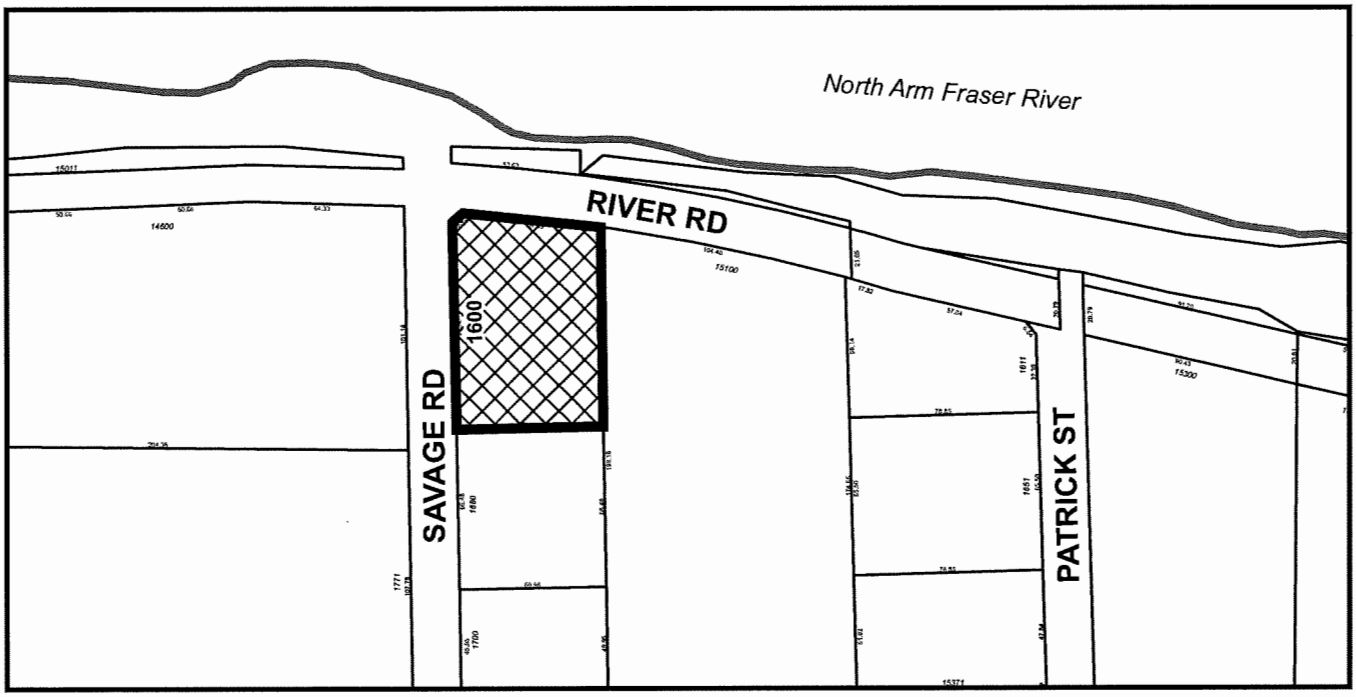
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF , .

DELIVERED THIS DAY OF , .

_____
MAYOR

City of Richmond





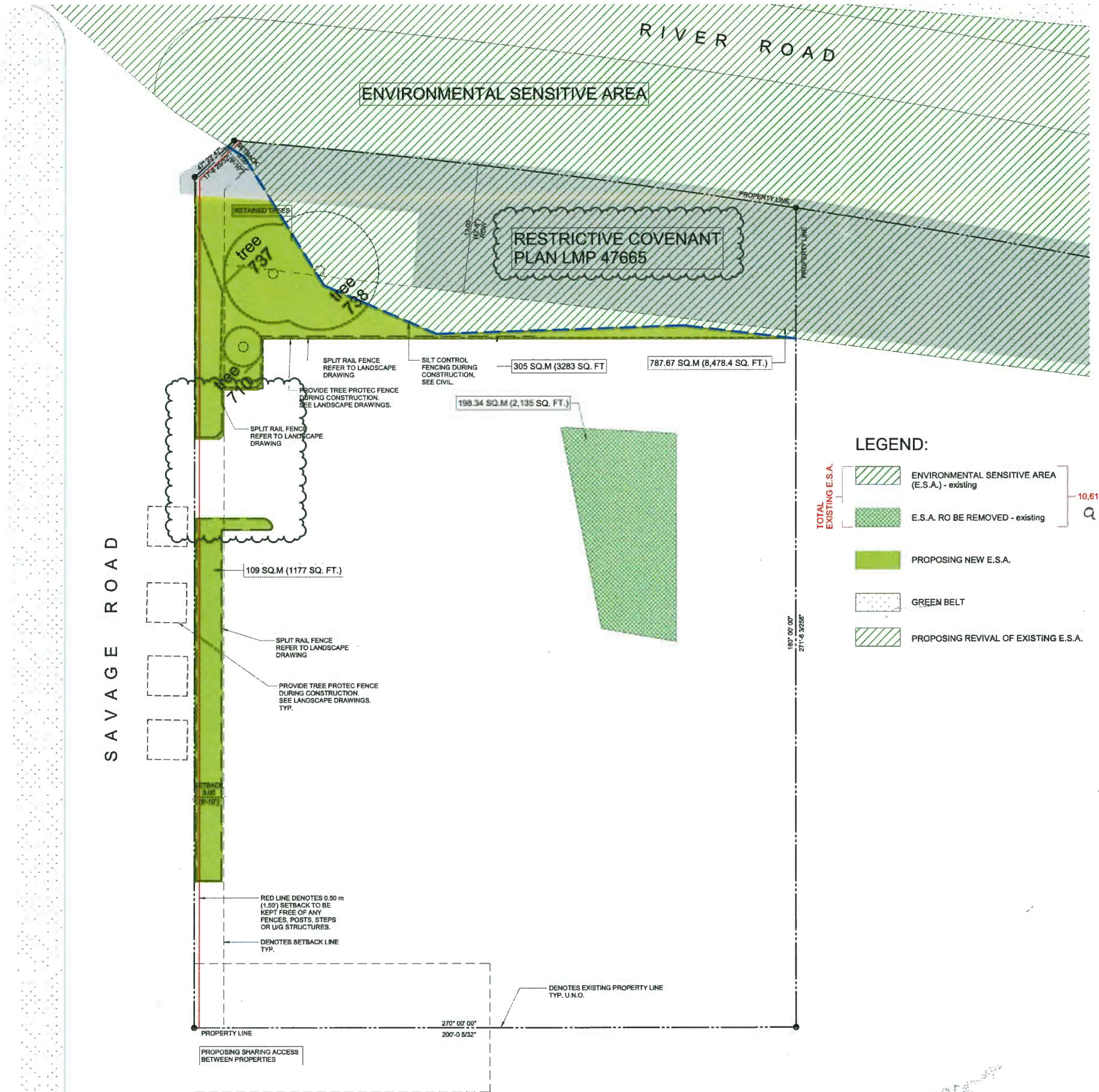
DP 18-820689
SCHEDULE "A"

Original Date: 05/22/18

Revision Date: 05/23/18

Note: Dimensions are in METRES

Plan 1



LEGEND:

TOTAL EXISTING E.S.A.

- ENVIRONMENTAL SENSITIVE AREA (E.S.A.) - existing
- E.S.A. RO BE REMOVED - existing

10,613.4 SQ.FT.
986.0 m²

- PROPOSING NEW E.S.A.
- GREEN BELT
- PROPOSING REVIVAL OF EXISTING E.S.A.

SEP 23 2019

DP 18-820689

Krahn GROUP OF COMPANIES

ABBOTSFORD OFFICE
400 - 34077 GLADYS AVE ABBOTSFORD, BC V2S 2E8
T: 604.853.8831 F: 604.850.1580 www.krahn.com

VANCOUVER OFFICE
210 - 1311 KOOTENAY ST VANCOUVER, BC V5K 4Y3
T: 604.294.5552 F: 604.294.5555 www.krahn.com

KD Planning & DESIGN LTD

LEGEND

- TURF GRASS
- CONCRETE SIDEWALK PAVING
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- SPLIT RAIL FENCE
- TREE PROTECTION FENCING
- SILT FENCING

NO.	DATE: dd/m/y	DESCRIPTION:
13	22/08/2019	ISSUED FOR RESUBMISSION
12	12/07/2019	ISSUED FOR RE-DP
11	14/06/2019	ISSUED FOR RE-DP
10	17/04/2019	ISSUED FOR RE-DP
9	08/04/2019	ISSUED FOR REVIEW
8	15/03/2019	ISSUED FOR PRICING
7	08/03/2019	ISSUED FOR PRICING REVIEW
6	26/11/2018	ISSUED FOR BP
5	20/11/2018	ISSUED FOR REVIEW
4	16/11/2018	ISSUED FOR REVIEW
3	09/11/2018	ISSUED FOR REVIEW
2	25/04/2018	ISSUED FOR DP
1	05/04/2018	ISSUED FOR REVIEW

ISSUES & REVISIONS

SEAL:
B.C.S.L.A. #565

N

PROJECT NAME:
OPEN WINDOWS

PROJECT ADDRESS:
1600 SAVAGE ROAD
RICHMOND, BC

DRAWING TITLE:
E.S.A. CHANGES

SCALE:	NTS
DRAWN:	RM
CHECKED:	ST
PROJECT NO:	180095-L

DRAWING NO:
L2.2

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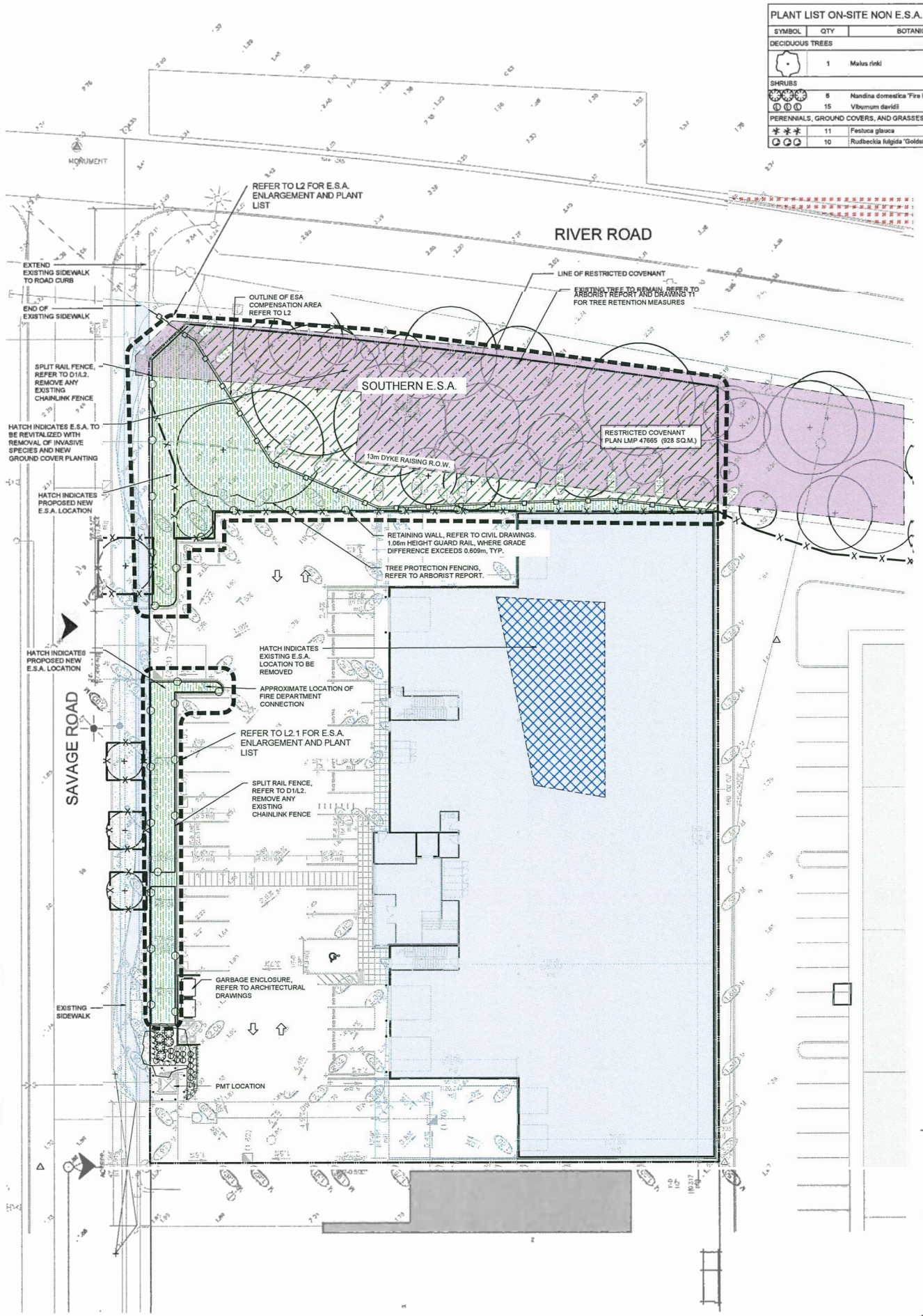
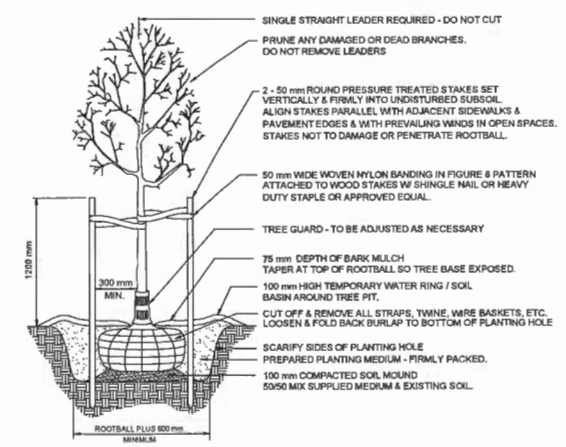
Plan 2

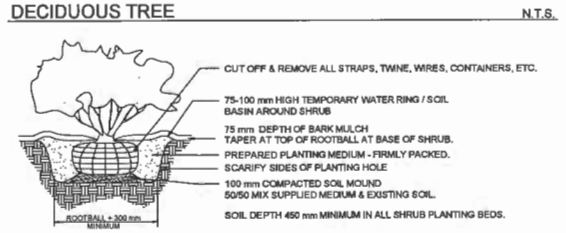


PLANT LIST ON-SITE NON E.S.A.

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	CONDITION
DECIDUOUS TREES						
	1	Malus rinki	Rinki Ornamental Crab Apple	5m ht. or 8cm Cal.	As Shown	W.B.
SHRUBS						
	6	Nandina domestica 'Fire Power'	Fire Power Nandina	40cm ht.	0.7m	#2 Pot
	15	Viburnum davidii	David's Viburnum	50cm ht.	0.8m	#3 Pot
PERENNIALS, GROUND COVERS, AND GRASSES						
	11	Festuca glauca	Blue Fescue	1 gal.	0.6m	#1 Pot
	10	Rudbeckia fulgida 'Goldstrum'	Black-Eyed Susan	1 gal.	0.6m	#1 Pot



DECIDUOUS TREE N.T.S.



SHRUB AND PERENNIAL PLANTING DETAIL N.T.S.

PLANTING NOTES

1. PLANTS SHALL BE INSTALLED AS DIRECTED BY THE DRAWING, NOTES AND DETAILS.
2. PLANT MATERIAL SUBSTITUTIONS WILL NOT BE ACCEPTED WITHOUT PRIOR WRITTEN APPROVAL.
3. ALL PLANT MATERIAL SHALL BE THOROUGHLY WATERED AND SOAKED AT THE TIME OF PLANTING.
4. TREE PROTECTION: PER THE MUNICIPAL DETAIL IF REQUIRED.
5. ALL LANDSCAPE MATERIAL IS TO COMPLY WITH THE CANADIAN LANDSCAPE STANDARD.
6. SOIL ANALYSIS FOR PROPOSED GROWING MEDIUMS IS TO BE PROVIDED TO LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
7. PLANT MATERIALS SPECIFIED FOR THIS PROJECT WILL CONFORM TO THE CANADIAN LANDSCAPE STANDARD AND MUNICIPAL LANDSCAPE STANDARD FOR SIZE, VARIETY AND CONDITION AS INDICATED ON THE PLANT LIST SHOWN ON THIS DRAWING. ANY PLANT DISPLAYING POOR GROWTH HABITS, INJURY OR DISEASE WILL BE REJECTED. ANY PLANT THAT IS REJECTED WILL BE REMOVED FROM THE SITE AND REPLACED WITH A PLANT OF ACCEPTABLE QUALITY AT NO ADDITIONAL COST TO THE OWNER.
8. REMOVE DEAD OR DAMAGED BRANCHES. ALL PRUNING SHALL BE PERFORMED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICES AND INTERNATIONAL SOCIETY ARBORISTS (I.S.A.) SPECIFICATIONS WITH APPROPRIATE TIMING FOR EACH SPECIES.
9. PROVIDE A ONE YEAR WARRANTY FOR THE PLANT MATERIAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION DURING THE WARRANTY PERIOD UNLESS OTHERWISE AGREED UPON, AND FOR REPLACEMENT OF PLANT MATERIALS THAT ARE DEAD OR IN POOR CONDITION DURING THE WARRANTY PERIOD AT THE CONTRACTOR'S OWN EXPENSE. MAINTENANCE INCLUDES BUT IS NOT LIMITED TO:
   - 9.1. Regular schedule of watering of the plants as required and/or as directed by the Project Manager during construction and the warranty period. Plants shall be watered within 48 hours of written request by the Owner or Owner's representative. Failure to do so after the request shall result in the work being undertaken by others. The cost of this work shall be deducted from the total Contract Price or holdback and otherwise recovered from the Contractor.
   - 9.2. Maintenance and additional installation of mulch
   - 9.3. Weed removal
   - 9.4. Disease control

GENERAL NOTES

1. EXAMINE SITE AND CONFIRM EXISTING SITE CONDITIONS BEFORE BIDDING.
2. CONFIRM ALL MEASUREMENTS ON SITE. DO NOT SCALE DRAWINGS.
3. CONFIRM EXISTING AND PROPOSED GRADES PRIOR TO BEGINNING CONSTRUCTION WORKS.
4. CONFIRM MUNICIPAL REQUIREMENTS FOR BUILDING PERMITS, SETBACKS, BUILDING CODE WORKS, AND OTHER BY-LAW REQUIREMENTS, OBTAIN REQUIRED PERMITS PRIOR TO BEGINNING CONSTRUCTION WORKS.
5. OBTAIN UTILITY AND SERVICES LOCATES PRIOR TO BEGINNING CONSTRUCTION WORKS.
6. PROTECT FROM DAMAGE ALL EXISTING STRUCTURES, TREES, SURFACES, SITE FURNISHINGS, UNDERGROUND SERVICES AND OTHER EXISTING ELEMENTS THAT EITHER REMAIN ON SITE, ARE PART OF THE SITE ACCESS OR ARE ADJACENT TO THE SITE. PERFORM REPAIR AND MAKE GOOD WORKS FOR ANY DAMAGE THAT IS CAUSED BY THE CONTRACTOR'S WORK AT THE CONTRACTOR'S OWN EXPENSE.
7. UNLESS OTHERWISE SPECIFIED, CONTRACTOR SHALL GUARANTEE ALL WORKS AND MATERIALS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR. CONTRACTOR SHALL INSPECT THE LANDSCAPE ON A REGULAR BASIS AND REPLACE MATERIALS THAT ARE IN POOR CONDITION WITHIN TWO WEEKS OF INSPECTION OR NOTIFICATION.
8. THE CONTRACTOR SHALL MAINTAIN THE SITE IN GOOD WORKING ORDER WITH A CLEAN AND ORDERED APPEARANCE. DURING THE PERIOD OF WORKS, PEDESTRIAN, PUBLIC AND ROAD AREAS ARE TO BE SWEPT AT THE END OF EACH DAY AND KEPT FREE OF DEBRIS. LANDSCAPE DEBRIS IS TO BE DISPOSED OFF SITE AT LEGAL AND APPROVED LOCATIONS.

SEP 2 3 2019

DP 18-820689

Krahn GROUP OF COMPANIES
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T: 604.294.0992 F: 604.294.0975 www.krahn.com

KD Planning & DESIGN LTD

LEGEND

- TURF GRASS
- CONCRETE SIDEWALK PAVING
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- SPLIT RAIL FENCE
- TREE PROTECTION FENCING
- SILT FENCING

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2	25/04/2018	ISSUED FOR DP
1	05/04/2018	ISSUED FOR REVIEW

ISSUES & REVISIONS.

SEAL:
B.C.S.L.A. #565

N

PROJECT NAME:
OPEN WINDOWS

PROJECT ADDRESS:
1600 SAVAGE ROAD
RICHMOND, BC

DRAWING TITLE:
LANDSCAPE PLAN, NOTES, AND DETAILS

SCALE	1:250
DRAWN:	RM
CHECKED:	ST
PROJECT NO:	180085-L

DRAWING NO:
L1

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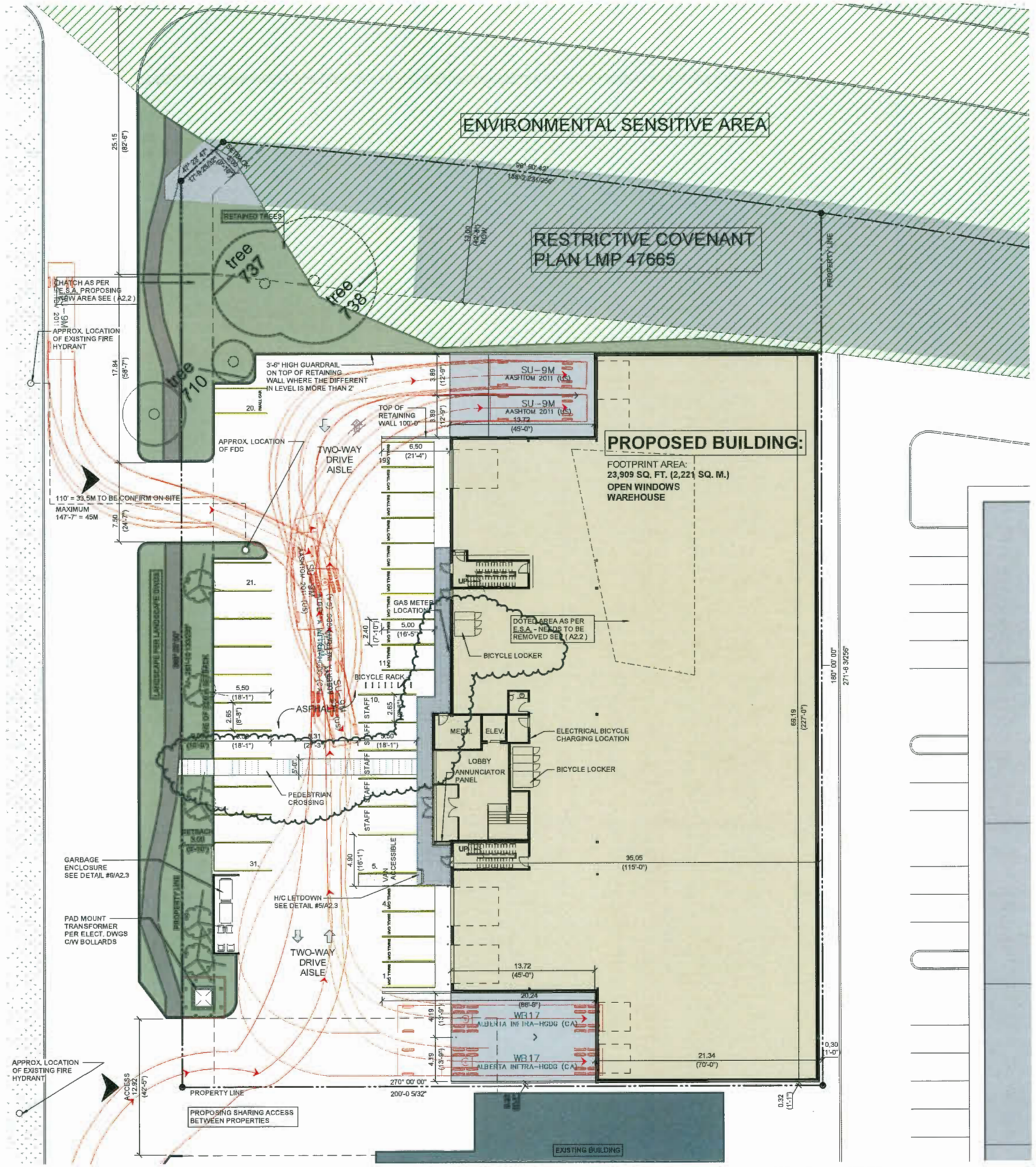


SEP 2 3 2019

1 SITE PLAN
SCALE: 1/16" = 1'-0"

PROJECT NORTH

DP 18-820689

PROJECT DATA

CIVIC ADDRESS: 1600 SAVAGE ROAD, RICHMOND, BC

LEGAL ADDRESS: LOT 1 SEC 15 BLK5N RG5W PL LMP47666

ZONING BYLAW ANALYSIS (CITY OF RICHMOND)

1. ZONING:
LIGHT INDUSTRIAL ZONE - IL

2. SITE AREA:
5,257 SQ.M (56,582.69 SQ FT) [1.298 ACRES]

3. SITE COVERAGE:

ALLOWABLE SITE COVERAGE: 60%

GROSS BUILDING AREA:
MAIN FLOOR: 2,158 SQ M (23,230 SQ FT)
SECOND FLOOR: 760 SQ M (8,185 SQ FT)
TOTAL: 2,918 SQ M (31,415 SQ FT)

PROPOSED SITE COVERAGE: 42%

FLOOR SPACE RATIO: 0.55

4. BUILDING HEIGHT:
MAXIMUM HEIGHT: 12 M (39'-4")

PROPOSED HEIGHT: 11.12 M (36'-6")

5. REQUIRED SETBACKS:
FRONT YARD (DIRECTION): 3.00 M (9'-10 1/8")

INTERIUR SIDE YARD (DIRECTION) 0 M (0'-0")

INTERIOR SIDE YARD (DIRECTION): 0 M (0'-0")

REAR YARD (DIRECTION): 0 M (0'-0")

6. LANDSCAPING REQUIREMENTS:
ALL LANDSCAPE TO RICHMOND CITY BYLAW, SEE LANDASCAPING PLANS FOR DETAILS

7. PARKING AND LOADING:

GENERAL AND HEAVY INDUSTRIAL:

PARKING STALLS REQUIRED: 1 SPACES PER 100.0 SQ M OF GROSS LEASABLE FLOOR AREA OF BUILDING.

2918 SQ.M / 100 SQ.M = 29.18 = 30 STALLS REQUIRED.

TOTAL STALLS REQUIRED: 30 (29.18) SPACES

ACCESSIBLE STALLS REQUIRED: 2% OF REQUIRED PARKING SPACES
2% X 30 = 0.6 = 1 ACCESSIBLE STALL REQUIRED

TOTAL STALLS PROVIDED: 31 STALLS INCLUDED 1 ACCESSIBLE STALL

LARGE SIZE LOADING STALLS REQUIRED: 1 SPACE FOR EACH 5000.0 SQ.M OVER 1860.0 SQ.M

1 SPACE

MEDIUN SIZE LOADING STALLS REQUIRED: 1 SPACE PLUS 1 SPACE FOR EACH ADDITIONAL 5000.0 SQ.M OVER 1860.0 SQ.M

2 SPACE

LOADING SPACE PROVIDED: 4 STALLS INCLUDED 2 LARGE SIZE AND 2 MEDIUM SIZE

DRIVE AISLE WIDTH: 8.31 M (27'-3") AT 90°

STALL DIMENSIONS:

STANDARD STALL DIMENSIONS: 2.65 M (8'-8") WIDE, 5.5 M (18'-0") LONG

ACCESSIBLE STALL DIMENSIONS: 3.7 M (12'-1") WIDE, 5.5 M (18'-0") LONG

SMALL CAR STALL DIMENSIONS: 2.4 M (7'-10") WIDE, 5.0 M (16'-5") LONG

LOADING STALL DIMENSIONS: MEDIUM SIZE:
3.0 M (10'-0") WIDE, 9.1 M (30'-0") LONG
LARGE SIZE:
3.5 M (11'-6") WIDE, 18.4 M (60'-4") LONG

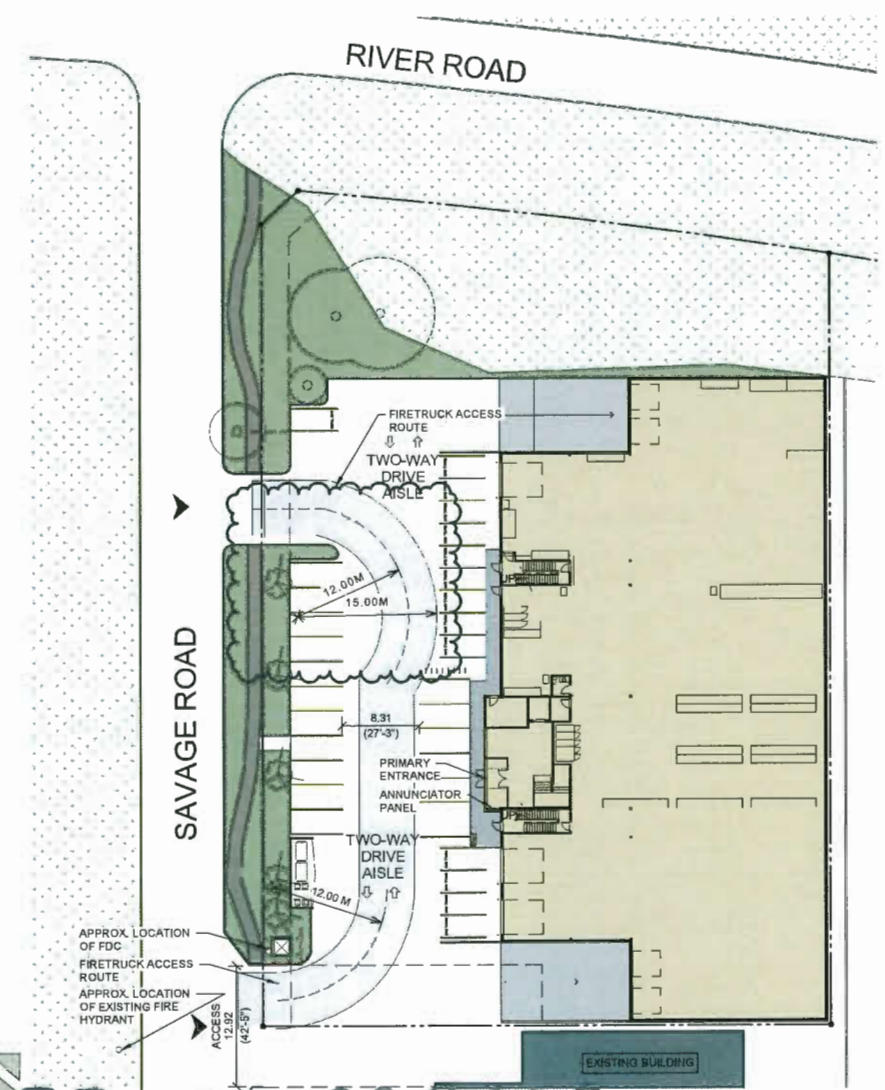
8. BICYLE PARKING:

BIKE PARKING REQUIRED: CLASS 1 0.27 SPACES PER EACH 100.0 SQ.M OF GROSS LEASABLE FLOOR AREA GREATER THAN 100.0 SQ.M.
8 STALLS REQUIRED

CLASS 2 0.27 SPACES PER EACH 100.0 SQ.M OF GROSS LEASABLE FLOOR AREA GREATER THAN 100.0 SQ.M.
8 STALLS REQUIRED

BIKE PARKING PROVIDE: CLASS 1 8 BIKE RACKS

CLASS 2 8 BIKE LOCKERS



2 FIRETRUCK ACCESS PLAN
SCALE: 1" = 30'-0"

Krahn GROUP OF COMPANIES

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EDMONTON OFFICE
1900 - 10117 JASPER AVENUE, EDMONTON AB, T5J 1W8
T: 780.758.2062 WWW.KRAHN.COM

VANCOUVER OFFICE
110 - 2920 VIRTUAL WAY, VANCOUVER B.C., V5M 5C4
T: 604.294.6882 F: 604.294.6866 WWW.KRAHN.COM

Integrated CONSTRUCTION

Plan 3

NO.	DATE YMD	DESCRIPTION
11	2019/09/25	ISSUED FOR TENDER REVIEW
10	2019/04/12	REISSUED FOR DP
9	2019/03/20	REISSUED FOR DP
8	2019/03/15	ISSUED FOR PRICING
7	2019/03/08	ISSUED FOR PRICING REVIEW
6	2019/01/07	REISSUED FOR BP
5	2019/01/21	REISSUED FOR ESA
4	2018/11/26	ISSUED FOR BP
3	2018/11/09	ISSUED FOR REVIEW
2	2018/04/25	ISSUED FOR DP

ISSUES AND REVISIONS

SEAL

larry podhora|architecture inc
1952 BRACKMAN WAY, NORTH SAANICH, B.C. V8L 9C2

PROJECT NAME
OPEN WINDOWS

PROJECT ADDRESS
1600 SAVAGE ROAD, RICHMOND BC

DRAWING TITLE
SITE PLANS

SCALE	As indicated
DRAWN	LW
CHECKED	LP
PROJECT NO.	180065
DRAWING NO.	A2.1

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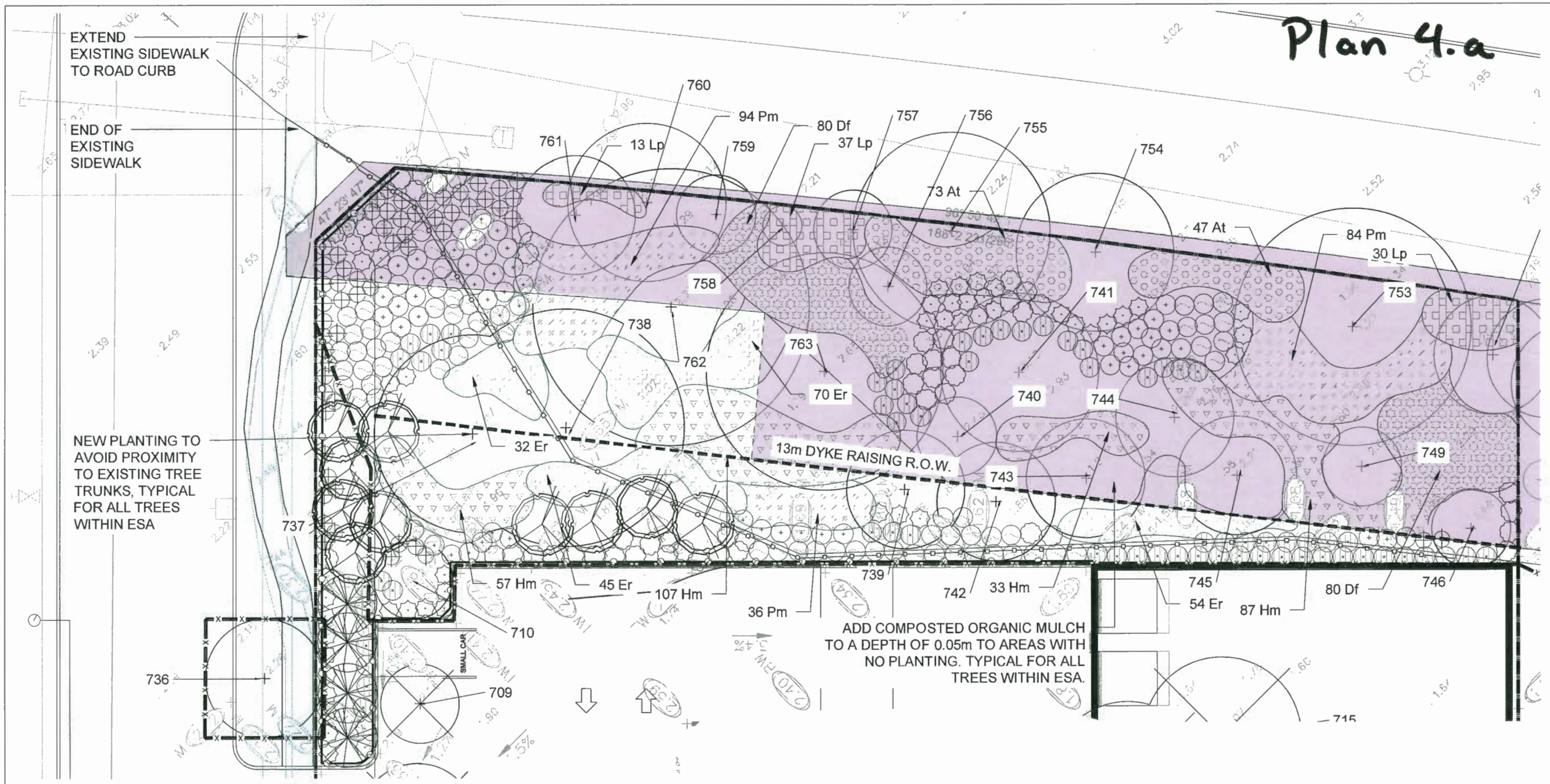
Plan 4.a



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KD Planning & DESIGN LTD

LEGEND

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ISSUES & REVISIONS:

SEAL:
B.C.S.L.A. #565

PLANT LIST NORTHERN E.S.A.

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	CONDITION
CONIFEROUS TREES						
	2	Thuja plicata	Western Red Cedar	5m ht. or 9cm Cal.	2m	W.B. or Pot
	2	Thuja plicata	Western Red Cedar	5.5m ht. or 10cm Cal.	2m	W.B. or Pot
	6	Pseudotsuga menziesii	Douglas Fir	5.5m ht. or 10cm Cal.	2m	W.B. or Pot
	4	Pseudotsuga menziesii	Douglas Fir	6m ht. or 11cm Cal.	2m	W.B. or Pot
SHRUBS						
	54	Gaultheria shallon	Salal	30cm ht.	1m	#2 Pot
	67	Mahonia nervosa	Dull Orgegon-Grape	40cm ht.	1m	#2 Pot
	47	Rosa gymnocarpa	Baldhip Rose	50cm ht.	1m	#3 Pot
	55	Holodiscus discolor	Oceanspray	50cm ht.	1m	#3 Pot
	58	Rubus spectabilis	Salmonberry	40cm ht.	1m	#2 Pot
	64	Symphoricarpos albus	Common Snowberry	40cm ht.	1m	#2 Pot
PERENNIALS						
At	120	Achlys triphylla	Vanilla Leaf	1 Gallon		Potted
Df	160	Dicentra formosa	Pacific Bleeding Heart	1 Gallon		Potted
Pm	214	Polystichum munitum	Sword Fern	1 Gallon		Potted
Hm	284	Heuchera mircrantha	Small-Flowered Alumroot	1 Gallon		Potted
Lp	80	Lupinus polyphyllus	Large Leaved Lupine	1 Gallon		Potted
Er	201	Erythronium revolutum	Pink Fawn Lily	1 Gallon		Potted

NEW TREE PLANTING NOTES IN E.S.A.:

NEW TREE PLANTING IS PROPOSED IN THE ENVIRONMENTALLY SENSITIVE AREA (E.S.A.) SHOWN ON THIS PLAN BY AQUATERRA ENVIRONMENTAL LTD. IN THEIR REPORT DATED APRIL 6, 2018:

25 NEW TREES ARE PROPOSED IN THE ESA COMPENSATION AREA ON THE SOUTH SIDE SIDE OF THE ROAD.
TREES TO BE REMOVED IN E.S.A.: 15 TREES TO BE REMOVED WITHIN THE SOUTHERN E.S.A. REFER TO L3.
BREAK-DOWN TREES TO BE ADDED: 10 WESTERN RED CEDAR AT MIN. 2m. HT, 15 DOUGLAS FIR AT MIN. 2m HT.

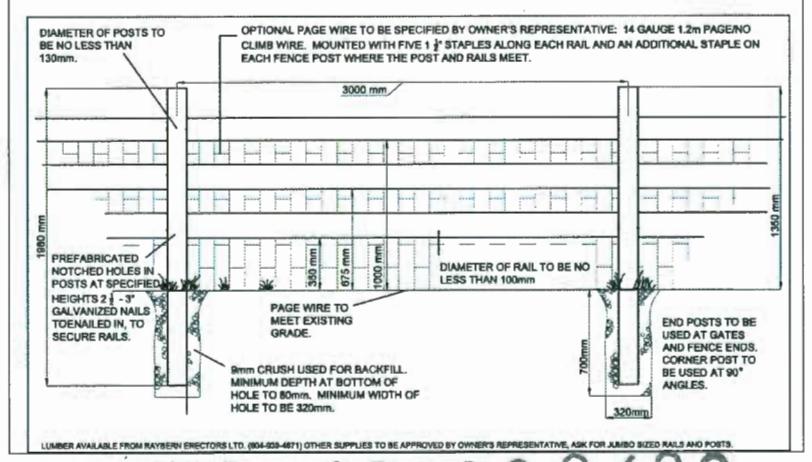
1. NEW TREES ARE TO BE OFFSET FROM BUILDING A MINIMUM OF 4m, FROM PROPERTY LINE 1.5m, NOT PLANTED UNDER POWER LINES.
2. TREE LOCATIONS, NUMBERS AND SPECIES ARE TO BE AS PER THE PLANT LIST ON L2.
3. NEW TREE PLANTING LOCATIONS ARE TO BE MARKED ON SITE BY THE ARBORIST PRIOR TO PLANTING TO FORM-FIT THEM AROUND EXISTING TREES AND VEGETATION.
4. NEW TREES ARE TO BE CARED FOR WITH REGULAR WATERING UNTIL THEY ARE ESTABLISHED AND GROWING IN A HEALTHY STATE.
5. NEW TREES ARE TO BE PLANTED USING OUR TREE PLANTING DETAIL, WITH CHANGES AS FOLLOWS: STAKES ARE NOT REQUIRED AND RODENT GUARDS ARE TO BE ADDED.
6. 75cm OF COMPOSTED ORGANIC MULCH IS TO BE ADDED WITHIN THE TREE CANOPY AREAS WHERE THE ROOTS WILL BE AFFECTED BY BUILDING FOOTING AND PAVING WORKS ADJACENT TO THE E.S.A.

E.S.A. HABITAT MANAGEMENT:

HABITAT MANAGEMENT IS PROPOSED IN THE E.S.A. BY AQUATERRA ENVIRONMENTAL LTD. IN THEIR REPORT DATED APRIL 6, 2018:

1. INVASIVE SPECIES MANAGEMENT IS TO BE UNDERTAKEN THROUGH THE REMOVAL AND DISPOSAL OF INVASIVE SPECIES DURING PROJECT CONSTRUCTION. THE METHODS ARE TO BE UNDERTAKEN IN CONSULTATION WITH THE INVASIVE PLANT COUNCIL OF BC AND/OR THE FRASER VALLEY INVASIVE PLANT COUNCIL. SPECIFICALLY, THE INVASIVE SPECIES HIMALAYAN BLACKBERRY WAS FOUND WITH THE E.S.A. AREAS.
2. THE HEALTH OF THE NEW TREE PLANTING WITHIN THE E.S.A. ARE TO BE MONITORED ANNUALLY FOR SURVIVORSHIP. WE RECOMMEND THE MONITORING TO BE UNDERTAKEN FOR A PERIOD OF 3 YEARS. TREES THAT HAVE NOT SURVIVED ARE TO BE REPLACED AND THEN MONITORED FOR THREE YEARS FOLLOWING THEIR INSTALLATION. NEW TREES ARE TO BE CARED FOR WITH REGULAR WATERING UNTIL THEY ARE ESTABLISHED AND GROWING IN A HEALTHY STATE.
3. DO NOT REMOVE OR ALTER VEGETATION DURING THE TYPICAL SENSITIVE PEAK BREEDING PERIOD BETWEEN MARCH 15 AND AUGUST 15. CHECK THE CANADIAN WILDLIFE SERVICE WEBSITE FOR UPDATES BEFORE BEGINNING WORKS.
4. FOR TREE CLEARING WITHIN THE JOB SITE, A QUALIFIED ENVIRONMENTAL PROFESSIONAL SHOULD ASSESS THE SITE PRIOR TO BEGINNING ANY TREE CLEARING WORKS WITHIN THE NESTING SEASON, TO ENSURE THAT THERE ARE NO NESTS OR NESTING ACTIVITY WITHIN THE SITE, AND TO ESTABLISH BUFFER ZONES FOR ACTIVE NESTS AND SPECIFICALLY RAPTOR'S NESTS.

SEP 23 2019



D1 TREE RAIL SPLIT FENCE N.T.S.

DP 18-820689

N

PROJECT NAME:
OPEN WINDOWS

PROJECT ADDRESS:
1600 SAVAGE ROAD
RICHMOND, BC

DRAWING TITLE:
E.S.A. PLANTING PLAN

SCALE:	1:100
DRAWN:	RM
CHECKED:	ST
PROJECT NO:	180065-L

DRAWING NO:
L2

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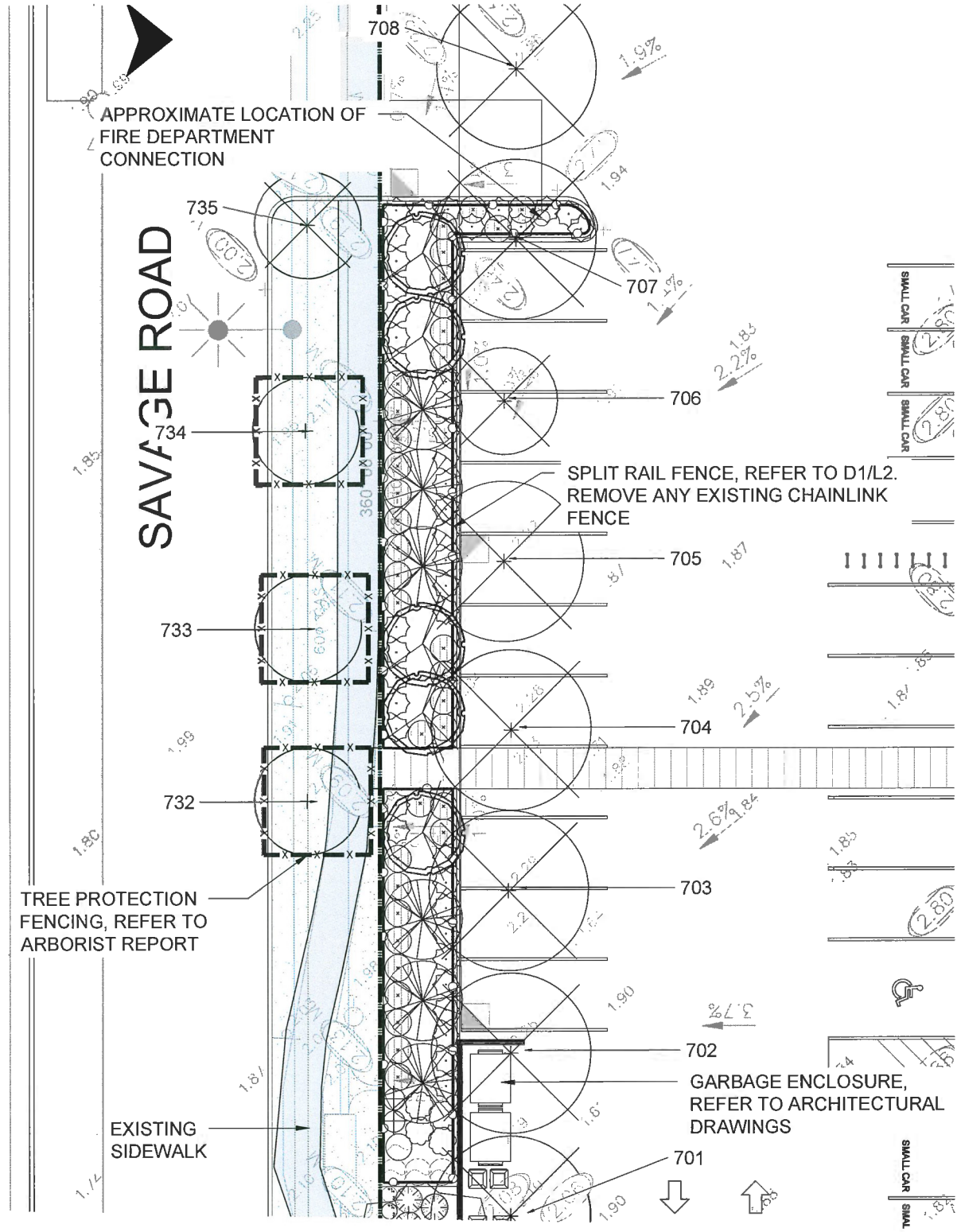
Plan 4.b



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PLANT LIST SOUTHERN E.S.A.

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	CONDITION
CONIFEROUS TREES						
	6	Thuja plicata	Western Red Cedar	5m ht. or 8cm Cal.	2m	W.B. or Pot
	5	Pseudotsuga menziesii	Douglas Fir	5m ht. or 9cm Cal.	2m	W.B. or Pot
SHRUBS						
	42	Gaultheria shallon	Salal	30cm ht.	1m	#2 Pot
	35	Mahonia nervosa	Dull Oregeon-Grape	40cm ht.	1m	#2 Pot
	4	Rosa gymnocarpa	Baldhip Rose	50cm ht.	1m	#3 Pot
	2	Rubus spectabilis	Salmonberry	40cm ht.	1m	#2 Pot
	4	Symphoricarpos albus	Common Snowberry	40cm ht.	1m	#2 Pot

SEP 2 3 2019

DP 18-820689

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T: 604.294.6962 F: 604.294.6965 www.kdplan.com
KD Planning & DESIGN LTD

LEGEND

- TURF GRASS
- CONCRETE SIDEWALK PAVING
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- SPLIT RAIL FENCE
- TREE PROTECTION FENCING
- SILT FENCING

NO:	DATE (dd/mm/y)	DESCRIPTION:
16	25/09/2019	ISSUED FOR RESUBMISSION
14	23/09/2019	ISSUED FOR TENDER REVIEW
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3	09/11/2018	ISSUED FOR REVIEW
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1	05/04/2018	ISSUED FOR REVIEW

ISSUES & REVISIONS:

SEAL:
B.C.S.L.A. #565

N

PROJECT NAME:
OPEN WINDOWS

PROJECT ADDRESS:
1600 SAVAGE ROAD
RICHMOND, BC

DRAWING TITLE:
E.S.A. PLANTING PLAN

SCALE:	1:100
DRAWN:	RM
CHECKED:	ST
PROJECT NO:	180095-L

DRAWING NO:
L2.1

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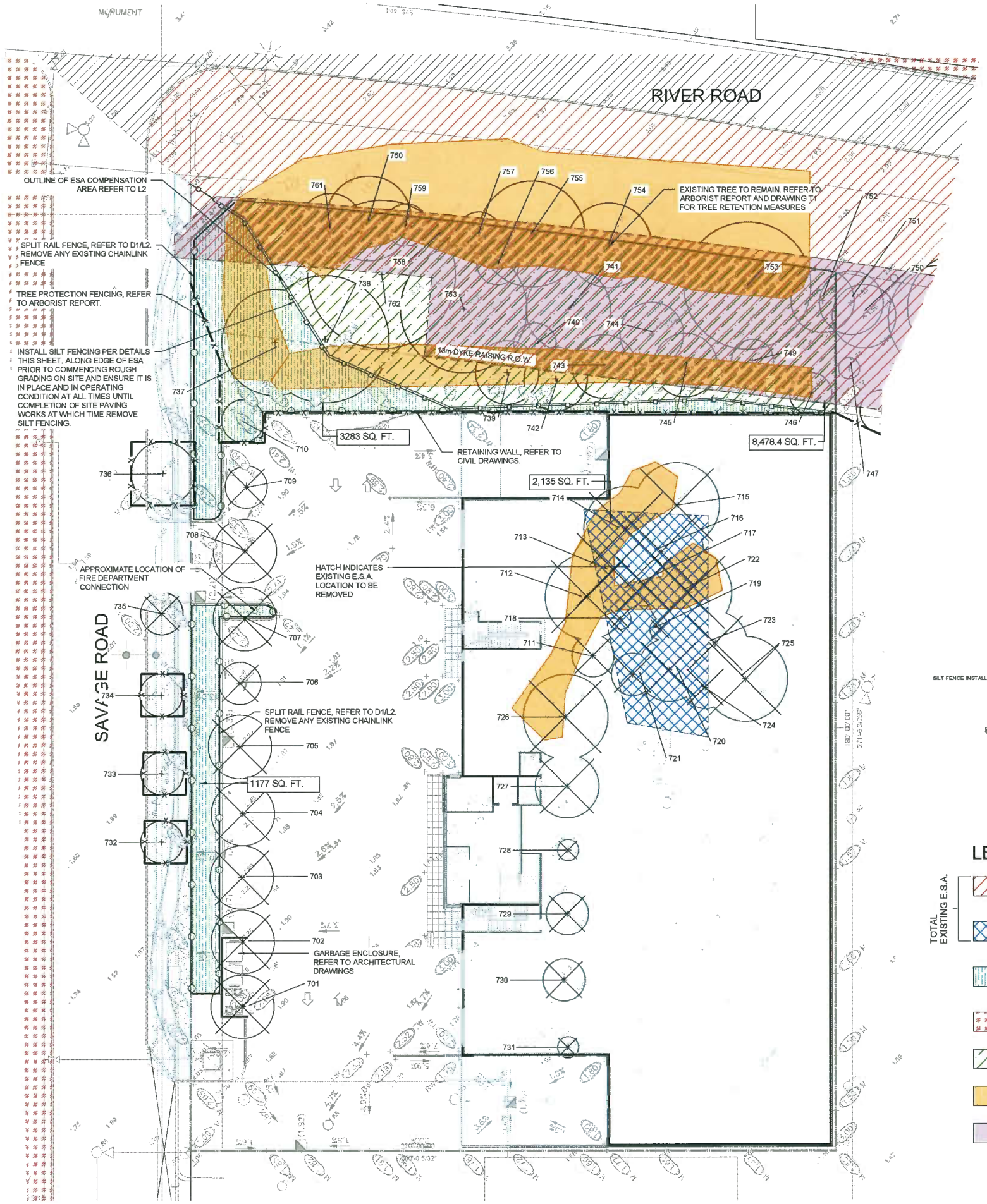
Plan 5



NEW TREE PLANTING NOTES IN E.S.A.:

NEW TREE PLANTING IS PROPOSED IN THE ENVIRONMENTALLY SENSITIVE AREA (E.S.A.) SHOWN ON THIS PLAN BY AQUATERRA ENVIRONMENTAL LTD. IN THEIR REPORT DATED APRIL 6, 2018:

25 NEW TREES ARE PROPOSED IN THE ESA COMPENSATION AREA ON THE SOUTH SIDE SIDE OF THE ROAD.
TREES TO BE REMOVED IN E.S.A.: 15 TREES TO BE REMOVED WITHIN THE SOUTHERN E.S.A. REFER TO L3.
BREAK-DOWN TREES TO BE ADDED: 10 WESTERN RED CEDAR AT MIN. 2m. HT, 15 DOUGLAS FIR AT MIN. 2m HT.

1. NEW TREES ARE TO BE OFFSET FROM BUILDING A MINIMUM OF 4m, FROM PROPERTY LINE 1.5m, NOT PLANTED UNDER POWER LINES.
2. TREE LOCATIONS, NUMBERS AND SPECIES ARE TO BE AS PER THE PLANT LIST ON L2.
3. NEW TREE PLANTING LOCATIONS ARE TO BE MARKED ON SITE BY THE ARBORIST PRIOR TO PLANTING TO FORM-FIT THEM AROUND EXISTING TREES AND VEGETATION.
4. NEW TREES ARE TO BE CARED FOR WITH REGULAR WATERING UNTIL THEY ARE ESTABLISHED AND GROWING IN A HEALTHY STATE.
5. NEW TREES ARE TO BE PLANTED USING OUR TREE PLANTING DETAIL, WITH CHANGES AS FOLLOWS: STAKES ARE NOT REQUIRED AND RODENT GUARDS ARE TO BE ADDED.
6. 75cm OF COMPOSTED ORGANIC MULCH IS TO BE ADDED WITHIN THE TREE CANOPY AREAS WHERE THE ROOTS WILL BE AFFECTED BY BUILDING FOOTING AND PAVING WORKS ADJACENT TO THE E.S.A.

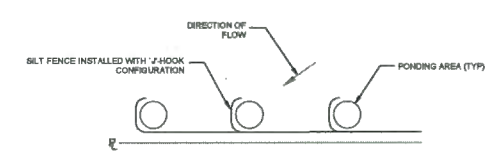
E.S.A. HABITAT MANAGEMENT:

HABITAT MANAGEMENT IS PROPOSED IN THE E.S.A. BY AQUATERRA ENVIRONMENTAL LTD. IN THEIR REPORT DATED APRIL 6, 2018:

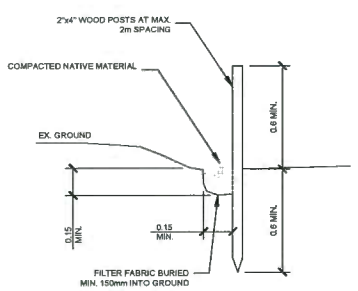
1. INVASIVE SPECIES MANAGEMENT IS TO BE UNDERTAKEN THROUGH THE REMOVAL AND DISPOSAL OF INVASIVE SPECIES DURING PROJECT CONSTRUCTION. THE METHODS ARE TO BE UNDERTAKEN IN CONSULTATION WITH THE INVASIVE PLANT COUNCIL OF BC AND/OR THE FRASER VALLEY INVASIVE PLANT COUNCIL. SPECIFICALLY, THE INVASIVE SPECIES HIMALAYAN BLACKBERRY WAS FOUND WITH THE E.S.A. AREAS.
2. THE HEALTH OF THE NEW TREE PLANTING WITHIN THE E.S.A. ARE TO BE MONITORED ANNUALLY FOR SURVIVORSHIP. WE RECOMMEND THE MONITORING TO BE UNDERTAKEN FOR A PERIOD OF 3 YEARS. TREES THAT HAVE NOT SURVIVED ARE TO BE REPLACED AND THEN MONITORED FOR THREE YEARS FOLLOWING THEIR INSTALLATION. NEW TREES ARE TO BE CARED FOR WITH REGULAR WATERING UNTIL THEY ARE ESTABLISHED AND GROWING IN A HEALTHY STATE.
3. DO NOT REMOVE OR ALTER VEGETATION DURING THE TYPICAL SENSITIVE PEAK BREEDING PERIOD BETWEEN MARCH 15 AND AUGUST 15. CHECK THE CANADIAN WILDLIFE SERVICE WEBSITE FOR UPDATES BEFORE BEGINNING WORKS.
4. FOR TREE CLEARING WITHIN THE JOB SITE, A QUALIFIED ENVIRONMENTAL PROFESSIONAL SHOULD ASSESS THE SITE PRIOR TO BEGINNING ANY TREE CLEARING WORKS WITHIN THE NESTING SEASON, TO ENSURE THAT THERE ARE NO NESTS OR NESTING ACTIVITY WITHIN THE SITE, AND TO ESTABLISH BUFFER ZONES FOR ACTIVE NESTS AND SPECIFICALLY RAPTOR'S NESTS.

PLANTING IN ESA NOTES

- SOIL IN THE AREA SHOULD HAVE A MINIMUM ORGANIC SOIL DEPTH OF 0.45m (1.5 ft). WHERE THIS SOIL DEPTH IS NOT ACHIEVED, AN APPROPRIATE SOIL MIX (50% GARDEN BLEND / 50% SOIL AMENDER) SHALL BE IMPORTED AND SPREAD INTO DEFICIENT AREAS TO ACHIEVE THE APPROPRIATE DEPTH. COMPENSATION PLANTING SHOULD OCCUR AS SOON AS POSSIBLE FOLLOWING SOIL AMENDING TO MINIMIZE THE COLONIZATION AND ESTABLISHMENT OF INVASIVE SPECIES.
- REFER TO ENVIRONMENTAL REPORT PREPARED BY AQUATERRA, DATED MAY 22, 2019.



SILT FENCE INSTALLATION DETAIL
N.T.S.



PERIMETER SILT FENCE DETAIL
N.T.S.

LEGEND:

TOTAL EXISTING E.S.A.
- ENVIRONMENTAL SENSITIVE AREA (E.S.A.) - existing
- E.S.A. TO BE REMOVED - existing

10,613.4 SQ.FT.
986.0 m²

- PROPOSED NEW E.S.A.
- GREEN BELT
- PROPOSED REVIVAL OF EXISTING E.S.A.
- AREA OF INVASIVE SPECIES
- RESTRICTED COVENANT BP24519. AREA = 2334 sq.m

SEP 23 2019

DP 18-820689

Krahn GROUP OF COMPANIES
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T: 604.853.8831 F: 604.850.1580 www.krahn.com
VANCOUVER OFFICE
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T: 604.294.0992 F: 604.294.0995 www.krahn.com

KD Planning & DESIGN LTD

LEGEND

- TURF GRASS
- CONCRETE SIDEWALK PAVING
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- SPLIT RAIL FENCE
- TREE PROTECTION FENCING
- SILT FENCING

NO:	DATE: (d/m/y)	DESCRIPTION
13	22/08/2019	ISSUED FOR RESUBMISSION
12	12/07/2019	ISSUED FOR RE-DP
11	14/06/2019	ISSUED FOR RE-DP
10	17/04/2019	ISSUED FOR RE-DP
9	08/04/2019	ISSUED FOR REVIEW
8	15/03/2019	ISSUED FOR PRICING
7	08/03/2019	ISSUED FOR PRICING REVIEW
6	26/11/2018	ISSUED FOR BP
5	20/11/2018	ISSUED FOR REVIEW
4	16/11/2018	ISSUED FOR REVIEW
3	09/11/2018	ISSUED FOR REVIEW
2	25/04/2018	ISSUED FOR DP
1	05/04/2018	ISSUED FOR REVIEW

ISSUES & REVISIONS

SEAL:
B.C.S.L.A. #565

N

PROJECT NAME:
OPEN WINDOWS

PROJECT ADDRESS:
1600 SAVAGE ROAD
RICHMOND, BC

DRAWING TITLE:
OVERALL E.S.A.

SCALE:	NTS
DRAWN:	RM
CHECKED:	ST
PROJECT NO:	180085-L

DRAWING NO:
L3

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City of Richmond

Report to Development Permit Panel

To:	Development Permit Panel	**Date:**	September 24, 2019
From:	Wayne Craig Director, Development	**File:**	DP 18-829234
Re:	**Application by Interface Architecture Inc. for a Development Permit at 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway**		

Staff Recommendation

That a Development Permit be issued which would:

1. Permit the construction of 28 townhouse units at 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway on a site zoned "Medium Density Townhouses (RTM2)"; and
2. Vary the provisions of Richmond Zoning Bylaw 8500 to reduce the front yard setback to Steveston Highway from 6.0 m to 4.5 m for proposed Buildings #1 and #2 on the eastern half of the site, and from 6.0 m to 5.6 m for proposed Buildings #9 and #10 on the western half of the site.

Wayne Craig
Director, Development
(604-247-4625)

WC:el
Att. 3

Staff Report

Origin

Interface Architecture Inc. has applied to the City of Richmond for permission to develop 28 townhouse units at 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway. Two of the 28 townhouse units are proposed to contain a ground-level secondary suite. The site is being rezoned from the "Single Detached (RS1/B)" zone and the "Single Detached (RS1/E)" zone to the "Medium Density Townhouses (RTM2)" zone for this project under Bylaw 9982 (RZ 16-733904), which received Third Reading following the Public Hearing on February 19, 2019. The site is currently vacant, but previously contained seven single-family homes.

Frontage improvements including beautification works and installation of a new fire hydrant were secured through the rezoning process and will be constructed through a separate Servicing Agreement (SA 19- 866920). The Servicing Agreement must be entered into prior to final adoption of the rezoning bylaw.

Development Information

Please refer to attached Development Application Data Sheet (Attachment 1) for a comparison of the proposed development data with the relevant Bylaw requirements.

Background

Development surrounding the subject site is as follows:

- To the north, existing single-family dwellings on lots zoned "Single Detached (RS1/B)";
- To the east, a 10-unit two-storey townhouse complex on a lot zoned "Low Density Townhouses (RTL1)";
- To the south, across Steveston Highway, existing single-family dwellings on lots zoned "Single Detached (RS1/E)"; and
- To the west, a number of single-family homes and duplexes on lots zoned "Single Detached (RS1/B)", "Single Detached (RS1/E)" or "Two-Unit Dwellings (RD1), which are all identified for townhouse development under the Arterial Road Land Use Policy.

Rezoning and Public Hearing Results

The Public Hearing for the rezoning of this site was held on February 19, 2019. No concerns regarding the rezoning application were expressed at the Public Hearing.

Staff Comments

The proposed scheme attached to this Report has satisfactorily addressed the significant urban design issues and other staff comments identified as part of the review of the subject Development Permit application. In addition, it complies with the intent of the applicable sections of the Official Community Plan (OCP) and is generally in compliance with the "Medium Density Townhouses (RTM2)" zone except for the zoning variances noted below.

Zoning Compliance/Variances (staff comments in **bold**)

The applicant requests to vary the provisions of Richmond Zoning Bylaw 8500 to:

1) Reduce the front yard setback from 6.0 m to 4.5 m for proposed Buildings #1 and #2 on the eastern half of the site, and from 6.0 m to 5.6 m for proposed Buildings #9 and #10 on the western half of the site.

(Staff supports the proposed variances recognizing that a 2.0 m wide road dedication along the frontage of the eastern half of the site is required, and that the Arterial Road Guidelines for Townhouses in the OCP support reduced front yard setback where a 6.0 rear yard setback is provided. A large rear yard setback is proposed to better accommodate tree retention. The resulting distance from the back of curb to the building face would be approximately 10.2 m. The resulting reduced front yard setback does not compromise tree preservation or tree planting opportunity along the site frontage. The proposed architectural design provides appropriate building articulation and interface with neighbouring properties. To address the road traffic noise from Steveston Highway, the project acoustical engineer confirmed that the proposed development is designed to meet the interior noise limits as per the CMHC standards. This variance was identified at rezoning stage, and no concerns were identified at that time.)

Advisory Design Panel Comments

The Advisory Design Panel (ADP) has reviewed the project and supports it. A copy of the relevant excerpt from the Advisory Design Panel Minutes from Wednesday April 24, 2019 is attached for reference (Attachment 2). The design response from the applicant has been included immediately following the specific Design Panel comments and is identified in '***bold italics***'.

Analysis

Conditions of Adjacency

- The proposed form, massing, and orientation of the buildings are compatible to the existing adjacent developments on the block.
- While three-storey units are proposed along Steveston Highway, the building height is stepped down to one storey along the side property lines to provide appropriate transition to the adjacent single-family home to the west and two-storey townhouse development to the east.
- Two-storey units in duplex form as well as the outdoor amenity area are proposed along the rear (north) property line to minimize privacy and overlook concerns.
- The existing site grade along the rear (north) property line, except for the northeast corner of the site, will be maintained to provide an appropriate transition to the adjacent single-family properties to the north. A 1.8 m tall wood fence will be installed along the rear property line to protect the privacy of the neighbouring single-family homes.
- The side grade at the northeast corner of the site will be raised to match the existing site grade of the adjacent townhouse development to the east, and to provide a barrier free outdoor private space to the convertible unit (Unit #9) at this corner of the site. The height of the proposed retaining wall along the north property line within the rear yard of Unit #9 would be approximately 0.74 m to 0.87 m, and the height of the proposed fence on top of the retaining wall will be reduced to approximately 1.2 m.

- A number of existing trees and hedgerows will be retained and a variety of new trees will be planted along the rear and side property lines to enhance the interfaces between the proposed townhouse development and the existing adjacent residential developments.
- The proposed side yard setbacks exceed the minimum side yard setback requirement under the "Medium Density Townhouses (RTM2)" zone to provide a larger buffer to the adjacent single-family home to the west and townhouse development to the east. Location and orientation of windows, decks and balconies are carefully considered to minimize the opportunity of looking into close-by windows of existing adjacent development and units proposed on-site.
- A 2.8 m tall wood trellis with vines is proposed at the ends of the drive aisle to provide a landscaped visual screen.
- Perimeter drainage will be required as part of the Building Permit to ensure storm water is managed and addressed through the development and will not impact the neighbouring properties.
- Adjacent properties to the west have future potential for redevelopment as townhouses. A statutory right-of-way (SRW) allowing access to/from the adjacent future development site through the subject site (over the internal drive aisle) has been secured at rezoning.

Urban Design and Site Planning

- The site layout includes 12 two-storey units and 16 three-storey units in 10 clusters.
- The layout of the townhouse units is oriented around a single driveway, providing access to the site from Steveston Highway and an east-west internal manoeuvring aisle providing access to the unit garages.
- Vehicle access will be limited to right-in/right-out only. Registration of a right in/right out only covenant on Title is required prior to Development Permit Issuance. A raised island will be required to channelize and enforce the no left turn access restrictions.
- Units along Steveston Highway are designed to have a strong street presence with individual front entrances and yards; units along the rear (north) property line will have access from the internal drive aisle.
- Two of the three-storey townhouse units in Buildings #2 and #9 (i.e. C-F units) will each contain a ground-level secondary suite of approximately 26.7 m^2 (288 ft^2) in size.
- All units will have two vehicle parking spaces in a side-by-side double car garage. An additional surface parking stall will be assigned to each of the secondary dwelling units.
- A total of six visitor parking spaces, including two accessible visitor parking spaces, will be provided throughout the site. The number of visitor parking spaces proposed is in compliance with the minimum bylaw requirement.
- Both internal and external bicycle parking spaces have been incorporated into the proposal and are in compliance with the zoning bylaw requirements.
- The provision of private outdoor spaces complies with the Development Permit Guidelines (30 m^2 per unit) of the OCP. All units will have private outdoor spaces consisting of a front or a rear yard; the three-storey units will also have a covered deck/balcony on the second floor facing the internal drive aisle.

- Outdoor amenity space is proposed opposite to the site entry for maximum casual surveillance opportunity and sun exposure. The size and location of the outdoor amenity space is appropriate in providing open landscape and amenity space convenient to all units. A mailbox kiosk will be provided at the entrance to the outdoor amenity space.
- No indoor amenity space is proposed. A $37,000 cash-in-lieu contribution has been secured as a condition of rezoning approval, consistent with the OCP.
- Two garbage, recycling and organic waste storage enclosures are proposed. The enclosures have been incorporated into the design of the Buildings #1 and #10 to minimize the visual impact.

Architectural Form and Character

- The design of this project follows the West Coast tradition of simple forms and clean lines.
- A pedestrian scale is generally achieved along Steveston Highway and the internal drive aisle through the inclusion of variation in building projections, recesses, varying material/colour combinations, landscape features, and the use of individual unit entrances.
- The impact of blank garage doors has been mitigated with panel patterned doors, transom windows, unit entrances, and planting islands along the drive aisle.
- The proposed building materials (fiber cement panel siding/lap siding and fiberglass asphalt roof shingles, etc.) are generally consistent with the Official Community Plan (OCP) Guidelines.
- A palette of warm earth tone colours with charcoal accents is proposed. Some Cedar wood elements are selected to enhance the "west coast modern" aesthetic.

Landscape Design and Open Space Design

- Tree preservation was reviewed at rezoning stage; a total of 62 bylaw-sized trees were identified on site, 14 trees were noted on the neighbouring properties, and seven trees are noted on the city's boulevard.
- 52 trees on-site were identified for removal. Based on the 2:1 tree replacement ratio stated in the Official Community Plan (OCP), 104 replacement trees are required. The applicant is proposing to plant 56 replacement trees on-site, including nine conifers and 47 deciduous trees. In lieu of planting the remaining replacement trees on-site, a voluntary contribution of $24,000 has been secured at the rezoning stage.
- Two Norway Maples trees (tag# 2159 and 2160), eight trees (tag# 864-872) located along the rear property line and 14 trees (tag# 788-791, 882, 884, 2013-2105, 2174 -2178) located on adjacent neighbouring properties are identified to be retained and protected. Tree protection fencing is required to be installed as per the Arborist Report recommendations prior to any construction activities (including demolition) occurring on-site. Prior to a Development Permit issuance, submission of a Tree Survival Security, as part of the Landscape Letter of Credit, will be required to ensure that all trees identified for retention will be protected.
- Parks Operations staff has authorized the removal of seven Sycamore Maple trees located along the Steveston Highway frontage due to their poor condition and conflicts with proposed frontage improvements. Compensation of $9,100 has been secured at Rezoning stage.

- The street edge along Steveston Highway will be defined with landscaping including various trees, shrubs and ground covers. A low 42 in. tall transparent aluminum fence with gates will be installed along the road frontage to accommodate visually interesting plant species.
- Each unit will have a private front yard with an outdoor patio to generate animation along the streetscape. The front yards will be separated with low aluminum fence with landscaping to provide privacy for individual units. All units along the rear (north) property line will have a private yard with a patio and a small lawn/landscaped area.
- Landscaping will be provided along the main east-west internal drive aisle. Trellis with landscaping will be provided at the ends of the internal drive aisle to provide visual interests at the terminuses.
- An on-site irrigation system is proposed to ensure continued maintenance of live landscaping.
- The location of outdoor amenity space provides easy access and visual transparency and surveillance for the townhouse residents. The proposed trellis at the terminus point of the entry driveway/entrance to the outdoor amenity space provides visual screening and spatial definition.
- A multi-functional play structure and natural play elements such as flat boulders and balance logs are proposed within the outdoor amenity area. These play structures/elements are chosen to fit into the provided space and to allow multiple children to play at the same time. The equipment provides different play opportunities for the development of social, imagination, balance, and motor skills. Benches are also proposed near the children's play area for caregivers.
- An interpretive heritage signage for the former Martianoff Residence (which was located on the development site at 5731 Steveston Highway) has been incorporated into the landscape design. While the Martianoff Residence is not identified in the City's current Heritage Inventory, the house has been identified as having heritage value. In order to commemorate the former Martianoff Residence, the developer has agreed to install an interpretive heritage signage at the entrance to the proposed townhouse development. The design of the signage will be reviewed by the City's Heritage Planner. To ensure the approved design of the interpretive heritage signage will be installed and maintained by the future strata, prior to the issuance of Development Permit, the applicant is required to register a legal agreement on Title to specify the design and the maintenance arrangement.
- Permeable pavers with decorative pattern will be used at the vehicle entrance, at the ends of the internal drive aisle, and on all surface parking spaces to break up the expansive paved surface on-site.
- In order to ensure that the proposed landscaping works are completed, the applicant is required to provide a landscape security of $174,762.40 in association with the Development Permit.

Crime Prevention Through Environmental Design

- Site lighting and clear sight lines provide unobstructed views of surrounding area.
- Plantings near residential entries are low to maximize views and casual surveillance opportunities of common areas.

- Expansive glazing for each unit increases the visual presence and surveillance along Steveston Highway, the amenity area as well as internal drive aisle.

Sustainability

- At the rezoning stage, the applicant committed to achieving an EnerGuide rating of 82 for the proposed town houses and to pre-ducting all units for solar hot water heating. The subject development will have until December 31, 2019 to submit an acceptable Building Permit application in order to build under previous energy efficiency requirements. Should the deadline pass the proposed development would then be subject to the Energy Step Code.
- A Certified Energy Advisor has confirmed that the proposed townhouse units will be designed to achieve an EnerGuide rating of 82. The report prepared by the Energy Advisor is on file and will be utilized through the Building Permit review process to ensure these measures are incorporated in the Permit drawings.
- The applicant has committed to incorporating solar photovoltaic (PV) installations into the proposed development. Four Photovoltaic (PV) solar panels will be installed on the roof of each townhouse unit (supplying 1.2kW/unit per unit). This on-site energy generation is intended to supplement power use; the applicant advised that future owners would have the flexibility to add more solar panels.
- The architect advised that low-flow toilets and showers as well as EnergyStar appliances will also be incorporated into the development.

Accessible Housing

- The proposed development includes three convertible units that are designed with the potential to be easily renovated to accommodate a future resident in a wheelchair. The potential conversion of these units will require installation of a chair lift (where the staircase has been dimensioned to accommodate this in "BC" units) in the future, if desired.
- All of the proposed units incorporate aging in place features to accommodate mobility constraints associated with aging. These features include:
  - Stairwell hand rails
  - Lever-type handles for plumbing fixtures and door handles.
  - Solid blocking in washroom walls to facilitate future grab bar installation beside toilets, bathtubs and showers.

Conclusions

The applicant has satisfactorily addressed staff's comments regarding conditions of adjacency, site planning and urban design, architectural form and character, and landscape design. The applicant has presented a development that fits into the existing context. On this basis, staff recommend support of this Development Permit application.

Edwin Lee
Planner 1
(604-276-4121)

EL:blg
Attachment 1: Development Application Data Sheet
Attachment 2: Excerpt from Advisory Design Panel Meeting Minutes (April 24, 2019)
Attachment 3: Development Permit Considerations

City of Richmond

Development Application Data Sheet

Development Applications Department

DP 18-829234 **Attachment 1**

Address: 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway

Applicant: Interface Architecture Inc. Owner: 1104773 BC Ltd. and Enrich Properties Steveston Ltd.

Planning Area(s): Steveston (Schedule 2.4)

Floor Area Gross: 5,270.0 m^2 Floor Area Net: 3,735.7 m^2

	Existing	Proposed
Site Area:	5,858.6 m^2	5,757.2 m^2
Land Uses:	Single-Family Residential/Two-Family Residential	Multiple-Family Residential
OCP Designation:	Single-Family Residential	Multiple-Family Residential
Zoning:	Single Detached (RS1/B) and Single Detached (RS1/E)	Medium Density Townhouses (RTM2)
Number of Units:	7 single-family homes	28 townhouse units + 2 secondary suites

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 0.65	0.65	none permitted
Lot Coverage – Building:	Max. 40%	39.9%	none
Lot Coverage – Non-porous Surfaces:	Max. 65%	64.7%	none
Lot Coverage – Landscaping:	Min. 25%	28.1%	none
Setback – Front Yard (m):	Min. 6.0 m	4.5 m @ Buildings 1 & 2 5.6 m @ Buildings 9 & 10	**Variance Requested**
Setback – East Side Yard (m):	Min. 3.0 m	3.32 m	none
Setback – West Side Yard (m):	Min. 3.0 m	3.53 m	none
Setback – Rear Yard (m):	Min. 3.0 m	6.0 m	none
Height (m):	Max. 12.0 m (3 storeys)	11.81 m (3 storeys)	none
Lot Width:	Min. 50.0 m	129.06 m	none
Lot Depth:	Min. 35.0 m	44.76 m	none
Off-street Parking Spaces – Regular (R) / Visitor (V):	2 (R) and 0.2 (V) per unit	2 (R) and 0.2 (V) + 1 (R) per secondary suite	none
Off-street Parking Spaces – Total:	56 (R) and 6 (V)	58 (R) and 6 (V)	none

Tandem Parking Spaces:	Max. 50% of proposed residential spaces in enclosed garages (56 x Max. 50% = 28)	0	none
Small Car Parking Spaces	Max. 50% when 31 or more spaces are provided on-site (64 x Max. 50% = 32)	16	none
Handicap Parking Spaces:	Min. 2% when 11 or more spaces are required (64 x 2% = 2 spaces)	2	none
Bicycle Parking Spaces – Class 1 / Class 2:	1.25 (Class 1) and 0.2 (Class 2) per unit	1..25 (Class 1) and 0.21 (Class 2) per unit	none
Off-street Parking Spaces – Total:	35 (Class 1) and 6 (Class 2)	35 (Class 1) and 6 (Class 2)	none
Amenity Space – Indoor:	Min. 70 m² or Cash-in-lieu	Cash-in-lieu	none
Amenity Space – Outdoor:	Min. 6 m² x 28 units = 168 m²	168 m²	none

Attachment 2

Excerpt from the Minutes from
The Design Panel Meeting

Wednesday, April 24, 2019 – 4:00 p.m.
Rm. M.1.003
Richmond City Hall

1. DP 18-829234 – 28-UNIT ARTERIAL ROAD TOWNHOUSE DEVELOPMENT

ARCHITECT:	Interface Architecture Inc.
LANDSCAPE ARCHITECT:	PMG Landscape Architects
PROPERTY LOCATION:	5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway

Applicant's Presentation

Ken Chow, Interface Architecture, and Mary Chan-Yip, PMG Landscape Architects, presented the project and answered queries from the Panel on behalf of the applicant.

Panel Discussion

Comments from Panel members were as follows:

- support staff comments regarding the uniformity of the design of the street fronting units, including materials and colours, and their strong horizontal and unwavering rooflines; the applicant is advised to address these concerns;
  Due to some interior layout revisions, we were able to enhance the facade articulation:
  - ***At 3rd floor, stepped back the exterior wall (at the stair/closet) by 12" (previously flush).***
  - ***At these stepped back wall sections, now also clad with gray board/batten (to match 1st & 2nd levels) to visually enhance the separation of units.***
  - ***At the roof line, the 'serrated' roof eave line is offset 3-ft (previously 2-ft).***
- not concerned with the size of the duplex units at the back in relation to the adjacent single-family homes to the north; however, support the staff comment that the design of the roofline could be varied and further refined to strengthen the vertical expression of the buildings, e.g., slightly bell-cast over the bedroom or incorporating a false bay;
  The simple roof forms over the duplex buildings are consistent with the fronting 3-storey buildings as intended (i.e. unifying project feature). However, we did add a box window at the rear elevation and extended some board/batten cladding up to the roof line for additional interest.

- appreciate the efficient site lay-out and the simplified massing;

  Noted. The site plan follows the ideal layout as suggested by the arterial road guidelines, which addresses all of the key issues (i.e. truck turnaround, neighbour adjacencies, site circulation, common amenities, sense of entry, etc.). The simplified massing was a design intention from the start, balanced by facade visual interest created by the interplay of materials, exterior wall relief, variegated eave lines, well-defined entry canopies, and landscaping.

- consider wrapping the board and batten treatment around the corner to the middle of the sides of the three-storey corner units to mitigate the chopped off appearance of the side views of the buildings;

  Yes, agree. Have extended the board and batten cladding more extensively to the side elevations (to provide a more equitable proportion of exterior materials).

- consider further articulating the eave lines of the eastern three-storey buildings as the western building's roofline is articulated by footprint changes; the flat dormer effect in the two-storey back units could be introduced in the eastern three-storey building roofs to provide further articulation to their roof shape;

  We're assuming the reference is to the east Building #2, which does not have a footprint shift at a unit. A footprint shift would have been desirable, but the site tapers narrower at the east end. Any additional eave juggling would be out of place, and if achieved, would be considered for all of the 3 remaining frontage buildings (#1, #9, #10). The flat dormer effect from the duplexes is already echoed in the 3rd level balcony decks (with glass railings over), so we feel that the eave articulation is sufficient.

- consider instead of additional surface parking stalls on the site, providing more landscaping;

  At Rezoning Stage, 2 small outdoor parking spaces have been secured for the 2 secondary suites. No extra visitor parking space is proposed.

- support Panel comments regarding further articulation of the roof lines; proposed building height and unused attic space allow for the reshaping of the roofline and further altering the ridge line; proposed variation of the ridge and eave lines of three-storey units along Steveston Highway is not sufficient;

  We believe the roof forms are appropriate and sufficient as they are. The design intent was to achieve a 'westcoast modern' residential form and character. 'Modern' suggests a certain degree of simplicity which is achieved by the simple single-gabled roof forms (and trimless windows and glass guardrails). 'Westcoast' suggests 'timber' materials (i.e. lapsiding, board/batten, entry column/beams) in natural colours, and 'residential'-scale involves including elements such as multi-paned windows, variegated eave lines, rhythmic vertical bays/wall relief, stepped back decks/balconies, entry stoop weather protection.

- roofs of street fronting three-storey end units could come down to mitigate their chopped off appearance;

  Comment is understandable, but again, that is part of the desired 'simplicity' of form.

- consider dropping down the roof of the two 2-storey buildings framing the outdoor amenity area to allow more sunlight penetration into the amenity area;

  Same comment. Also there is sufficient separation between Buildings 5 & 6, and the amenity area is open in the north-south direction for max light penetration.

- consider installing more natural play features over a single play structure to maximize the play space and play opportunities in the small outdoor amenity area;

  It was understood that Council preferred to have a 'higher-quality' play structure in addition to natural play features in the outdoor amenity area.

- support staff comment that the retaining wall in the middle of the rear yards of Units 18,19 and 20 will reduce the size of the usable yard space and affect the functionality of the private outdoor spaces for these units;

  After a careful design review of the rear yards, the design team (arch, civil, landscape) determined that:

  - ***adding stepped planters at the rear foundation wall is the best way to handle the rear grade drop,***
  - ***new retaining walls at the NW and NE corners of the site are the best way to transition the side PL retaining walls around the corner***

- Appreciate retaining existing trees which have strong habitat value; consider replacing existing cedar hedge to increase yard area as significant pruning would not be aesthetically valuable;

  Hedge at NW corner straddles the common PL, so cannot removed.

- consider simplifying the proposed on-site paving treatment and installing paving materials to match and reflect the more contemporary architecture style of the buildings;

  The selected pavers (see L1) are spec'd in Charcoal and Harvest Blend colours. In our opinion, they do suit the style of the buildings.

- consider simplifying the different kinds of fencing materials; the applicant could use cedar fencing throughout the proposed development as it is more consistent with the proposed building architecture and materials;

  The landscape drawings have been reviewed thoroughly and revised accordingly, but the fencing materials are as proposed at the ADP meeting. The 42"ht aluminum rail fence is in keeping with the 'modern' design direction (i.e. metal/glass balcony guardrail, black metal window frames and gutters, etc.).

- appreciate the applicant showing how the project will achieve the EnerGuide 82 rating; support the proposed sustainability features of the project, e.g., installing air source heat pumps and solar PV panels; applicant is encouraged to use heat recovery ventilation;

  Noted. No change in specs as presented at ADP.

- consider installing more natural play elements in the outdoor amenity area; also consider installing a reinforcement mat at the base of the play slide to maintain a landing surface;

  It was understood that Council preferred to have a 'higher-quality' play structure in addition to natural play features in the outdoor amenity area. The Fibar resilient surface provides a safe, permeable, accessible surface:

- concern regarding the proposed location of the garbage and recycling enclosures proximity to Steveston Highway; consider removing the proposed garbage and recycling enclosures if allowed by the City and allowing individual garbage and recycling pick-ups in front of units to make the entry/exit driveway safer;

  The concern is that the service trucks entering the site may hold up vehicles following behind and stacking into the street. Since the service vehicles will need to do a 3-point turn in order to 'head out' back onto Steveston Hwy, it is recommended that trucks make the 3-point turn 'before making the garbage or recycle pick ups. That should mitigate any potential queuing at the site entry.

- parking for secondary suites may not be required; however, the applicant could provide two surface parking stalls for the secondary suites by relocating the two LPT/PMT; could enhance the livability and marketability of the two secondary suites;

  The two surface parking spaces have been secured for the two secondary suites at Rezoning. Relocation of the LPT/PMT not required.

- appreciate the site frontage as it will improve pedestrian circulation along Steveston Highway;

  Noted.

- consider installing a more accessible surface paving material for the children's play area;

  The Fibar surface is both safe and accessible (see above).

- support the use of permeable pavers with different textures and colours to differentiate the site entrance and other pedestrian circulation areas on the site; will help improve the pedestrian circulation network on the site; and

  Noted.

- incorporating public art into the project would enhance the public realm.

  Project is contributing $33,430.12 to City's Public Art fund in lieu of on-site artwork. Hopefully, the project is considered well-designed.

Panel Decision

It was moved and seconded
That DP 18-829234 be supported to move forward to the Development Permit Panel subject to the applicant giving consideration to the comments of the Advisory Design Panel.

CARRIED

ATTACHMENT 3

City of Richmond

Development Permit Considerations

Development Applications Department
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 5631, 5635, 5651, 5691, 5711, 5731 and 5751 Steveston Highway **File No.:** DP 18-829234

Prior to approval of the Development Permit, the developer is required to complete the following:

1. Final adoption of the Zoning Amendment Bylaw 9982.
2. Registration of a legal agreement on title to restrict access to the property to right in/right out movements only.
3. Registration of a legal agreement on title to ensure that the design of the interpretive heritage signage to be installed on site is consistent with the design approved by the city's heritage planner and that the interpretive heritage signage will remain on site and will be maintained by the future strata.
4. Receipt of a Letter-of-Credit for landscaping and tree survival security in the amount of $174,762.40. No Landscape Letter of Credit will be returned until the post-construction assessment report, confirming the protected trees survived the construction, prepared by the Arborist, is reviewed by staff.

Prior to Building Permit Issuance, the developer must complete the following requirements:

1. The subject development will have until December 31, 2019 to submit an acceptable Building Permit application in order to build under previous energy efficiency requirements (i.e., EnerGuide 82). Should the deadline pass the proposed development would then be subject to the Energy Step Code.
2. Installation of appropriate tree protection fencing around all trees and hedges to be retained as part of the development prior to any construction activities, including building demolition, occurring on-site.

   Should the applicant wish to begin site preparation work after third reading of the rezoning bylaw, but prior to final adoption of the rezoning bylaw and issuance of the Development Permit, the applicant will be required to obtain a Tree Permit and submit landscaping security (i.e. $52,000 in total) to ensure the replacement planting will be provided.
3. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
4. Incorporation of energy efficiency, CPTED, sustainability, noise mitigation and accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
5. If applicable, payment of latecomer agreement charges associated with eligible latecomer works.
6. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.

Note:

* This requires a separate application.

- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

  All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

  The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

Initial: _____

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contains prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

_____ _____

Signed Date

City of Richmond

Development Permit

No. DP 18-829234

To the Holder:	INTERFACE ARCHITECTURE INC.
Property Address:	5631, 5635, 5651, 5691, 5711, 5731 AND 5751 STEVESTON HIGHWAY
Address:	C/O UNIT 230, 11590 CAMBIE ROAD RICHMOND, BC V6X 3Z5

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. The "Richmond Zoning Bylaw 8500" is hereby varied to reduce the front yard setback from 6.0 m to 4.5 m for proposed Buildings #1 and #2 on the eastern half of the site, and from 6.0 m to 5.6 m for proposed Buildings #9 and #10 on the western half of the site.
4. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1 to #4 attached hereto.
5. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
6. As a condition of the issuance of this Permit, the City is holding the security in the amount of $174,762.40 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 Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
7. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.

Development Permit
No. DP 18-829234

To the Holder:	INTERFACE ARCHITECTURE INC.
Property Address:	5631, 5635, 5651, 5691, 5711, 5731 AND 5751 STEVESTON HIGHWAY
Address:	C/O UNIT 230, 11590 CAMBIE ROAD RICHMOND, BC V6X 3Z5

8. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

   This Permit is not a Building Permit.

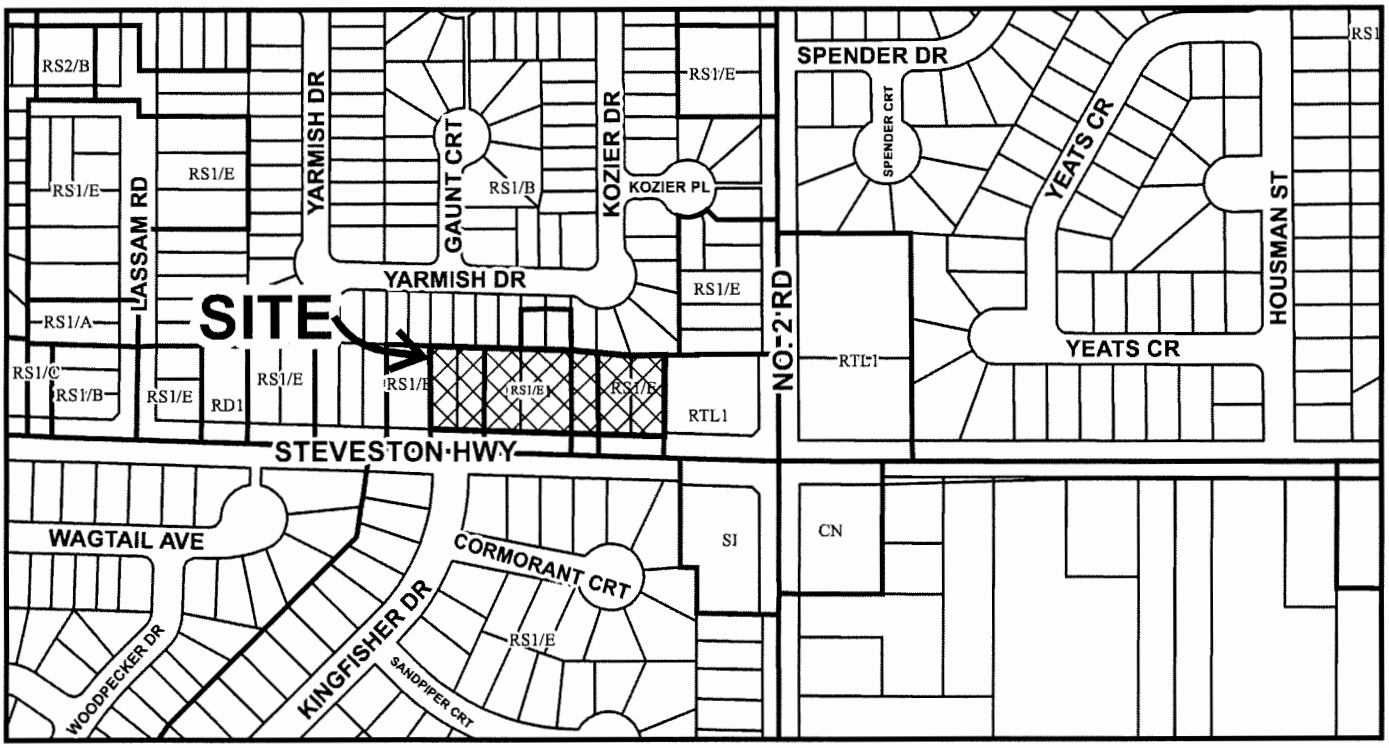
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF , .

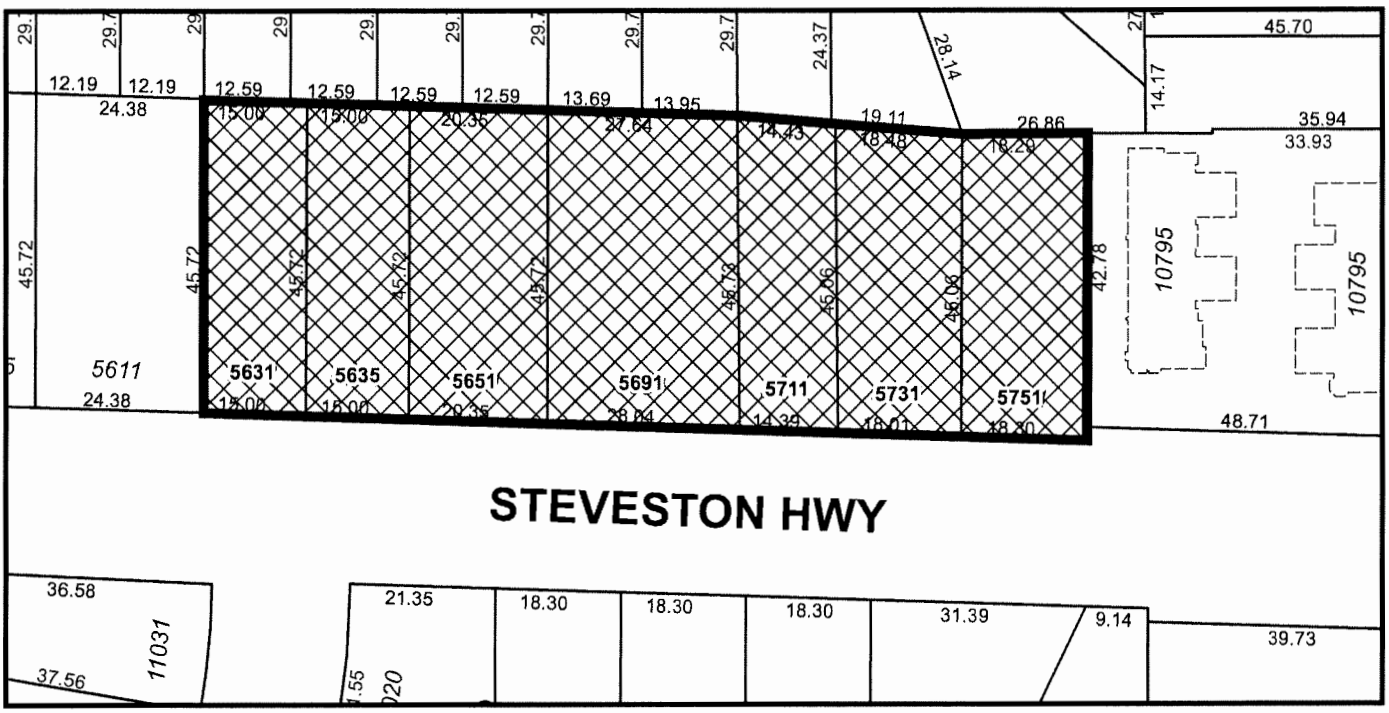
DELIVERED THIS DAY OF , .

_____

MAYOR

City of Richmond





DP 18-829234
SCHEDULE "A"

Original Date: 08/22/18

Revision Date:

Note: Dimensions are in METRES

DEVELOPMENT PERMIT APPLICATION - SEPT 06, 2019

28-UNIT TOWNHOUSE DEVELOPMENT

5631, 5635, 5651, 5691,5711, 5731, 5751
STEVESTON HWY, RICHMOND BC

VIEW ALONG STEVESTON HWY LOOKING NORTH-EAST

CONTACTS

Architect

INTERFACE ARCHITECTURE INC.
#230 - 11590 CAMBIE ROAD
RICHMOND, B.C. V6X 3Z5
Tel: 604-821-1162
Fax: 604-821-1146
Email: ken@interfacearchitecture.com

Surveyor

J. C. TAM AND ASSOCIATES
#115 - 8833 ODLIN CRESCENT
RICHMOND, BC V6X 3Z7
Tel: 604-214-8928
Fax: 604-214-8929
Email: office@jctam.com

Civil

CORE CONCEPT CONSULTING
#220 - 2639 VIKING WAY
RICHMOND, BC V6V 3B7
Tel: 604-249-5040
Fax: 604-249-5041
Email: bcduffy@coreconceptconsulting.com

Landscape Architect

PMG LANDSCAPE ARCHITECTS
SUITE C100 - 4186 STILL CREEK DRIVE
BURNABY, BC V5C 6G9
Tel: 604-294-0011
Fax: 604-294-0022
Email: mary@pmglandscape.com

Arbourist

FROGGERS CREEK TREE CONSULTANTS
7763 MCGREGOR AVENUE
BURNABY, BC V5J 4H4
Tel: 604-721-8002
Fax: 604-437-0870
Email: glenn_murray@shaw.ca

DRAWING LIST

Architectural

A1.0	COVER SHEET
A1.1	PROJECT DATA AND SITE PLAN
A1.2	FIRE ACCESS & PARKING / TRUCK TURNING PLAN
A1.3	SITE AREA OVERLAYS / AVG FINISHED GRADE
A1.4	F.A.R. OVERLAY BY UNITS & FLOOR AREA BREAKDOWN
A1.5	F.A.R. OVERLAY BY BUILDING
A2.1	FLOOR PLANS: BUILDING 1 & 2
A2.2	ELEVATIONS: BUILDING 1 & 2
A2.3	FLOOR PLANS: BUILDING 3, 4 & 5
A2.4	ELEVATIONS: BUILDING 3, 4 & 5
A2.5	FLOOR PLANS: BUILDING 6, 7 & 8
A2.6	ELEVATIONS: BUILDING 6, 7 & 8
A2.7	FLOOR PLANS: BUILDING 9 & 10
A2.8	ELEVATIONS: BUILDING 9 & 10
A2.9	FLOOR PLANS: CONVERTIBLE UNIT (Bc)
A5.1	STREETSCAPES & SITE SECTIONS S1,S2
A5.2	SITE SECTIONS S3, S4, & S5
A5.3	SITE SECTIONS S6, S7, S8, S9, & S10
A9.1	MATERIAL BOARD
A9.2	SHADOW STUDY
A9.3	PERSPECTIVES

Landscape

L1	LANDSCAPE PLAN
L2	LANDSCAPE SHRUB PLAN
L3	LOT COVERAGE PLAN
L4	TREE MANAGEMENT PLAN
L5	LANDSCAPE DETAILS
L6	LANDSCAPE DETAILS

Civil (On-site)

C1	LOT GRADING

Arbourist

REPORT DATED AUGUST 27, 2018

Survey

SURVEY DATED JULY 10, 2017

CONTEXTUAL IMAGES

EXAMPLE OF HERITAGE INTERPRETIVE SIGNAGE
(SEE SITE PLAN ON A1.1 FOR PROPOSED LOCATION)

PLAN#1

DP 18-829234

REVISIONS	
SEP 06, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
JULY 16, 2018	DP Submission
APRIL 04, 2016	RZ Application

CONSULTANTS

All designs and other information shown herein are for use on the specified project only and shall not be used otherwise without written permission of this office.

This drawing must not be reproduced without written permission from this office and unless the reproduction clearly carries the office name.

Contractors shall verify and be responsible for all dimensions and conditions on the job and this office shall be informed of any variations from the dimensions and conditions shown on the drawing.

SEAL

INTERFACE:
Suite 230
11590 Cambie Road
Richmond BC
Canada V6X 3Z5

T 604 821 1162
F 604 821 1146
www.interfacearchitecture.com

PROJECT
Proposed 28-Unit Townhouse Development
7 LOT ASSEMBLY
5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751
STEVESTON HWY
RICHMOND, BC

PROJECT NO. 1716STV2
SCALE As Noted
DATE March. 30, 2017
DRAWN BY KYC, SRS, WAL
CHECKED BY KYC
SHEET TITLE COVER SHEET
DRAWING A1.0

SEP 24 2019

ZONING SUMMARY

★ VARIANCE REQUESTED

Richmond Zoning and Development Bylaw No. 8500

LOT SIZE:	GROSS AREA	63,081 sf = 1.45 ACRES [5,858.5 m2]
	DEDICATION	1,092 sf = 0.03 ACRES [101.4 m2]
	NET AREA	61,970 sf = 1,423 ACRES [5,757.2 m2]

	PERMITTED	PROPOSED
MINIMUM LOT SIZE:	50 M (W) x 35M (D)	129m WIDE X ±46m DEEP
DENSITY:	FAR 0.85 + 0.1 AMENITY	FAR 0.85 [40,212 SF / 61,970 SF]
LOT COVERAGE:	40% MAX FOR BLDGS	39.9% [24,706 SF / 61,970 SF]
LOT IMPERMEABLE:	65% MAX NON-POROUS	64.7% [40,081 SF / 61,970 SF]
	25% MIN LIVE PLANTS	28.1% [17,395 SF / 61,970 SF]
YARD SETBACKS:		
★ FRONT YARD (S)	4.5 M MIN- OCP 14.4.13	4.52 M [14.63 FT] ★
SIDE YARD 1 (W)	3.0 M [9.84'] MIN	3.63 M [11.58 FT]
SIDE YARD 2 (E)	3.0 M [9.84'] MIN	3.32 M [10.89 FT]
REAR YARD (N)	6.0 M MIN- OCP 14.4.13	6.0 M [19.69 FT]
YARD PROJECTIONS:		
PRINCIPAL BLDG	MAX 1.5M FRONT YD	N/A
BAY WINDOWS	1.0M FRONT, 0.6M REAR	N/A
BALCONIES	1.5M, BUT NOT AT SIDE	N/A
ARBOURS ETC	BY CASE	N/A
BUILDING HEIGHT:	12.0 M / 3-STOREY - FRONT	11.81 M / 3-STOREY
	9.0 M / 2-STOREY - SIDE	N/A - EXCEED 7.5 M FROM PL
	9.0 M / 2-STOREY - REAR	8.9 M - 2 STOREY
FLOODPLAIN C.L.	TOP OF HAB FLR AT 0.3M MIN ABOVE RD CROWN	SET FCL AT 2.17 M [7.12 FT] (ROAD CROWN IS 1.87 M)
AMENITY SPACE:		
COMMON OUTDR	168 M2 (6 M2/UNIT x 28)	168 M2 SHOWN
PRIVATE OUTDR	30 M2 RECOMMENDED	PROVIDE 34 M2/UNIT MIN.
INDOOR	70 M2 OR PAY-IN-LIEU	PAY-IN-LIEU
LANDSCAPING:	TO PART 6 OF BYLAW	TO BE DETERMINED

LOT ZONING: RTM2 PROPOSED (CURRENTLY: RD1, RS1/E & RS1/C)

USES: MEDIUM DENSITY TOWNHOUSES

	PERMITTED / REQUIRED	PROPOSED
PARKING REQUIRED:	56 (2/UNIT RESIDENTS)	56 RESIDENT SPACES
	2 (1 PER LOCKOFF UNIT)	2 SPACES AT GRADE
	6 (0.2/UNIT VISITORS)	6 VISITOR SPACES
EV CHARGING	56 (LEVEL 2 EV ENERGIZED OUTLET FOR EACH RESIDENT SPACE)	56 LEVEL 2 EV ENERGIZED OUTLETS
SMALL CARS	50% MAX	28% (18 OUT OF 64)
TANDEM SPACES	50% MAX	N/A
H/C SPACES	2% OF SPACES MIN.	2 H/C VISITOR SPACE
BICYCLE PARKING:		
CLASS 1	35 (1.25 PER UNIT)	35 PROVIDED IN 28 UNITS
CLASS 2	6 (0.2 PER UNIT)	6 PROVIDED
GARBAGE DEPOT:	1 DEPOT (FOR 28 UNITS)	1 DEPOT (FOR 28 UNITS)
	1 x 4-CY GARBAGE BIN	1 x 4-CY GARBAGE BIN
	1 x 3-CY CARDBOARD BIN	1 x 3-CY CARDBOARD BIN
	2 x 360L PAPER CARTS	2 x 360L PAPER CARTS
	2 x 360L CONTAINER CARTS	2 x 360L CONTAINER CARTS
	2 x 240L FOOD SCRAP CRTS	2 x 240L FOOD SCRAP CRTS
	1 x 120L GLASS CART	1 x 120L GLASS CART
	1 x 240L REFUNDABLE CRT	1 x 240L REFUNDABLE CRT
ON-SITE LOADING:	MEDIUM SIZE SPACE	N/A - CAN TURN ON SITE

ENERGY EFFICIENCY: TO ACHIEVE ENERGUIDE 82 RATING (MUST SUBMIT BUILDING PERMIT BY DECEMBER 31, 2019)

PROJECT DESCRIPTION

AN RTM2 REZONING IS PROPOSED TO MAX 0.85 FAR FOR THIS 28-UNIT TOWNHOUSE PROJECT ON A 5858.6 M2 [63,081 SF] SITE, SUBJECT TO STEVESTON AREA PLAN (2.4), ARTERIAL ROAD POLICY (OCP 3.6.1) AND MULTI-FAMILY GUIDELINES (OCP 14.4).

THE 7-LOT SITE, FRONTING ONTO STEVESTON HWY (A MAJOR ARTERIAL ROAD) WITH NO LANE ACCESS, IS IMMEDIATELY ADJACENT TO SINGLE-FAMILY PROPERTIES TO THE WEST & NORTH. AN EXISTING 6.0 M WIDE S.R.O.W. STRADDLES MOST OF THE REAR P.L. A 2M WIDE ROAD DEDICATION IS REQUIRED FOR THE EAST PORTION OF THE FRONTAGE, REDUCING THE PARCEL TO A NET AREA OF 5757.1 M2 [61,970 SF, 1.423 AC].

THE 10-BUILDING DEVELOPMENT IS COMPRISED OF:

- 6 DUPLEXES (2-STOREY), 4 FOUR-PLEXES (ALL 3-STOREY)
- WILL PROVIDE 3 CONVERTIBLE UNITS (UNITS #9, #18, #20)
- ALL REQUIRED PARKING + 2 EXTRA VISITOR SPACES
- ON SITE SU-9 TRUCK MANOEUVERING

ONE VARIANCE IS REQUESTED. THE FRONT YARD SETBACK IS REDUCED FROM 6.0M TO 4.5M MINIMUM, PER OCP 14.4.13.

FAR AREA BY BUILDING

BLDG NO.	NO. UNIT	BLDG GROSS	BLDG EXEMPT	BLDG FAR AREA
1	4 x C	7,464 sf	(2,414 sf)	5,050 sf
2	3 x C, 1 x C-F	7,569 sf	(2,374 sf)	5,195 sf
3	1 x A, 1 x Bc	4,476 sf	(1,189 sf)	3,287 sf
4	1 x A, 1 x B	4,426 sf	(1,139 sf)	3,287 sf
5	1 x A, 1 x B	4,426 sf	(1,139 sf)	3,287 sf
6	1 x A, 1 x B	4,426 sf	(1,139 sf)	3,287 sf
7	1 x A, 1 x Bc	4,426 sf	(1,139 sf)	3,287 sf
8	1 x A, 1 x Bc	4,479 sf	(1,192 sf)	3,287 sf
9	3 x C, 1 x C-F	7,569 sf	(2,374 sf)	5,195 sf
10	4 x C	7,464 sf	(2,414 sf)	5,050 sf
		56,725sf	16,513sf	40,212sf

AVERAGE GRADE CALCULATION

	SITE	BUILDING 1	BUILDING 2	BUILDING 3	BUILDING 4	BUILDING 5	BUILDING 6	BUILDING 7	BUILDING 8	BUILDING 9	BUILDING 10	TOTAL AVG.
SW CORNER	1.32	1.78	1.77	1.97	1.97	1.97	1.97	1.97	1.97	1.74	1.81	
SE CORNER	1.30	1.74	1.91	1.97	1.97	1.97	1.97	1.97	1.97	1.8	1.84	
NE CORNER	1.03	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	
NW CORNER	1.03	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	
AVG GRD	1.17	1.87	1.91	1.97	1.97	1.97	1.97	1.97	1.97	1.87	1.90	1.87

DP RESUBMISSION - 28-UNIT TOWNHOUSES

RZ 16-733904	DP 18-829234	SA	BP

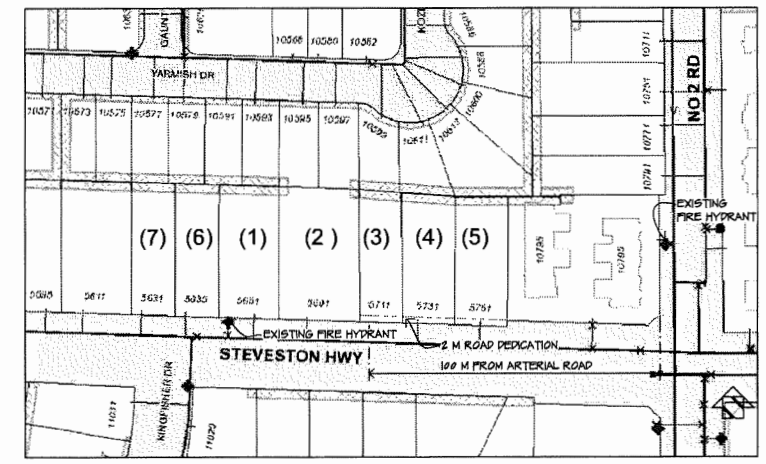
CIVIC ADDRESSES:

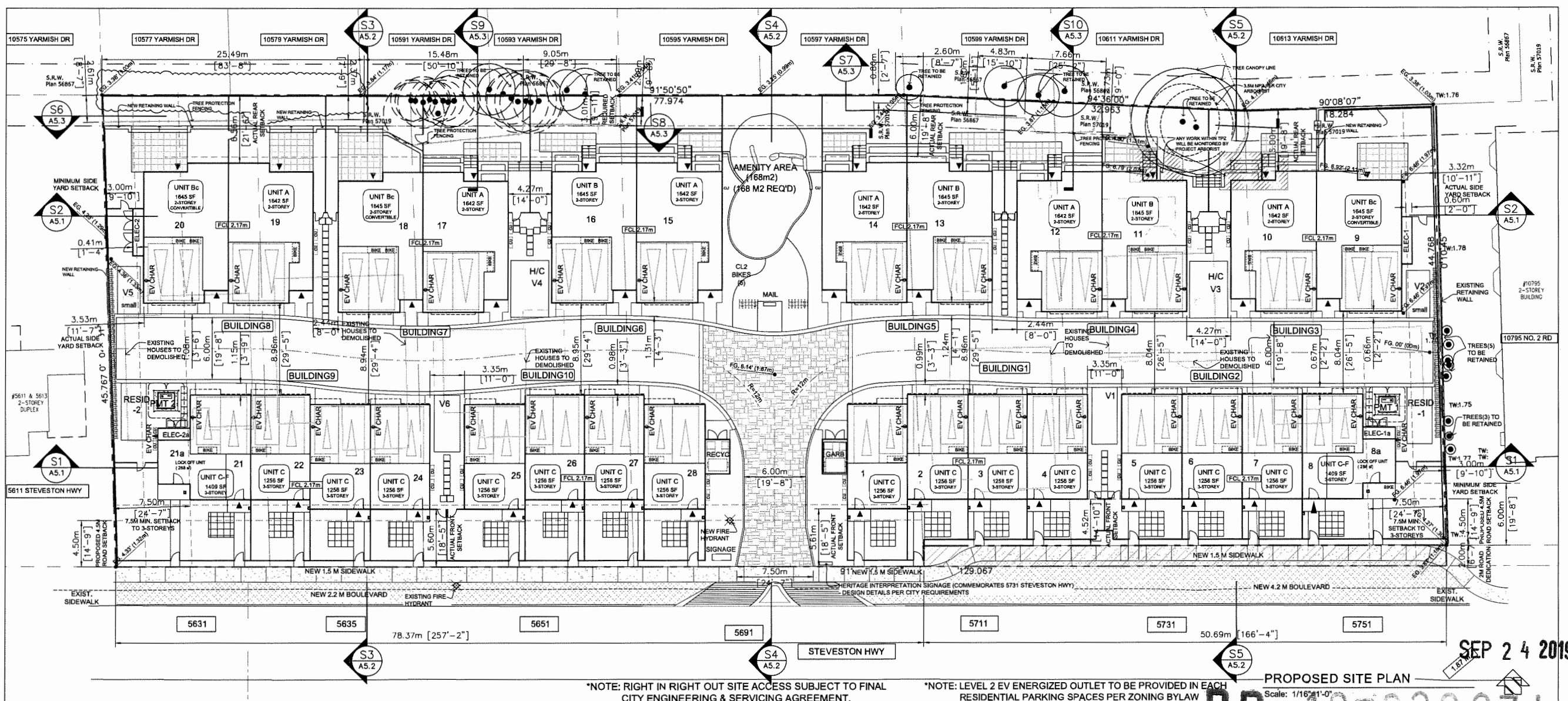
(1) #5651 PID: 003-761-100
(2) #5691 PID: 012-346-004
(3) #5711 PID: 004-869-834
(4) #5731 PID: 004-287-096
(5) #5751 PID: 002-561-557
(6) #5635 PID: 004-868-029
(7) #5631 PID: 004-306-481

LEGAL DESCRIPTIONS:

(1) LOT 774, PLAN 58002
(2) PARCEL "A" (REF 9132) LOT 38 EXCEPT: PART SUBDIVIDED BY PLAN 578741 PLAN 1748
(3) LOT 911, PLAN 58686
(4) LOT 773, PLAN 58002
(5) LOT 97, PLAN 32685
(6) LOT 910, PLAN 58686
(7) LOT 909, PLAN 58686

ALL OF SECTION 36 BLOCK 4 NORTH RANGE 7 WEST NEW WESTMINSTER DISTRICT





*NOTE: RIGHT IN RIGHT OUT SITE ACCESS SUBJECT TO FINAL CITY ENGINEERING & SERVICING AGREEMENT.

*NOTE: LEVEL 2 EV ENERGIZED OUTLET TO BE PROVIDED IN EACH RESIDENTIAL PARKING SPACES PER ZONING BYLAW

PROPOSED SITE PLAN
Scale: 1/16"=1'-0"

SEP 24 2019

DP 18-829234

PLAN #1A

REVISIONS

SEP 06, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
JULY 16, 2018	DP Submission
APRIL 04, 2016	RZ Application

CONSULTANTS

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SEAL

INTERFACE:
Suite 230
11590 Cambie Road
Richmond BC
Canada V6X 3Z5

T 604 821 1162
F 604 821 1146
www.interfacearchitecture.com

PROJECT
Proposed 28-Unit Townhouse Development
7 LOT ASSEMBLY
5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751
STEVESTON HWY
RICHMOND, BC

PROJECT NO. 1716STV2

SCALE: As Noted

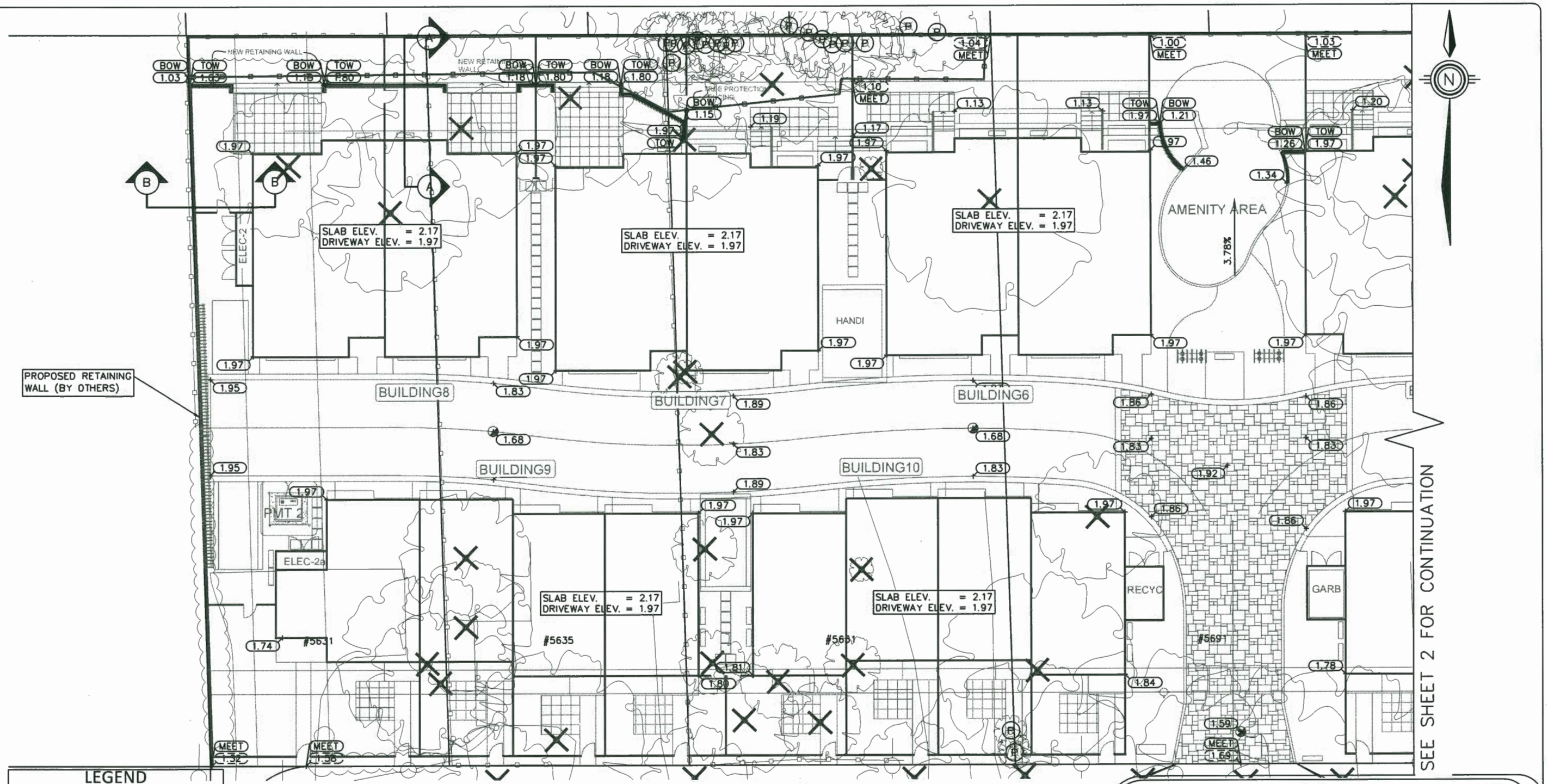
DATE: March. 30, 2017

DRAWN BY: KYC, SRS, WAL

CHECKED BY: KYC

SHEET TITLE: PROJECT DATA, SITE/PARKING PLAN

DRAWING: A1.1



PLAN
SCALE: 1:250

LEGEND	
✕	TREE TO BE REMOVED
(P)	TREE TO BE PRESERVED
—	TREE PROTECTION FENCE

City of Richmond

6911 No. 3 ROAD RICHMOND B.C. V6Y 2C1

CoreConcept CONSULTING LTD.
tel : 604.249.5040
fax : 604.249.5041
#220-2639 Viking Way, Richmond, BC, V6V 3B7
www.coreconceptconsulting.com

ENRICH PROPERTIES STEVESTON LTD

Core Concept Consulting Project No. 18050
DWG. 1 OF 3

REV'N	DATE	BY	CH.	DESCRIPTION
0.	3 SEP 2019	SP	BTR	ISSUED FOR DP

REVISIONS

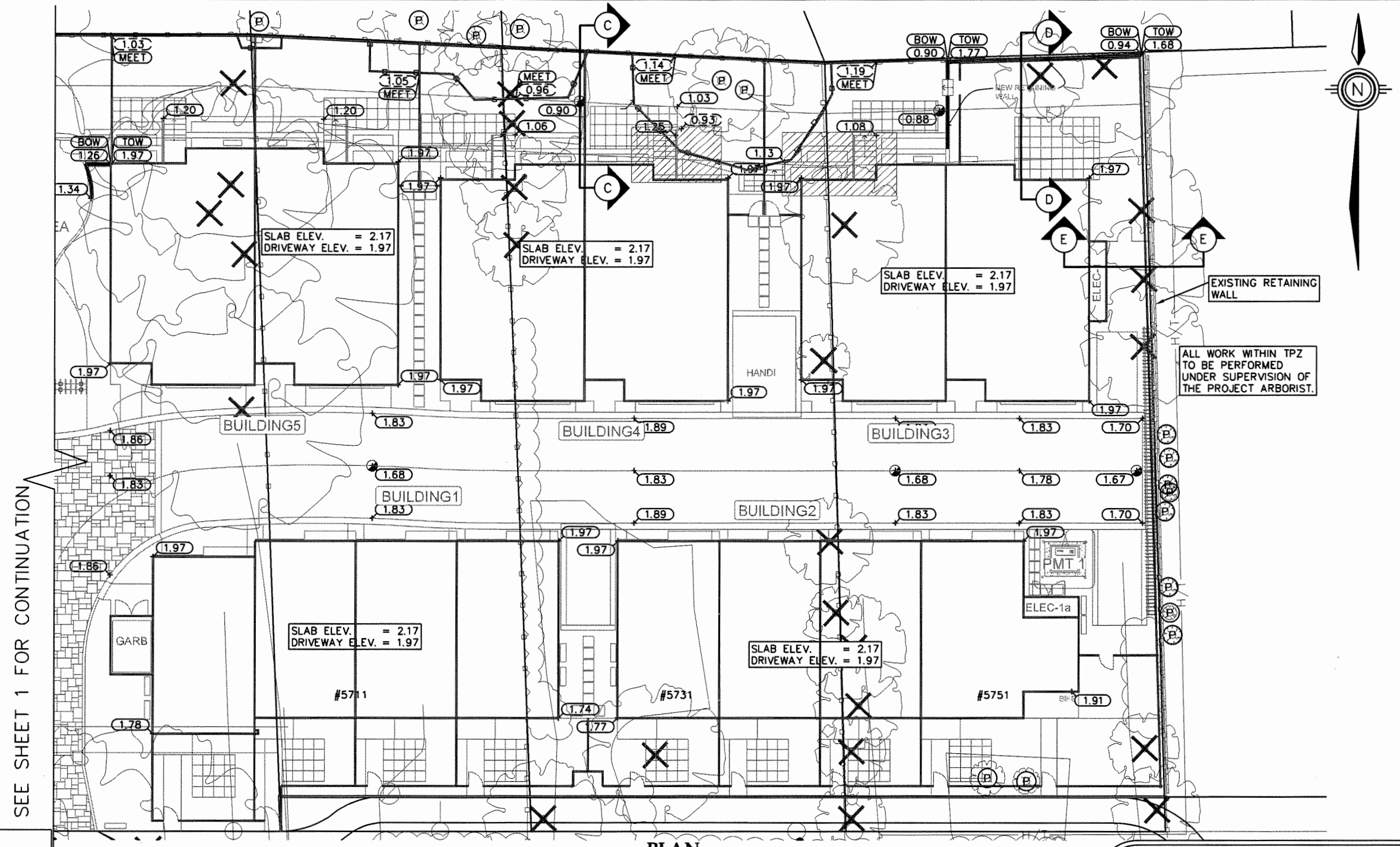
NOT FOR CONSTRUCTION
3 SEP 2019

TITLE: **LOT GRADING**
5631-5751 STEVESTON HWY

SEP 24 2019

CITY FILE : PLAN-1B

DESIGN: SP	DWG. No. DP 18-829234		
DRAWN: GG			
CHECKED: BTR	SCALE: 1 : 250	DATE: MAR 2019	
ENGINEER: BTR	SEC. No.: 36-4-7	SHT No.: 1 OF 3	



PLAN
SCALE: 1:250

LEGEND	
	TREE TO BE REMOVED
	TREE TO BE PRESERVED
	TREE PROTECTION FENCE

City of Richmond
6911 No. 3 ROAD RICHMOND B.C. V6Y 2C1

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fax : 604.249.5041
#220-2639 Viking Way, Richmond, BC, V6V 3B7
www.coreconceptconsulting.com

ENRICH PROPERTIES STEVESTON LTD
Core Concept Consulting Project No. 18050
DWG. 2 OF 3

REV'N	DATE	BY	CH.	DESCRIPTION
0.	3 SEP 2019	SP	BTR	ISSUED FOR DP

REVISIONS

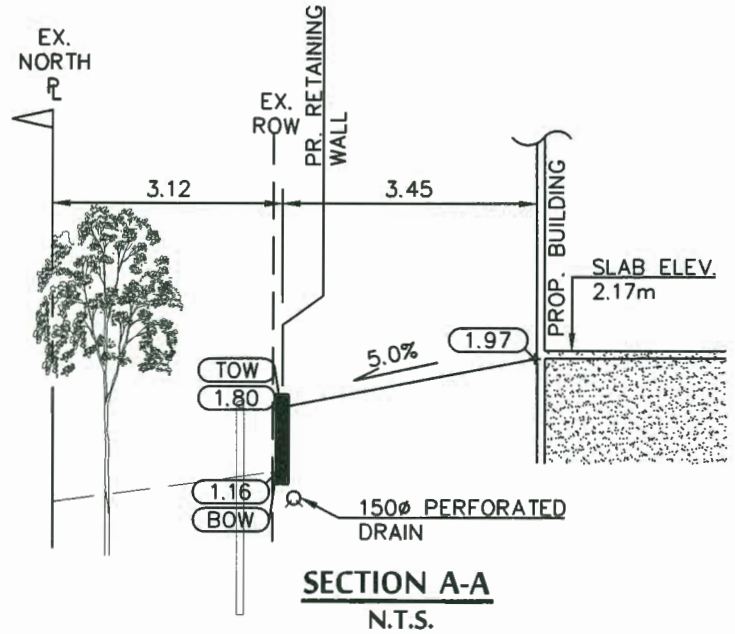
NOT FOR CONSTRUCTION
3 SEP 2019

TITLE:
LOT GRADING
5631-5751 STEVESTON HWY

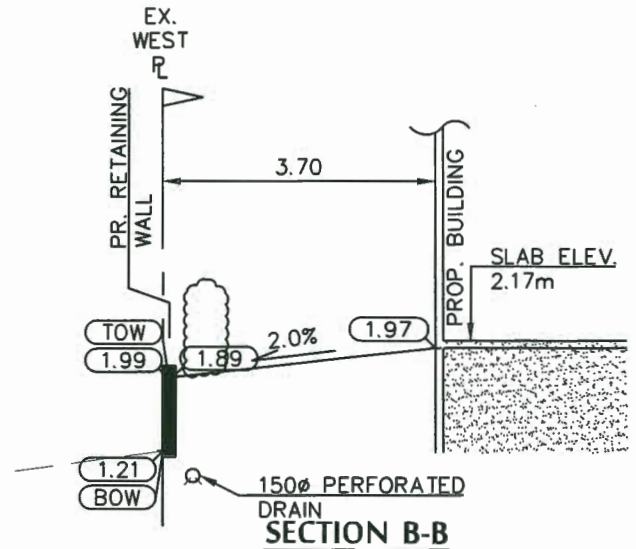
SEP 2 4 2019
PLAN#1C

CITY FILE : DP 18-829234

DESIGN: SP		
DRAWN: GG	DWG. No.: .	
CHECKED: BTR	SCALE: 1 : 250	DATE: MAR 2019
ENGINEER: BTR	SEC. No.: 36-4-7	SHT No.: 2 OF 3



SECTION A-A
N.T.S.



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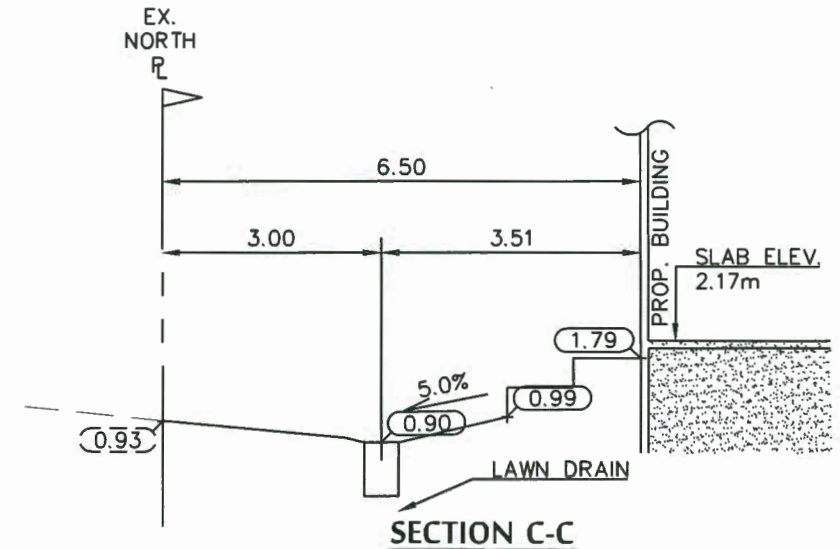
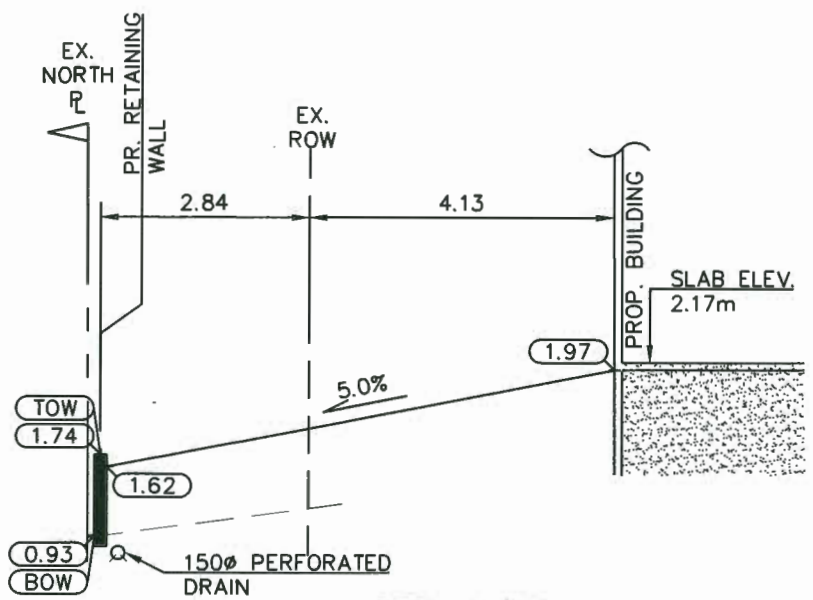


SECTION C-C
N.T.S.



SECTION D-D
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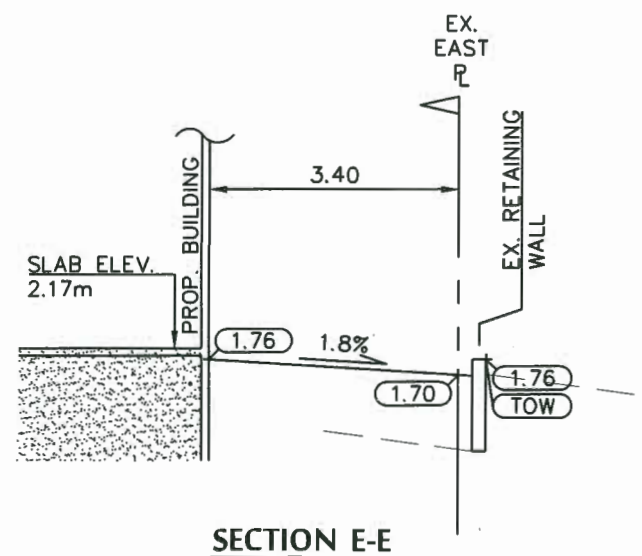


SECTION E-E
N.T.S.

City of Richmond
6911 No. 3 ROAD RICHMOND B.C. V6Y 2C1

SEP 24 2019
PLAN # ID
BP 18 029234

CoreConcept CONSULTING LTD.
tel: 604.249.5040
fax: 604.249.5041
#220-2639 Viking Way, Richmond, BC, V6V 3B7
www.coreconceptconsulting.com

ENRICH PROPERTIES STEVESTON LTD
Core Concept Consulting Project No. 18050
DWG. 3 OF 3

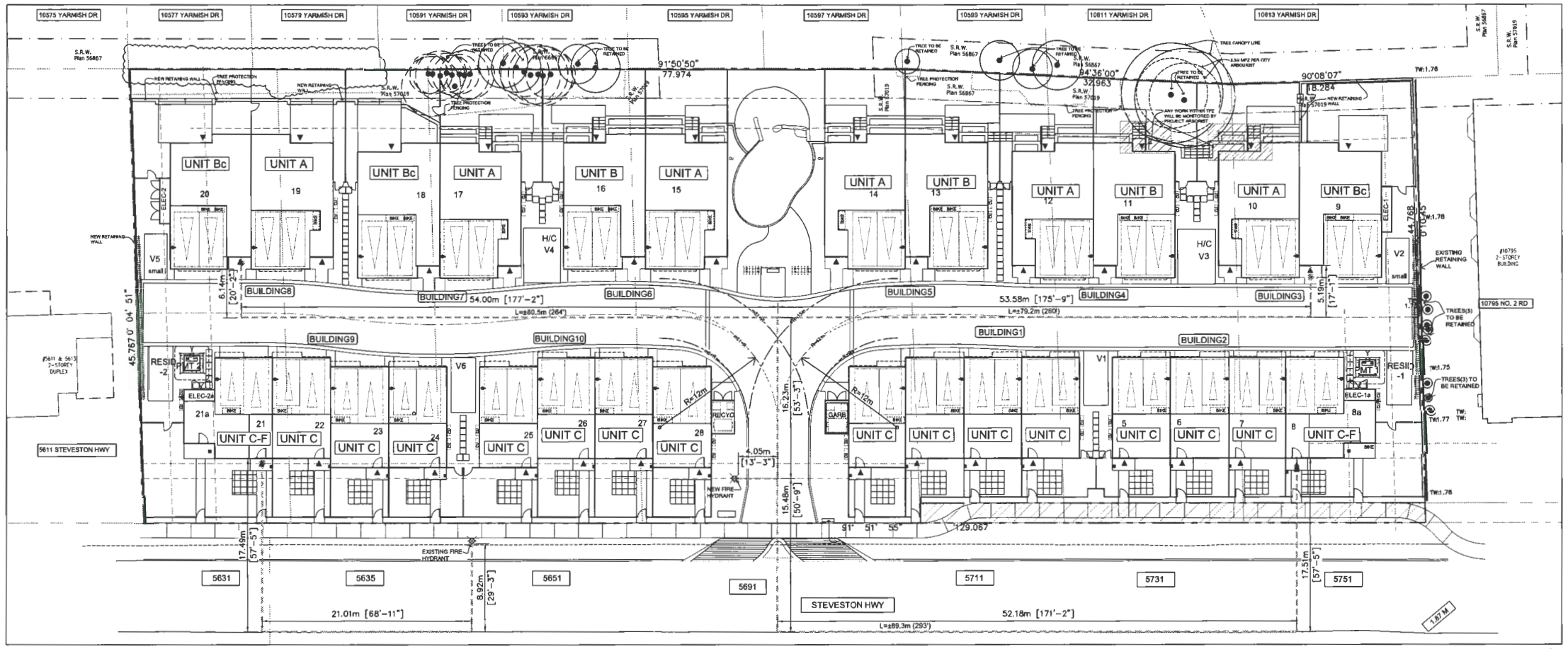
REV'N	DATE	BY	CH.	DESCRIPTION
0.	3 SEP 2019	SP	BTR	ISSUED FOR DP

REVISIONS

NOT FOR CONSTRUCTION
3 SEP 2019

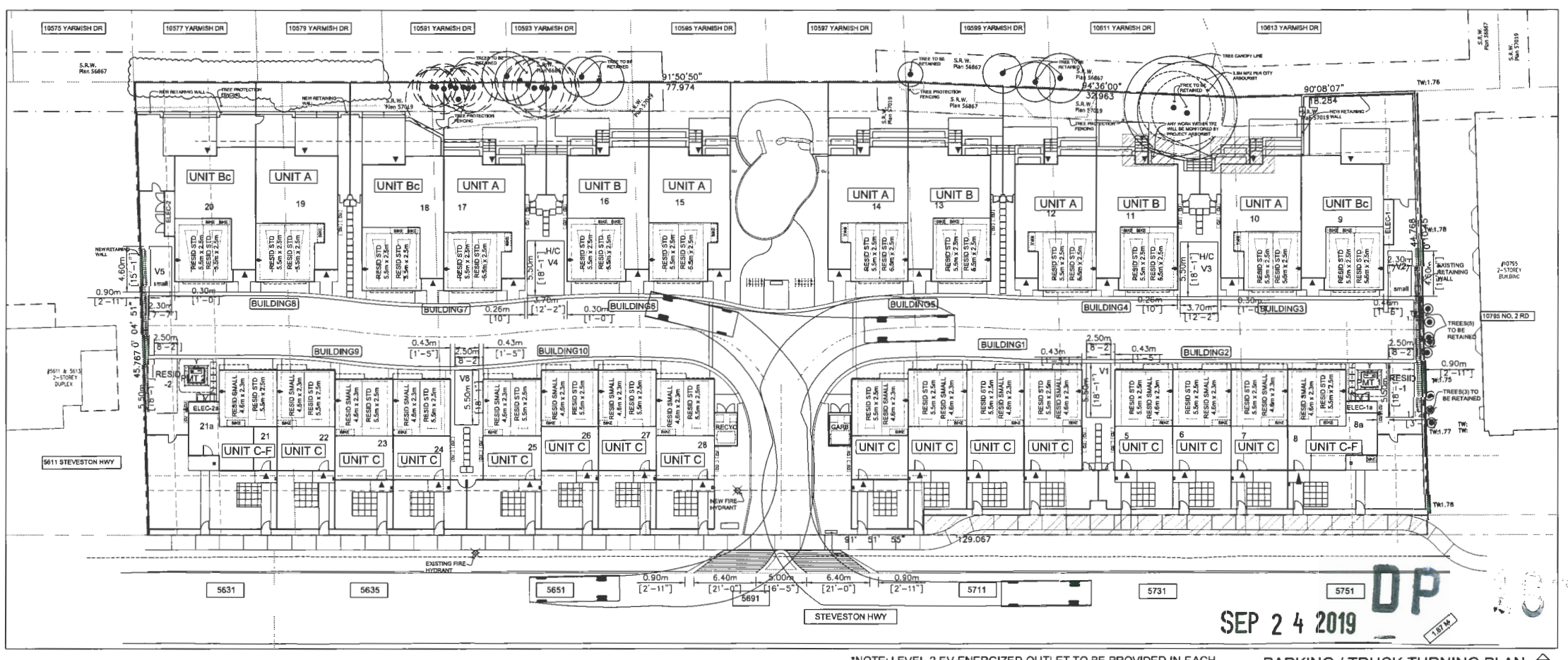
TITLE: **LOT GRADING**
5631-5751 STEVESTON HWY
CITY FILE:

DESIGN: SP		
DRAWN: GG	DWG. No.:	
CHECKED: BTR	SCALE: 1 : 250	DATE: MAR 2019
ENGINEER: BTR	SEC. No.: 36-4-7	SHT No.: 3 OF 3



FIRE ACCESS PLAN

SCALE: 1"=20'-0"



DP

SEP 2 4 2019

*NOTE: LEVEL 2 EV ENERGIZED OUTLET TO BE PROVIDED IN EACH RESIDENTIAL PARKING SPACES PER ZONING BYLAW

PARKING / TRUCK TURNING PLAN

SCALE: 1"=20'-0"

PLAN #2

REVISIONS	
SEP 06, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
JULY 16, 2018	DP Submission
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PROJECT

Proposed 28-Unit Townhouse Development

7 LOT ASSEMBLY

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751
STEVESTON HWY
RICHMOND, BC

PROJECT NO.
1716STV2

SCALE
As Noted

DATE
March. 30, 2017

DRAWN BY
KYC, SRS, WAL

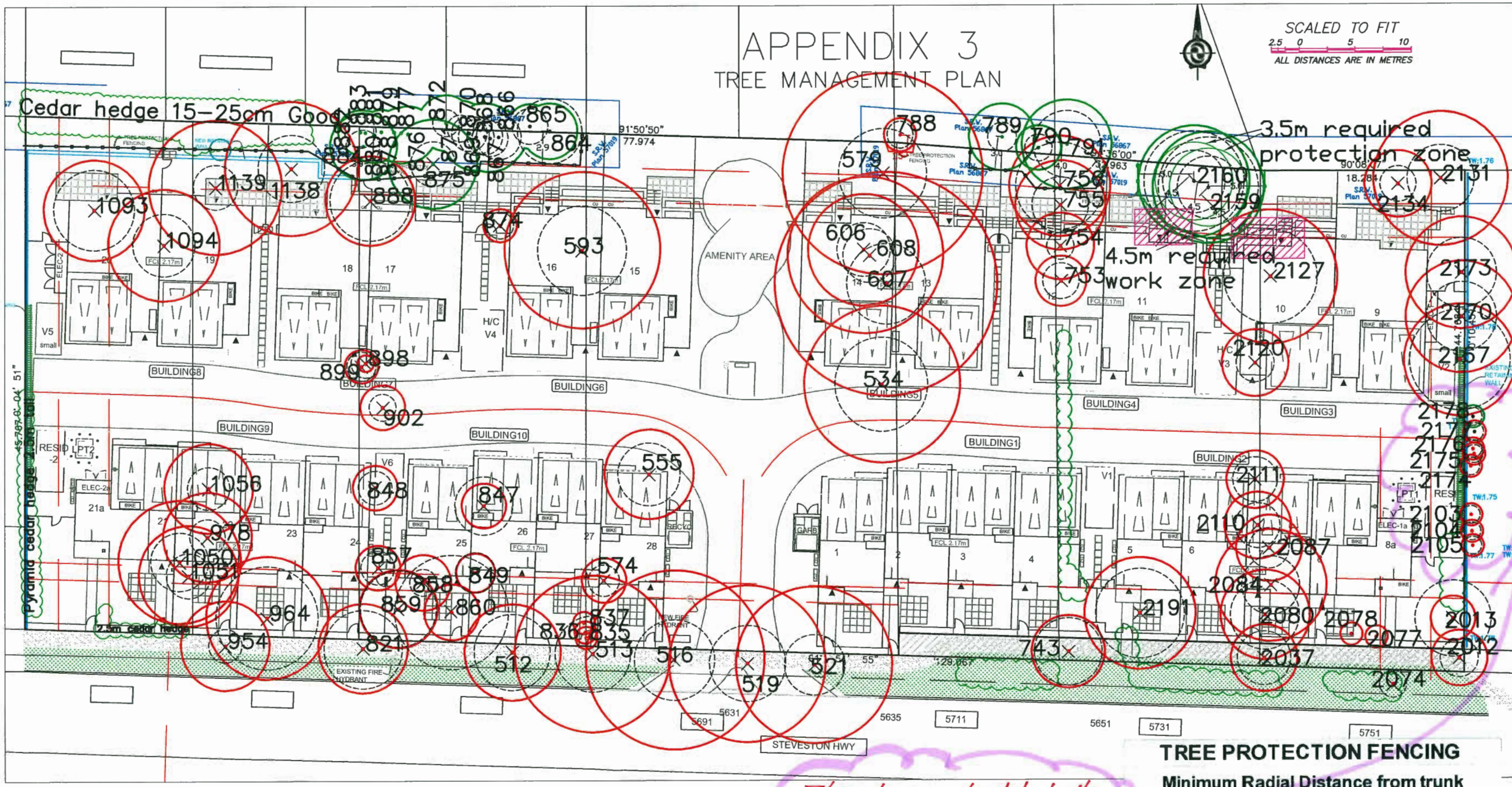
CHECKED BY
KYC

SHEET TITLE
FIRE ACCESS PLAN / TRUCK TURNING PLAN

DRAWING
A1.2

APPENDIX 3

TREE MANAGEMENT PLAN



These trees are located to the east of an existing retaining wall and do not require fencing protection.

TREE INVENTORY

#	Type	Action	DBH
512	Sycamore Maple	Remove	57cm
513	Sycamore Maple	Remove	57cm
516	Sycamore Maple	Remove	60cm
519	Sycamore Maple	Remove	57cm
521	Sycamore Maple	Remove	45cm
534	Silver Birch	Remove	70cm
555	Cherry	Remove	46cm
574	Cherry	Remove	24cm
579	Silver Birch	Remove	67cm
593	Silver Birch	Remove	50/50/50
606	Norway Maple	Remove	24cm
607	Silver Birch	Remove	60cm
608	Cherry	Remove	40cm
743	Norway Maple	Remove	25/25/25
753	Eastern Redcedar	Remove	15/15/15
754	Cherry	Remove	20cm
755	Norway Maple	Remove	41cm
756	Cherry	Remove	65cm
788	Norway Maple	Retain	13cm
789	Hawthorne	Retain	22cm
790	English Holly	Retain	20cm
791	Black Pine	Retain	50cm
821	Sycamore Maple	Remove	58cm
847	Pyramid Cedar	Remove	25/25/25
848	Hazelnut	Remove	12/10/8cm
849	English Holly	Remove	18/18/18
857	English Holly	Remove	26cm
858	Hazelnut	Remove	10/10/9cm
859	Grand Fir	Remove	57cm
860	Fir Abies sp	Remove	85cm
864	Excelsa	Retain	48cm
865	Excelsa	Retain	20cm
866	Excelsa	Retain	32cm
867	Excelsa	Retain	21cm
868	Excelsa	Retain	22cm
869	Excelsa	Retain	21cm
870	Excelsa	Retain	26cm
872	Excelsa	Retain	15cm
874	Pyramid Cedar	Remove	11/11/11cm
875	Hazelnut	Remove	20/20/20
882	Excelsa	Retain	24cm
884	Hazelnut	Retain	17/17/17
888	Cherry	Remove	40/40/40
898	Pyramid Cedar	Remove	20cm
899	Pyramid Cedar	Remove	21cm
902	Hazelnut	Remove	12/7/7cm
954	Sycamore Maple	Remove	17/16cm
964	Western Redcedar	Remove	69/46cm
978	Sycamore Maple	Remove	26cm
1050	Black Pine	Remove	44cm
1051	Sycamore Maple	Remove	34cm
1056	Japanese Maple	Remove	32cm
1093	Cherry	Remove	40/35/35
1094	Deodar Cedar	Remove	35/30cm
1138	Crab Apple	Remove	50cm
1139	Hazelnut	Remove	18/18/15
2012	Shore Pine	Remove	28cm
2013	Mountain Ash	Remove	56cm
2037	Western Redcedar	Remove	40cm
2074	Excelsa	Remove	20cm
2080	Western Redcedar	Remove	52cm
2084	Western Redcedar	Remove	43cm
2087	Fig	Remove	17/14cm
2103	Pyramid Cedar	Retain	9/8cm
2104	Pyramid Cedar	Retain	6/5cm
2105	Pyramid Cedar	Retain	10cm
2110	Lilac	Remove	9/9/7cm
2111	Holly	Remove	25/25cm
2120	Holly	Remove	29cm
2127	Douglas Fir	Remove	70cm
2131	Plum	Remove	35/35/35
2134	Fig	Remove	10/10/9cm
2159	Norway Maple	Retain	45cm
2160	Norway Maple	Retain	46cm
2167	Western Redcedar	Remove	75cm
2170	Western Redcedar	Remove	51cm
2173	Western Redcedar	Remove	67cm
2174	Japanese Maple	Retain	8cm
2175	Japanese Maple	Retain	14cm
2176	Japanese Maple	Retain	12cm
2177	Japanese Maple	Retain	10cm
2178	Japanese Maple	Retain	8cm
2191	Purple Plum	Remove	38/38/35

DBH- trunk diameter, MPZ- protection zone

TREE PROTECTION FENCING

Minimum Radial Distance from trunk

#	Type	DBH	Metres	Feet
788	Norway Maple	13cm	1.5m	4.9ft
789	Hawthorne	22cm	3.0m	9.8ft
790	English Holly	20cm	2.0m	6.6ft
791	Black Pine	50cm	4.0m	13.1ft
864	Excelsa	48cm	2.9m	9.5ft
865	Excelsa	20cm	2.5m	8.2ft
866	Excelsa	32cm	2.5m	8.2ft
867	Excelsa	21cm	2.5m	8.2ft
868	Excelsa	22cm	2.5m	8.2ft
869	Excelsa	21cm	2.5m	8.2ft
870	Excelsa	26cm	2.5m	8.2ft
872	Excelsa	15cm	2.5m	8.2ft
882	Excelsa	24cm	2.5m	8.2ft
884	Hazelnut	17/17/17	3.0m	9.8ft
2159	Norway Maple	45cm	3.0m	9.8ft
2160	Norway Maple	46cm	3.0m	9.8ft

LEGEND

UNDERSIZED TREE

555

AREAS REQUIRING ARBORIST SUPERVISION

2160

TREE PROPOSED FOR RETENTION

875

3.0

CANOPY PROTECTION ZONE (MPZ)

FENCING DIMENSIONS IN METRES

PROTECTION FENCING

TREE PROPOSED FOR REMOVAL

835

NOTES:
1. SITE LAYOUT INFORMATION AND TREE SURVEY DATA PER SUPPLIED DRAWING
2. REFER TO ATTACHED TREE PROTECTION REPORT FOR INFORMATION CONCERNING TREE SPECIES, STEM DIAMETER, HEIGHT, CANOPY SPREAD AND CONDITION.
3. ALL MEASUREMENTS ARE METRIC

Froggers Creek Tree Consultants Ltd
7763 McGregor Avenue Burnaby BC V5J 4H4
Telephone: 604-721-6002 Fax: 604-437-0970

5631, 5635, 5651, 5691, 5711 Steveston Hwy Richmond

TREE PROTECTION PLAN

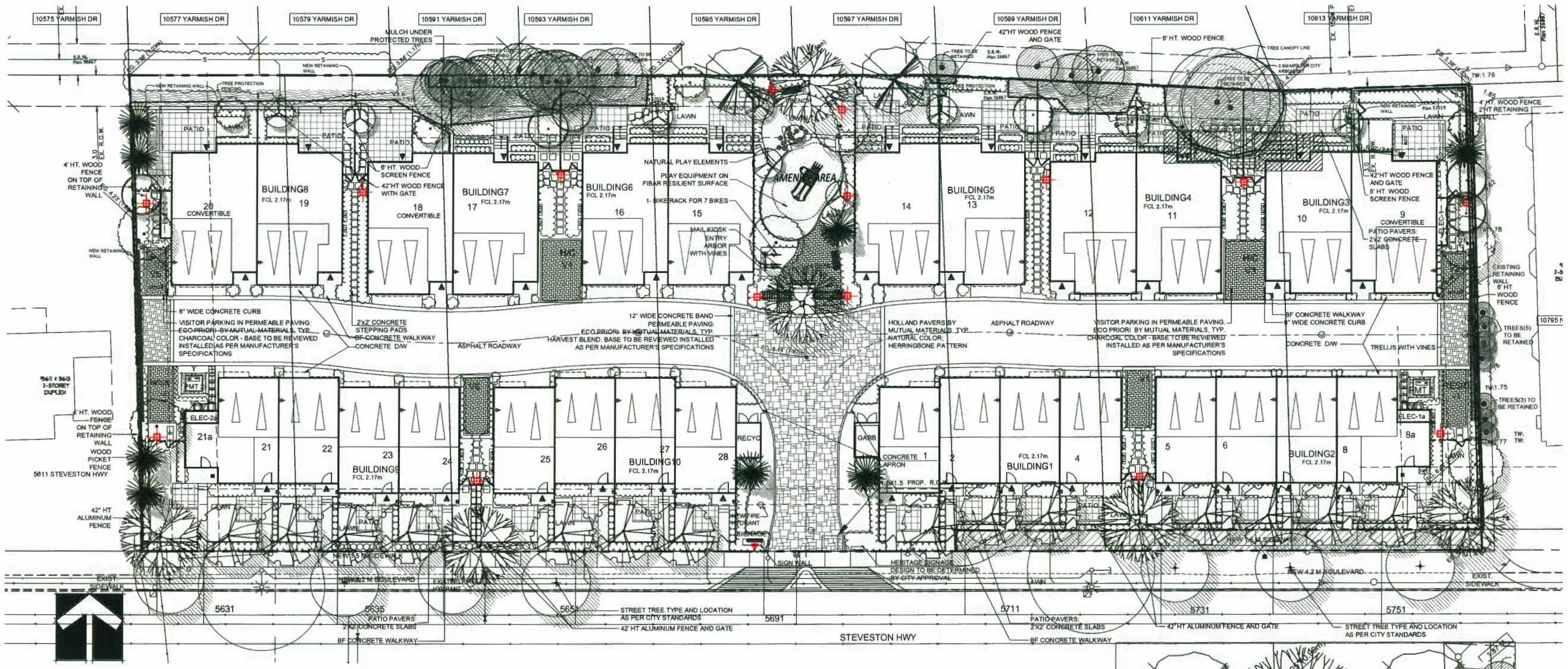
THE DRAWING PLOTS ALL TREES, PROPOSED FOR RETENTION, REMOVAL, THEIR CANOPIES, PROTECTION ZONES AND PROTECTION FENCING IN RELATION TO PROPOSED LAYOUT

DRAWN BY: GM

July 15, 2019

PLAN #3
SEP 24 2019

DP 18-829234



PLANT SCHEDULE

PMG PROJECT NUMBER: 16-072

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
	7	STREET TREE	TYPE AND LOCATION BY CITY	6CM CAL; 2M STD; B&B

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD AND CANADIAN LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNLA STANDARD. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. * REFER TO SPECIFICATIONS FOR DEFINED CONTAINER MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS. * SEARCH AND REVIEW: MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND FRASER VALLEY. * SUBSTITUTIONS: OBTAIN WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS TO THE SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARD AND CANADIAN LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF AVAILABILITY. * ALL LANDSCAPE MATERIAL AND WORKMANSHIP MUST MEET OR EXCEED BC LANDSCAPE STANDARD AND CANADIAN LANDSCAPE STANDARD LATEST EDITION. * ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY. * BIO-SOLIDS NOT PERMITTED IN GROWING MEDIUM UNLESS AUTHORIZED BY LANDSCAPE ARCHITECT.

PLANT SCHEDULE

PMG PROJECT NUMBER: 16-072

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
TREE				
	5	ACER PALMATUM	JAPANESE MAPLE	6CM CAL; 1.8MT STD, B&B
	14	ACER RUBRUM 'RED SUNSET'	RED SUNSET MAPLE	9CM CAL; 2M STD; B&B
	6	CERCIDIPHYLLUM JAPONICUM	KATSURA TREE	10CM CAL; 1.8M STD; B&B
	6	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY MAIDENHAIR	8CM CAL; 2M STD; B&B
	2	LIQUIDAMBAR STYRACIFLUA 'WORPLESDON'	WORPLESDON SWEET GUM	8CM CAL; 2M STD; B&B
	8	MAGNOLIA KOBUS STELLATA 'PINK STAR'	PINK STAR MAGNOLIA (LIGHT PINK)	6CM CAL; 1.8MT STD, B&B
	8	PINUS FLEXILIS 'VANDERWOLF'S PYRAMID'	VANDERWOLF'S PYRAMIDAL LIMBER PINE	4.0M HT;B&B
	6	QUERCUS PALUSTRIS 'GREEN PILLAR'	GREEN PILLAR PIN AK	8CM CAL; 2M STD; B&B
	1	VIBURNUM P.T. 'SUMMER SNOWFLAKE'	SUMMER SNOWFLAKE VIBURNUM	1.5M HT, B&B

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD AND CANADIAN LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNLA STANDARD. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. * REFER TO SPECIFICATIONS FOR DEFINED CONTAINER MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS. * SEARCH AND REVIEW: MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND FRASER VALLEY. * SUBSTITUTIONS: OBTAIN WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS TO THE SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARD AND CANADIAN LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF AVAILABILITY. * ALL LANDSCAPE MATERIAL AND WORKMANSHIP MUST MEET OR EXCEED BC LANDSCAPE STANDARD AND CANADIAN LANDSCAPE STANDARD LATEST EDITION. * ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY. * BIO-SOLIDS NOT PERMITTED IN GROWING MEDIUM UNLESS AUTHORIZED BY LANDSCAPE ARCHITECT.

NOTE:
- All soft landscape areas to be irrigated with automatically installation to I.I.A.B.C. Standards, latest edition.

FURNITURE LEGEND

MAGLIN BENCH -Model: MLB970
Standard powdercoated- Silver 14 color and IPE (W)

MAGLIN_MBR400-7-S
Standard powdercoated- Silver 14 color

NATURAL PLAY ELEMENTS

MULTI-FUNCTIONAL PLAY STRUCTURE -BIG TOYS CABANA, MEC-650, NATURAL COLOR by RecTech Industries

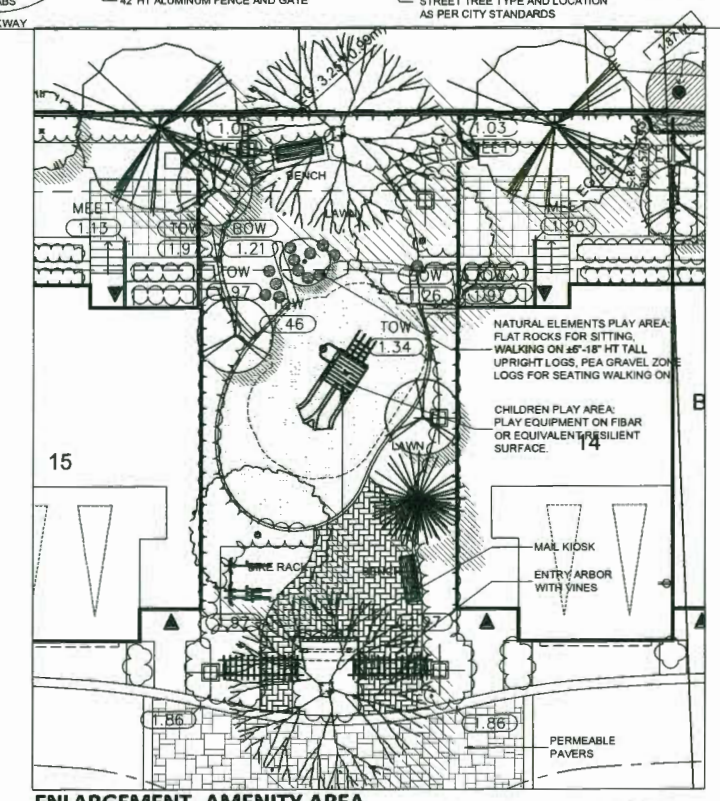
LIGHTING LEGEND

UPLIGHTING

BOLLARD LIGHT

PHILIPS Bollard light BCP 151 SURFACE MOUNT ON CONCRETE PAD AS PER MANUFACTURER SPECIFICATIONS Black color 0.8m ht

KIM LIGHTING
Square Hood



ENLARGEMENT- AMENITY AREA

1/ 32"=1'-0"

DP 18-829234

16072-13.ZIP

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pmg LANDSCAPE ARCHITECTS
Suite C100 - 4185 Still Creek Drive
Burnaby, British Columbia, V5C 6G9
p: 604 294-0011 ; f: 604 294-0022

SEAL:

NO.	DATE	REVISION DESCRIPTION	DR.
14	19.SEP.03	NEW SITE PLAN	DD
13	19.AUG.22	REVISION AS PER CITY REQUEST	DD
12	19.JUL.10	REVISION AS PER CITY COMMENTS	DD
11	19.JUN.24	UPDATED SITE PLAN	MC
10	19.JUN.07	NEW SITE PLAN	MC
9	19.MAY.30	NEW SITE & CIVIL PLANS	
8	19.MAR.25	REVISION AS PER CITY COMMENTS	DD
7	19.MAR.12	NEW SITE PLAN	DD
6	19.FEB.22	NEW SITE PLAN	MM
4	18.NOV.22	NEW SITE PLAN &CITY COMMENTS	DD
3	18.AUG.22	NEW SITE PLAN	DD
-	18.JUL.16	ISSUED FOR DP	DD
2	18.JUN.01	NEW SITE PLAN	DD
1	17.NOV.08	NEW SITE PLAN	DD

CLIENT: ENRICH PROPERTIES STEVESTON LTD.

PROJECT:
28 UNIT TOWNHOUSE DEVELOPMENT

5631-5751 STEVESTON HIGHWAY
RICHMOND

PLAN#3A

DRAWING TITLE:
LANDSCAPE PLAN

SEP 2 4 2019

DATE:	April 07, 2017	DRAWING NUMBER:	
SCALE:	1/16"=1'-0"		L1
DRAWN:	DD		
DESIGN:	DD		
CHKD:	MCY		OF 5

PMG PROJECT NUMBER: 16-072

PLANT SCHEDULE

PMG PROJECT NUMBER: 16-072

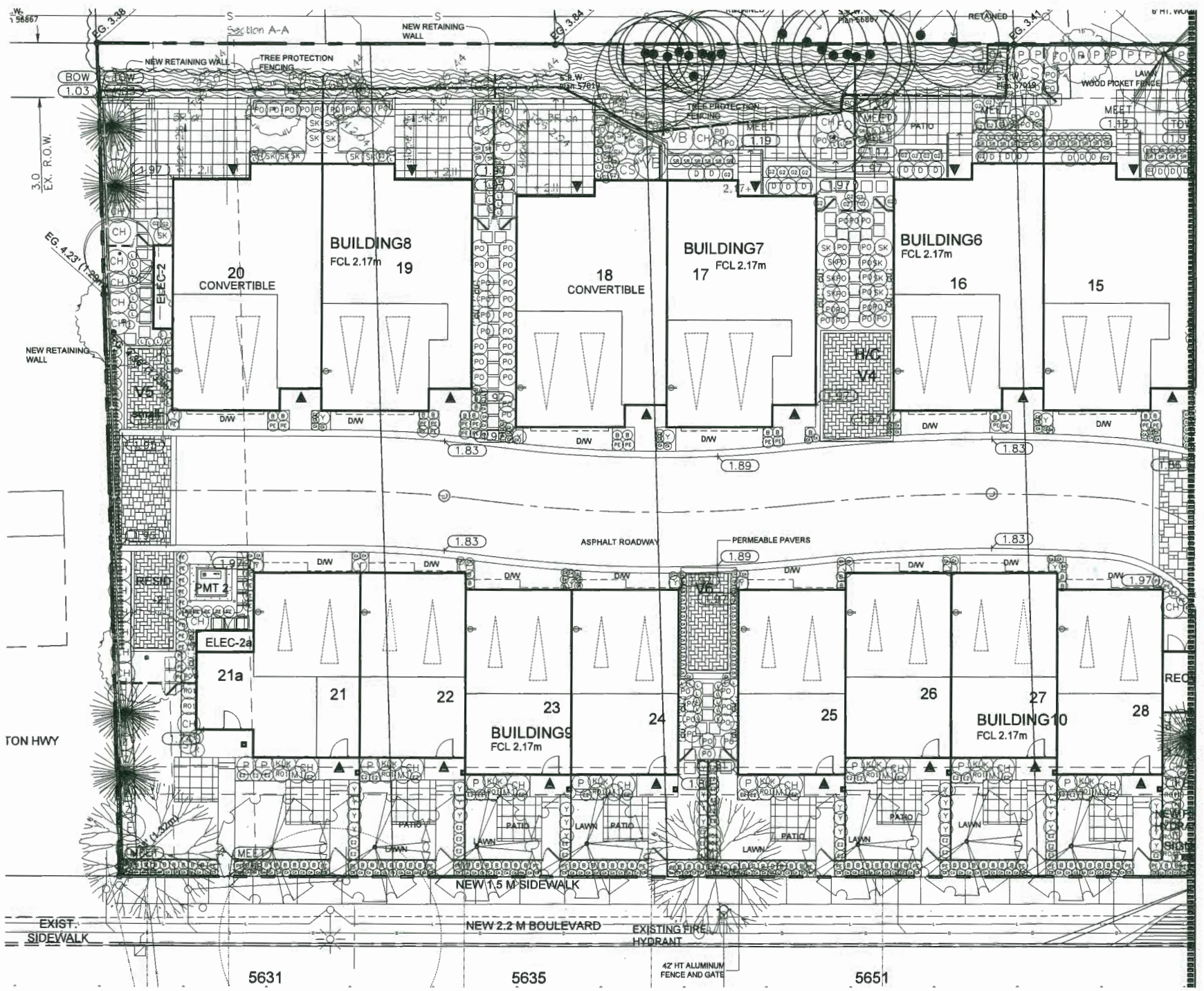
KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
SHRUB				
AU	1	AUCUBA JAPONICA 'MR. GOLDSTRIKE'	MR. GOLDSTRIKE AUCUBA	#3 POT; 50CM
B	214	BUXUS MICROPHYLLA 'WINTER GEM'	LITTLE-LEAF BOX	#2 POT; 25CM
CH	50	CHOISYA TERNATA	MEXICAN MOCK ORANGE	#3 POT; 50CM
CS	36	CORNUS SERICEA	RED OSIER DOGWOOD	#3 POT; 50CM
E	10	EUONYMUS ALATA 'COMPACTUS'	COMPACT WINGED BURNING BUSH	#3 POT; 50CM
FO	7	FOTHERGILLA GARDENII	DWARF FOTHERGILLA	#2 POT; 40CM
H	4	HYDRANGEA M. 'ENDLESS SUMMER'	ENDLESS SUMMER BIGLEAF HYDRANGEA	#3 POT; 60CM
K	36	KALMIA LATIFOLIA 'ELF'	DWARF MOUNTAIN LAUREL	#3 POT; 50CM
P	33	PIERIS JAPONICA 'VALLEY FIRE'	VALLEY FIRE PIERIS	#3 POT; 50CM
Z	13	PRUNUS LAUROCERASUS 'ZABELIANA'	ZABLE'S LAUREL	#2 POT; 30CM
R4	2	RHODODENDRON 'CHRISTMAS CHEER'	CHRISTMAS CHEER RHODODENDRON	#3 POT; 50CM
R3	4	RHODODENDRON 'NAOMI'	NAOMI RHODODENDRON	#3 POT; 50CM
R1	1	RHODODENDRON 'P.J.M. ELITE'	P.J.M. ELITE RHODODENDRON	#3 POT
RO2	2	ROSA 'SCARLET MEIDILAND'	SCARLET MEIDILAND ROSE	#2 POT; 40CM
RO1	36	ROSA MEIDILAND 'BONICA'	BONICA ROSE	#2 POT; 40CM
SK	59	SKIMMIA JAPONICA (10% MALE)	JAPANESE SKIMMIA	#2 POT; 30CM
SR	64	SKIMMIA REEVESIANA	DWARF SKIMMIA	#1 POT
SP	10	SPIRAEA X BUMALDA 'GOLDMOUND'	GOLDMOUND SPIREA	#2 POT; 40CM
S	8	SPIRAEA X BUMALDA 'LIMEMOUND'	LIMEMOUND SPIREA	#2 POT; 40CM
Y	88	TAXUS X MEDIA 'HICKSII'	HICK'S YEW	1.2M B&B
VM	1	VIBURNUM P.T. 'MARIESII'	MARIE'S DOUBLE FILE VIBURNUM	1.0M HT, B&B
VB	7	VIBURNUM X 'BURKWOODII'	BURKWOOD VIBURNUM	1.0M HT, B&B; TREE FORM

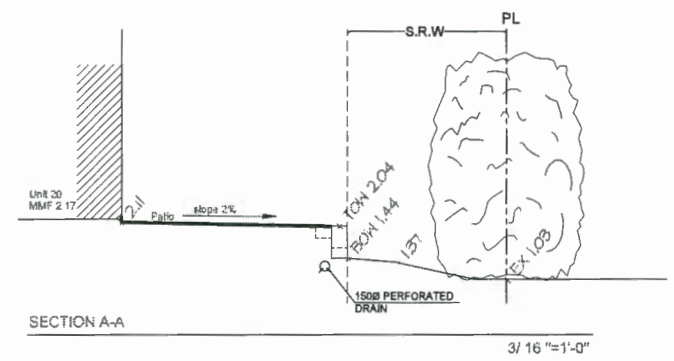
PLANT SCHEDULE

PMG PROJECT NUMBER: 16-072

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
GRASS				
CI	378	CAREX 'ICE DANCE'	FROSTED SEDGE	#1 POT
CO	57	CAREX OSHIMENSIS 'EVEREST'	EVEREST JAPANESE SEDGE	#1 POT
MS	36	MISCANTHUS SINENSIS 'LITTLE KITTEN'	COMPACT MAIDEN GRASS	#1 POT
PE	217	PENNISETUM ALOPECUROIDES 'HAMELIN'	DWARF FOUNTAIN GRASS	#1 POT
ST	9	STIPA TENUISSIMA	MEXICAN FEATHER GRASS	#1 POT
VINE				
CI	9	CLEMATIS 'TANGUTICA AUREOLIN'	TANGUTICA CLEMATIS	#2 POT; 60CM; STAKED
PERENNIAL				
HE	10	HEMEROCALLIS 'PURPLE D'ORO'	PURPLE D'ORO DAYLILY	#1 POT
LC	140	LIRIOPE MUSCARI	BLUE LILY-TURF	15CM POT
GC				
D	43	DRYOPTERIS ERYTHROSORA 'BRILLIANCE'	BRILLIANCE AUTUMN FERN	#2 POT; 45CM
EI	83	EUONYMUS JAPONICA 'EMERALD GAIETY'	EUONYMUS; SILVER VARIEGATED	#1 POT; 25CM
G	33	GAULTHERIA SHALLON	SALAL*	#1 POT; 20CM
PO	173	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	#1 POT; 25CM

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD AND CANADIAN LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNLA STANDARD. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. * REFER TO SPECIFICATIONS FOR DEFINED CONTAINER MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS. * SEARCH AND REVIEW: MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND FRASER VALLEY. * SUBSTITUTIONS: OBTAIN WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS TO THE SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARD AND CANADIAN LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF AVAILABILITY. ALL LANDSCAPE MATERIAL AND WORKMANSHIP MUST MEET OR EXCEED BC LANDSCAPE STANDARD AND CANADIAN LANDSCAPE STANDARD LATEST EDITION. ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY





SECTION A-A

3/ 16 "=1'-0"

SEP 2 4 2019

PLAN #3B

DP 18-829234

16072-13.ZIP

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pmg LANDSCAPE ARCHITECTS
Suite C100 - 4185 Still Creek Drive
Burnaby, British Columbia, V5C 6G9
p: 604 294-0011 ; f: 604 294-0022

SEAL:

NO.	DATE	REVISION DESCRIPTION	DR.
14	19.SEP.03	NEW SITE PLAN	DD
13	19.AUG.22	REVISION AS PER CITY REQUEST	DD
12	19.JUL.10	REVISION AS PER CITY COMMENTS	DD
11	19.JUN.24	UPDATED SITE PLAN	MC
10	19.JUN.07	NEW SITE PLAN	MC
9	19.MAY.30	NEW SITE & CIVIL PLANS	
8	19.MAR.15	REVISION AS PER CITY COMMENTS	DD
7	19.MAR.12	NEW SITE PLAN	DD
6	19.FEB.12	NEW SITE PLAN	MM
4	18.NOV.22	NEW SITE PLAN &CITY COMMENTS	DD
3	18.AUG.22	NEW SITE PLAN	DD
-	18.JUL.16	ISSUED FOR DP	DD
2	18.JUN.01	NEW SITE PLAN	DD
1	17.NOV.09	NEW SITE PLAN	DD

CLIENT: ENRICH PROPERTIES STEVESTON LTD.

PROJECT:

28 UNIT TOWNHOUSE DEVELOPMENT

5631-5751 STEVESTON HIGHWAY RICHMOND

DRAWING TITLE:

LANDSCAPE SHRUB PLAN

DATE:	April 07, 2017	DRAWING NUMBER:
SCALE:	3/ 32"=1'-0"	L2
DRAWN:	DDMM	
DESIGN:	DDDD	
CHK'D:	MOMCY	OF 5

PMG PROJECT NUMBER: 16-072

PLANT SCHEDULE

PMG PROJECT NUMBER: 18-072

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
SHRUB				
AU	1	AUCUBA JAPONICA 'MR. GOLDSTRIKE'	MR. GOLDSTRIKE AUCUBA	#3 POT; 50CM
B	214	BUXUS MICROPHYLLA 'WINTER GEM'	LITTLE-LEAF BOX	#2 POT; 25CM
CH	50	CHOISYA TERNATA	MEXICAN MOCK ORANGE	#3 POT; 50CM
CS	36	CORNUS SERICEA	RED OSIER DOGWOOD	#3 POT; 50CM
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FO	7	FOTHERGILLA GARDENII	DWARF FOTHERGILLA	#2 POT; 40CM
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K	36	KALMIA LATIFOLIA 'ELF'	DWARF MOUNTAIN LAUREL	#3 POT; 50CM
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Z	13	PRUNUS LAUROCERASUS 'ZABELIANA'	ZABLE'S LAUREL	#2 POT; 30CM
R4	2	RHODODENDRON 'CHRISTMAS CHEER'	CHRISTMAS CHEER RHODODENDRON	#3 POT; 50CM
R3	4	RHODODENDRON 'NAOMI'	NAOMI RHODODENDRON	#3 POT; 50CM
R1	1	RHODODENDRON 'P.J.M. ELITE'	P.J.M. ELITE RHODODENDRON	#3 POT
RO2	2	ROSA 'SCARLET MEIDILAND'	SCARLET MEIDILAND ROSE	#2 POT; 40CM
RO1	35	ROSA MEIDILAND 'BONICA'	BONICA ROSE	#2 POT; 40CM
SK	59	SKIMMIA JAPONICA (10% MALE)	JAPANESE SKIMMIA	#2 POT; 30CM
SR	84	SKIMMIA REEVESIANA	DWARF SKIMMIA	#1 POT
SP	10	SPIRAEA X BUMALDA 'GOLDMOUND'	GOLDMOUND SPIREA	#2 POT; 40CM
S	8	SPIRAEA X BUMALDA 'LIMEMOUND'	LIMEMOUND SPIREA	#2 POT; 40CM
Y	68	TAXUS X MEDIA 'HICKSII'	HICK'S YEW	1.2M B&B
VM	1	VIBURNUM P.T. 'MARIESII'	MARIE'S DOUBLE FILE VIBURNUM	1.0M HT, B&B
VB	7	VIBURNUM X 'BURKWOODII'	BURKWOOD VIBURNUM	1.0M HT, B&B; TREE FORM

PLANT SCHEDULE

PMG PROJECT NUMBER: 18-072

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CD	378	CAREX 'ICE DANCE'	FROSTED SEDGE	#1 POT
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MS	36	MISCANTHUS SINENSIS 'LITTLE KITTEN'	COMPACT MAIDEN GRASS	#1 POT
PM	217	PENNISETUM ALOPECUROIDES 'HAMELIN'	DWARF FOUNTAIN GRASS	#1 POT
SI	9	STIPA TENUISSIMA	MEXICAN FEATHER GRASS	#1 POT
VINE				
TG	9	CLEMATIS 'TANGUTICA AUREOLIN'	TANGUTICA CLEMATIS	#2 POT; 60CM; STAKED
PERENNIAL				
LM	10	HEMEROCALLIS 'PURPLE D'ORO'	PURPLE D'ORO DAYLILY	#1 POT
LS	140	LIRIOPE MUSCARI	BLUE LILY-TURF	15CM POT
BC				
DF	43	DRYOPTERIS ERYTHROSORA 'BRILLIANCE'	BRILLIANCE AUTUMN FERN	#2 POT; 45CM
EA	83	EUONYMUS JAPONICA 'EMERALD GAIETY'	EUONYMUS; SILVER VARIEGATED	#1 POT; 25CM
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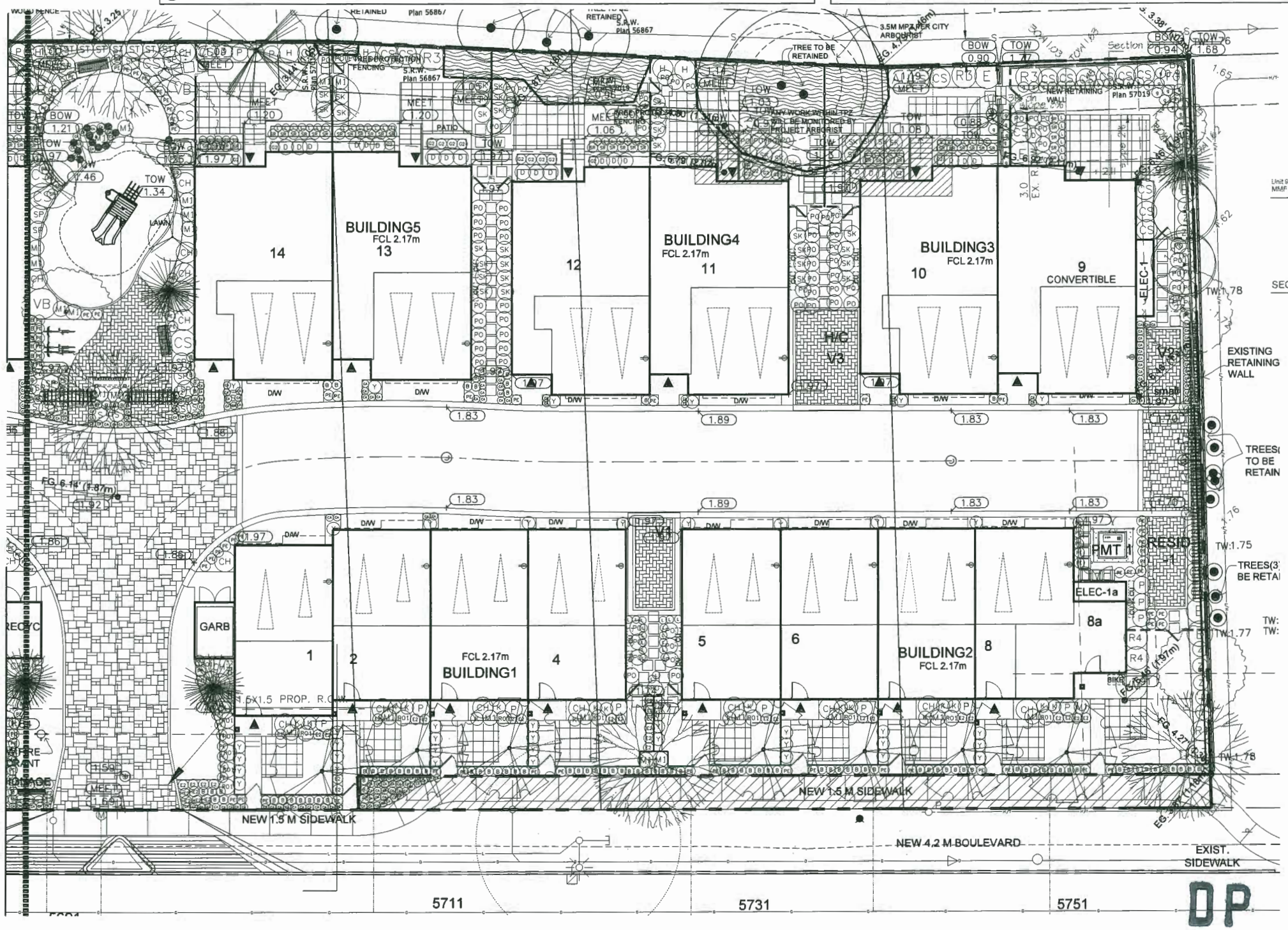

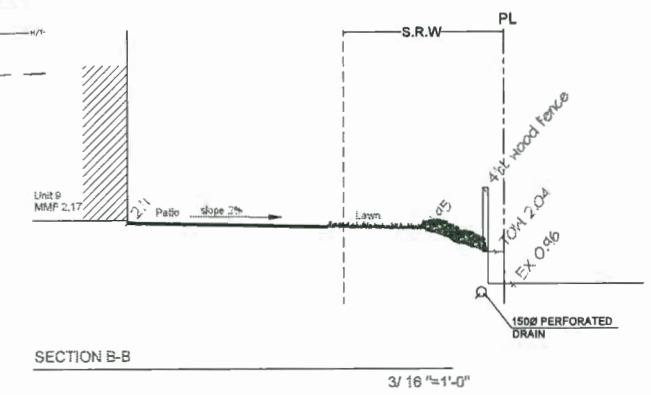

SECTION B-B
3/ 16 "=1'-0"

PLAN #3C

SEP 2 4 2019

DP 18-829234

16072-13.ZIP

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SEAL:

NO.	DATE	REVISION DESCRIPTION	DR.
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6	19.FEB.21	NEW SITE PLAN	MM
4	18.NOV.22	NEW SITE PLAN &CITY COMMENTS	DD
3	18.AUG.22	NEW SITE PLAN	DD
-	18.JUL.16	ISSUED FOR DP	DD
2	18.JUN.01	NEW SITE PLAN	DD
1	17.NOV.09	NEW SITE PLAN	DD

CLIENT: ENRICH PROPERTIES STEVESTON LTD.

PROJECT:

28 UNIT TOWNHOUSE DEVELOPMENT

5631-5751 STEVESTON HIGHWAY RICHMOND

DRAWING TITLE:

LANDSCAPE SHRUB PLAN

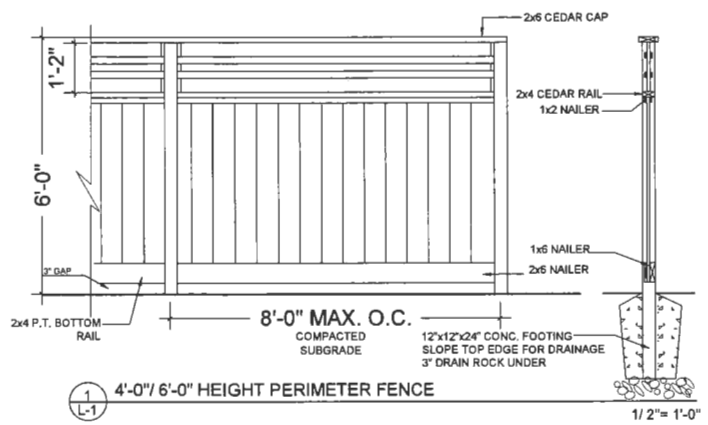
DATE: April 07, 2017
SCALE: 3/ 32"=1'-0"
DRAWN: DDMM
DESIGN: DDDD
CHK'D: MCMCY

DRAWING NUMBER: **L3** OF 5

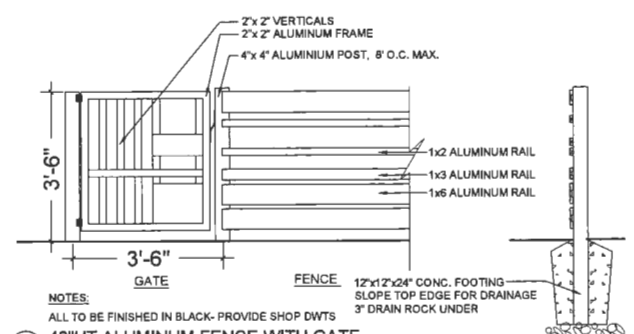
PMG PROJECT NUMBER: 16-072

NOTES:

1. ALL POSTS PRESSURE TREATED TO CSA STANDARD AND END CUTS TREATED WITH PRESERVITIVE.
2. ALL POSTS PRESSURE TREATED OTHER MEMBERS TO BE CEDAR, #2 (CONSTRUCTION) GRADE MINIMUM.
3. ALL HARDWARE HOT DIPPED GALVANIZED.
4. APPLY 2 COATS EXTERIOR STAIN TO MANUFACTURERS SPECIFICATION. FINISH SELECTION AS APPROVED BY PROJECT ARCHITECT.
5. ALL FENCES TO BE LEVEL. CHANGES IN GRADE TO BE IN 12"-18" STEPS (MAX.). GAPS TO GRADE TO FOLLOW FINISH GRADE. GAP TO BE 3-6".

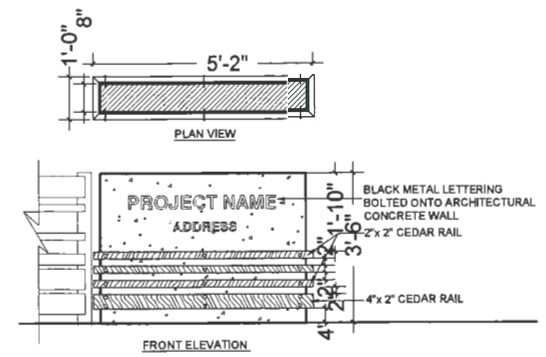


1 / L-1 4'-0"/ 6'-0" HEIGHT PERIMETER FENCE 1/ 2"= 1'-0"



NOTES:
ALL TO BE FINISHED IN BLACK- PROVIDE SHOP DWTS

2 / L-1 42"HT ALUMINUM FENCE WITH GATE
Street frontage 1/ 2"= 1'-0"



3 / L-1 SIGN WALL 1/ 2"= 1'-0"

NOTES:

1. ALL POSTS PRESSURE TREATED TO CSA STANDARD AND END CUTS TREATED WITH PRESERVITIVE.
2. ALL POSTS PRESSURE TREATED OTHER MEMBERS TO BE CEDAR, #2 (CONSTRUCTION) GRADE MINIMUM.
3. ALL HARDWARE HOT DIPPED GALVANIZED.
4. APPLY 2 COATS EXTERIOR STAIN TO MANUFACTURERS SPECIFICATION. FINISH SELECTION AS APPROVED BY PROJECT ARCHITECT.
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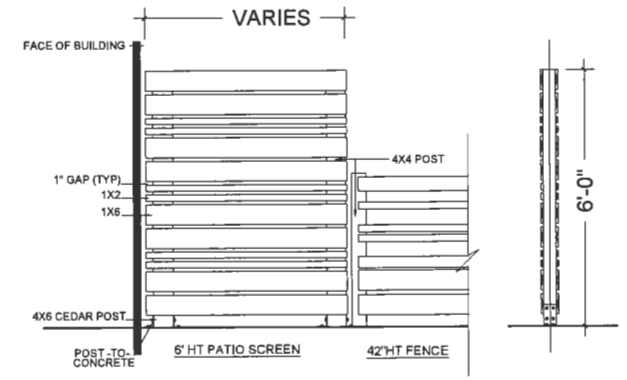
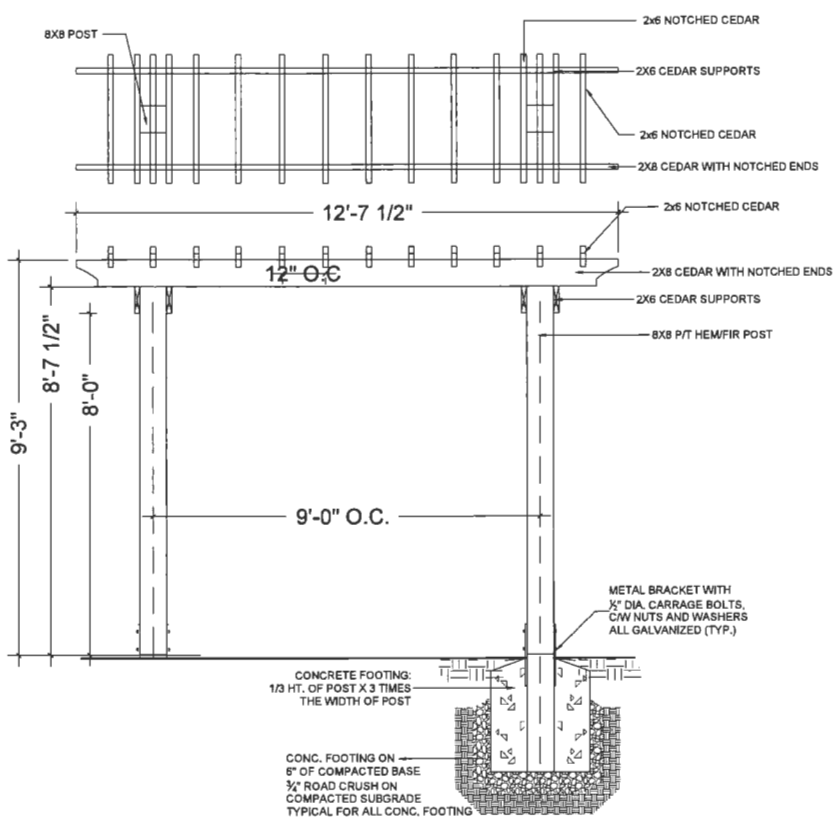
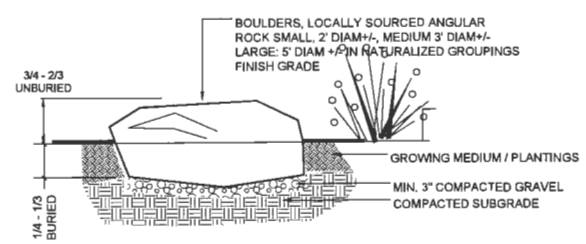


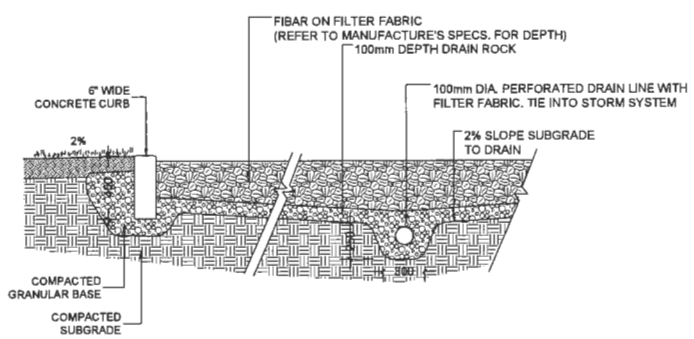
4 / L-1 6'HT PATIO SCREEN AND 42"HT FENCE
/ BETWEEN BACK YARDS / 1/ 2"= 1'-0"



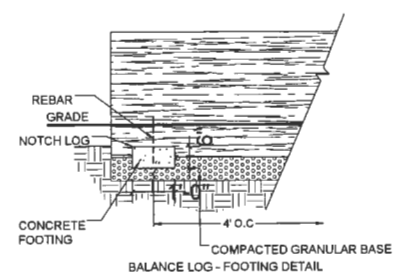
5 / L1 ARBOR STRUCTURE 1/2"= 1'-0"



6 / L1 FLAT BOULDER 1/2"= 1'-0"

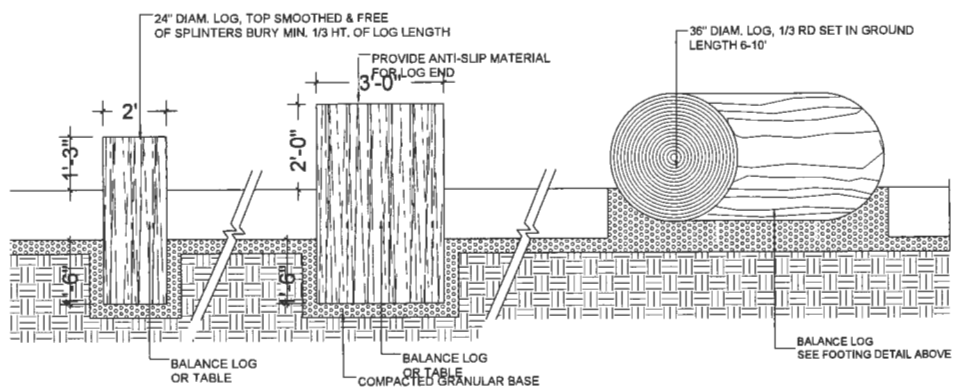


7 / L1 PLAYGROUND SAFETY SURFACE 1/2"= 1'-0"



BALANCE LOG - FOOTING DETAIL

BALANCE LOG - CONCEPT IMAGE



8 / L1 BALANCE LOGS 1/2"= 1'-0"

PLAN #3D SEP 2 4 2019

DP 18 829234

16072-13.ZIP

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SEAL:

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CLIENT: ENRICH PROPERTIES STEVESTON LTD.

PROJECT:

28 UNIT TOWNHOUSE DEVELOPMENT

5631-5751 STEVESTON HIGHWAY RICHMOND

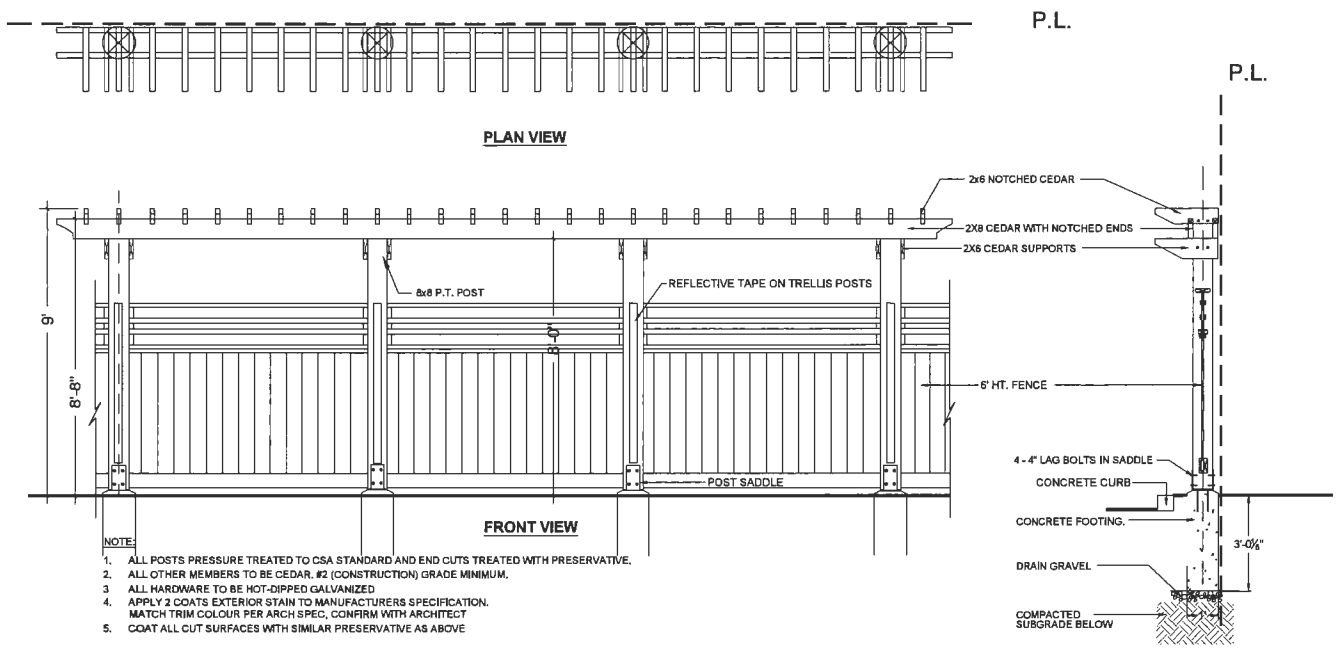
DRAWING TITLE:

LANDSCAPE DETAILS

DATE: April 07, 2017
SCALE: AS SHOWN
DRAWN: DD
DESIGN: DD
CHK'D: MCY

DRAWING NUMBER: **L4** OF 5

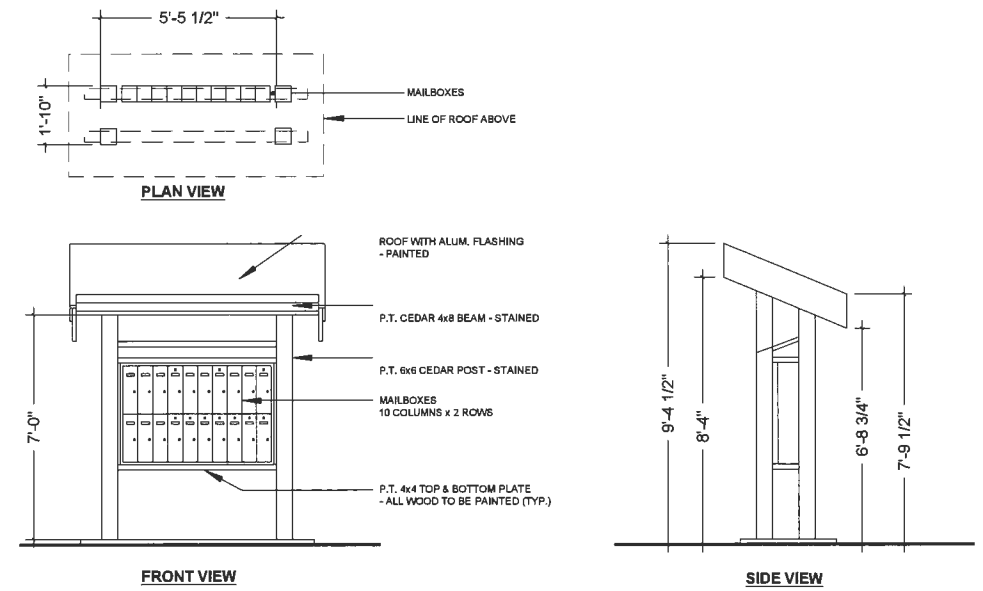
PMG PROJECT NUMBER: 16-072



NOTE:
1. ALL POSTS PRESSURE TREATED TO CSA STANDARD AND END CUTS TREATED WITH PRESERVATIVE.
2. ALL OTHER MEMBERS TO BE CEDAR, #2 (CONSTRUCTION) GRADE MINIMUM.
3. ALL HARDWARE TO BE HOT-DIPPED GALVANIZED
4. APPLY 2 COATS EXTERIOR STAIN TO MANUFACTURERS SPECIFICATION. MATCH TRIM COLOUR PER ARCH SPEC, CONFIRM WITH ARCHITECT
5. COAT ALL CUT SURFACES WITH SIMILAR PRESERVATIVE AS ABOVE

9 / L-2 **TRELLIS STRUCTURE**

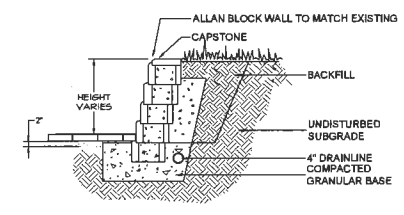
3/8" = 1'-0"



10 / L-2 **MAIL KIOSK**

3/8" = 1'-0"

NOTES:
1. SEE ENGINEERING DWG FOR HEIGHT OF WALLS
2. ALLAN BLOCK CLASSIC WALL COLOUR TO MATCH EXISTING
3. INSTALL WALL AS PER MANUFACTURERS SPECIFICATIONS



11 / L-2 **PROPOSED ALLAN BLOCK WALL**

3/8" = 1'-0"

PLAN #3E

SEP 24 2019

DP 27234

16072-13.ZIP

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pmg LANDSCAPE ARCHITECTS
Suite C100 - 4185 Still Creek Drive
Burnaby, British Columbia, V5C 6G9
p: 604 294-0011 ; f: 604 294-0022

SEAL:

NO.	DATE	REVISION DESCRIPTION	DR.
14	19.SEP.03	NEW SITE PLAN	DD
13	19.AUG.22	REVISION AS PER CITY REQUEST	DD
12	19.JUL.10	REVISION AS PER CITY COMMENTS	DD
11	19.JUN.24	UPDATED SITE PLAN	MC
10	19.JUN.07	NEW SITE PLAN	MC
9	19.MAY.30	NEW SITE & CIVIL PLANS	
8	19.MAR.25	REVISION AS PER CITY COMMENTS	DD
7	19.MAR.12	NEW SITE PLAN	DD
6	19.FEB.22	NEW SITE PLAN	MM
4	18.NOV.22	NEW SITE PLAN &CITY COMMENTS	DD
3	18.AUG.22	NEW SITE PLAN	DD
-	18.JUL.16	ISSUED FOR DP	DD
2	18.JUN.01	NEW SITE PLAN	DD
1	17.NOV.09	NEW SITE PLAN	DD

CLIENT: ENRICH PROPERTIES STEVESTON LTD.

PROJECT:

28 UNIT TOWNHOUSE DEVELOPMENT

5631-5751 STEVESTON HIGHWAY RICHMOND

DRAWING TITLE:

LANDSCAPE DETAILS

DATE: April 07, 2017
SCALE: AS SHOWN
DRAWN: DD
DESIGN: DD
CHK'D: MCY

DRAWING NUMBER: **L5** OF 5

PMG PROJECT NUMBER: **16-072**

PERSPECTIVE IMAGE -LOOKING FRONTAGE OF BLDG 1 AND BLDG 2

PERSPECTIVE IMAGE - BIRD EYE VIEW LOOKING NORTH-EAST

SEP 24 2019 PLAN #4 DP 18-829234

REVISIONS

SEP 06, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
JULY 16, 2018	DP Submission
APRIL 04, 2016	RZ Application

CONSULTANTS

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SEAL

INTERFACE:

Suite 230
11590 Cambie Road
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Canada V6X 3Z5

T 604 821 1162
F 604 821 1146
www.interfacearchitecture.com

PROJECT

Proposed 28-Unit
Townhouse Development

7 LOT ASSEMBLY

5631 / 5635 / 5651 / 5691 /
5711 / 5731 / 5751
STEVESTON HWY
RICHMOND, BC

PROJECT NO.
1716STV2

SCALE
As Noted

DATE
March. 30, 2017

DRAWN BY
KYC, SRS, WAL

CHECKED BY
KYC

SHEET TITLE

PERSPECTIVE IMAGES

DRAWING

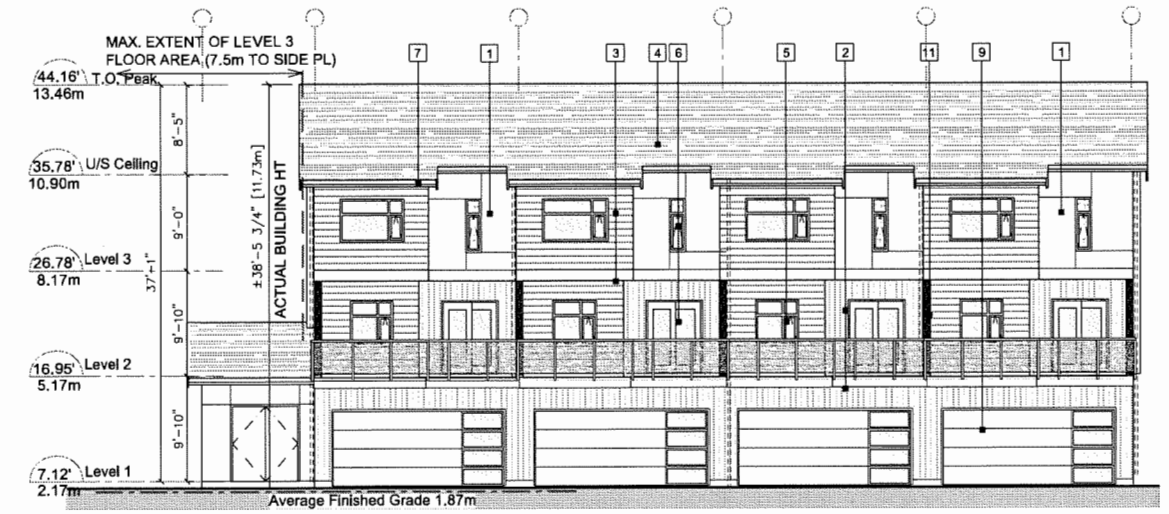
A9.3

EXTERIOR FINISHES

1. FIBER CEMENT PANEL SIDING
   HARDIEPANEL (SMOOTH)
   Colour: Arctic White
2. FIBER CEMENT PANEL SIDING
   HARDIEPANEL (SIERRA 8)
   Colour: A - BM HC-168 (Chelsea Gray)
   B - BM HC-172 (Revere Pewter)
3. FIBER CEMENT LAP SIDING
   HARDIEPLANK (SELECT CEDARMILL)
   Colour: BM 1119 (Fort Summer Tan)
4. FIBERGLASS ASPHALT ROOF SHINGLES
   Colour: Dark Gray (Multicolour, Textured)
5. VINYL-FRAMED DOUBLE-GLAZED WINDOWS
   Vinytek or Equivalent, Colour: White
6. DOUBLE-GLAZED VINYL SLIDING DOOR
   Colour: White
7. ALUMINUM FASCIA GUTTER
   Colour: BM HC166 (Kendall Charcoal)
8. ENTRY SOLID WOOD DOOR WITH SIDELIGHT
   Door Colour: Natural Cedar Stain
9. OVERHEAD WOOD PANEL GARAGE DOOR
   Colour: BM HC-168 (Chelsea Gray)
10. METAL RAILING W/ SANDBLASTED GLASS
    Railing Colour: Dark Gray
11. BUILT UP POST - REFER TO DETAILS
    Colour: Natural Cedar Stain
12. 6' HIGH SANDBLASTED GLASS PARTITION TO MATCH RAILING SYSTEM
13. ELECTRICAL ROOM DOOR
    Colour: BM HC-168 (Chelsea Gray)
14. SOLAR PANEL
    Colour: Dark Gray

NORTH ELEVATION (DRIVE AISLE) - BUILDING 1

SCALE: 1/8" = 1'-0"

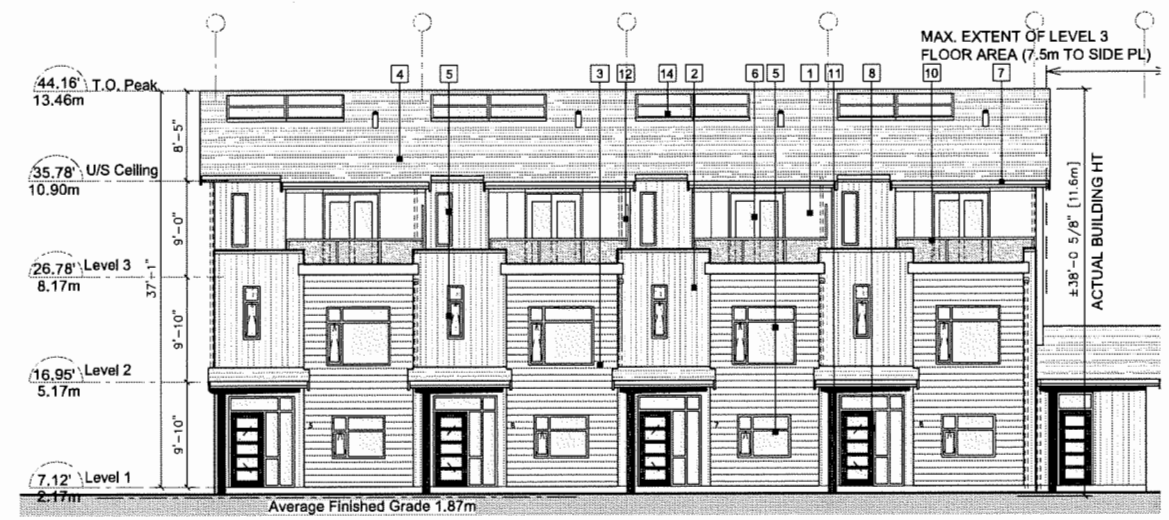


NORTH ELEVATION (DRIVE AISLE) - BUILDING 2

SCALE: 1/8" = 1'-0"

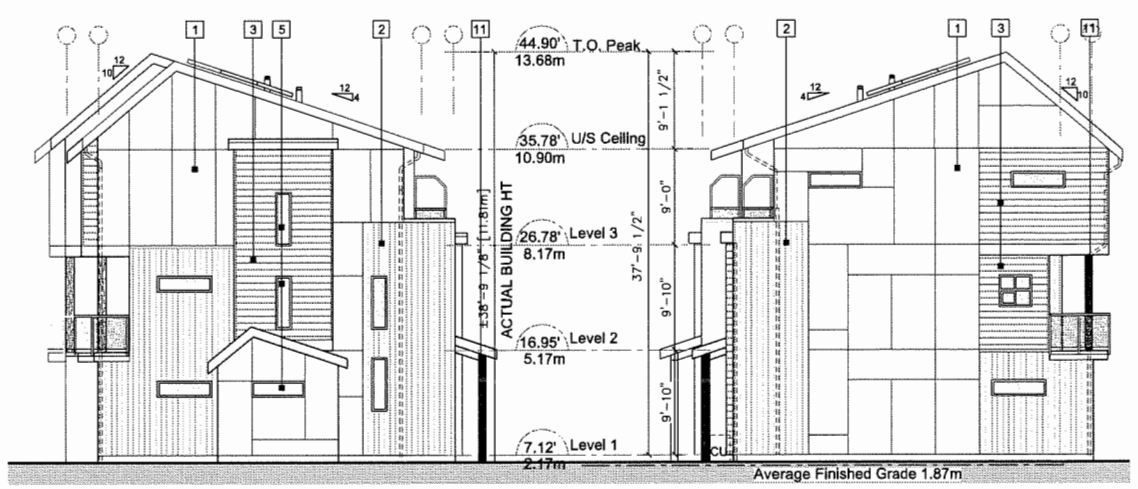
SOUTH ELEVATION (STREET) - BUILDING 1

SCALE: 1/8" = 1'-0"



SOUTH ELEVATION (STREET) - BUILDING 2

SCALE: 1/8" = 1'-0"

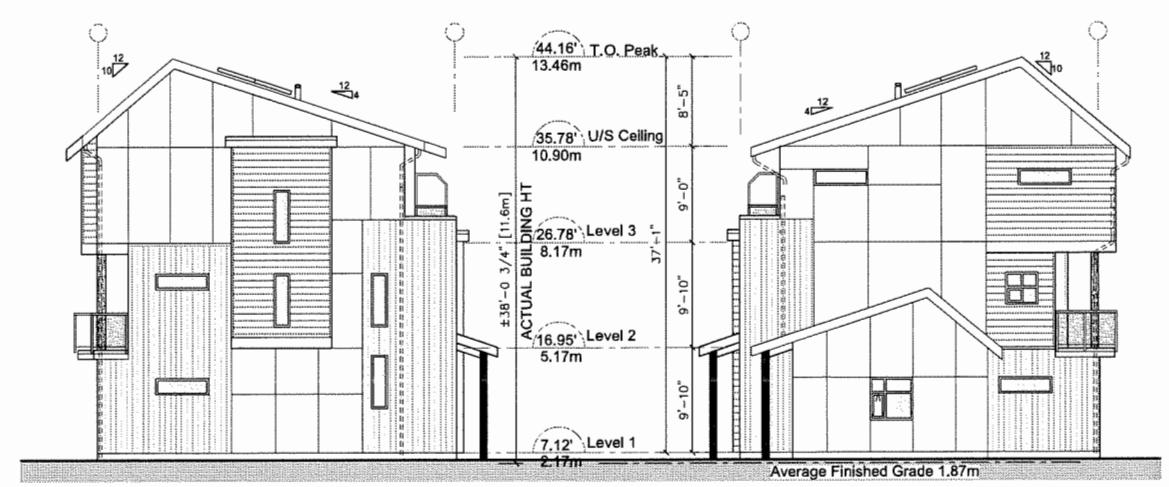


SIDE ELEVATION (WEST) - BUILDING 1

SCALE: 1/8" = 1'-0"

SIDE ELEVATION (EAST) - BUILDING 1

SCALE: 1/8" = 1'-0"



SIDE ELEVATION (WEST) - BUILDING 2

SCALE: 1/8" = 1'-0"

SIDE ELEVATION (EAST) - BUILDING 2

SCALE: 1/8" = 1'-0"

PLAN #4A DP 18-829234

SEP 24 2019

REVISIONS

SEP 06, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
JULY 16, 2018	DP Submission
APRIL 04, 2016	RZ Application

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SEAL

INTERFACE:

Suite 230
11590 Cambie Road
Richmond BC
Canada V6X 3Z5

T 604 821 1162
F 604 821 1146
www.interfacearchitecture.com

PROJECT

Proposed 28-Unit Townhouse Development

7 LOT ASSEMBLY

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 STEVESTON HWY
RICHMOND, BC

PROJECT NO. 1716STV2

SCALE: As Noted

DATE: March, 30, 2017

DRAWN BY: KYC, SRS, WAL

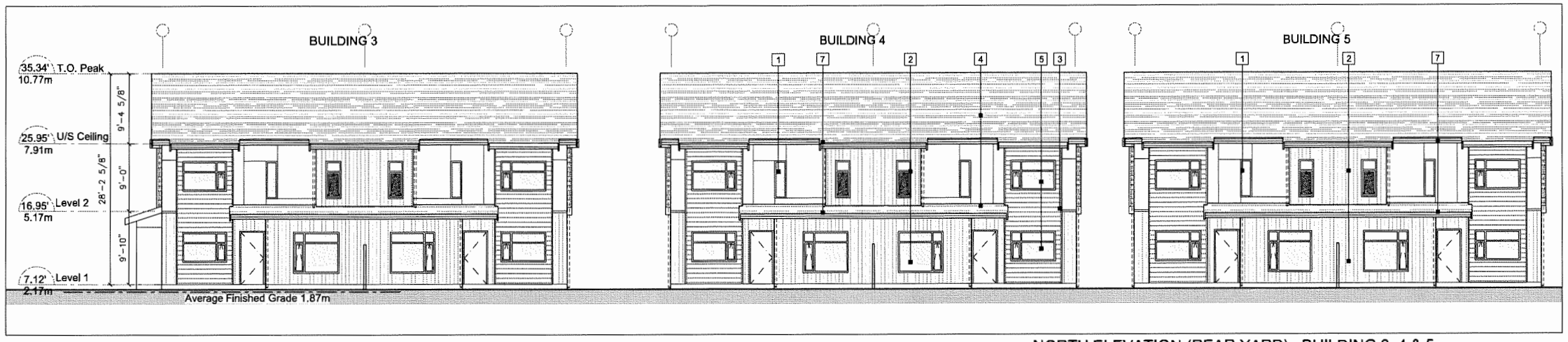
CHECKED BY: KYC

SHEET TITLE: ELEVATIONS : BUILDING 1 & 2

DRAWING: A2.2

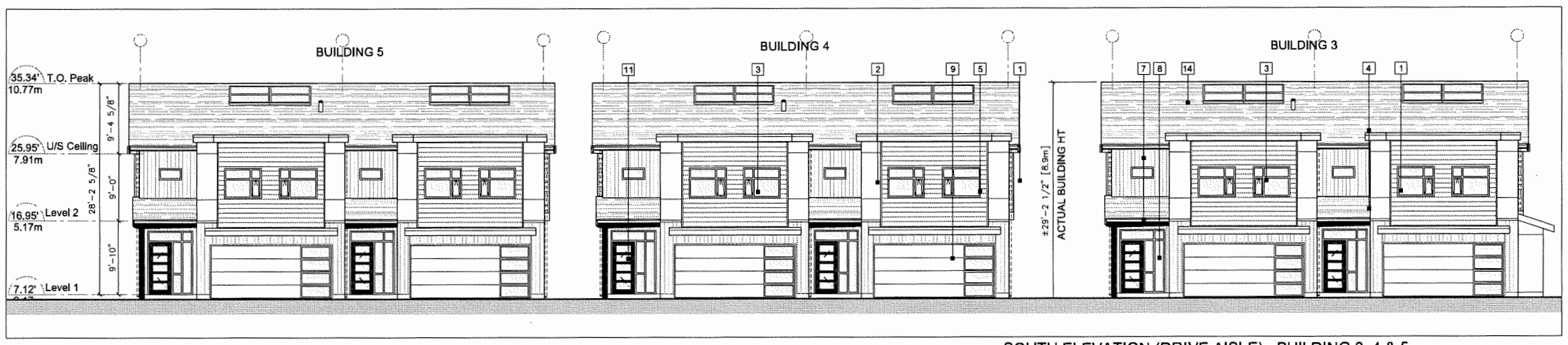
EXTERIOR FINISHES

1. FIBER CEMENT PANEL SIDING
   HARDIEPANEL (SMOOTH)
   Colour: Arctic White
2. FIBER CEMENT PANEL SIDING
   HARDIEPANEL (SIERRA 8)
   Colour: A - BM HC-168 (Chelsea Gray)
   B - BM HC-172 (Revere Pewter)
3. FIBER CEMENT LAP SIDING
   HARDIEPLANK (SELECT CEDARMILL)
   Colour: BM 1119 (Fort Summer Tan)
4. FIBERGLASS ASPHALT ROOF SHINGLES
   Colour: Dark Gray (Multicolour, Textured)
5. VINYL-FRAMED DOUBLE-GLAZED WINDOWS
   Vinyltek or Equivalent, Colour: White
6. DOUBLE-GLAZED VINYL SLIDING DOOR
   Colour: White
7. ALUMINUM FASCIA GUTTER
   Colour: BM HC166 (Kendall Charcoal)
8. ENTRY SOLID WOOD DOOR WITH SIDELIGHT
   Door Colour: Natural Cedar Stain
9. OVERHEAD WOOD PANEL GARAGE DOOR
   Colour: BM HC-168 (Chelsea Gray)
10. METAL RAILING W/ SANDBLASTED GLASS
    Railing Colour: Dark Gray
11. BUILT UP POST - REFER TO DETAILS
    Colour: Natural Cedar Stain
12. 6' HIGH SANDBLASTED GLASS PARTITION
    TO MATCH RAILING SYSTEM
13. ELECTRICAL ROOM DOOR
    Colour: BM HC-168 (Chelsea Gray)
14. SOLAR PANEL
    Colour: Dark Gray



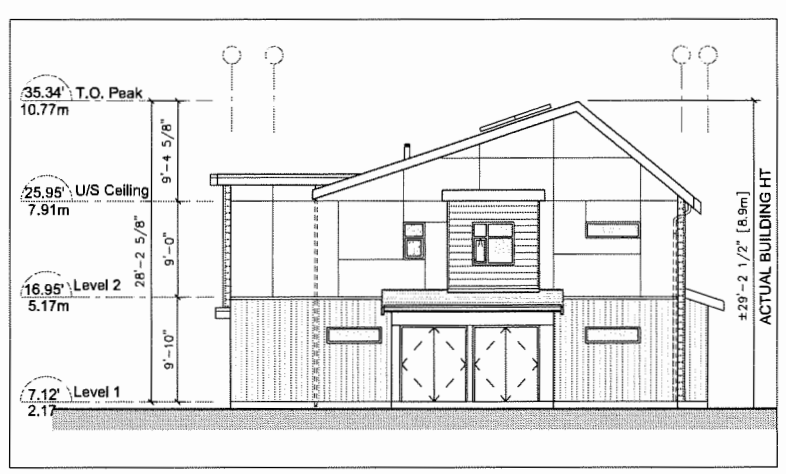
NORTH ELEVATION (REAR YARD) - BUILDING 3, 4 & 5

SCALE: 1/8" = 1'-0"



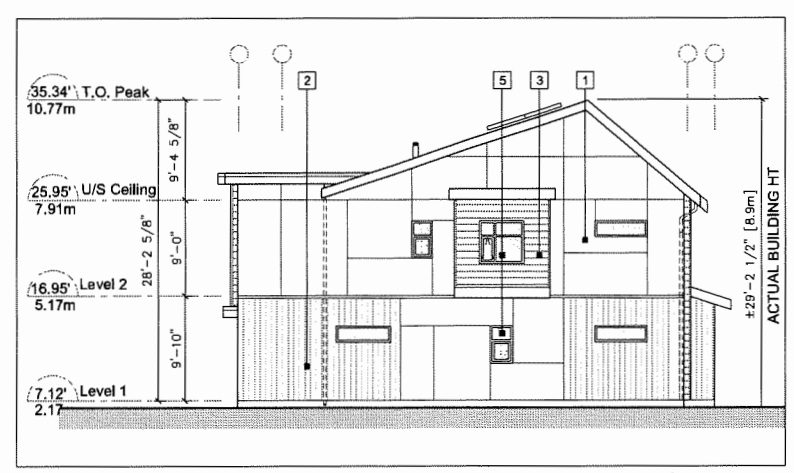
SOUTH ELEVATION (DRIVE AISLE) - BUILDING 3, 4 & 5

SCALE: 1/8" = 1'-0"



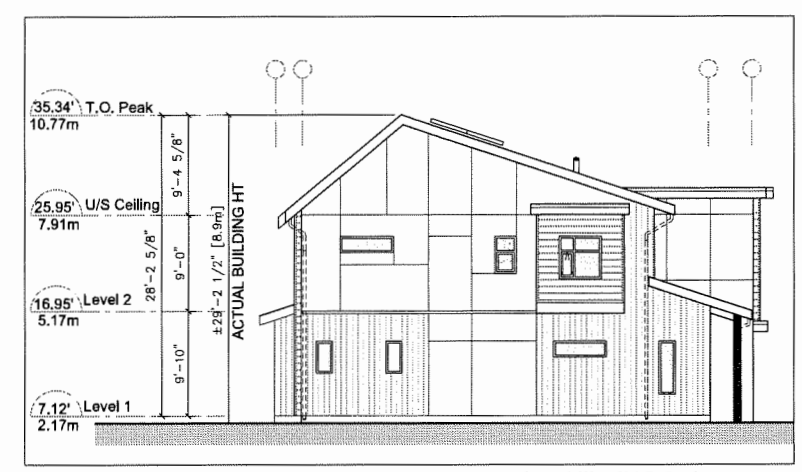
SIDE ELEVATION (EAST) - BUILDING 3

SCALE: 1/8" = 1'-0"



SIDE ELEVATION (EAST) - BUILDING 4 & 5

SCALE: 1/8" = 1'-0"



SIDE ELEVATION (WEST) - BUILDING 3, 4 & 5

SCALE: 1/8" = 1'-0"

PLAN #4B DP 18-829234

SEP 24 2019

REVISIONS

SEP 05, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
JULY 16, 2018	DP Submission
APRIL 04, 2016	RZ Application

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SEAL

INTERFACE:
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Richmond BC
Canada V6X 3Z5

T 604 821 1162
F 604 821 1146
www.interfacearchitecture.com

PROJECT
Proposed 28-Unit
Townhouse Development
7 LOT ASSEMBLY
5631 / 5635 / 5651 / 5691 /
5711 / 5731 / 5751
STEVESTON HWY
RICHMOND, BC

PROJECT NO.
1716STV2

SCALE
As Noted

DATE
March. 30, 2017

DRAWN BY
KYC, SRS, WAL

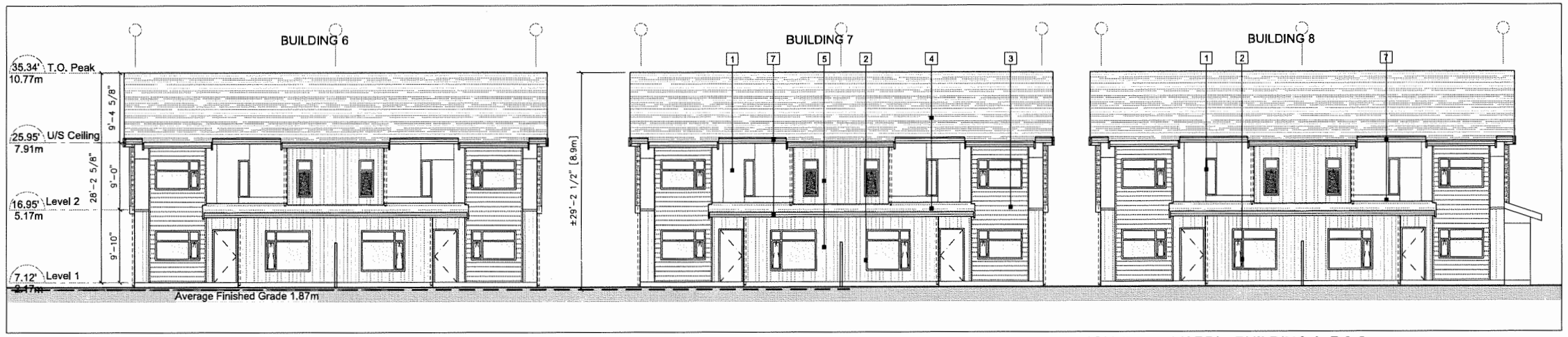
CHECKED BY
KYC

SHEET TITLE
ELEVATIONS :
BUILDINGS 3, 4 & 5

DRAWING
A2.4

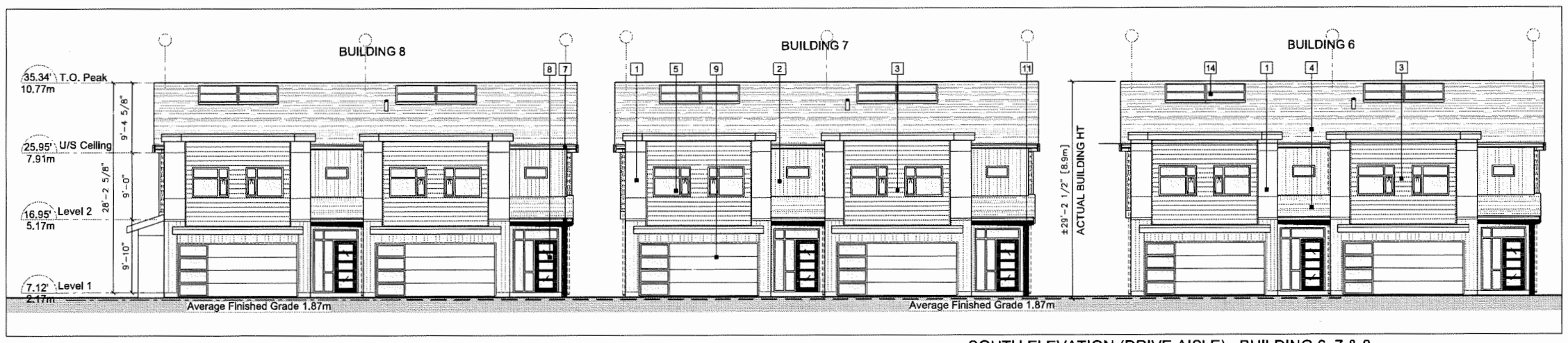
EXTERIOR FINISHES

1. FIBER CEMENT PANEL SIDING
   HARDIEPANEL (SMOOTH)
   Colour: Arctic White
2. FIBER CEMENT PANEL SIDING
   HARDIEPANEL (SIERRA 8)
   Colour: A - BM HC-168 (Chelsea Gray)
   B - BM HC-172 (Revere Pewter)
3. FIBER CEMENT LAP SIDING
   HARDIEPLANK (SELECT CEDARMILL)
   Colour: BM 1119 (Fort Summer Tan)
4. FIBERGLASS ASPHALT ROOF SHINGLES
   Colour: Dark Gray (Multicolour, Textured)
5. VINYL-FRAMED DOUBLE-GLAZED WINDOWS
   Vinyltek or Equivalent, Colour: White
6. DOUBLE-GLAZED VINYL SLIDING DOOR
   Colour: White
7. ALUMINUM FASCIA GUTTER
   Colour: BM HC166 (Kendall Charcoal)
8. ENTRY SOLID WOOD DOOR WITH SIDELIGHT
   Door Colour: Natural Cedar Stain
9. OVERHEAD WOOD PANEL GARAGE DOOR
   Colour: BM HC-168 (Chelsea Gray)
10. METAL RAILING W/ SANDBLASTED GLASS
    Railing Colour: Dark Gray
11. BUILT UP POST - REFER TO DETAILS
    Colour: Natural Cedar Stain
12. 6' HIGH SANDBLASTED GLASS PARTITION
    TO MATCH RAILING SYSTEM
13. ELECTRICAL ROOM DOOR
    Colour: BM HC-168 (Chelsea Gray)
14. SOLAR PANEL
    Colour: Dark Gray



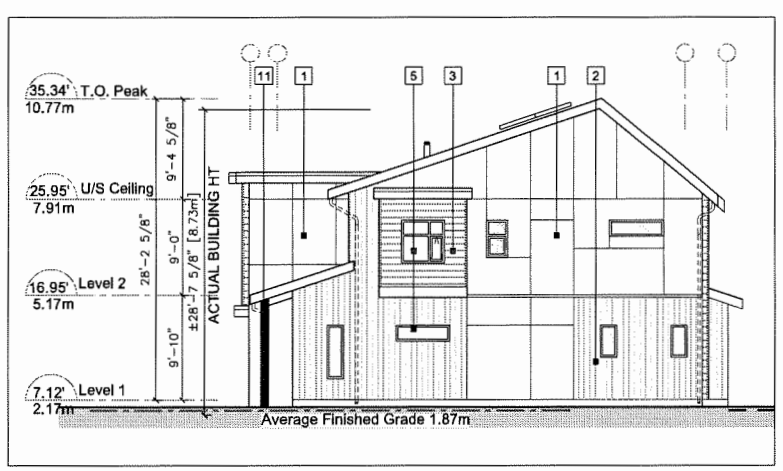
NORTH ELEVATION (REAR YARD) - BUILDING 6, 7 & 8

SCALE: 1/8" = 1'-0"



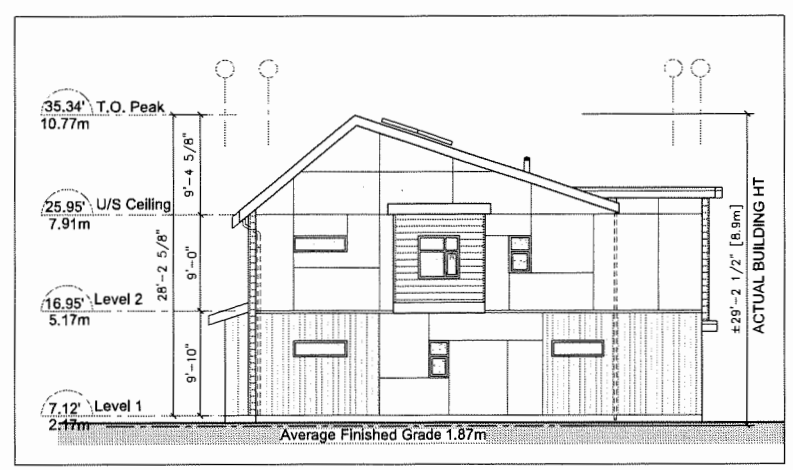
SOUTH ELEVATION (DRIVE AISLE) - BUILDING 6, 7 & 8

SCALE: 1/8" = 1'-0"



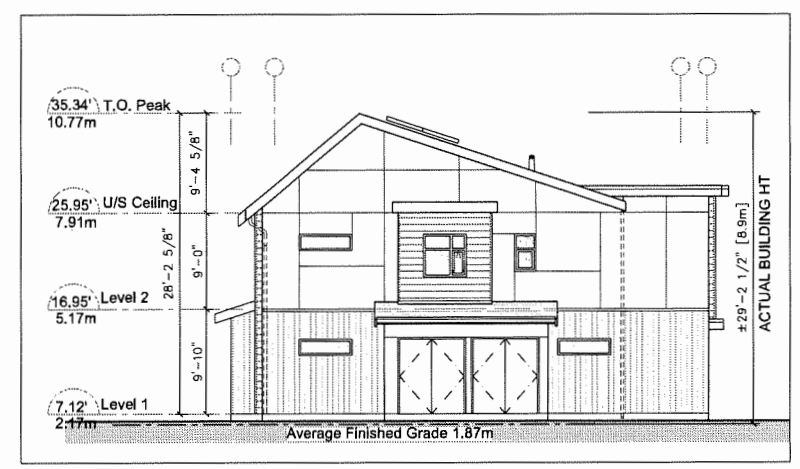
SIDE ELEVATION (EAST) - BUILDING 6, 7 & 8

SCALE: 1/8" = 1'-0"



SIDE ELEVATION (WEST) - BUILDING 6 & 7

SCALE: 1/8" = 1'-0"



SIDE ELEVATION (WEST) - BUILDING 8

SCALE: 1/8" = 1'-0"

PLAN# 4C DP 18-829234

SEP 24 2019

REVISIONS	
SEP 06, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
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7 LOT ASSEMBLY
5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 STEVESTON HWY
RICHMOND, BC

PROJECT NO. 1716STV2

SCALE As Noted

DATE March. 30, 2017

DRAWN BY KYC, SRS, WAL

CHECKED BY KYC

SHEET TITLE
ELEVATIONS : BUILDINGS 6,7 & 8

DRAWING
A2.6

EXTERIOR FINISHES

1. FIBER CEMENT PANEL SIDING
   HARDIEPANEL (SMOOTH)
   Colour: Arctic White
2. FIBER CEMENT PANEL SIDING
   HARDIEPANEL (SIERRA 8)
   Colour: A - BM HC-168 (Chelsea Gray)
   B - BM HC-172 (Revere Pewter)
3. FIBER CEMENT LAP SIDING
   HARDIEPLANK (SELECT CEDARMILL)
   Colour: BM 1119 (Fort Summer Tan)
4. FIBERGLASS ASPHALT ROOF SHINGLES
   Colour: Dark Gray (Multicolour, Textured)
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   Vinyltek or Equivalent, Colour: White
6. DOUBLE-GLAZED VINYL SLIDING DOOR
   Colour: White
7. ALUMINUM FASCIA GUTTER
   Colour: BM HC166 (Kendall Charcoal)
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   Door Colour: Natural Cedar Stain
9. OVERHEAD WOOD PANEL GARAGE DOOR
   Colour: BM HC-166 (Chelsea Gray)
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    Railing Colour: Dark Gray
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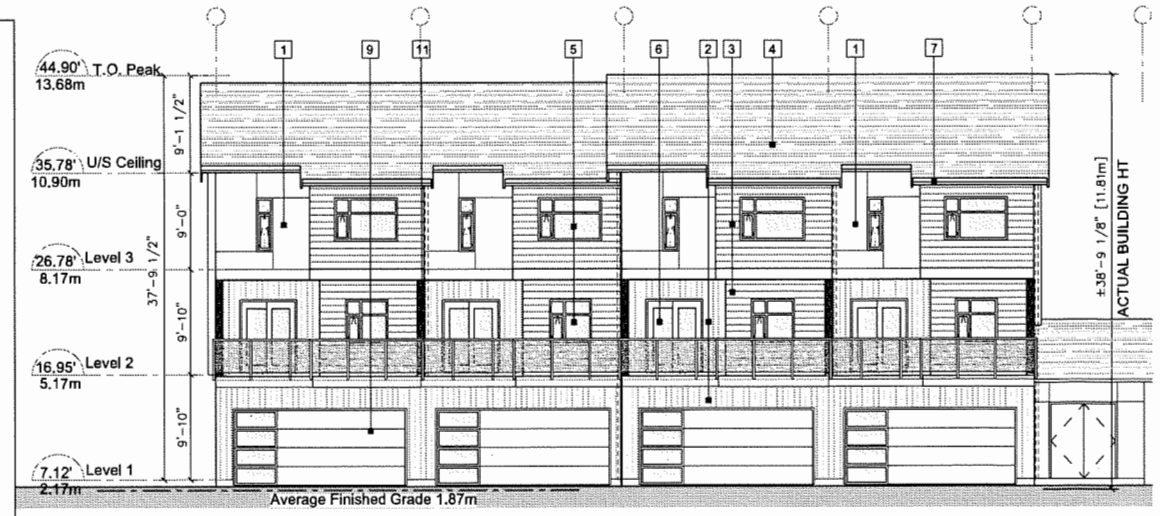
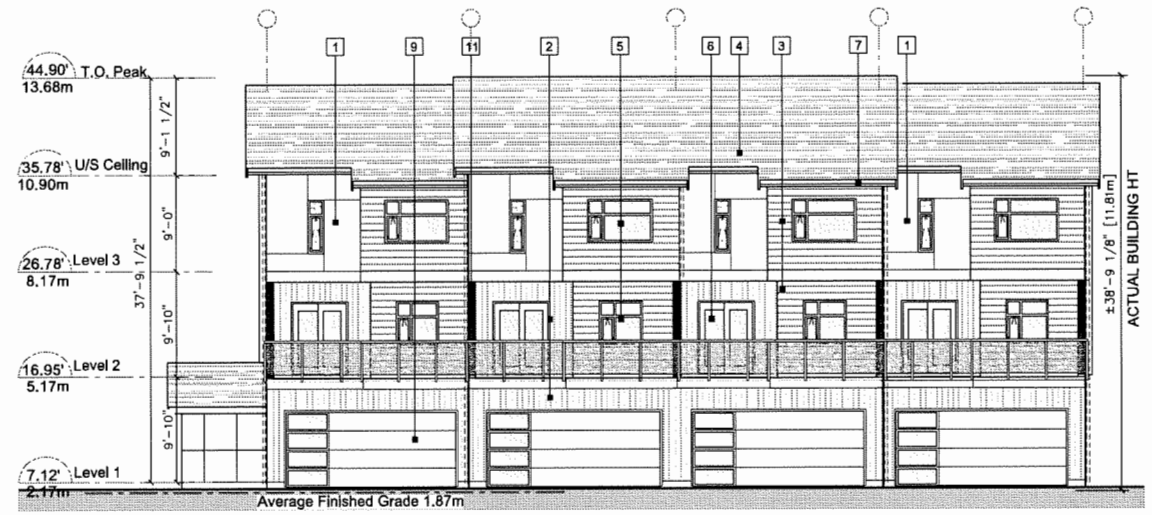
    Colour: Natural Cedar Stain
12. 6' HIGH SANDBLASTED GLASS PARTITION TO MATCH RAILING SYSTEM
13. ELECTRICAL ROOM DOOR
    Colour: BM HC-168 (Chelsea Gray)
14. SOLAR PANEL
    Colour: Dark Gray



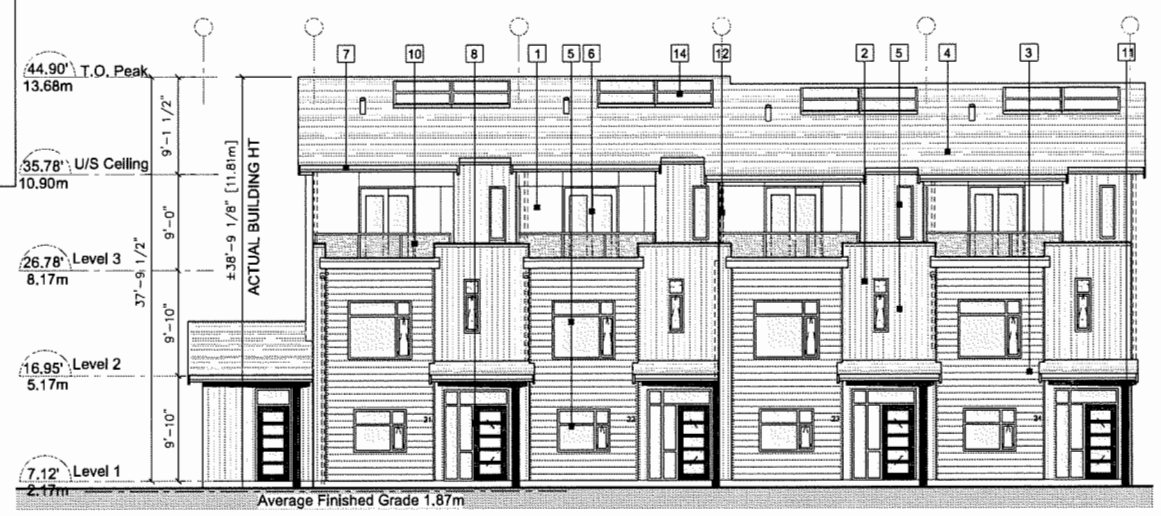
NORTH ELEVATION (DRIVE AISLE) - BUILDING 9

SCALE: 1/8" = 1'-0"



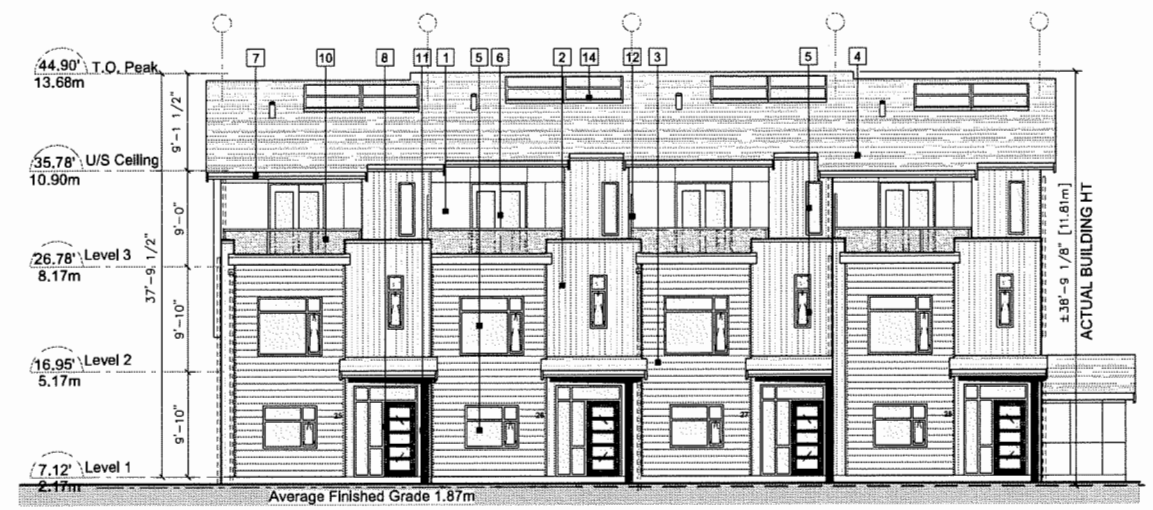
NORTH ELEVATION (DRIVE AISLE) - BUILDING 10

SCALE: 1/8" = 1'-0"



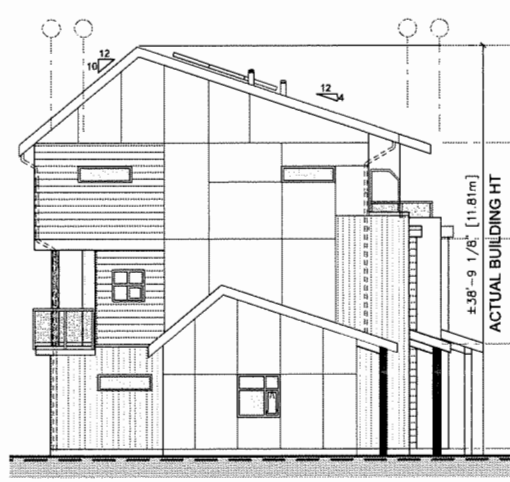
SOUTH ELEVATION (STREET) - BUILDING 9

SCALE: 1/8" = 1'-0"



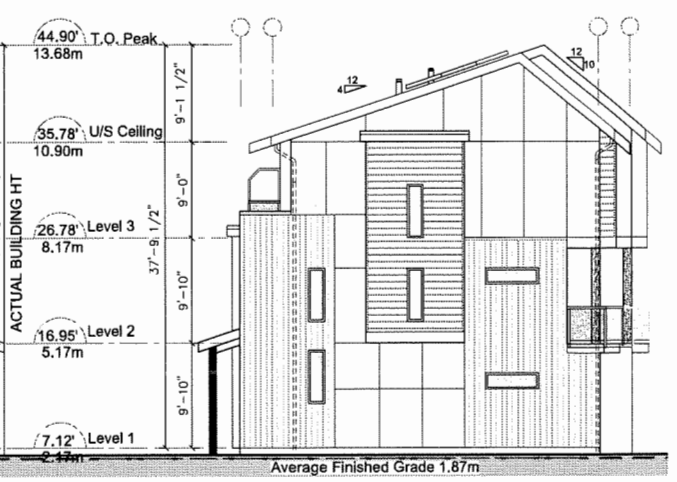
SOUTH ELEVATION (STREET) - BUILDING 10

SCALE: 1/8" = 1'-0"



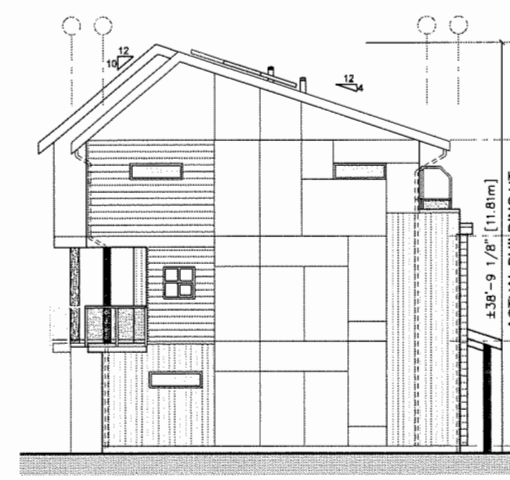
SIDE ELEVATION (WEST) - BUILDING 9

SCALE: 1/8" = 1'-0"



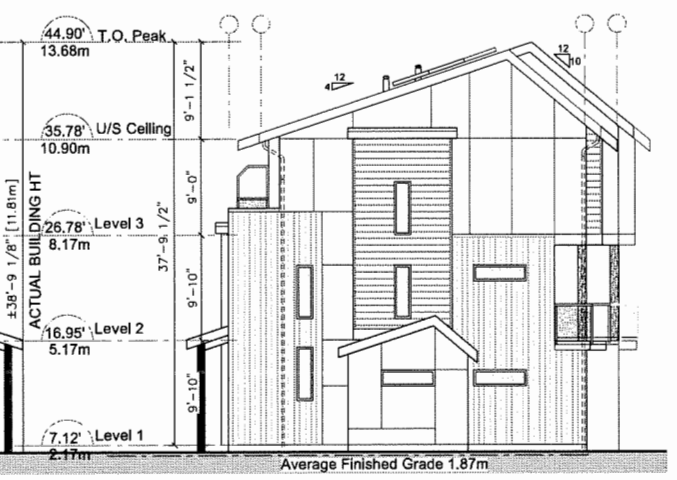
SIDE ELEVATION (EAST) - BUILDING 9

SCALE: 1/8" = 1'-0"



SIDE ELEVATION (WEST) - BUILDING 10

SCALE: 1/8" = 1'-0"



SIDE ELEVATION (EAST) - BUILDING 10

SCALE: 1/8" = 1'-0"

PLAN #4D DP 18-829234

SEP 24 2019

REVISIONS

SEP 06, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
JULY 18, 2018	DP Submission
APRIL 04, 2016	RZ Application

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SEAL

INTERFACE:

Suite 230
11590 Cambie Road
Richmond BC
Canada V6X 3Z5

T 604 821 1162
F 604 821 1146
www.interfacearchitecture.com

PROJECT

Proposed 28-Unit Townhouse Development

7 LOT ASSEMBLY

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751
STEVESTON HWY
RICHMOND, BC

PROJECT NO. 1716STV2

SCALE: As Noted

DATE: March, 30, 2017

DRAWN BY: KYC, SRS, WAL

CHECKED BY: KYC

SHEET TITLE: ELEVATIONS : BUILDING 9 & 10

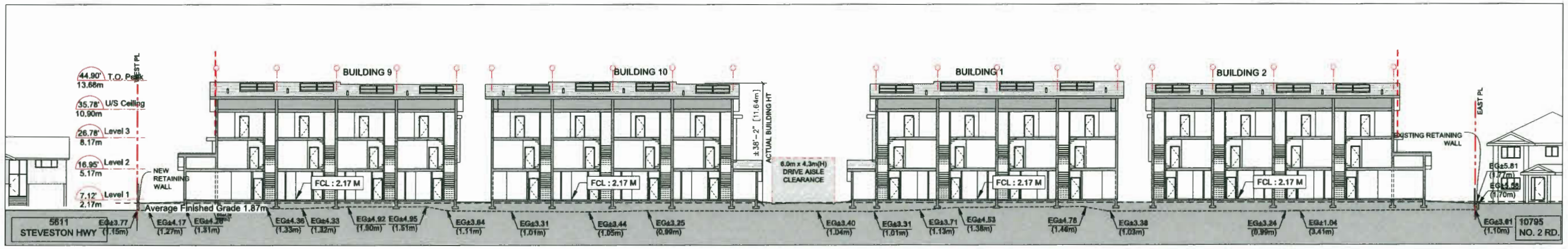
DRAWING: A2.8

STREETSCAPE ALONG STEVESTON HWY

Scale: 1/16"=1'-0"

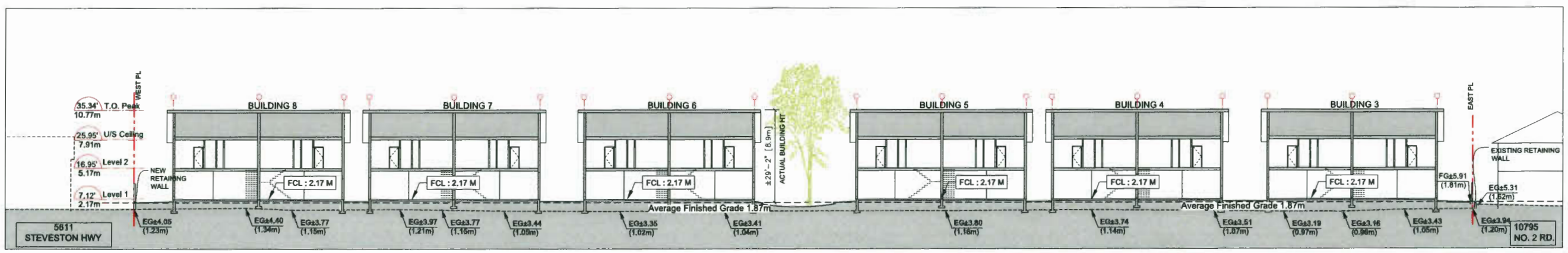
STREETSCAPE ALONG DRIVE AISLE LOOKING NORTH

Scale: 1/16"=1'-0"



SITE SECTION - S1

Scale: 1/16"=1'-0"



SITE SECTION - S2

Scale: 1/16"=1'-0"

PLAN # 4E

DP 18-829234

REVISIONS	
SEP 06, 2019	DP Resubmission
JUL 18, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
JULY 16, 2018	DP Submission
APRIL 04, 2016	RZ Application

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PROJECT

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Townhouse Development

7 LOT ASSEMBLY

5631 / 5635 / 5651 / 5691 /
5711 / 5731 / 5751
STEVESTON HWY
RICHMOND, BC

PROJECT NO.
1716STV2

SCALE
As Noted

DATE
March. 30, 2017

DRAWN BY
KYC, SRS, WAL

CHECKED BY
KYC

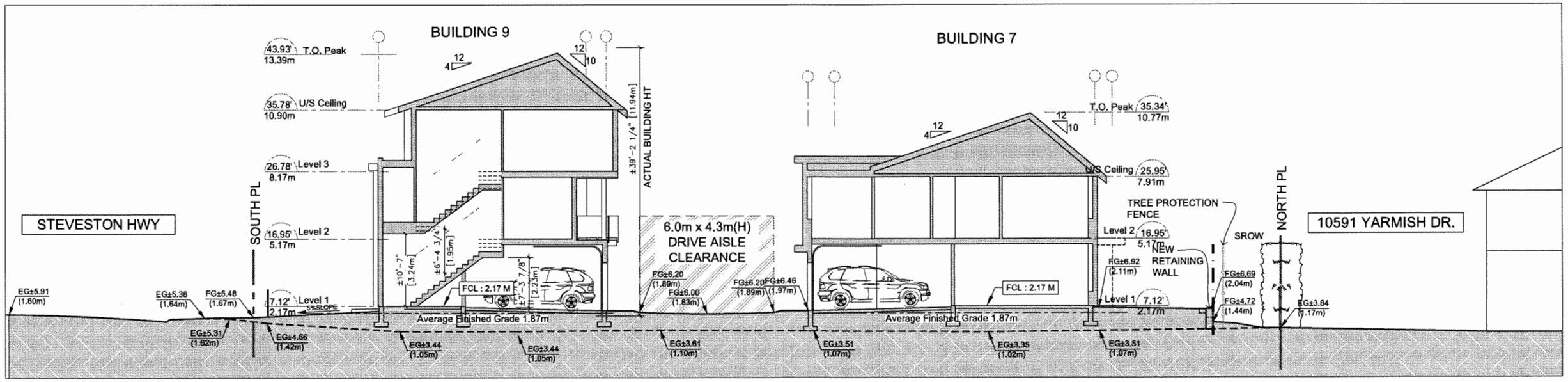
SHEET TITLE

STREETSCAPES &
SITE SECTIONS S1 & S2

DRAWING

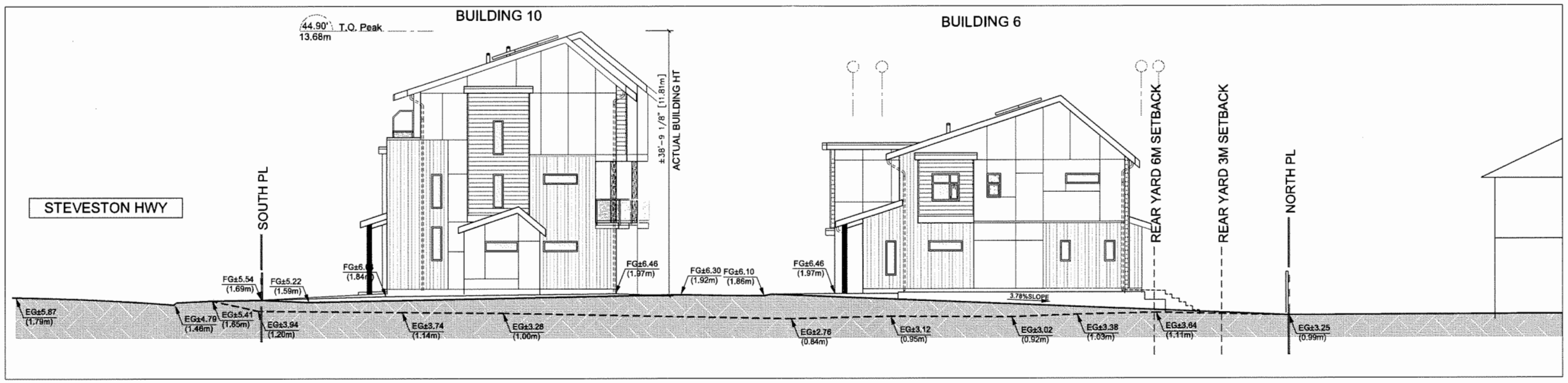
A5.1

SEP 24 2019



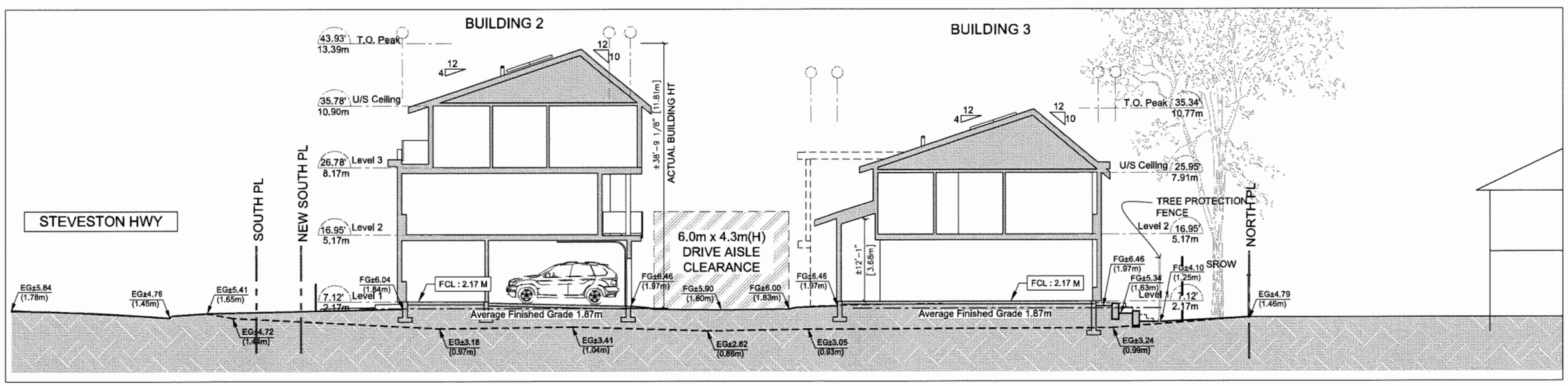
SITE SECTION - S3

Scale: 1/8"=1'-0"



SITE SECTION - S4

Scale: 1/8"=1'-0"



SITE SECTION - S5

Scale: 1/8"=1'-0"

SEP 24 2019 PLAN # 4F DP 18-829234

REVISIONS

SEP 05, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
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7 LOT ASSEMBLY

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STEVESTON HWY
RICHMOND, BC

PROJECT NO. 1716STV2

SCALE As Noted

DATE March, 30, 2017

DRAWN BY KYC, SRS, WAL

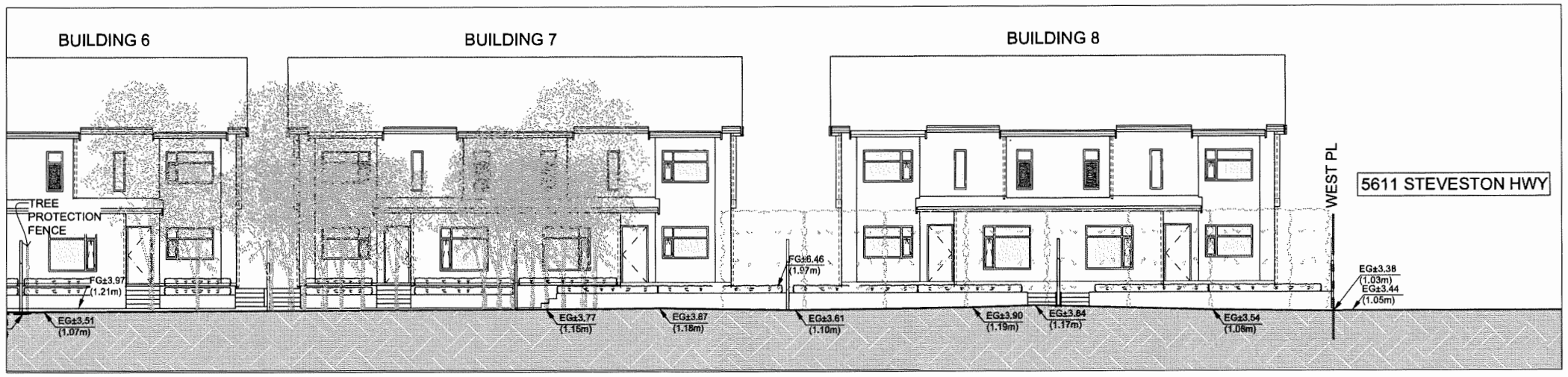
CHECKED BY KYC

SHEET TITLE

SITE SECTIONS - S3, S4 & S5

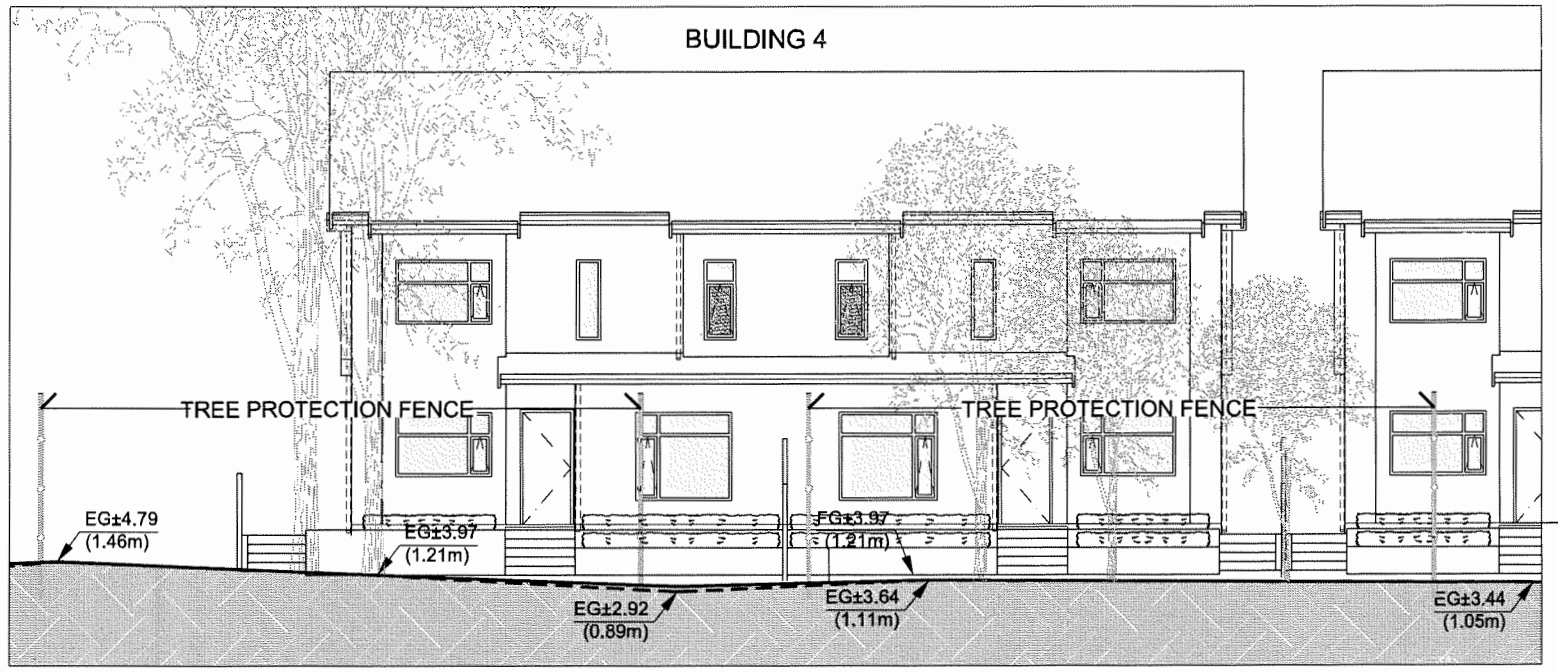
DRAWING

A5.2



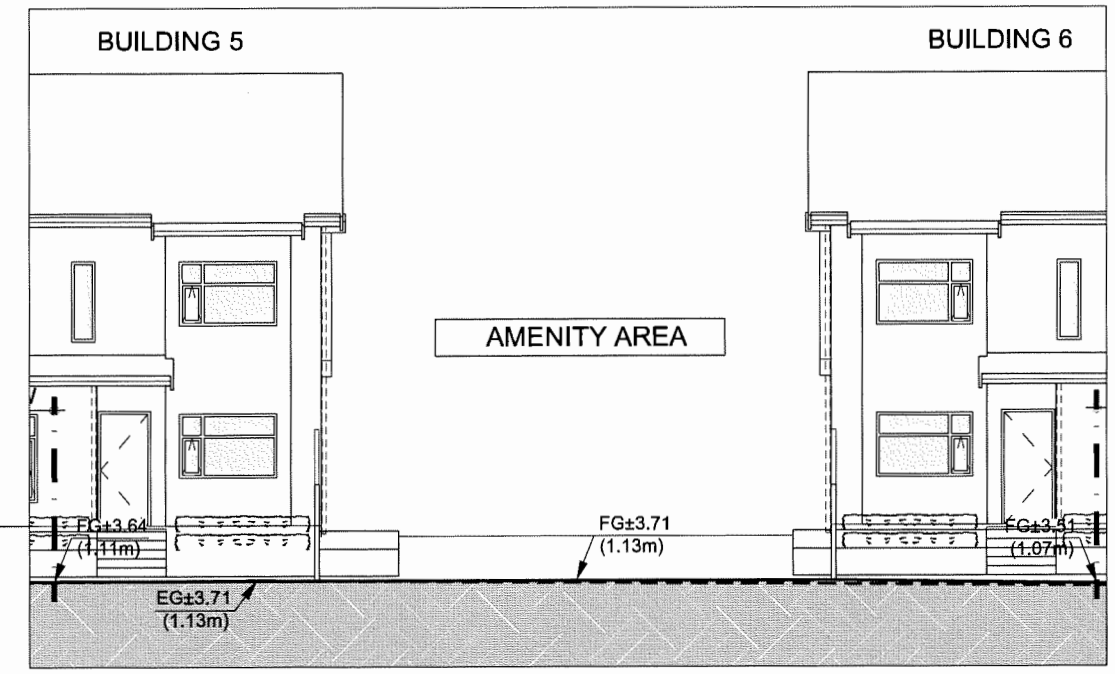
SITE SECTION - S6

Scale: 1/8"=1'-0"



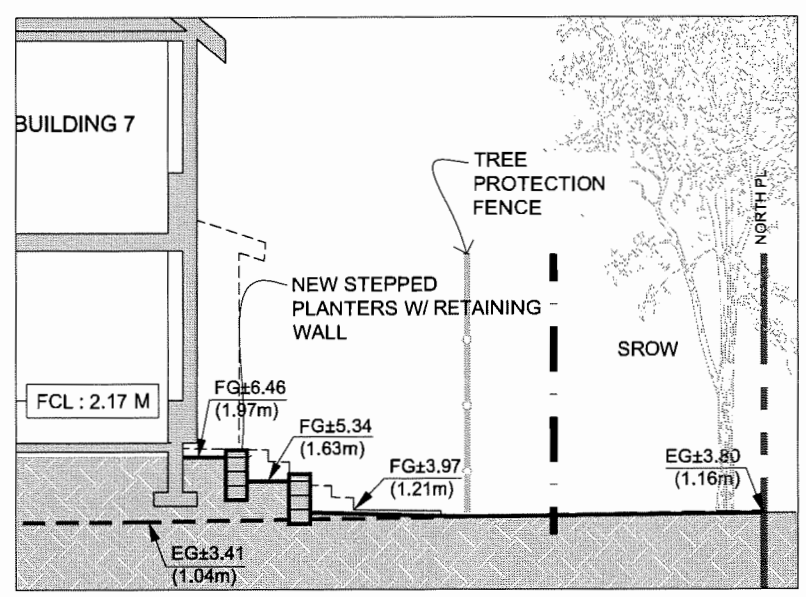
SITE SECTION - S7

Scale: 3/16"=1'-0"



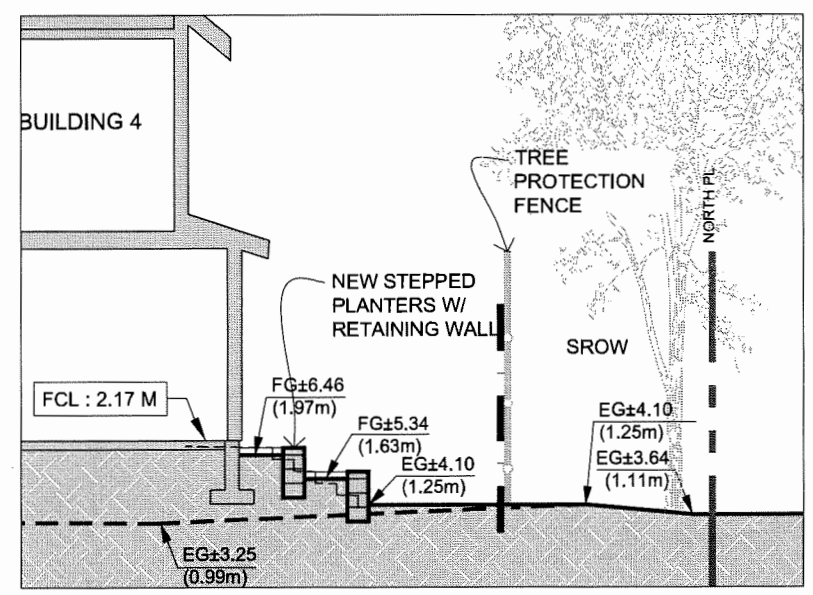
SITE SECTION - S8

Scale: 3/16"=1'-0"



SITE SECTION - S9

Scale: 1/4"=1'-0"



SITE SECTION - S10

Scale: 1/4"=1'-0"

SEP 2 4 2019

PLAN # 4G

DP 18-829234

REVISIONS

SEP 06, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
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PROJECT

Proposed 28-Unit Townhouse Development

7 LOT ASSEMBLY

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 STEVESTON HWY
RICHMOND, BC

PROJECT NO. 1716STV2

SCALE As Noted

DATE March. 30, 2017

DRAWN BY KYC, SRS, WAL

CHECKED BY KYC

SHEET TITLE

SITE SECTIONS - S6, S7, S8, S9 & S10

DRAWING

A5.3

STREETSCAPE ALONG STEVESTON HWY

Scale: 1/16"=1'-0"

1

FIBER CEMENT PANEL SIDING
HARDIEPANEL (SMOOTH)
COLOUR: Arctic White

2A

FIBER CEMENT PANEL SIDING
HARDIEPANEL (SIERRA 8)
COLOUR: BM HC-168
(Chealsea Gray)

2B

FIBER CEMENT PANEL SIDING
HARDIEPANEL (SIERRA 8)
COLOUR: BM HC-172
(Revere Pewter)

3

FIBER CEMENT LAP SIDING
HARDIEPLANK (SELECT CEDARMILL)
COLOUR: BM 1119
(Fort Summer Tan)

4

FIBERGLASS ASHPHALT
ROOF SHINGLES
COLOUR: DARK GRAY
(MULTICOLOR, TEXTURED)

5 6

DOUBLE GLAZED VINYL WINDOW
DOUBLE GLAZED VINYL SLIDING
DOOR
Colour: White

7

ALUMINUM FASCIA GUTTER
Colour: BM HC166
(Kendall Charcoal)

8

ENTRY SOLID WOOD DOOR
WITH LIGHT
Door Colour: Natural Cedar Stain

9 13

OVERHEAD WOOD GARAGE DOOR
ELECTRICAL ROOM DOOR
Colour: BM HC-168
(Chelsea Gray)

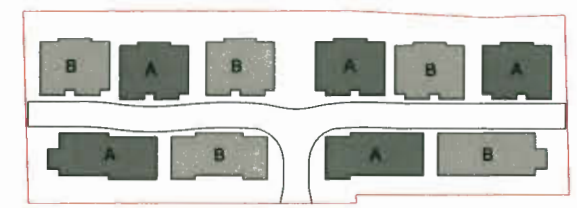
10 12

METAL RAILING WITH
SANDBLASTED GLASS & RAIL
Railing Colour: Dark Gray

11

BUILT UP POST - REFER
TO DETAILS
Colour: Natural Cedar Stain

KEY PLAN



STREETSCAPE ALONG DRIVE AISLE LOOKING NORTH

Scale: 1/16"=1'-0"

SEP 2 4 2019
PLAN #4H

DP 18-829234

REVISIONS	
SEP 06, 2019	DP Resubmission
JUL 18, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
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PROJECT
Proposed 28-Unit
Townhouse Development
7 LOT ASSEMBLY
5631 / 5635 / 5651 / 5691 /
5711 / 5731 / 5751
STEVESTON HWY
RICHMOND, BC

PROJECT NO.
1716STV2

SCALE
As Noted

DATE
March. 30, 2017

DRAWN BY
KYC, SRS, WAL

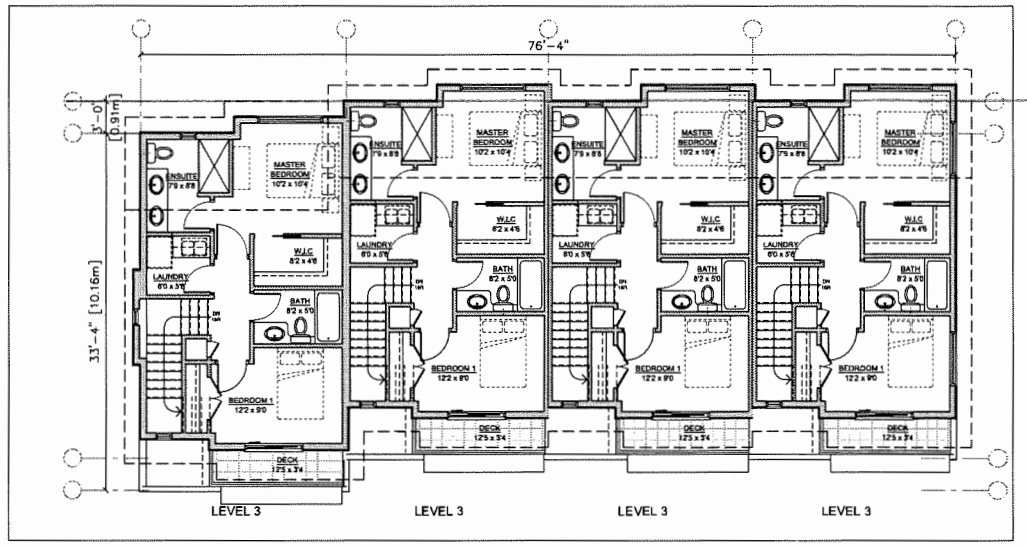
CHECKED BY
KYC

SHEET TITLE
MATERIAL BOARD

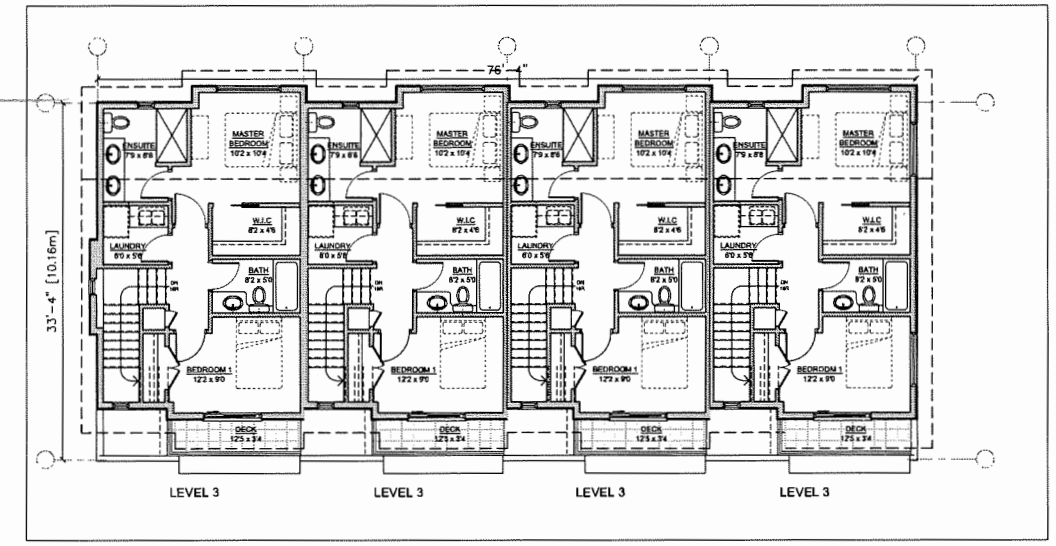
DRAWING
A9.1

AGING-IN-PLACE MEASURES (ALL UNITS)

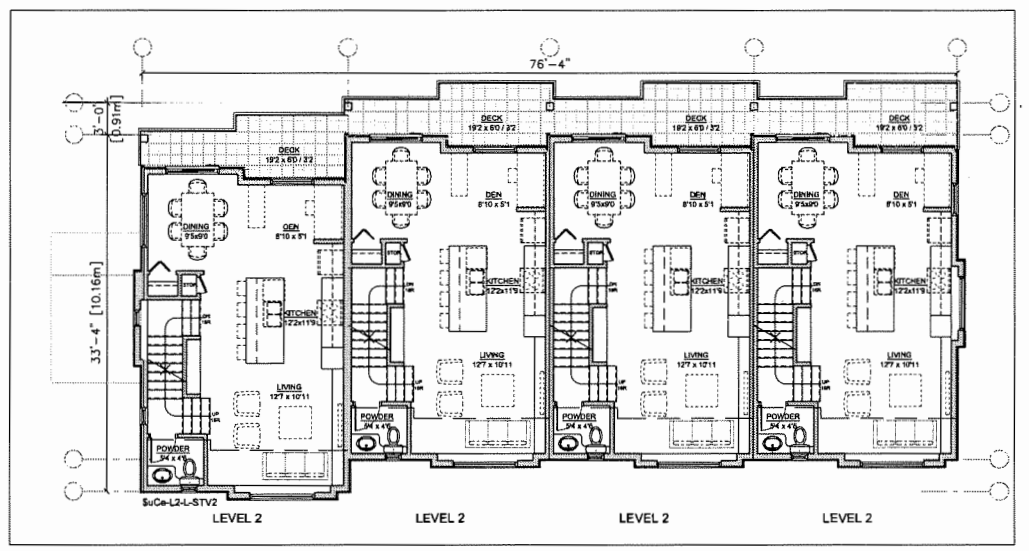
ALL ROOMS	LARGE TOGGLE-TYPE ELECTRICAL SWITCHES
	LEVER TYPE DOOR HANDLES
	MINIMIZE THRESHOLD HEIGHTS (LESS THAN 1/2") WHERE POSSIBLE
	MINIMIZE CONTRAST IN COLOURS OF FLOOR FINISHES WHERE POSSIBLE
STAIRS & LANDINGS	WALL BLOCKING FOR FUTURE ADDITIONAL HANDRAIL INSTALLATION
	INTERMEDIATE STAIR LANDINGS WHENEVER POSSIBLE
	LESS STEEP RISE/RUN DIMENSIONS WHERE POSSIBLE
BATHROOMS	WALL BLOCKING FOR FUTURE GRAB BAR INSTALLATION (AT BATHTUB, TOILET)
	INTERMEDIATE STAIR LANOINGS WHENEVER POSSIBLE
	LESS STEEP RISE/RUN DIMENSIONS WHERE POSSIBLE
KITCHEN	WALL BLOCKING FOR FUTURE GRAB BAR INSTALLATION (AT BATHTUB, TOILET)
	LEVER HANDLE TAPS AND FAUCETS
	2'-8" SLIDING DDORS WHERE POSSIBLE
HALLWAYS	LEVER HANDLE TAPS AND FAUCETS
	MIN. 900 MM WIDTH



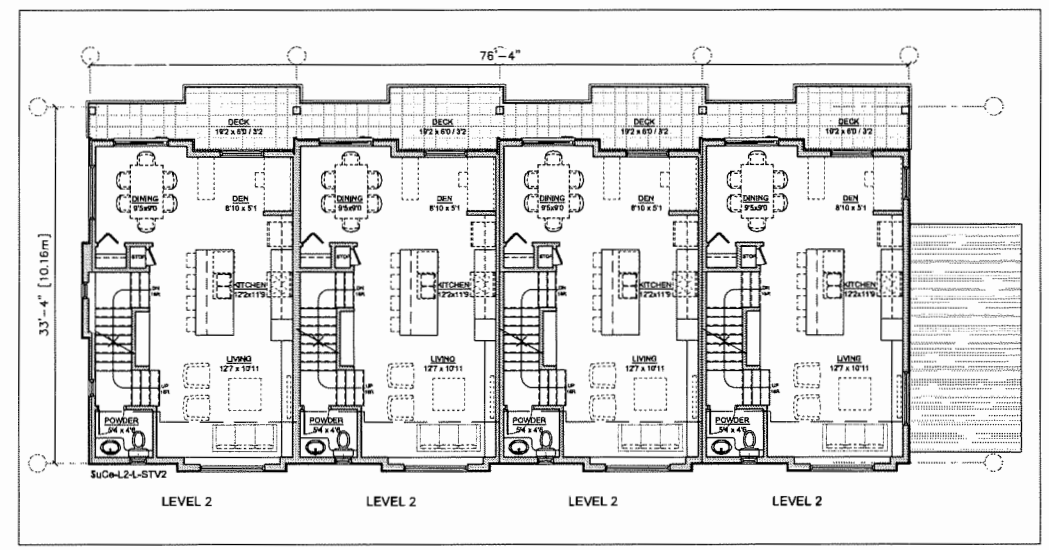
FLOOR PLAN - LEVEL 3 BUILDING 1
SCALE: 1/8" = 1'-0"



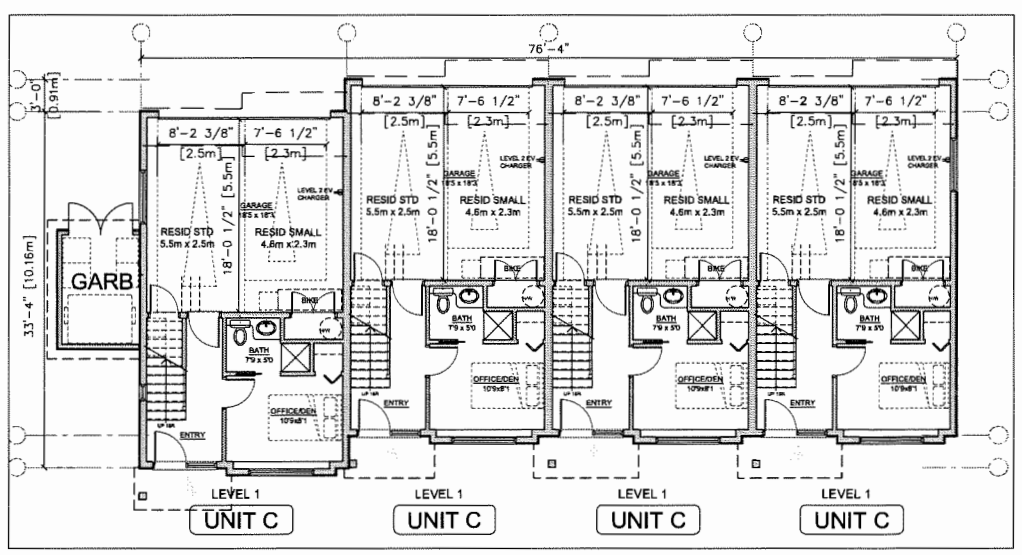
FLOOR PLAN - LEVEL 3 BUILDING 2
SCALE: 1/8" = 1'-0"



FLOOR PLAN - LEVEL 2 BUILDING 1
SCALE: 1/8" = 1'-0"

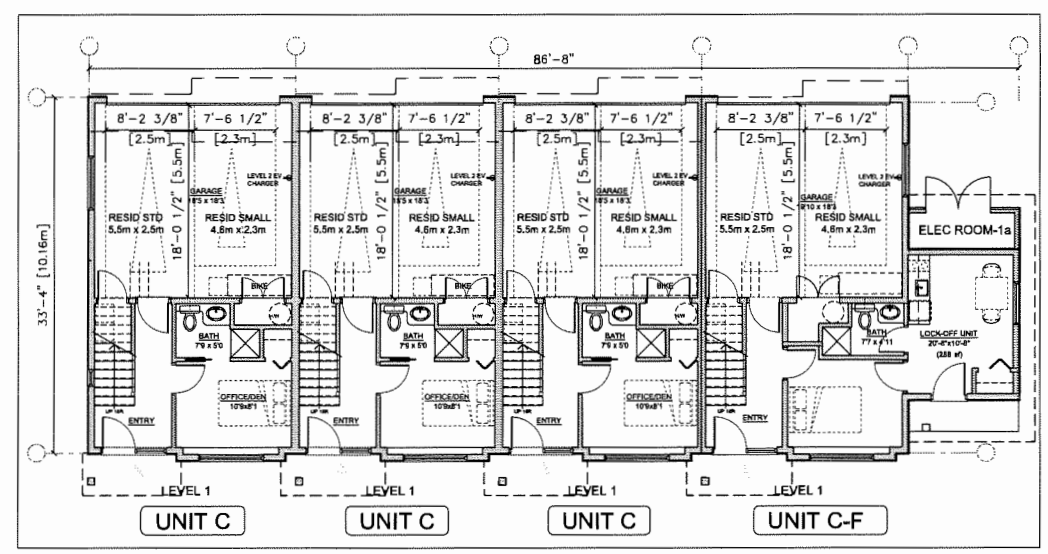


FLOOR PLAN - LEVEL 2 BUILDING 2
SCALE: 1/8" = 1'-0"



NOTE: EV CHARGING INFRASTRUCTURE TO BE PROVIDED PER ZONING BYLAW & OCP

FLOOR PLAN - LEVEL 1 BUILDING 1
SCALE: 1/8" = 1'-0"



*NOTE: LEVEL 2 EV ENERGIZED OUTLET TO BE PROVIDED IN EACH RESIDENTIAL PARKING SPACES PER ZONING BYLAW

FLOOR PLAN - LEVEL 1 BUILDING 2
SCALE: 1/8" = 1'-0"

REFERENCE PLAN DP 18-829234 SEP 2 4 2019

REVISIONS

SEP 06, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
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PROJECT

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7 LOT ASSEMBLY

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751
STEVESTON HWY
RICHMOND, BC

PROJECT NO. 1716STV2

SCALE: As Noted

DATE: March, 30, 2017

DRAWN BY: KYC, SRS, WAL

CHECKED BY: KYC

SHEET TITLE: FLOOR PLANS : BUILDING 1 & 2

DRAWING: A2.1

AGING-IN-PLACE MEASURES (ALL UNITS)

ALL ROOMS	LARGE TOGGLE-TYPE ELECTRICAL SWITCHES
	LEVER TYPE DOOR HANDLES
	MINIMIZE THRESHOLD HEIGHTS (LESS THAN 1/2") WHERE POSSIBLE
	MINIMIZE CONTRAST IN COLOURS OF FLOOR FINISHES WHERE POSSIBLE
STAIRS & LANDINGS	WALL BLOCKING FOR FUTURE ADDITIONAL HANDRAIL INSTALLATION
	INTERMEDIATE STAIR LANDINGS WHENEVER POSSIBLE
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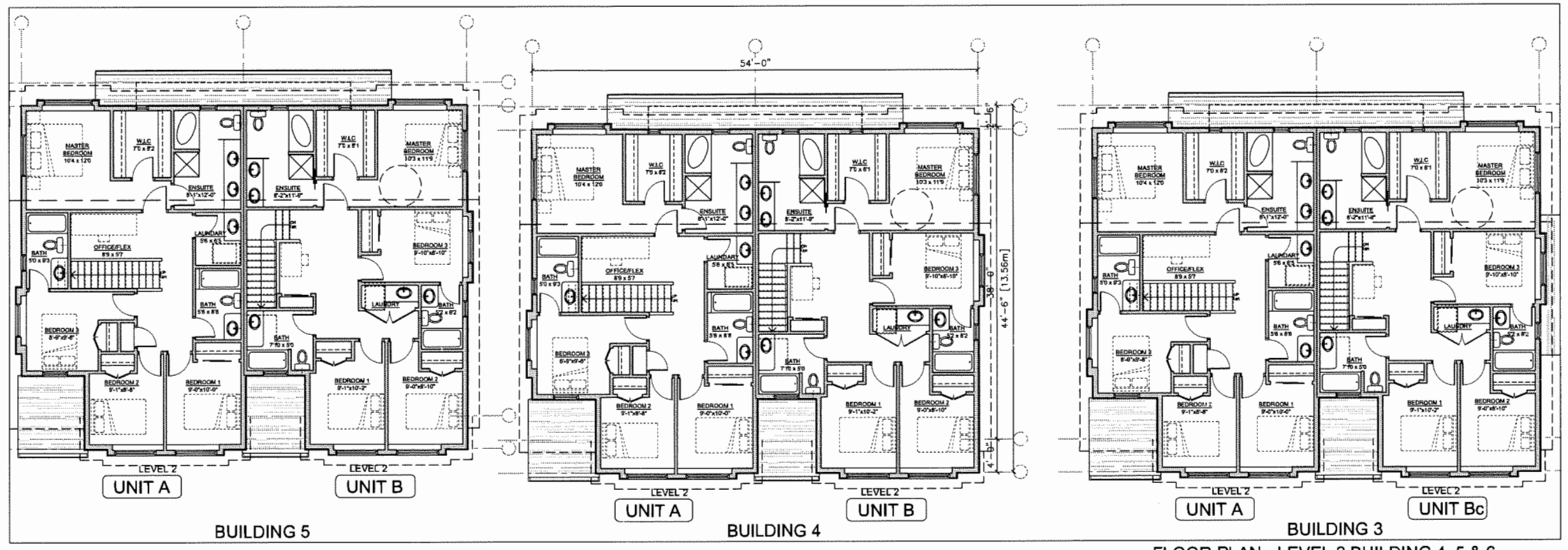
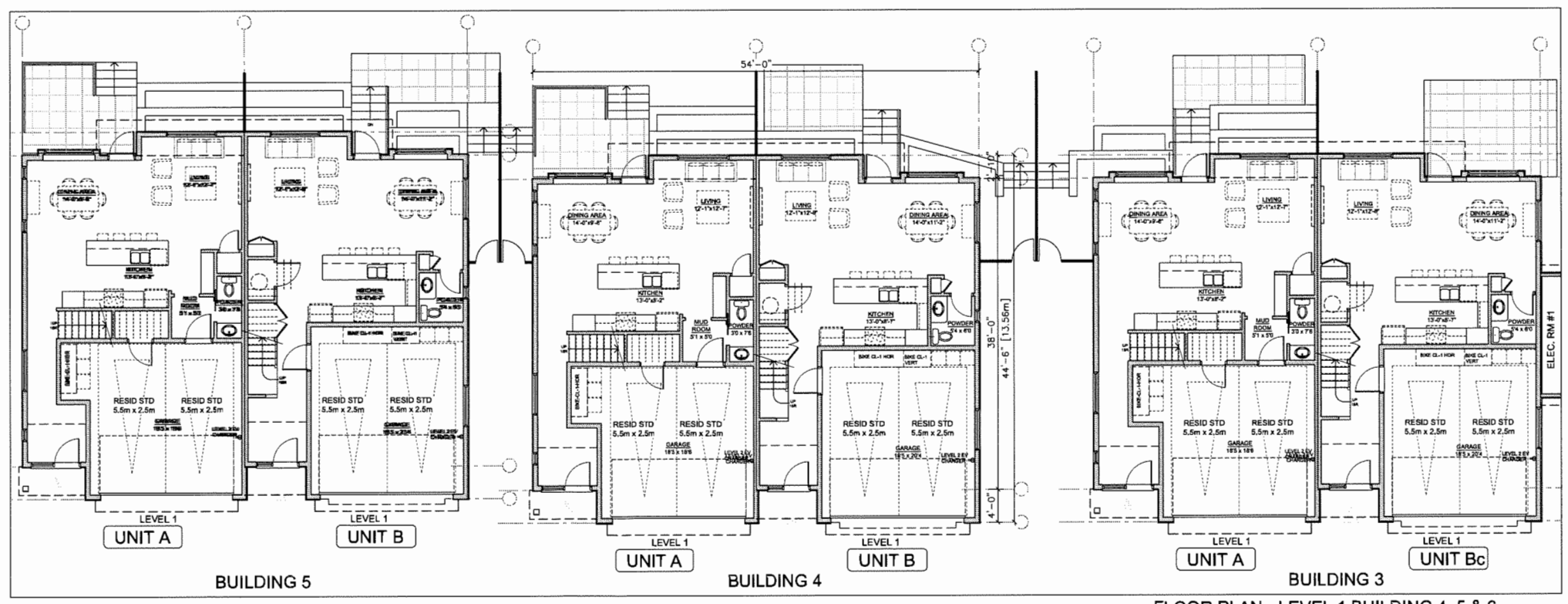
	2'-8" SLIDING DOORS WHERE POSSIBLE
HALLWAYS	LEVER HANDLE TAPS AND FAUCETS
	MIN. 900 MM WIDTH



FLOOR PLAN - LEVEL 2 BUILDING 4, 5 & 6

SCALE: 1/8" = 1'-0"



*NOTE: LEVEL 2 EV ENERGIZED OUTLET TO BE PROVIDED IN EACH RESIDENTIAL PARKING SPACES PER ZONING BYLAW

FLOOR PLAN - LEVEL 1 BUILDING 4, 5 & 6

SCALE: 1/8" = 1'-0"

DP 18-829234

SEP 24 2019

REFERENCE PLAN

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7 LOT ASSEMBLY

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STEVESTON HWY
RICHMOND, BC

PROJECT NO. 1716STV2

SCALE: As Noted

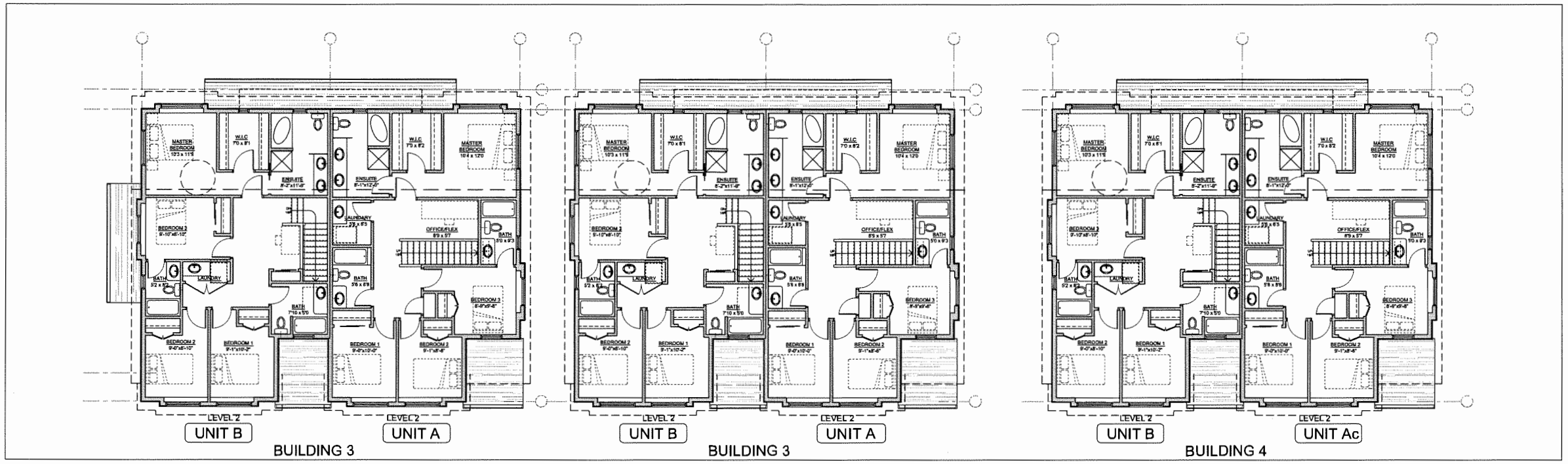
DATE: March. 30, 2017

DRAWN BY: KYC, SRS, WAL

CHECKED BY: KYC

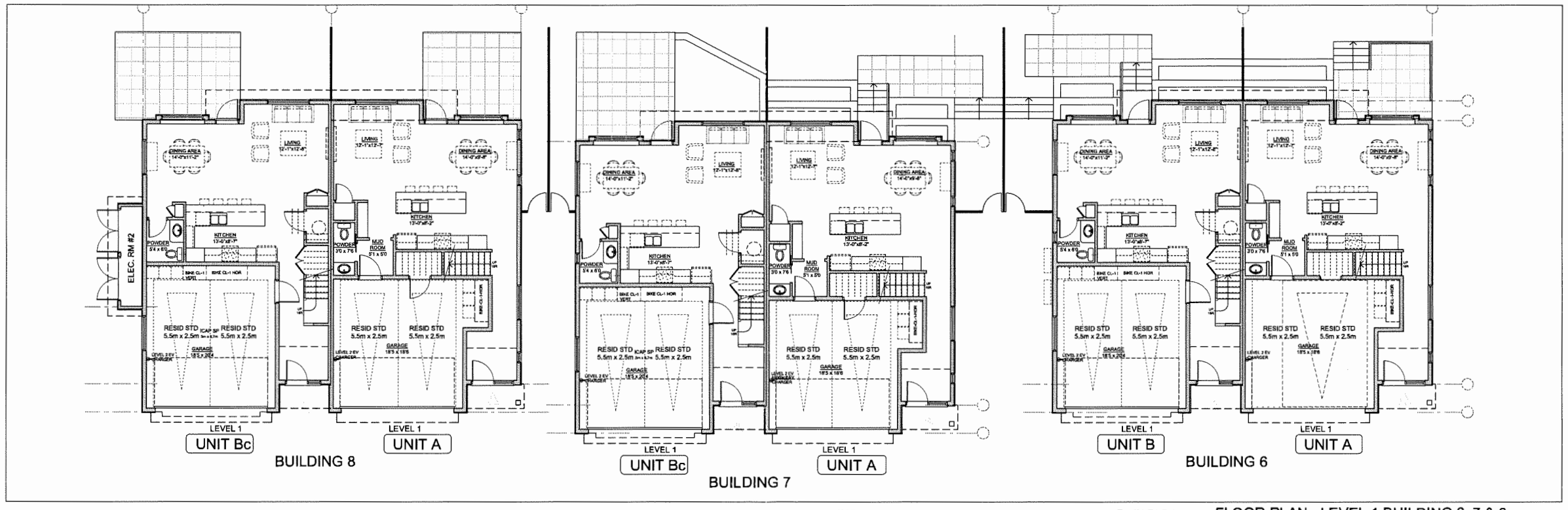
SHEET TITLE: FLOOR PLANS : BUILDINGS 4 & 5

DRAWING: A2.3



FLOOR PLAN - LEVEL 2 BUILDING 6, 7 & 8

SCALE: 1/8" = 1'-0"



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FLOOR PLAN - LEVEL 1 BUILDING 6, 7 & 8

SCALE: 1/8" = 1'-0"

SEP 24 2019

DP 18-829234

REFERENCE PLAN

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Proposed 28-Unit Townhouse Development

7 LOT ASSEMBLY

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751 STEVESTON HWY RICHMOND, BC

PROJECT NO. 1716STV2

SCALE As Noted

DATE March, 30, 2017

DRAWN BY KYC, SRS, WAL

CHECKED BY KYC

SHEET TITLE

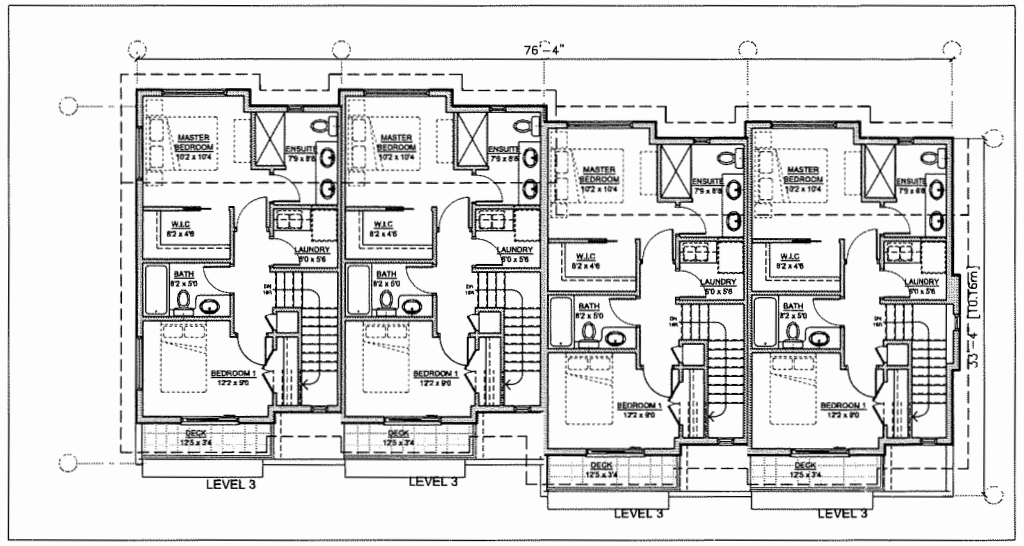
FLOOR PLANS : BUILDINGS 6,7 & 8

DRAWING

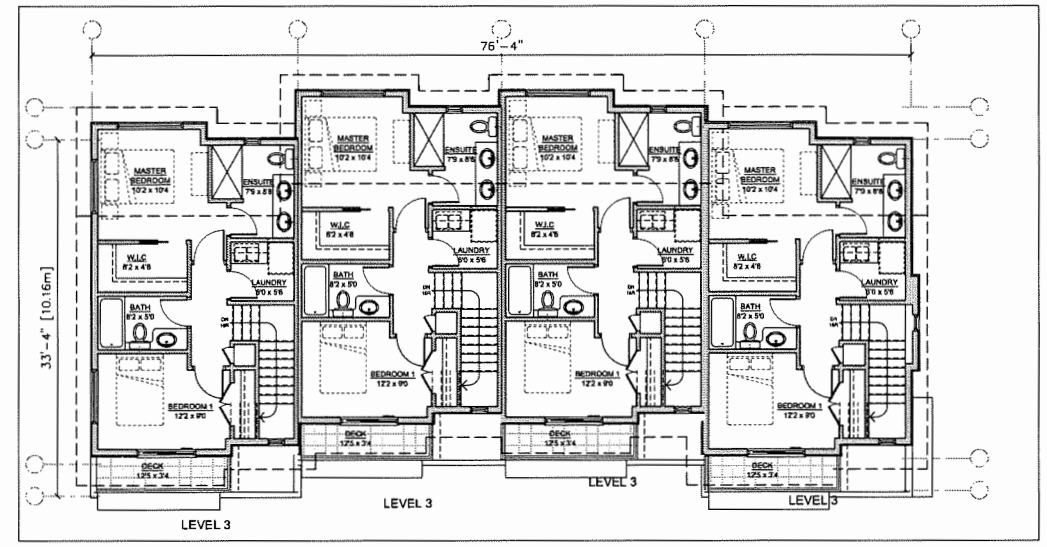
A2.5

AGING-IN-PLACE MEASURES (ALL UNITS)

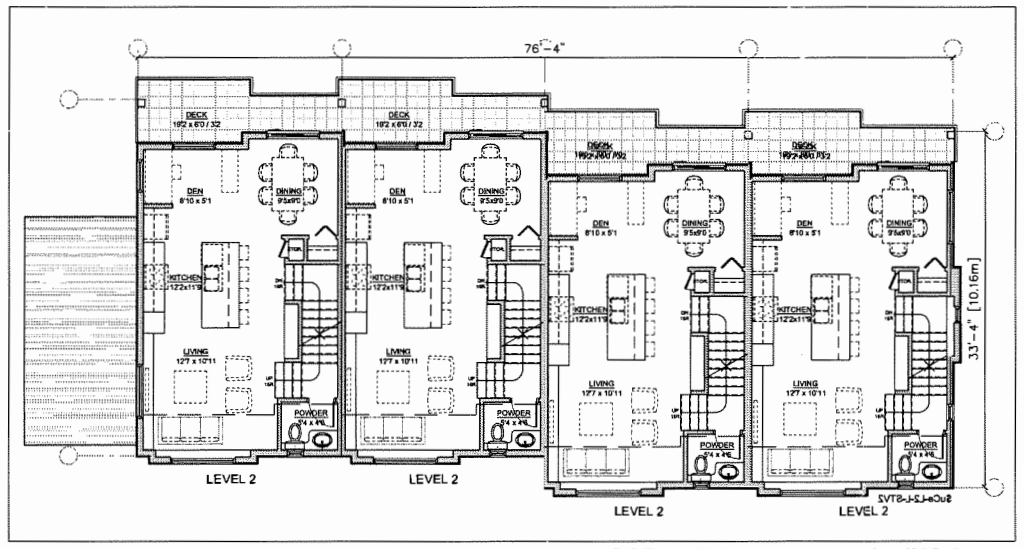
ALL ROOMS	LARGE TOGGLE-TYPE ELECTRICAL SWITCHES
	LEVER TYPE DOOR HANDLES
	MINIMIZE THRESHOLD HEIGHTS (LESS THAN 1/2") WHERE POSSIBLE
	MINIMIZE CONTRAST IN COLOURS OF FLOOR FINISHES WHERE POSSIBLE
STAIRS & LANDINGS	WALL BLOCKING FOR FUTURE ADDITIONAL HANDRAIL INSTALLATION
	INTERMEDIATE STAIR LANDINGS WHENEVER POSSIBLE
	LESS STEEP RISE/RUN DIMENSIONS WHERE POSSIBLE
BATHROOMS	WALL BLOCKING FOR FUTURE GRAB BAR INSTALLATION (AT BATHTUB, TOILET)
	INTERMEDIATE STAIR LANDINGS WHENEVER POSSIBLE
	LESS STEEP RISE/RUN DIMENSIONS WHERE POSSIBLE
KITCHEN	WALL BLOCKING FOR FUTURE GRAB BAR INSTALLATION (AT BATHTUB, TOILET)
	LEVER HANDLE TAPS AND FAUCETS
	2'-8" SLIDING DOORS WHERE POSSIBLE
HALLWAYS	LEVER HANDLE TAPS AND FAUCETS
	MIN. 900 MM WIDTH



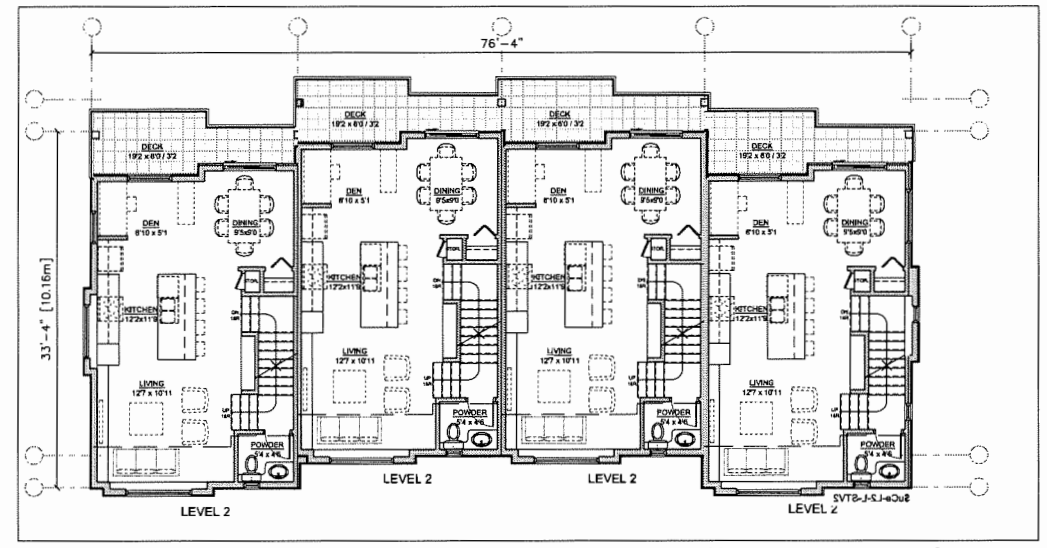
FLOOR PLAN - LEVEL 3 BUILDING 9
SCALE: 1/8" = 1'-0"



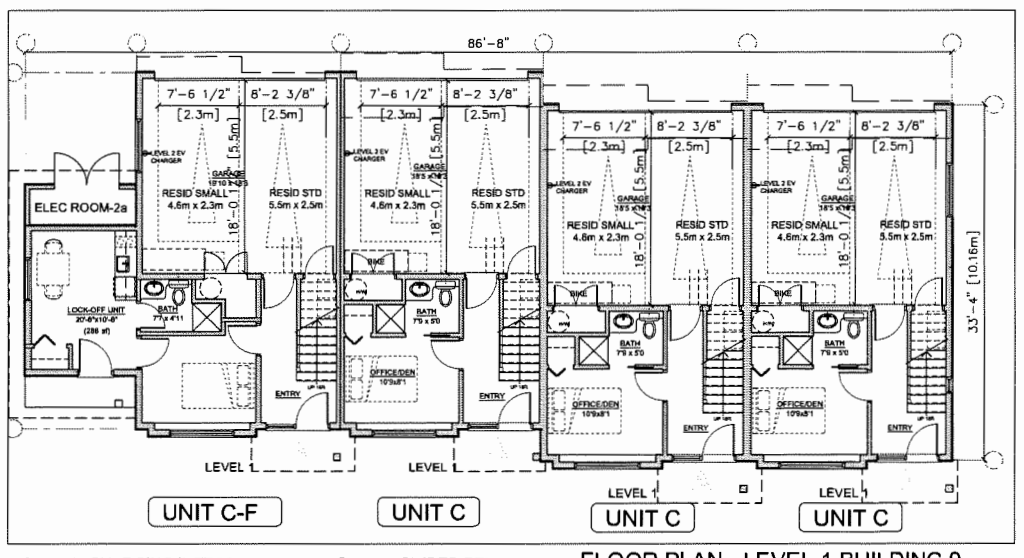
FLOOR PLAN - LEVEL 3 BUILDING 10
SCALE: 1/8" = 1'-0"



FLOOR PLAN - LEVEL 2 BUILDING 9
SCALE: 1/8" = 1'-0"

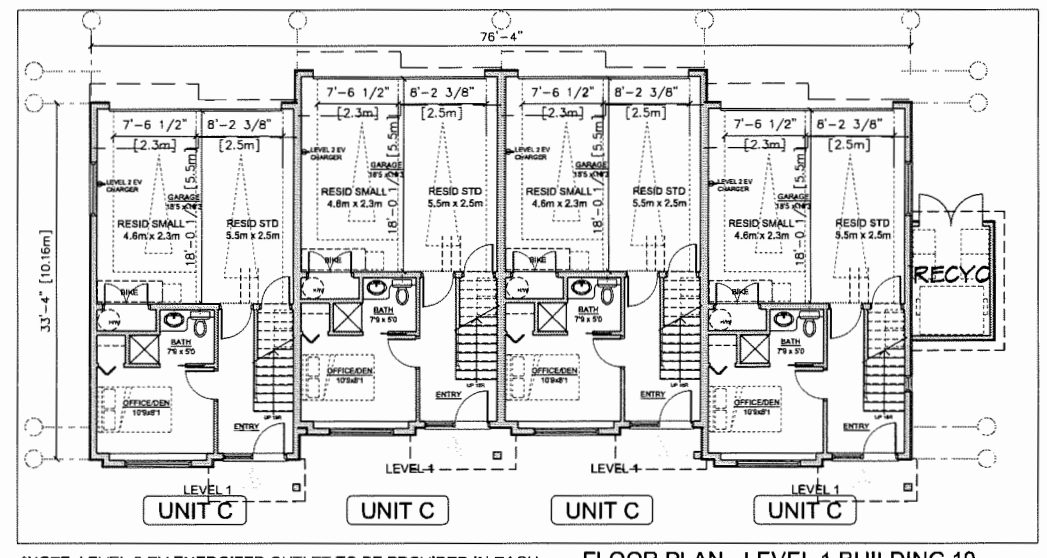


FLOOR PLAN - LEVEL 2 BUILDING 10
SCALE: 1/8" = 1'-0"



NOTE: EV CHARGING INFRASTRUCTURE TO BE PROVIDED PER ZONING BYLAW & OCP

FLOOR PLAN - LEVEL 1 BUILDING 9
SCALE: 1/8" = 1'-0"



*NOTE: LEVEL 2 EV ENERGIZED OUTLET TO BE PROVIDED IN EACH RESIDENTIAL PARKING SPACES PER ZONING BYLAW

FLOOR PLAN - LEVEL 1 BUILDING 10
SCALE: 1/8" = 1'-0"

SEP 24 2019 DP 18-829234

REFERENCE PLAN

REVISIONS

SEP 06, 2019	DP Resubmission
JUL 16, 2019	DP Resubmission
APR 12, 2019	ADP Submission
APR 05, 2019	DP Resubmission
MAR 11, 2019	DP Resubmission
JULY 16, 2016	DP Submission
APRIL 04, 2016	RZ Application

CONSULTANTS

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SEAL

INTERFACE:

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Canada V6X 3Z5

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www.interfacearchitecture.com

PROJECT

Proposed 28-Unit Townhouse Development

7 LOT ASSEMBLY

5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751
STEVESTON HWY
RICHMOND, BC

PROJECT NO.
1716STV2

SCALE
As Noted

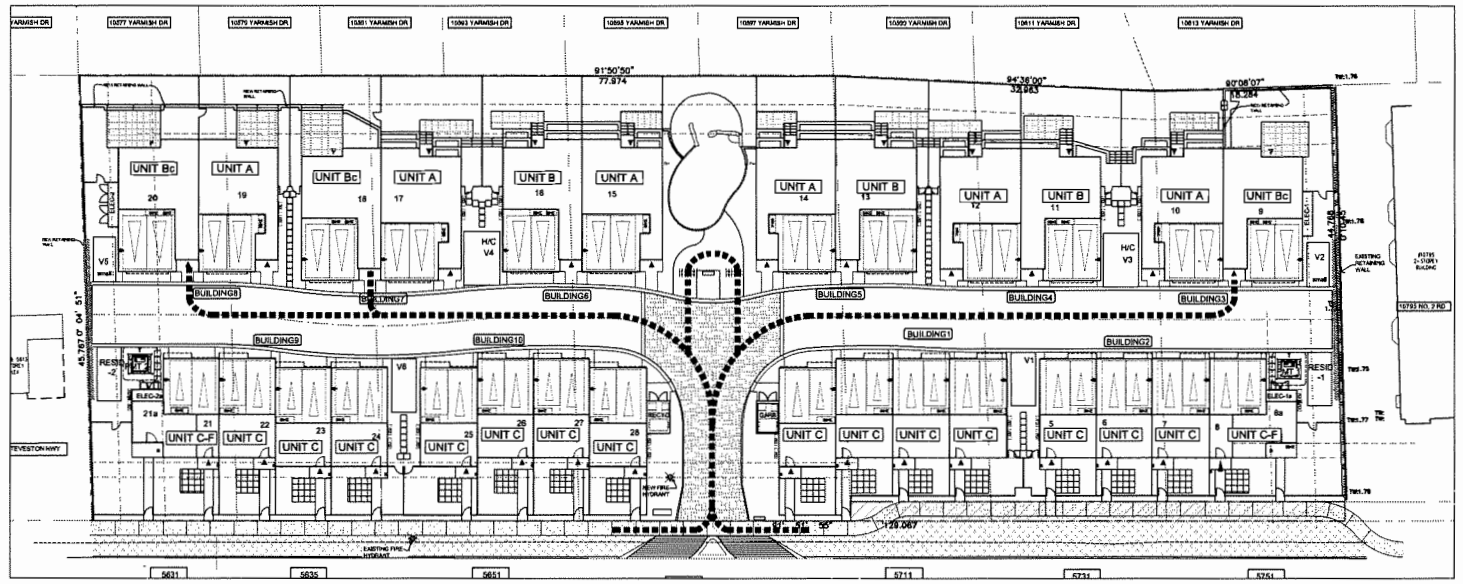
DATE
March, 30, 2017

DRAWN BY
KYC, SRS, WAL

CHECKED BY
KYC

SHEET TITLE
FLOOR PLANS : BUILDING 9 & 10

DRAWING
A2.7



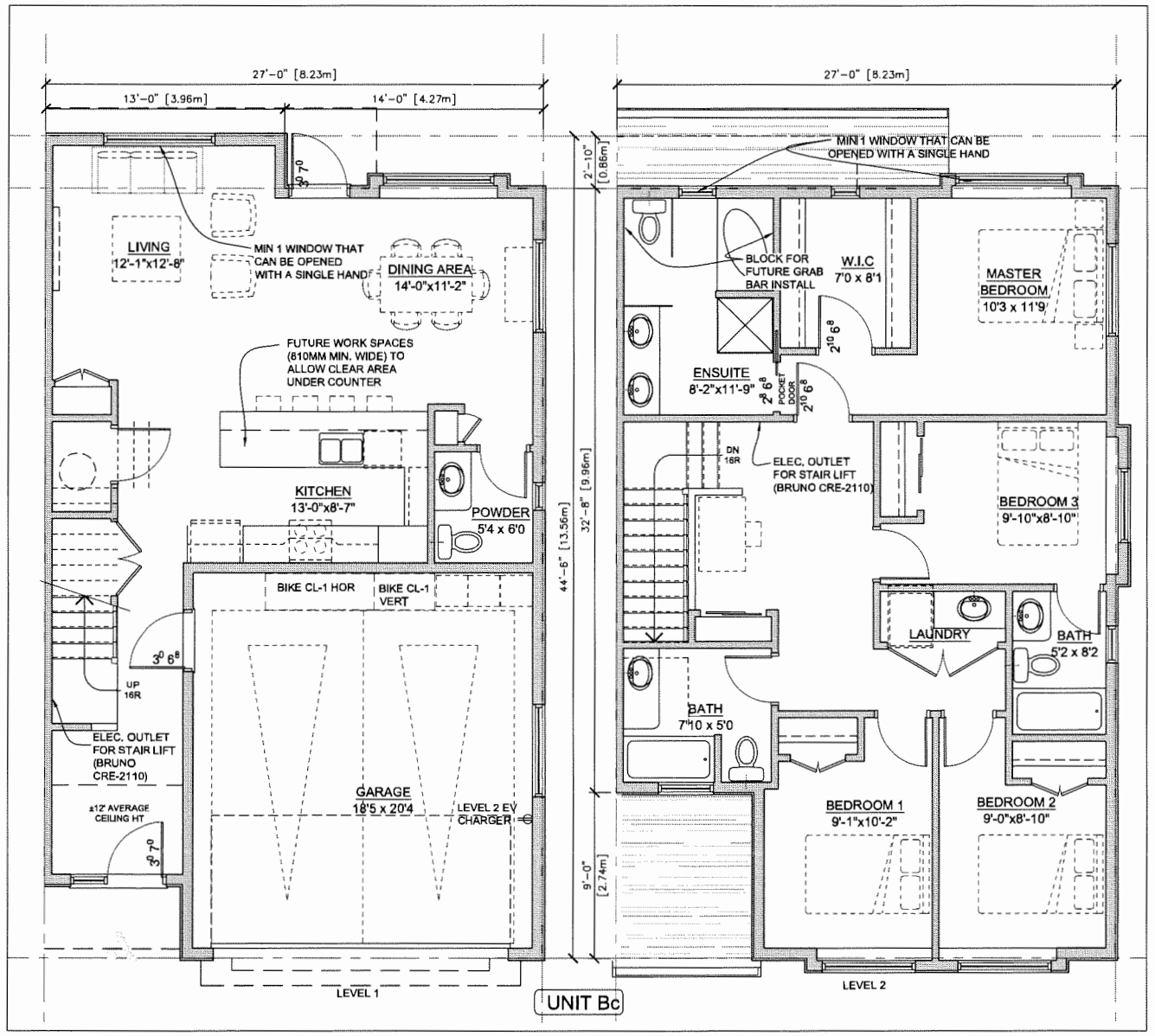
SITE PLAN: ACCESSIBLE PATHS

SCALE: NTS

CONVERTIBLE UNIT FEATURES CHECKLIST

DOORS & DOORWAYS	ENTRY DOORS MIN. 863 MM BUT IDEALLY 914MM AND HAVE CLEAR ACCESS
	ENTRY DOOR CLEAR EXTERIOR FLOOR SPACE MIN 1220 MM DEPTH BY DOOR WIDTH PLUS 600 MM LATCH SIDE (NOT NEEDED IF ROUGH IN WIRING PROVIDED FOR FUTURE AUTOMATIC DOOR OPENER)
	INTERIOR DOORS TO MAIN LIVING AREAS, 1 BATHROOM AND 1 BEDROOM, MIN. 800 MM CLEAR OPENING WITH FLUSH THRESHOLDS MAX 13 MM HEIGHT. DEMONSTRATE WHEELCHAIR ACCESS BETWEEN HALLWAY AND ROOMS AND WIDEN HALLWAY AND/OR DOORWAYS IF NECESSARY TO SECURE ACCESS
	PATIO/BALCONY MIN. 860 MM CLEAR OPENING. ACCESSED FROM REAR DOOR AT GROUND FLOOR.
	ALL INTERIOR THRESHOLOS WITHIN UNITS COMPLY WITH BCBC.
	LEVER-TYPE HANDLES FOR ALL DOORS
VERTICAL CIRCULATION	STAIR LIFT: STAIRCASE WIDTH, FRAMING SUPPORT, AND LANDINGS, AS NOTED ON FLOOR PLANS IN COMPLIANCE WITH MANUFACTURER SPEC. MANUFACTURER SPEC.
	SPEC NOTE: BRUNO RAIL STAIR LIFT (ELITE CURVE CRE-2110) MAX. LOAD: 400LBS, POWER: 24VDC COMPRISED (2) 7AH 12V BATTERIES *** PROVISION FOR - IN UNIT Bc (BUILDING 3,7 &8) ***
	VERTICAL LIFT (FUTURE): DEPRESSED SLAB AREA, AND LANDINGS, AS NOTED ON FLOOR PLANS IN COMPLIANCE WITH MANUFACTURER SPEC. FRAMING TO ACCOMMODATE SHAFT CONSTRUCTION WITHOUT IMPACT TO SURROUNDING STRUCTURE.
	AT THE TOP OF ALL STAIRWAYS, WALLS ARE REINFORCED WITH 2"X12" SOLID LUMBER AT 914 MM TO CENTRE.
HALLWAYS	MIN. 900 MM WIDTH
GARAGE	MIN. 1 ACCESSIBLE PARKING SPACE WITH MIN. 4M GARAGE WIDTH
	ACCESS FROM GARAGE TO LIVING AREA MIN. 800 MM CLEAR OPENING

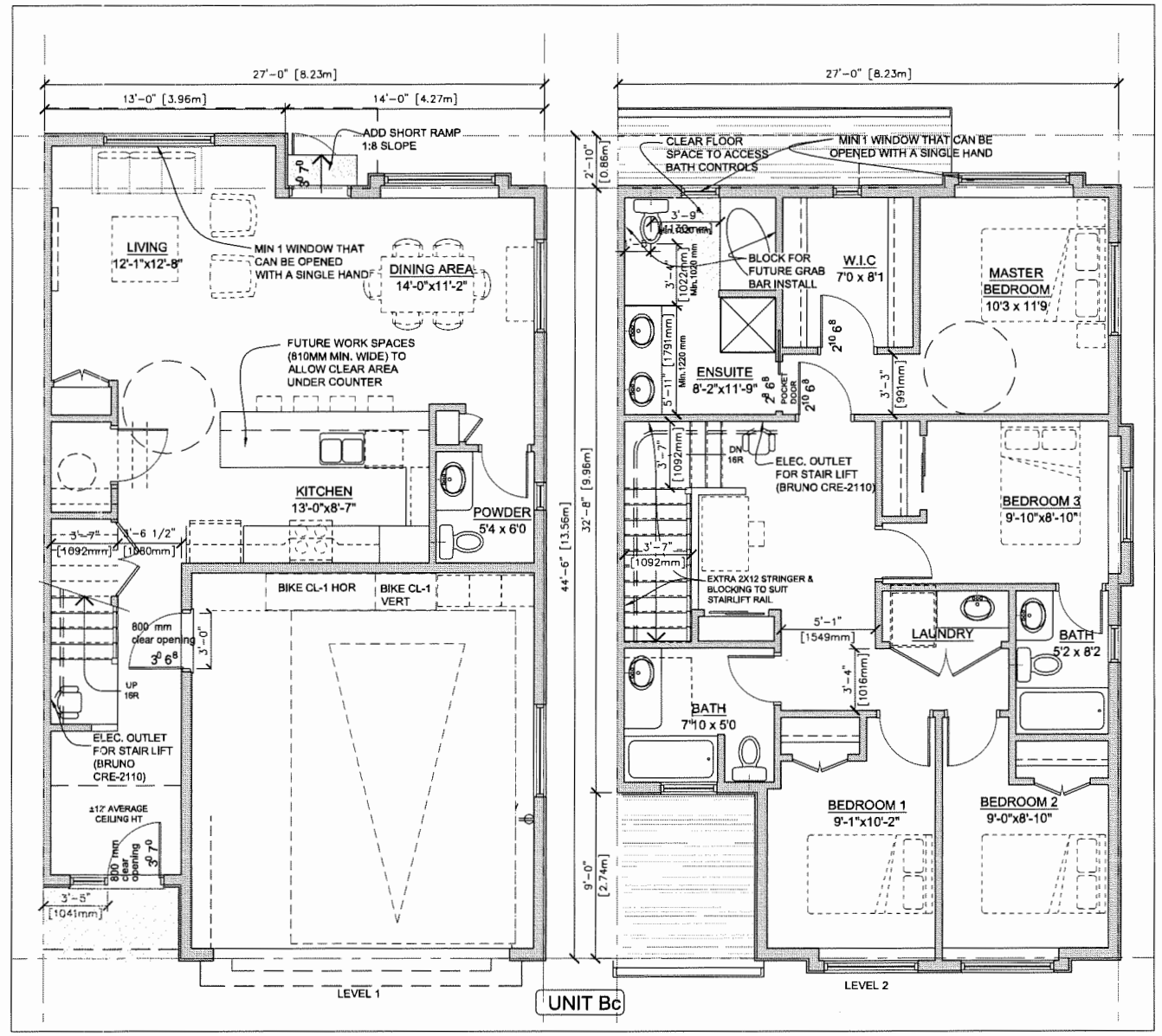
BATHROOMS (MIN 1/UNIT)	TOILET CLEAR FLOOR SPACE MIN. 1020 MM AT SIDE AND IN FRONT
	WALL BLOCKING FOR FUTURE GRAB BARS AT TOILET, TUB, AND SHOWER. REINFORCED WITH 2"X12" SOLID LUMBER IN ALL BATHTUB, SHOWER, AND TOILET LOCATIONS.
	LEVER-TYPE HANDLES FOR PLUMBING FIXTURES.
	PRESSURE AND TEMPERATURE CONTROL VALVES ARE INSTALLED ON ALL SHOWER FAUCETS.
	CABINETS UNDERNEATH SINK ARE EASILY REMOVED.
	DEMONSTRATE BATH AND SHOWER CONTROLS ARE ACCESSIBLE (LAYOUT OR FIXTURE PLACEMENT).
KITCHEN	CLEAR AREA NEEDED UNDER FUTURE WORKSPACE, PLUMBING AND GAS PIPES (IN-WALL AND IN FLOOR) LOCATED CLEAR OF UNDER COUNTER AREA OF FUTURE WORKSPACE (STOVE, SINK & MIN. 810 MM WIDE COUNTER). ALL PIPES ARE BROUGHT IN NO HIGHER THAN 304 MM TO THE CENTRE OF THE PIPE FROM FLOOR LEVEL
	CABINETS UNDERNEATH SINK ARE EASILY REMOVED.
	1500 MM TURNING DIAMETER OR TURNING PATH DIAGRAM
	LEVER-TYPE HANDLES FOR PLUMBING FIXTURES.
WINDOWS	MIN. 1 WINDOW THAT CAN BE OPENED WITH A SINGLE HAND (BATHROOM, KITCHEN, LIVING ROOM)
OUTLETS & SWITCHES	PLACEMENT LOCATIONS OF ELECTRICAL OUTLETS: BESIDE WINDOW, BOTTOM OF STAIRWAYS, BESIDE TOILET, ABOVE EXTERNAL DOORS (OUTSIDE AND INSIDE), ON FRONT FACE OF KITCHEN COUNTER, WITHIN PROXIMITY OF CONTROL CENTRE FOR SMART HOME OPTIONS.
	UPGRADE TO FOUR-PLEX OUTLETS IN MASTER BEDROOM, HOME OFFICE, GARAGE, AND RECREATION ROOM.



*NOTE: LEVEL 2 EV ENERGIZED OUTLET TO BE PROVIDED IN EACH RESIDENTIAL PARKING SPACES PER ZONING BYLAW

FLOOR PLAN: CONVERTIBLE UNIT Bc (BEFORE CONVERSION)

SCALE: 1/8" = 1'-0"



*NOTE: LEVEL 2 EV ENERGIZED OUTLET TO BE PROVIDED IN EACH RESIDENTIAL PARKING SPACES PER ZONING BYLAW

FLOOR PLAN: CONVERTIBLE UNIT Bc (AFTER CONVERSION)

SCALE: 1/8" = 1'-0"

SEP 2 4 2019

DP 18-829234

REFERENCE PLAN

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PROJECT
Proposed 28-Unit Townhouse Development
7 LOT ASSEMBLY
5631 / 5635 / 5651 / 5691 / 5711 / 5731 / 5751
STEVESTON HWY
RICHMOND, BC

PROJECT NO. 1716STV2

SCALE: As Noted

DATE: March. 30, 2017

DRAWN BY: KYC, SRS, WAL

CHECKED BY: KYC

SHEET TITLE: FLOOR PLANS : CONVERTIBLE UNIT (Bc)

DRAWING: A2.9

City of Richmond

Report to Development Permit Panel

To:	Development Permit Panel	**Date:**	September 25, 2019
From:	Wayne Craig Director of Development	**File:**	DP 19-850320
Re:	**Application by Greater Vancouver Sewerage and Drainage District for a Development Permit at 1000 Ferguson Road**		

Staff Recommendation

That a Development Permit be issued at 1000 Ferguson Road in order to allow construction of a concrete dewatering pad and associated uses on a site designated as an Environmentally Sensitive Area.

Wayne Craig
Director of Development

WC:je

Att. 6

Staff Report

Origin

Greater Vancouver Sewerage and Drainage District (GVS&DD) has applied to the City of Richmond for an Environmentally Sensitive Area (ESA) Development Permit (DP) to allow construction of a temporary concrete pad, gravel parking area and associated equipment, along with access at 1000 Ferguson Road (Attachments 1 and 2). As the entire site is currently designated as an ESA, a DP is required prior to Building Permit approval.

The subject site currently contains the Iona Island Wastewater Treatment Plant (IIWWTP) that provides primary sewage and stormwater treatment for the City of Vancouver and the University Endowment Lands, and portions of the Cites of Richmond and Burnaby.

The Province has mandated that the IIWWTP be upgraded to secondary treatment by 2030. A number of Development Permit applications, including the currently application, are setting the stage for that transition. The purpose of this application is to facilitate decommissioning of the site's existing sludge lagoons and stockpiles which currently serve as the dewatering facilities in order to create space for the plant expansion. All digested biosolids accumulated within the lagoons require dredging, dewatering and subsequent off-site transport. The applicant proposes to build a concrete pad and gravel area to house temporary dewatering facilities (screening, centrifugal and associated equipment), for the decommissioning of the lagoons. The total proposed project footprint is 2,745 m^2 (29,547 ft^2), plus 2,005 m^2 (21,582 ft^2) for utilities trenching that require only temporary disturbance and will be restored immediately to current conditions (a mix of lawn and gravel).

In compensation for disturbing 2,745 m^2 (29,547 ft^2) of ESA to develop the concrete pad and gravel area, GVS&DD has committed to undertaking invasive species removal and enhancement of 3,000 m^2 (32,392 ft^2) of low-value natural area within the adjacent regional park (at a ratio of 1.1:1 to the permanent impacts from the project footprint).

Background

Two previous ESA DPs have been recently issued for this site:

- An ESA DP was issued in 2015 to allow the GVS&DD to expand the IIWWTP with a 550 m^2 (5,920 ft^2) screening and de-grit building, a 20 m (66 ft.) diameter thickener, a 25 m^2 (269 ft^2) thickener pump station and four 36 m^2 (388 ft^2) digester mixing pump buildings within the ESA at 1000 Ferguson Road (DP14-676361). The project committed to a minimum of 3,300 m^2 (35,521 ft^2) of landscape restoration (a ratio of 0.5:1 to the project footprint). The as-built information submitted by GVS&DD shows that the applicant exceeded the landscape commitment and that a total of 3,791 m^2 (40,805 ft^2) of ESA has been restored as a result of the project.

- An ESA DP was issued in 2018 to permit construction of facilities to divert sewage from the lagoons, including a temporary dewatering building and storage tanks, a truck loading building for removing the biosolids to off-site locations, and an odour control facility (DP 18-820582). The project committed to 13,666 m^2 (147,100 ft^2) of landscape restoration within the adjacent Metro Vancouver park (a ratio of 1:1 to the project footprint), with an additional 1,275 m^2 (13,724 ft^2) of native landscaping within the site.

Plans for the full redevelopment of the facility to secondary treatment is underway, and staff is working with GVS&DD to determine the necessary permits and approvals.

Development Information

Please refer to the attached Development Application Data Sheet (Attachment 3) for a comparison of the proposed development data with the relevant Bylaw requirements.

Surrounding Development

The area surrounding the site consists of:

- To the north: North Arm of the Fraser River;
- To the east: Iona Beach Regional Park (Canfor Point), managed by Metro Vancouver;
- To the south: Iona Island causeway; and,
- To the west: Iona Beach, Iona Jetty and the North Arm Jetty. The North Arm Jetty is under Port of Vancouver jurisdiction.

With the exception of the Iona and North Arm Jetties, Iona Island is entirely designated as "Conservation" in Richmond's Official Community Plan, and zoned "School & Institutional Use (SI)" under Zoning Bylaw 8500.

Staff Comments

The proposed scheme attached to this report has satisfactorily addressed the significant Environmentally Sensitive Area (ESA) issues and other staff comments identified as part of the review of the subject Development Permit application. In addition, it complies with the intent of the applicable sections of the Official Community Plan and is generally in compliance with the School and Institutional (SI) zone. No variances are being sought through this ESA Development Permit application.

Advisory Design Panel

As the scope of this Development Permit does not involve any building design components, the application has not been reviewed by the Advisory Design Panel.

Analysis

Site Planning

The IIWWTP currently provides primary sewage treatment, which involves the removal of primary sludge and anaerobic digestion prior to storage in sludge lagoons. The treated effluent is discharged to the Strait of Georgia, while the treated biosolids are stockpiled onsite following lagoon stabilization. GVS&DD is working towards upgrading the facility to provide secondary waste treatment by 2030.

GVS&DD advises that this application is to allow a concrete pad, gravel area and utility trenches to house dewatering equipment, including screening and centrifugal equipment, as well as associated equipment (a portable truck scale, electrical transformer, electrical control trailers, polymer mixing tank, polymer feed tank and a site trailer). The concrete pad and gravel area would be located adjacent and to the south of the existing IIWWTP. During active operations, biosolids would be

delivered from the lagoons to the dewatering pad via a pump and pipe system (DP Plans 1, 2a, and 2.b).

The proposed footprint for the concrete pad is 2,145 m^2 (23,089 ft^2), with an additional 600 m^2 (6,458 ft^2) for the gravel area. Trenches for water and electrical utilities would impact an additional 2,005 m^2 (21,582 ft^2) of ESA. The trench areas are currently a mix of asphalt and lawn, and would be restored to current conditions immediately after installation.

An ESA DP for temporary dewatering facilities to divert treated effluent away from the lagoons was issued in 2018; the temporary dewatering facilities, situated east of the existing treatment facility, will remain operational until the longer term IIWWTP upgrades are complete. This current proposal is to drain sludge from the lagoons so that the land is available for future expansion of the treatment facility.

The dewatering pad is expected to be operational for four to six months a year, from late 2019 until 2023. After dewatering is complete, however, the concrete pad and gravel area may stay in place until 2030 for use as a laydown pad or parking area to support the IIWWTP expansion to secondary treatment. The ultimate use of the area will be determined through future master planning for the expansion project.

To accommodate the proposed concrete pad and gravel area, the entire project footprint would be cleared of existing vegetation. Approximately 1,650 m^3 of soil would be removed and replaced with compacted granular material to form a base for the pad. GVS&DD is currently working with the City Parks Department to determine if the excavated soil is suitable for use in City parks.

While the entire project footprint is within the ESA, the area was selected by GVS&DD because of its proximity to the existing IIWWTP and because it has been previously disturbed. A detailed Environmental Assessment completed by AECOM notes that the area to be disturbed is entirely lawn and asphalt, with one tree in poor condition.

ESA Environmental Inventory

The area proposed for the temporary dewatering facility is designated as "Freshwater Wetland" ESA, and is contiguous with "Shoreline" ESA, "Intertidal" ESA and non-ESA natural areas within the Iona Island Regional Park. The total contiguous ESA measures approximately182.4 ha (450.5 acres) and is designated as a hub in the Ecological Network Management Plan.

The biophysical inventory submitted by Sartori Environmental (completed in July 2019), found no wet areas, rare plants or species-at-risk within the project footprint or its immediate surroundings. Sartori describes the project area as predominantly a maintained grass area associated with the treatment plant, with periodic occurrences of native trees and low-lying shrubs. There is encroachment by a number of non-native and invasive plants species.

Several higher value habitats are identified near the site:

- Biosolid settling lagoons (to be drained) located west of the project area. The applicant is aware that if future expansion of the treatment plant affects this area, a Development Permit may be required;
- The saltmarsh located south of the project site; and

- The Fraser River estuary.

Sartori notes that wildlife use of the project area is likely limited to transitional use between the adjacent higher value habitats. However, it was noted that the project area and vicinity provide suitable habitat for raptor perching, nesting and hunting. During the inventory, an active bald eagle nest was identified within a 10 m (33 ft) tall black cottonwood tree immediately to the southeast of the project footprint. Species observed during the inventory included: black-capped chickadee, ring billed gull, common yellowthroat, American mink, mallard, barn swallow, song sparrow and spotted sandpiper. No species at risk were observed on the site.

Tree Inventory

The applicant has submitted a Certified Arborist's report which identifies on-site and off-site tree species, assesses tree structure and condition, and provides recommendations on tree retention and removal relative to the proposed development. The report assesses 28 bylaw-sized trees on the subject property (Attachment 4).

Tree Retention

26 trees are proposed to be retained and protected on site. The City's Tree Preservation Coordinator has reviewed the arborist report and has the following comments:

- 26 trees (tag# 004, 005, 006, 011, 014, 019, 022, 025, 047, 049, 050, 054, 056, 058, 067, 073, 130, 138, 199, 477, A, B. C, D, E, 14A) located on the development site are to be retained and protected as per Arborist report recommendation.
- Retained trees should be protected as per City of Richmond Tree Protection Information Bulletin Tree-03.

Tree Removal

Two on-site trees are proposed to be removed. The City's Tree Preservation Coordinator has reviewed the arborist report and has the following comments:

- 1 tree, a birch (tag# 21) is dead. This should be removed and replaced.
- 1 tree, a birch in poor condition (tag# 20), is in conflict with the proposed development. This should be removed and replaced.
- Replacement trees should be provided at a 2:1 ratio as per the OCP.

- If required replacement trees cannot be accommodated on-site, a cash-in-lieu contribution in the amount of $500/tree to the City's Tree Compensation Fund for off-site planting is required.

Tree Replacement

- The applicant wishes to remove two on-site trees (tag #20 and 21). The 2:1 replacement ratio would require a total of four replacement trees. The applicant has proposed to plant four trees in the proposed development. The required replacement trees are to be of the following minimum sizes, based on the size of the trees being removed as per Tree Protection Bylaw No. 8057.

Table 1: Tree Replacement Calculation

No. of Replacement Trees	Minimum Caliper of Deciduous Replacement Tree	Minimum Height of Coniferous Replacement Tree
2	6 cm	3.5 m
2	9 cm	5 m

Mitigation

The project was intentionally sited in an area with limited sensitive habitat value that is currently lawn situated between the parking lot for the treatment facility and Ferguson Road.

The applicant's Qualified Environmental Professional (QEP) has identified measures to mitigate impacts on the identified bald eagle nest adjacent to the project footprint and any bald eagles that may be using the nest. A 23 m no-construction buffer is recommended, along with a 123 m nest noise protection buffer. The buffers have been identified based on the Provincial Guidelines for Raptor Conservation (2013) for bald eagles' nests in urban contexts.

A Bald Eagle Nest Management Plan will be implemented prior to the commencement of construction to assess for nest occupancy, and if it is determined to be occupied, appropriate mitigation measures to avoid disturbance (such as no construction within the noise protection buffer during nesting season) will be determined by the QEP. Nest occupancy will be monitored weekly by a QEP during the pre- and post-nesting season, and three times a week during nesting season. Daily monitoring will occur if the nest is determined to be occupied. If bald eagles exhibit any abnormal activity as a result of site activity, the QEP will have the authority to temporarily halt or alter the site works.

Silt fencing and catch basin traps will be installed around the perimeter of the dewatering pad, along with wildlife exclusion fencing. A complete erosion and sediment control plan will be prepared prior to construction.

Proposed Compensation and Landscape Restoration

To compensate for impacts to 2,745 m^2 (29,547 ft^2) of ESA within the project footprint, GVS&DD proposes to restore to natural condition an area within Iona Island Park on Canfor Point (a compensation ratio of 1.1:1). Over the past seven years, Metro Vancouver has been working to maintain and restore a red-listed coastal sand dune ecological community within the park. Proposed compensation would include invasive species removal and enhancement of 3,000 m^2 (32,292 ft^2) within the park, resulting in an overall net gain in ecological function and improved connectivity on Iona Island.

6 m wide utility trenches are proposed to be dug for the purposes of servicing the asphalt pad with water and electricity. Temporarily impacting approximately 2,005 m^2 (21,582 ft^2) of ESA, the

trenches are located within areas that are currently either lawn or asphalt; no trees or other significant vegetation will be impacted. After installing the utilities, the trenches will be immediately restored to current conditions and, as a result, no ESA compensation is proposed. The ultimate use of the water and electrical lines will be determined through future master planning for the expansion project.

The proposed compensation area on Canfor Point has a long history of human disturbance and is dominated by grasses, pioneering shrubs and trees. Approximately 80-90% of the plant species are considered invasive, and include Scotch broom and Himalayan blackberry.

Restoration works would include removal invasive plant species, protection of existing native plant species coastal red elderberry and Oregon grape, and enhancement of the compensation area with native plant species. Replanting would focus on riparian plant species suitable to the area's proximity to the Fraser River and which also are likely to be successful in outcompeting invasive species.

Specific enhancement plant species and densities proposed include:

- shore pine (25 trees),
- black cottonwood (50 trees),
- Pacific crabapple (75 trees),
- chokecherry (50 trees),
- red elderberry (500 small trees/shrubs),
- dull Oregon grape (500 plants),
- oceanspray (500 plants),
- trailing blackberry (500 plants), and
- baldhip rose (500).

The proposed compensation plan includes 200 trees at a 100:1 replacement ratio to trees removed for the proposed project, to a total of 2,700 native plants. Plant density would be 0.9 plants/m^2. Through the compensation plan, the project will continue to improve the habitat conditions within Canfor Park, and re-establish connectivity to the Fraser River floodplain riparian habitat to support greater biodiversity. While the compensation area is not designated as ESA, the ecosystem services resulting from the proposed compensation plan supports the City's objectives for the Ecological Network.

Monitoring and Maintenance

To ensure that the proposed enhancements have the best chance of survival and that invasive species are controlled within Canfor Point, the Metro Vancouver Parks Department has recommended that monitoring and annual reporting by a Qualified Environmental Professional (QEP) occur for five years following completion of the restoration works. Field visits completed in years 1, 2, 3 and 5. Reports will be provided to the City.

The applicant has submitted a letter committing to implementing the works described above by 2020, and to complete monitoring and maintenance of the compensation area following completion (Attachment 5). This is a standard approach where Metro Vancouver is the applicant. Receipt of the commitment letter is included as a Development Permit Considerations (Attachment 6).

Engineering Comments

A Servicing Agreement will not be required for this development. Utility connections and frontage improvements will be addressed at the time of Building Permit.

Ministry of Environment Release

The Ministry of Environment (MOE) has communicated that, while a site investigation is not required for this Development Permit, the applicant is required to secure a release prior to issuing the Development Permit. An MOE Certificate of Compliance or alternative approval to proceed is a condition of the Development Permit. Future development applications at this site may be subject to further requirements from MOE.

Financial Impacts

The application results in an insignificant Operational Budget Impact (OBI) for off-site City infrastructure (such as road works, waterworks, storm sewers, sanitary sewers, street lights, street trees and traffic signals).

Conclusions

The applicant proposes to develop a total of 2,745 m^2 (29,547 ft^2) within an area designated as Environmentally Sensitive Area (ESA) to construct an asphalt pad and gravel area for dewatering equipment as part of upgrades to the IIWWTP. Compensation is proposed through off-site restoration of 3,000 m^2 (32,292 ft^2) within the adjacent Metro Vancouver regional park at Canfor Point. As the proposed, compensation plan would result in a net gain in ESA function; staff recommend that the Development Permit be endorsed, and issuance by Council be recommended.

J. Elmore

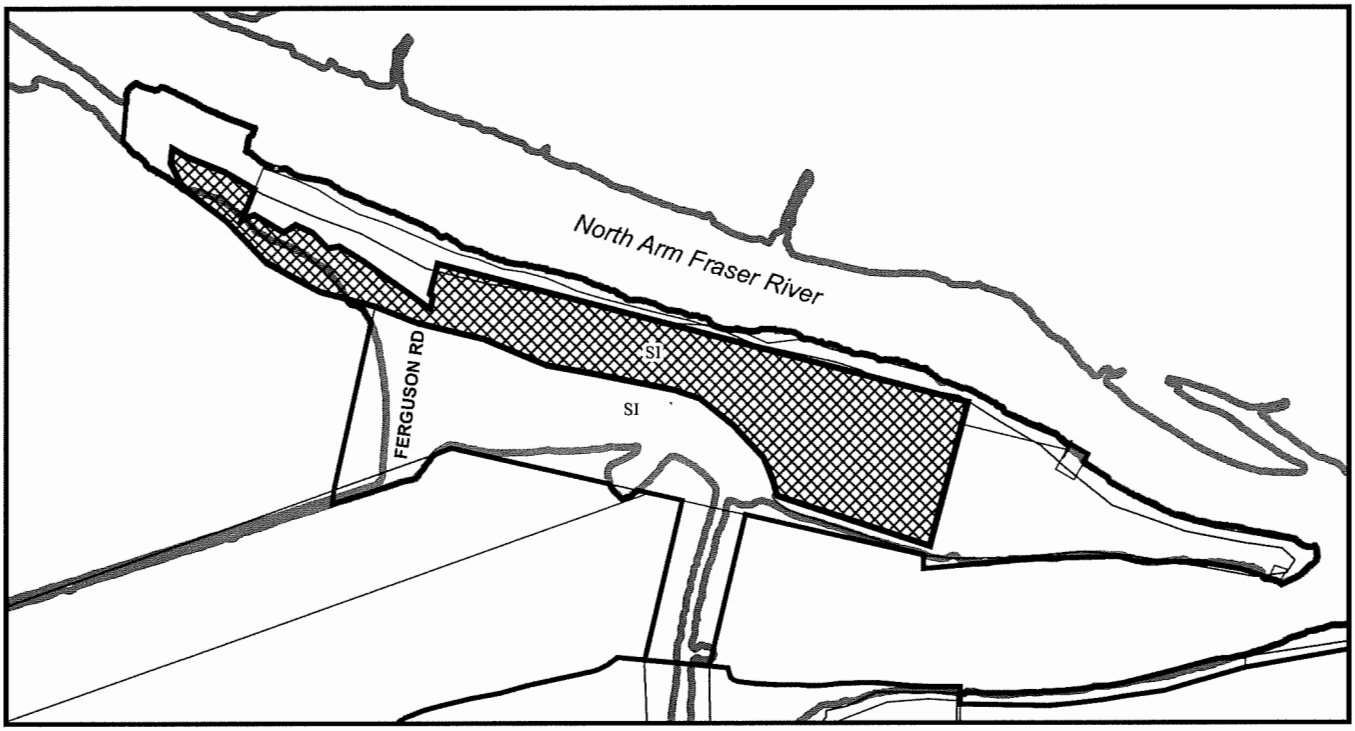
Jeanette Elmore
Planner 2

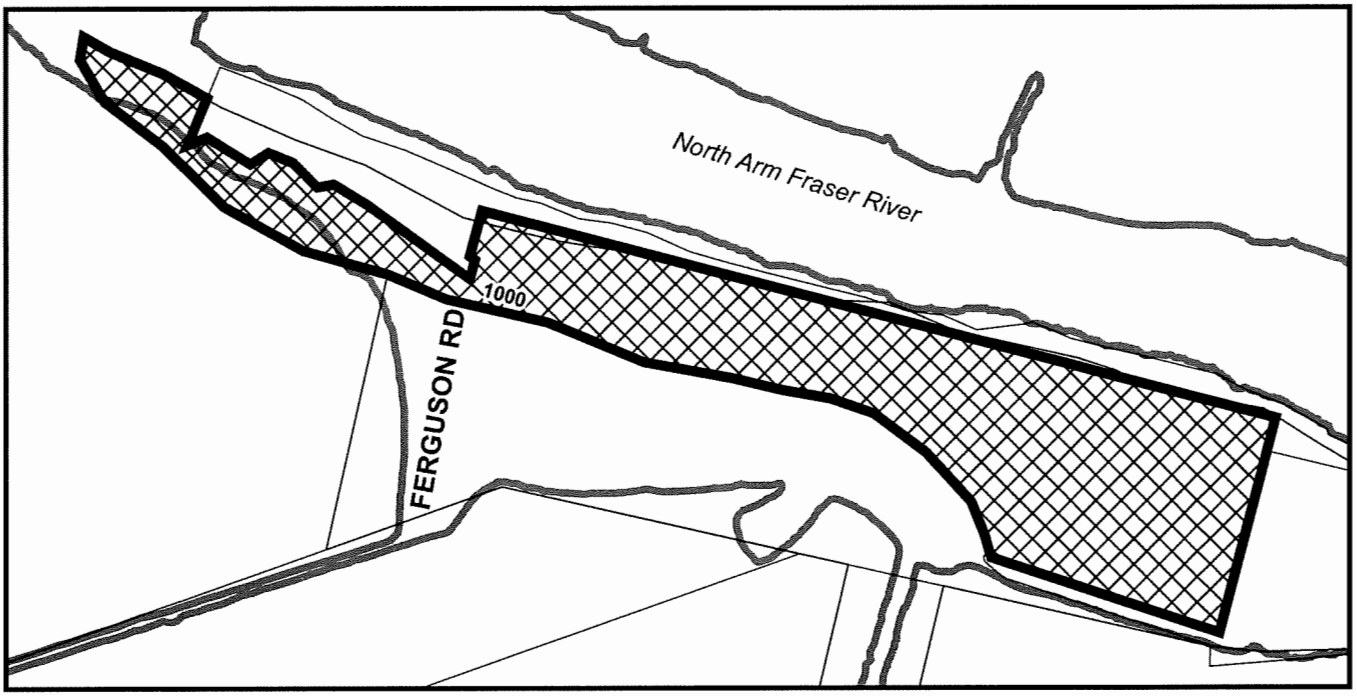
JE:cas

Attachments:
Attachment 1: Location Map
Attachment 2: Context Map
Attachment 3: Data Sheet
Attachment 4: Tree Management Plan
Attachment 5: Committement Letter from Metro Vancouver
Attachment 6 Development Permit Considerations

ATTACHMENT 1

City of
Richmond





	DP 19-850320	Original Date: 01/18/19 Revision Date: Note: Dimensions are in METRES

project site

DRAWING SYMBOLS

CHECK PRINT

THIS DRAWING HAS NOT BEEN APPROVED, AND MAY CONTAIN ERRORS AND OMISSIONS.

Professional Seal

Issue	Date	Dwn	Dr's	Chkd	Appd	Description
P1	SEPT. 2010	AI	MB	MC	MC	ISSUED FOR DEVELOPMENT PERMIT APPLICATION DP/19-8363000

Bar = 20mm On Original Drawing. If Not On This Sheet, Adjust Scales Accordingly

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Design: AI
Drawn: MB
Checked: MC
MC Approved
MC Manager

IONA ISLAND
WASTEWATER TREATMENT PLANT
DREDGING & DEWATERING PAD

PLAN #1A

SCALE: AS NOTED
DISTRICT FILE: –
DRAWING NUMBER: PLAN #1A

SUPERSEDES PRINTS OF THIS DRAWING NUMBER WITH LETTERS PREVIOUS TO → P1

ATTACHMENT 2

City of Richmond

Development Application Data Sheet

Development Applications Department

DP 19-850320 **Attachment 3**

Address: 1000 Ferguson Road

Applicant: Greater Vancouver Sewerage and Drainage District

Owner: Greater Vancouver Sewerage and Drainage District

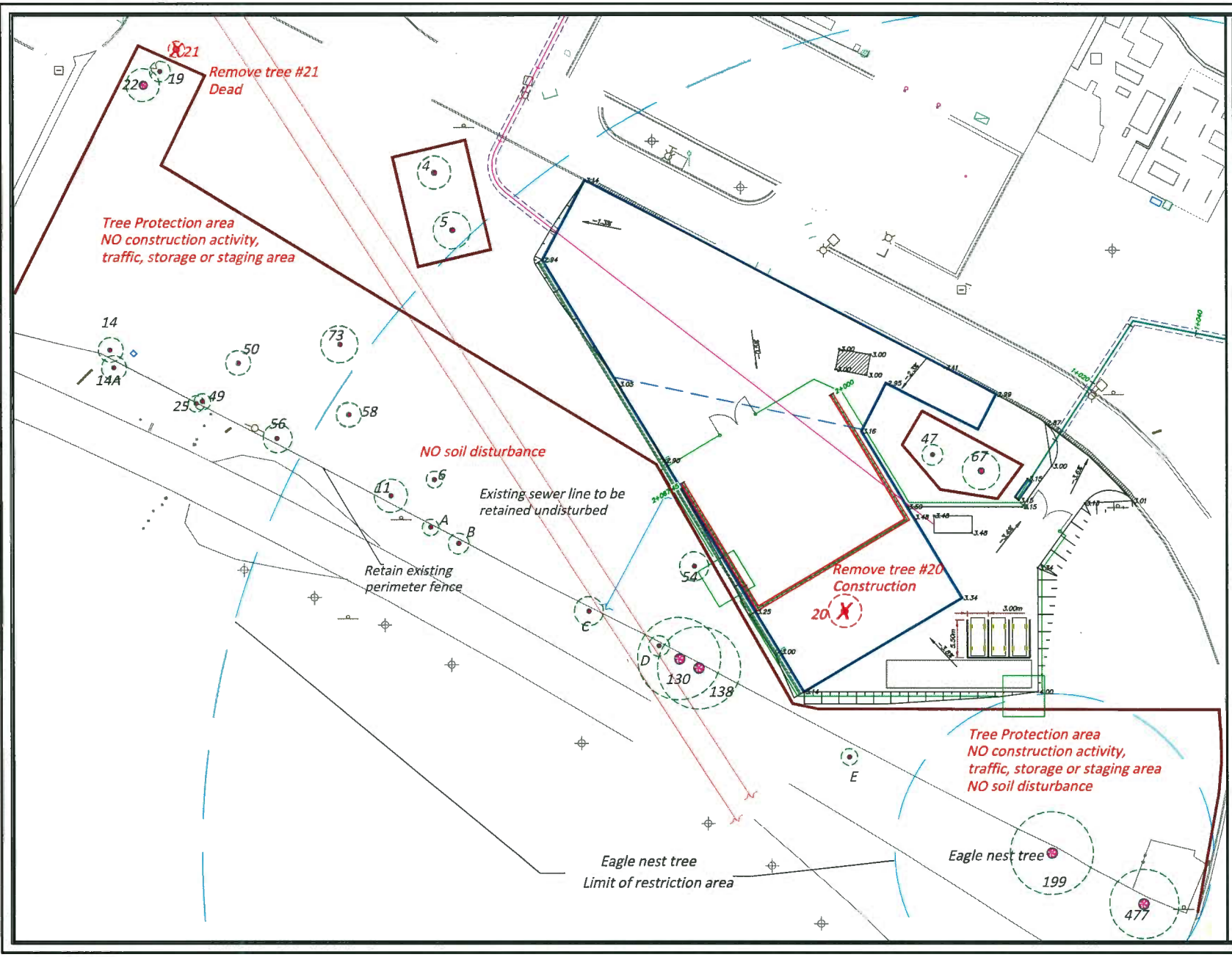
Planning Area(s): Sea Island

Floor Area Gross: N/A

Floor Area Net: N/A

	Existing	Proposed
Site Area:	48.36 Ha	No change
Land Uses:	Waste water treatment facility	No change
OCP Designation:	Conservation	No change
Zoning:	School and Institutional Use (SI)	No change
Number of Units:	0	No change

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	No maximum	Consistent with zone	none permitted
Lot Coverage:	No maximum	Consistent with zone	none
Setback – Front Yard:	Min. 6.0 m	Consistent with zone	none
Setback – Side Yard (one side):	Min. 3.0 m	Consistent with zone	none
Setback – Rear Yard:	Min. 3.0 m	Consistent with zone	none
Height (m):	Max. 12 m within 10 m of a residential zone, otherwise no minimum	Consistent with zone	none
Lot Size:	No minimum	Consistent with zone	none
Total off-street Spaces:	None	79 existing 4 new including 1 accessible	none



PLAN KEY

NOTES:

- All base information has been supplied by the client.
- All field data have been recorded by Lucian Serban ISA Certified Arborist Municipal Specialist PN-7558AM All tree locations are based on the survey supplied by the client and field observation by the arborist.
- This plan shall be used in conjunction with the Tree Protection Action Key (TPAK). Specific information regarding tree species, condition, and protection protocols are listed therein.
- Refer to the Arborist Report prepared for this project for specific instruction regarding tree protection requirements.

TREE FOR REMOVAL

RETAINED TREE

RIGID TREE PROTECTION

SNOW FENCE

TREE PROTECTED ZONE

INJURY

N

DATE	BY	REVISIONS
16/07/2019	MD	Tree Protection Plan

DAVEY Resource Group

TITLE: Iona Wastewater Treatment Plant -Asphalt pad

ADDRESS: 1000 Ferguson Road Richmond, British Columbia, V7B 0A8

DRAWING NO.: 001 | SCALE: 1:200

JOB NO.: | SHEET: 1 OF 1

ATTACHMENT 4

ATTACHMENT 5

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

Liquid Waste Services
Tel. 604-451-6039

May 31, 2019

File: SE-06-13-ION-LD

Mr. Wayne Craig, Director of Development
City of Richmond
Development Applications Division
6911 No. 3 Road
Richmond, BC V6Y 2C1

Dear Mr. Craig:

RE: DP 19-850320 – Letter of Commitment, Iona Island Wastewater Treatment Plant Lagoon Dredging and Dewatering Pad - Environmental Considerations

The Greater Vancouver Sewerage & Drainage District (GVS&DD) is proposing to construct a new pad to facilitate the dredging and dewatering of the sludge lagoons at its existing Iona Island Wastewater Treatment Plant at 1000 Ferguson Road. To support this work, the GVS&DD has made an application to the City of Richmond for a Development Permit. The Development Permit is for an area of approximately of 2,706 m^2 on the south side of the wastewater treatment plant, and will include an equipment area, a Truck Loading area, and Truck Turn-Around loop.

The location of the proposed works is zoned by the City of Richmond as an Environmentally Sensitive Area. An Environmental Assessment has been conducted for the project area and a Compensation Plan has been developed which describes compensation measures used to offset project effects that cannot be mitigated through other means.

Based on the above, and to support the Development Permit process, the GVS&DD is committing to the following actions:

- Implement the site restoration, invasive species management and compensation measures outlined in the final Environmental Assessment Report by December 2020 (within 1 year of completion of the facility);
- Undertake and maintain the landscape installations outlined in the final Landscape Compensation Plan by December 2020; and,
- Submit to the City of Richmond for information only, annual monitoring and maintenance reports for 5 years following installation of compensation plantings.

Should you have any questions with respect to this letter, please do not hesitate to contact me.

Sincerely,

Lillian Zaremba, P. Eng.
Acting Program Manager, Utility Residuals Management

LZ/DK

cc: Dave Keeney, MV, LWS Utility Residuals Management
Andreea Irimia, AECOM

29876299

City of Richmond

ATTACHMENT 6

Development Permit Considerations

Development Applications Department
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 1000 Ferguson Road

File No.: DP 19-850320

Prior to approval of the Development Permit, the developer is required to complete the following:

1. Ministry of Environment (MOE) Certificate of Compliance or alternative approval to proceed granted from MOE regarding potential site contamination issues.
2. Receipt of a Letter of Commitment from the Greater Vancouver Sewerage and Drainage District to undertake the landscape restoration works as described in the Iona Island Wastewater Treatment Plant Dewatering Pad Construction Environmental Assessment, dated July 2019.

***Prior to Building Permit Issuance, the developer must complete the following requirements:**

1. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
2. If applicable, payment of latecomer agreement charges associated with eligible latecomer works.
3. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.

Note:

* This requires a separate application.

- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

  All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

  The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contains prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

Signed _____ Date _____

Initial: _____

City of Richmond

Development Permit

No. DP 19-850320

To the Holder:	Great Vancouver Sewerage and Drainage District
Property Address:	1000 Ferguson Road
Address:	c/o AECOM 4th Floor, 3292 Production Way Burnaby BC V5A 4R4

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown in cross hatch on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1., 2, 2.b and 3, attached hereto.
4. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
5. As a condition of the issuance of this Permit, the applicant will install the works shown on the Landscape Compensation Plan before 2020, and once in place, the applicant will provide landscape monitoring and maintenance for the restoration area for 5 years following completion.
6. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.
7. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

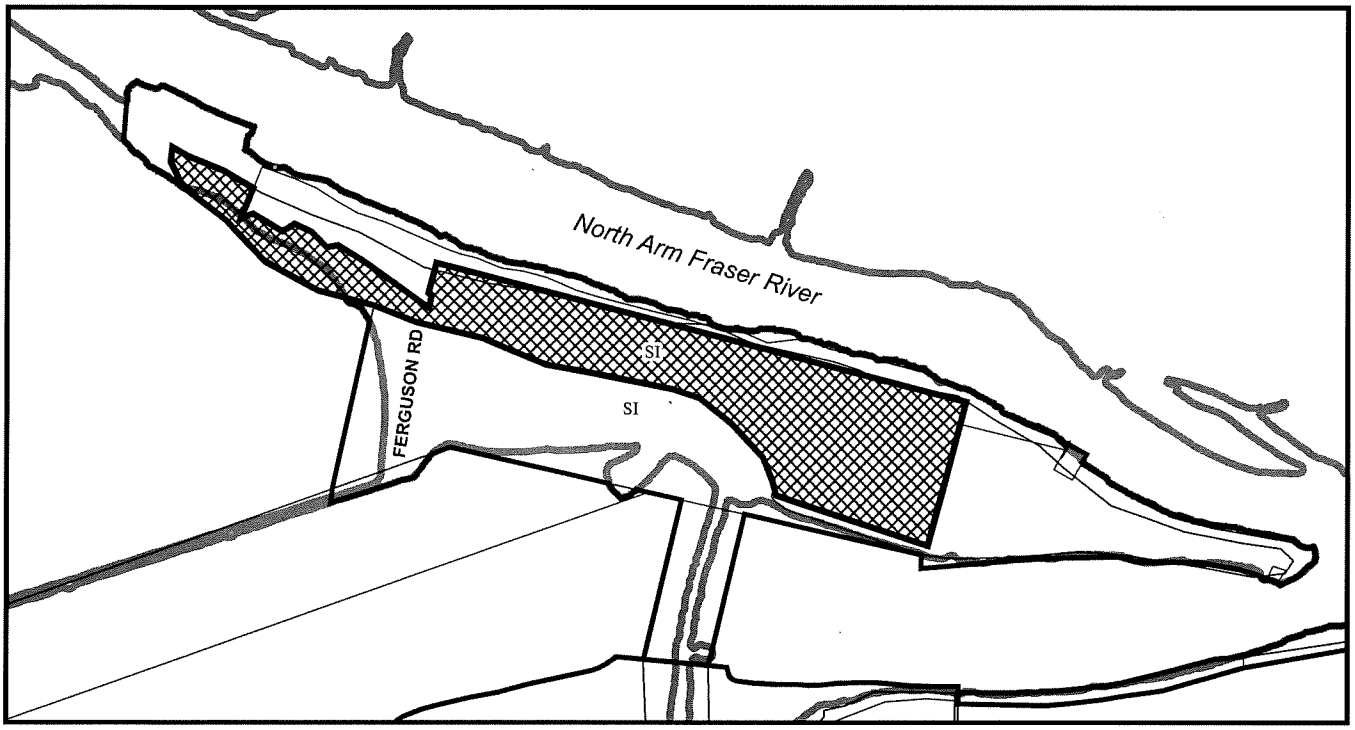
   This Permit is not a Building Permit.

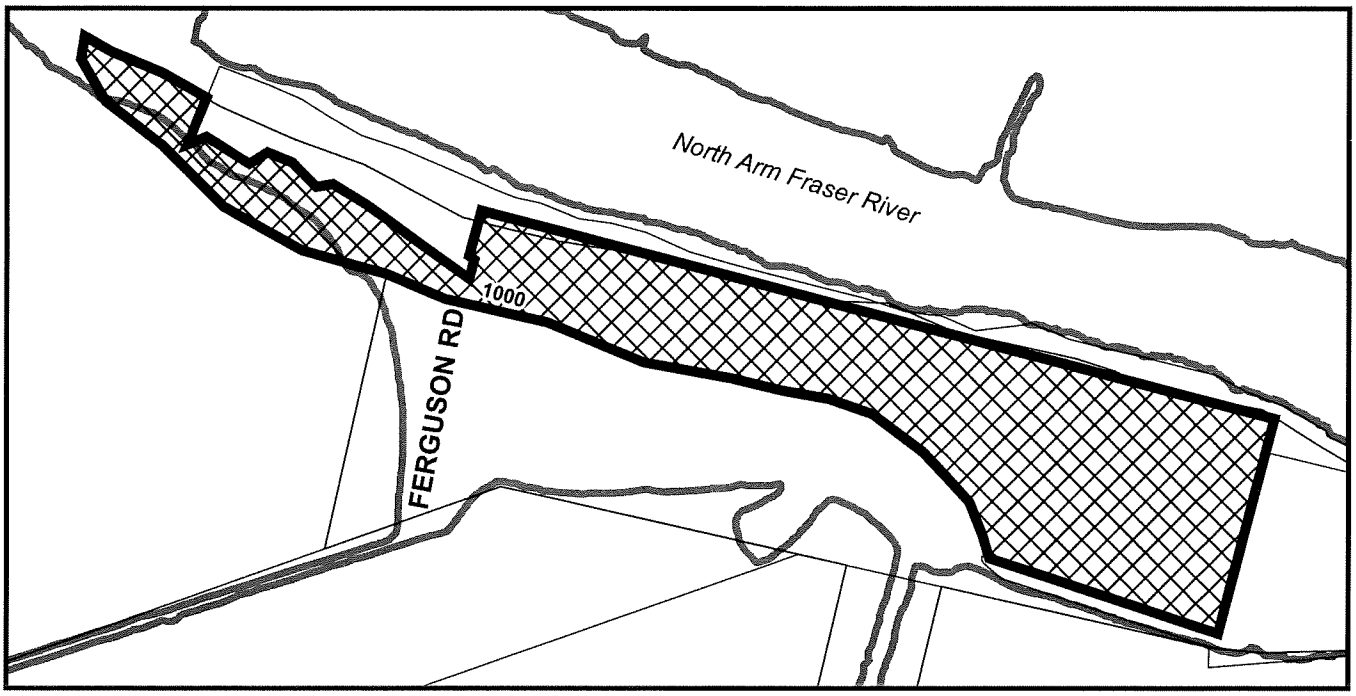
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF , .

DELIVERED THIS DAY OF , .

MAYOR

City of
Richmond





DP 19-850320
SCHEDULE "A"

Original Date: 01/18/19

Revision Date:

Note: Dimensions are in METRES

DRAWING SYMBOLS

PIPELINE	CATCH BASIN	HOUSE NUMBER	PROPOSED PERMANENT EASEMENT
TRAVERSE HUB	FIRE HYDRANT	DITCH	EXISTING PROPERTY LINE
MONUMENT	SEWER HOUSE CONNECTIONS	PAVEMENT	TEMP. WORKING SPACE
IRON PIN FOUND	SEWER	SIDEWALK	
LEAD PLUG FOUND	STORM DRAIN	FENCE	
MANHOLE	GAS MAIN	GRAVEL SURFACE	
UTILITY POLE	CULVERT	ELECT. PULL BOX	
GUY/ANCHOR POLE	STORM HOUSE CONNECTION	SIGN	
UTILITY VALVE BOX	UNDERGROUND TEL. CABLES	HEDGE	
GAS VALVE BOX	WATER MAIN	TREE – CONIF/DEC	
RAILWAY SIGNAL	WATER HOUSE CONNECTION	CAPPED SERVICE PIPE	
LAMP STANDARD	UG ELECT. CABLES		

CHECK PRINT

THIS DRAWING HAS NOT BEEN APPROVED, AND MAY CONTAIN ERRORS AND OMISSIONS.

Professional Seal

Issue	Date	Desin	Dr'n	Chkd	Appd	Description
P1	SEPT. 2019	AI	MB	MC	MC	ISSUED FOR DEVELOPMENT PERMIT APPLICATION DP: 19–850320

0 20 Bar is 20mm On Original Drawing. If Not On This Sheet, Adjust Scales Accordingly.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Design: AI
Drawn: MB
Checked: MC
MC Approved
MC Manager

IONA ISLAND
WASTEWATER TREATMENT PLANT
DREDGING & DEWATERING PAD

PLAN #1

SCALE: AS NOTED
DISTRICT FILE –
DRAWING NUMBER PLAN #1B

SUPERSEDES PRINTS OF THIS DRAWING NUMBER WITH LETTERS PREVIOUS TO → P1

SEP 23 2019

DP 19 850320

ADMINISTRATION BUILDING

TIES INTO EXISTING ø250mm I.D. WATER AT WATER CONTROL BUILDING. SEE DRAWING C-105 FOR DETAIL

TREE ID: 004

TREE ID: 005

TREE PROTECTION FENCE

INSTALL SEDIMENT TRAP ON EXISTING CATCH BASIN AS PER DETAIL

123m NEST NOISE BUFFER

TREE ID: 073

TRENCH DRAIN

ø100 PVC DR 35 STORM

DRAINAGE SUMP 1mx1mx0.75m WITH GRATING. APG RESPONSIBLE FOR PROVIDING SOLIDS HANDLING PUMP. WATER TO BE RE-CIRCULATED BACK TO PROCESSES ON CONCRETE PAD.

C C-107

4.5mx3.0m TRIPLE AXLE WEIGH SCALE.

NEW ELECTRICAL CONDUIT

NEW CONCRETE LOADING AREA

CONCRETE

TREE ID: 047

TREE ID: 067

A C-107

MINIMUM 1.2m COVER

TREE ID: 058

PROPOSED THUJA-OCCIDENTALIS-SMARAGD HEDGE, 1.5-2.0m HT, 0.6m APART

TREE ID: 006

ø100mm FRENCH DRAIN SLOPED AT 5% TOWARD DRAINAGE SUMP

CONCRETE PAD AREA = 2145m²

2.00m MIN.

DROP CURB AS PER DETAIL 3 ON DWG C-106

MATERIAL STORAGE AREA WALLS TO BE FORMED USING THREE ROWS OF LOCK BLOCKS. 2.25m HIGH

TREE ID: 011

TREE ID: A

ESA - SHORELINE BOUNDARY

WATER CONTROL KIOSK TO CONTAIN BACKFLOW PREVENTOR, PRESSURE REGULATOR, AND CONTROL APPARATUS. SEE DWG M-101 FOR DETAILS

NEW 100mm DR11 HDPE WATER SERVICE. TRENCH AREA: 6m. TRENCH AREA TO BE REINSTATED TO PRE-CONSTRUCTION CONDITION.

INSTALL SILT FENCE AS PER DETAIL

GRAVEL

PROPOSED 6cm CALIPER, 3.5m TALL TREES (2 LOCATIONS)

TREE ID: 054

TREE PROTECTION FENCE

B C-107

TREE ID: C

TREE ID: 020

3.00m

5.50m

PROPOSED 9cm CALIPER, 5m TALL TREES (2 LOCATIONS)

LOCK BLOCK RETAINING WALL AROUND PROTECTED TREES

ESA - INTERTIDAL BOUNDARY

FERGUSON RD

DRAINAGE SUMP 1mx1mx0.75m WITH GRATING. APG RESPONSIBLE FOR PROVIDING SOLIDS HANDLING PUMP.

ELECTRICAL SKID.

TREE ID: D

TREE ID: 139

TREE ID: 138

4.00m

TEMPORARY SITE TRAILER

GRAVEL ACCESS ROAD & PARKING

20.92m

TEMPORARY SITE TRAILER TO BE USED BY APG CONTRACTOR AS AN OFFICE SPACE DURING DEWATERING OPERATIONS. OFFICE TRAILER TO BE REMOVED OFF SITE DURING DOWNTIME.

23m NEST NO CONSTRUCTION BUFFER

TREE ID: E

PROPOSED THUJA-OCCIDENTALIS-SMARAG HEDGE, 1.5-2.0m HT, 0.6m APART

LEGEND

CONCRETE PAD

GRAVEL ROAD

PLAN
1:250

KEY PLAN

DRAWING SYMBOLS

PIPELINE	CATCH BASIN	HOUSE NUMBER	PROPOSED PERMANENT EASEMENT
TRAVERSE HUB	FIRE HYDRANT	DITCH	EXISTING PROPERTY LINE
MONUMENT	SEWER HOUSE CONNECTIONS	PAVEMENT	TEMP. WORKING SPACE
IRON PIN FOUND	SEWER	SIDEWALK	CONC PAD
LEAD PLUG FOUND	STORM DRAIN	FENCE	GRAVEL HATCH
MANHOLE	GAS MAIN	GRAVEL SURFACE	
UTILITY POLE	CULVERT	ELECT. PULL BOX	
GUY/ANCHOR POLE	STORM HOUSE CONNECTION	SIGN	
UTILITY VALVE BOX	UNDERGROUND TEL. CABLES	HEDGE	
GAS VALVE BOX	WATER MAIN	TREE - CONIF/DEC	
RAILWAY SIGNAL	WATER HOUSE CONNECTION	CAPPED SERVICE PIPE	
LAMP STANDARD	UG ELECT. CABLES		

NOTES:
1. AREA OF CONCRETE PAD IS 2145m²
2. TREE PROTECTION AND EAGLES NEST CONSTRUCTION/NOISE BUFFER TAKEN FROM DRAWING C18076-TOP-01-U-R0 BY SARTORI ENVIRONMENTAL INC.
3. CONTRACTOR TO DEVELOP AN ACTIVE EAGLE NEST MONITORING PLAN FOR CONSTRUCTION WITHIN BREEDING SEASON.
4. DREDGING AND DEWATERING EQUIPMENT LAYOUT TO APG DESIGN. SLAB LAYOUT BASED ON APG SKETCH ISSUED 18/07/12.

CHECK PRINT

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Professional Seal

Issue	Date	Desn	Dr'n	Chkd	Appd	Description
P1	SEPT. 2019	AI	MB	MC	MC	ISSUED FOR DEVELOPMENT PERMIT APPLICATION DP:19-850320

0 20 Metres 20mm On Original Drawing. If Not On This Sheet, Adjust Scales Accordingly.

SEP 23 2019

DP 19 850320

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Design: AI
Drawn: MB
Checked: MC
MC Approved
MC Manager

IONA ISLAND
WASTEWATER TREATMENT PLANT
DREDGING & DEWATERING PAD

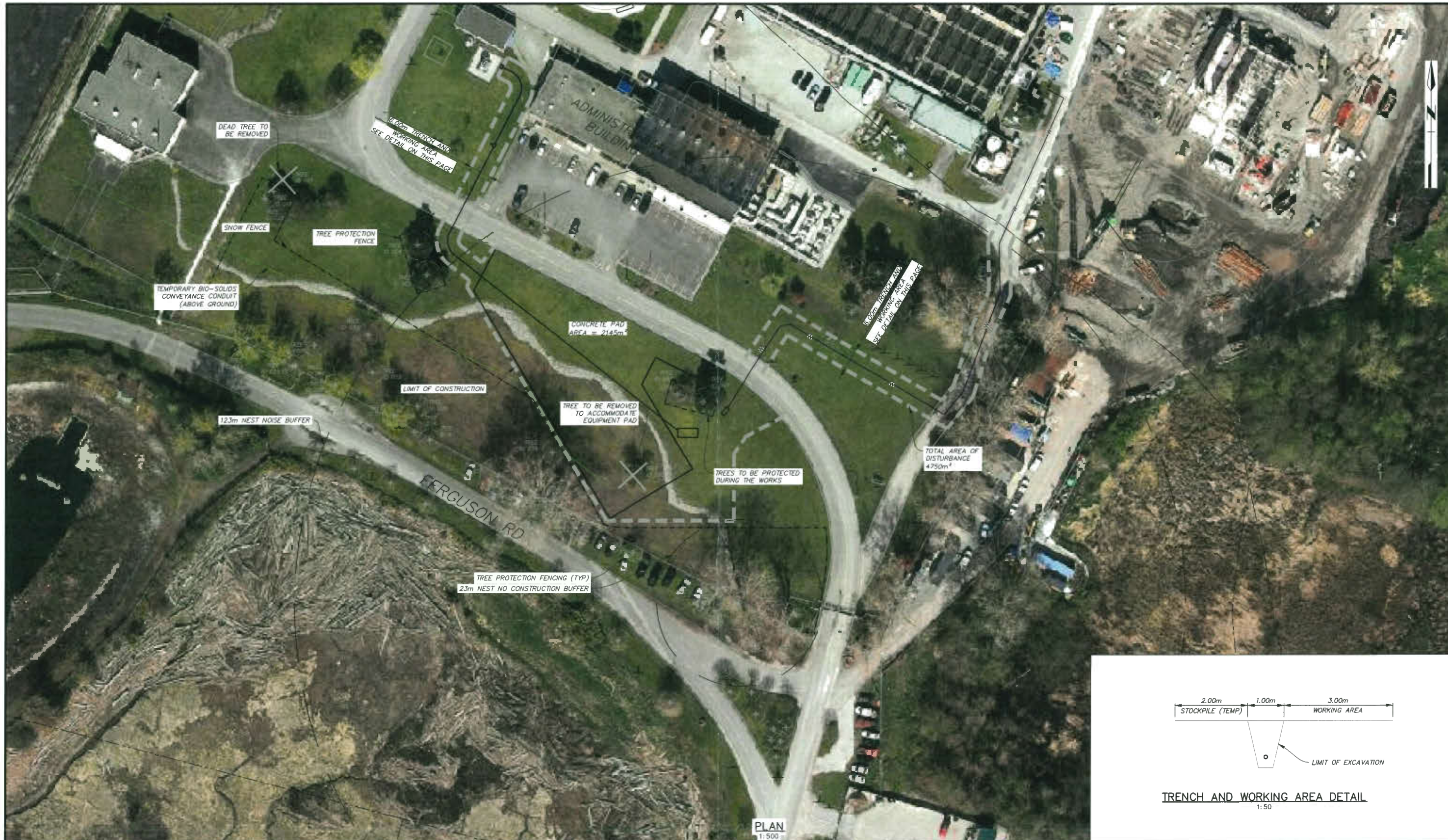
PLAN #2
CIVIL

SCALE: AS NOTED
DISTRICT FILE —
DRAWING NUMBER PLAN #2

SUPERSEDES PRINTS OF THIS DRAWING NUMBER WITH LETTERS PREVIOUS TO → P1

xref files:

2019-09-24 09:49 by:aim P:\06446459\100-Work\310-CAD\20-SHEETS\C\Dewatering Pad\PLAN #2.dwg



DRAWING SYMBOLS

PIPELINE	CATCH BASIN	HOUSE NUMBER	PROPOSED PERMANENT EASEMENT
TRAVERSE HUB	FIRE HYDRANT	DITCH	EXISTING PROPERTY LINE
MONUMENT	SEWER HOUSE CONNECTIONS	PAVEMENT	TEMP. WORKING SPACE
IRON PIN FOUND	SEWER	SIDEWALK	
LEAD PLUG FOUND	STORM DRAIN	FENCE	
MANHOLE	GAS MAIN	GRAVEL SURFACE	
UTILITY POLE	CULVERT	ELECT. PULL BOX	
GUY/ANCHOR POLE	STORM HOUSE CONNECTION	SIGN	
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RAILWAY SIGNAL	WATER HOUSE CONNECTION	CAPPED SERVICE PIPE	
LAMP STANDARD	UG ELECT. CABLES		

NOTES:

1. TREE PROTECTION AND EAGLES NEST CONSTRUCTION/NOISE BUFFER TAKEN FROM DRAWING C18076-TOP-01-U-R0 BY SARTORI ENVIRONMENTAL INC.
2. CONTRACTOR TO DEVELOP AN ACTIVE EAGLE NEST MONITORING PLAN FOR CONSTRUCTION WITHIN BREEDING SEASON.
3. ELEVATIONS ARE IN METERS, TO GEODETIC DATUM BASED ON DUAL FREQUENCY DIFFERENTIAL CARRIER PHASE GPS OBSERVATIONS TO BCLI (GCM#869792), LULU ISLAND WASTEWATER TREATMENT PLANT ACP
THIS DRAWING IS IN ZONE 10, NAD83 (CSRS) UTM COORDINATES WITH A COMBINED SCALE FACTOR OF 0.9996050864

CHECK PRINT

THIS DRAWING HAS NOT BEEN APPROVED, AND MAY CONTAIN ERRORS AND OMISSIONS.

Professional Seal

Issue	Date	Desin	Dr'n	Chkd	Appd	Description
P1	JUN. 2019	AI	MB	MC	MC	ISSUED FOR DEVELOPMENT PERMIT APPLICATION DP 19-850320

0 20 Bar is 20mm On Original Drawing. If Not On This Sheet, Adjust Scales Accordingly.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Design: AI
Drawn: MB
Checked: MC
MC Approved
MC Manager

IONA ISLAND
WASTEWATER TREATMENT PLANT
DREDGING & DEWATERING PAD

PLAN #2B

SCALE: AS NOTED
DISTRICT FILE –
DRAWING NUMBER PLAN #2B

SUPERSEDES PRINTS OF THIS DRAWING NUMBER WITH LETTERS PREVIOUS TO → P1

SEP 23 2019

DP 19 850320

PLAN
1:500

KEY PLAN

ESA COMPENSATION SUMMARY

PROJECT SITE AREA IN ESA	=	3000 SQ. METERS (0.3ha)
COMPENSATION RATIO @ 1:1	=	3000 SQ. METERS (0.3ha)

PROPOSED COMPENSATION SITES FOR HABITAT RESTORATION / NATIVE SPECIES PLANTING AT CANFOR PARK SITE IN METRO VANCOUVER LONG BEACH REGIONAL PARK:

SITE C	=	3000 SQ. METERS (0.3ha)
TOTAL COMPENSATION AREA	=	3000 SQ. METERS (0.3ha)
TOTAL RESTORATION PLANTING	=	2700 PLANTS
TOTAL NUMBER OF TREES	=	200 TREES @ 3.0m–4.0m O.C. MINIMUM SPACING
TOTAL NUMBER OF SHRUBS, GRASSES, AND GROUNDCOVERS	=	2500 PLANTS SPACED 1.0m APART

LANDSCAPE PRESCRIPTION

INVASIVE SPECIES REMOVAL:
- –ALL PLANTS AND THEIR ROOTBALLS TO BE REMOVED BY MACHINE EXCAVATOR AS WELL AS THE TOP 30cm OF SEED LADEN SOIL
- –COORK INCLUDES BINNING AND TRUCKING OF REMOVED MATERIALS OFF SITE TO GREEN WASTE FACILITY
- –USE OF BEST PRACTICES CONTAINMENT AND DISPOSAL TECHNIQUES FOR REMOVED MATERIALS TO LIMIT FURTHER SPREAD IN PARK

NATIVE SPECIES PLANTING:
- –PLANT ALL NATIVE SPECIES IN UNDERLAYING SAND
- –ALL TREES, SHRUBS, GRASSES, AND GROUNDCOVERS TO BE NATIVE SPECIES
- –DIVERSITY OF NATIVE PLANTINGS INCLUDE FRUITING AND BERRIES BEARING PLANTS

MONITORING AND MAINTENANCE

- –5 YEAR MONITORING AND MAINTENANCE PROGRAM (OEP)
- –80% SURVIVAL RATE
- –WEEDING OF INVASIVE SPECIES AFTER 5 YEARS

COMMON NAME	SPECIES NAME	SPACING	SIZE	#
SHORE PINE	PINUS CONTORTA	3–4m	5 GAL	25
BLACK COTTONWOOD	BALSAM POPLAR (SSP. BALSAMIFERA)	3–4m	5 GAL	50
PACIFIC CRAB APPLE	MALUS FUSCA	3–4m	5 GAL	75
CHOKE CHERRY	PRUNUS VIRGINIANA	3–4m	3 GAL	50
RED ELDERBERRY	SAMBUCUS RACEMOSA VAR. ARBORESCENS	1m	2 GAL	500
DULL OREGON GRAPE	MAHONIA NERVOSA	1m	2 GAL	500
OCREANSPRAY	HOLODISCUS DISCOLOR	1m	2 GAL	500
TRAILING BLACKBERRY	RUBUS URSINUS	1m	2 GAL	500
BALDHIP ROSE	ROSA GYMNOCARPA	1m	2 GAL	500

DRAWING SYMBOLS

PIPELINE, TRAVERSE HUB, MONUMENT, IRON PIN FOUND, LEAD PLUG FOUND, MANHOLE, UTILITY POLE, GUY/ANCHOR POLE, UTILITY VALVE BOX, GAS VALVE BOX, RAILWAY SIGNAL, LAMP STANDARD
CATCH BASIN, FIRE HYDRANT, SEWER HOUSE CONNECTIONS, SEWER, STORM DRAIN, GAS MAIN, CULVERT, STORM HOUSE CONNECTION, UNDERGROUND TEL. CABLES, WATER MAIN, WATER HOUSE CONNECTION, UG ELECT. CABLES
HOUSE NUMBER, DITCH, PAVEMENT, SIDEWALK, FENCE, GRAVEL SURFACE, ELECT. PULL BOX, SIGN, HEDGE, TREE – CONIF/DEC, CAPPED SERVICE PIPE
PROPOSED PERMANENT EASEMENT, EXISTING PROPERTY LINE, TEMP. WORKING SPACE

CHECK PRINT

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Professional Seal

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P1	SEPT. 2019	AI	MB	MC	MC	ISSUED FOR DEVELOPMENT PERMIT APPLICATION DP: 19–850320

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GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Design: AI
Drawn: MB
Checked: MC
MC Approved
MC Manager

IONA ISLAND
WASTEWATER TREATMENT PLANT
DREDGING & DEWATERING PAD

REGIONAL PARK COMPENSATION 2018
Plan 3

SCALE: AS NOTED
DISTRICT FILE –
DRAWING NUMBER PLAN #3

SUPERSEDES PRINTS OF THIS DRAWING NUMBER WITH LETTERS PREVIOUS TO ➡ P1

xref files:

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