



G

June 9, 2022

Site Servicing

Attachments:

- Roundhouse at Bayview Place Development: Sewage Attenuation Calculations - Rev 1
- Railways Realignment 2020 Master Plan ROW Plan
- Roundhouse Subdivision Master Planning

* drawings are resized to fit document and are not to scale



Stantec Consulting Ltd.
400-655 Tyee Road
Victoria BC V9A 6X5

June 6, 2022

Project/File: 112610210

Deb Becelaere – Engineering Technologist – Land Development
City of Victoria Engineering Department
#1 Centennial Square,
Victoria, B.C. V8W 1P6

Dear Ms. Becelaere

Reference: Roundhouse at Bayview Place Development: Sewage Attenuation Calculations – Rev 3

Stantec has prepared the following letter to summarize the findings of our recent investigation into the sewage attenuation requirements for the proposed Roundhouse at Bayview Place Development in Victoria, BC.

The City of Victoria has a policy in place concerning new development applications. All applications for rezoning which result in a potentially larger sewage flow than the original zoning must attenuate the additional flow on-site and release to the municipal system at a rate no higher than the maximum possible peak flow with the original zoning designation. The revised zoning to the Roundhouse site would potentially result in an increased density, and as such, sewage attenuation must be considered.

Calculations of the original sewage flows (pre-development calculations) were performed by Stantec and summarized in a technical report “Roundhouse Development: Sewage Attenuation Calculations” sent to the City of Victoria on April 10, 2012 and attached as reference with this report. Using the applicable standards at the time, the 2012 report calculations estimated that the sewage Peak Dry Weather Flow (PDWF) for the site was 33.14 L/s. Details of the calculations can be found in the attached report.

The remainder of this report outlines the calculations for the post-development flows based on the square footage and the various uses planned for the development.

Reference: Roundhouse at Bayview Place Development: Sewage Attenuation Calculations – Rev 3

1. Post-Development Sewage Flow Calculations

During this investigation, Stantec used design criteria from the 2014 Master Municipal Construction Documents (MMCD) Guidelines and the Sewerage System Standard Practice Manual Version 3 in the following calculations. The design criteria and process for calculating post-development sewage flows are summarized below:

AVERAGE DRY WEATHER FLOW CRITERIA

- Residential and Rental Average Dry Weather Flow (rADWF) /capita = 240 L/day/capita.

The rADWF is calculated by multiplying the population equivalent with a flow/capita/day value. Sanitary flow per person has been gradually decreasing over the last 10 years with the introduction of low flow fixtures and more public awareness surrounding water conservation. 2014 MMCD recommends a value for ADWF of 240L/cap/day for metered systems.

- Hotel Average Dry Weather Flow (hADWF)/capita = 200 l/d/capita.

For hotels we used the Sewerage System Standard Practice Manual Version 3 which recommends a value of 200 l/d/capita.

- Commercial and Heritage zoning ADWF (cADWF) = 5l/day/m² (Sewerage System Standard Practice Manual Version 3). The flow for commercial and heritage developments uses the gross floor area of the development to estimate the ADWF.

The ADWF per section of development is then calculated as follows:

POPULATION DENSITY CRITERIA

To calculate the population equivalent in the development, we used the following assumptions:

- Residential and Rental Development Density: 1-person equivalent per 450 ft² (approximately 42m²). We used a 900 ft² condo size as an average size, estimated unit numbers based on this assumption, and estimated 2 People per Condo unit. This is likely a conservative population density estimate.

$$rOccupancy = 1 \text{ person}/450 \text{ ft}^2$$

- Hotel Density: the same factor as for residential zoning was used, assuming 1 person per 450 ft²

$$hOccupancy = 1 \text{ person}/450 \text{ ft}^2$$

Note that currently the area of the development designated as hotel is unknown, so the hotel areas have conservatively been included in the Residential flow calculations.

AVERAGE DRY WEATHER FLOW CALCULATIONS

For each section of the roundhouse development the ADWF is then calculated as follows:

- ADWF (L/d) = (rADWF * rOccupancy * residential and rental Gross floor Area) + (hADWF * hOccupancy * hotel Gross floor Area) + (cADWF * commercial and heritage gross floor area).

The ADWF is then converted into L/s which is more commonly used to illustrate peak instantaneous flows in a system.

Reference: Roundhouse at Bayview Place Development: Sewage Attenuation Calculations – Rev 3

PEAKING FACTOR AND PEAK DRY WEATHER FLOW CALCULATIONS

2014 MMCD recommends a peaking factor as follows:

- Peaking Factor (PF) = 3.2 if population served <1000 people
- or $PF = 3.2 / ((\text{population served} / 1000)^{0.105})$ if population served > 1000 people

Sanitary flow through a municipal system is not constant throughout the day, and peaks during certain periods (typically morning rush times and evening rush times, with a less pronounced peak around noon) with other off-peak periods, notably at night. To allow for these peaks when designing a system, a peaking factor is applied to the ADWF calculated previously. The peaking factor is directly related to the population connected to a system; the larger the system, the less pronounced the peak is relative to the ADWF. We looked at the Roundhouse development as a whole with an estimated population equivalent of 4260 to calculate the total Peaking Factor.

- Peak Dry Weather Flow (PDWF in L/s) = PF * ADWF (in L/s)

INFLOW AND INFILTRATION CALCULATIONS

- Inflow and Infiltration (I&I) = 0.06 l/s/ha

I & I is an allowance for storm water migrating into the sanitary system and therefore reducing available capacity within the collection system and the treatment system. If system designs neglect to include this allowance, they inevitably become overloaded during heavy winter rainfall events. Although older systems have far higher I & I values, even new systems experience some level of infiltration through manhole lids and minor inflow through pipe joints. Using the estimate from MMCD for pipes above the groundwater table, an I and I allowance of 0.06 L/s/ha has been made in these calculations.

PEAK WET WEATHER FLOW CALCULATIONS

The Peak wet Weather flow is then calculated as follows:

- Peak wet Weather Flow (PWWF, in l/s) = PDWF + I&I

Reference: Roundhouse at Bayview Place Development: Sewage Attenuation Calculations – Rev 3

2. Proposed Zoning

Figure 1 below illustrates the proposed subdivision site plan:

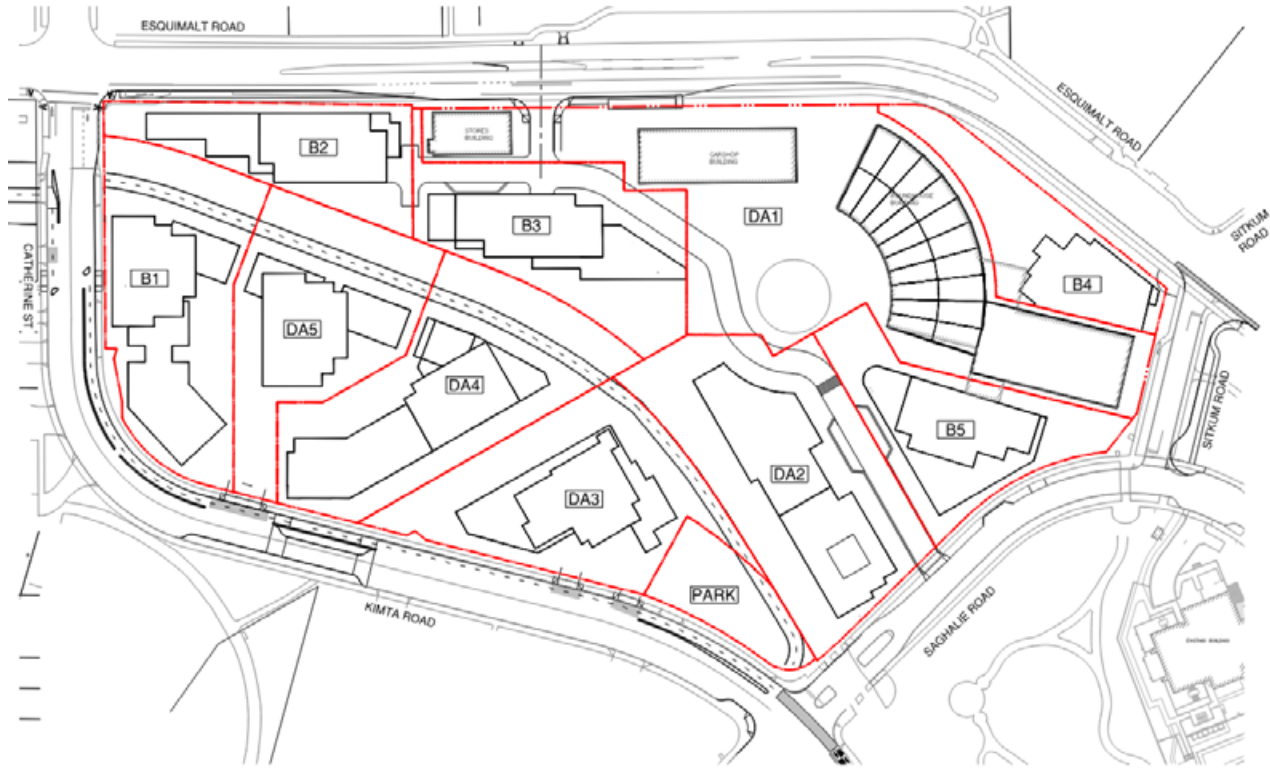


Figure 1. Bayview Site Plan

For the purposes of the sewage attenuation analysis the site has been split into Esquimalt Road and Kimta Road catchments. The proposed composition is described in the table below:

Table 1. Proposed composition of the site post development

Site	Land Use Description
ESQUIMALT ROAD CATCHMENT	
B2	Affordable Housing
B3	Rental
B4	Condo
H1	Stores Building
H2	Roundhouse + Backshop + Carshop (extension)
KIMTA ROAD CATCHMENT	
B1	Condo
B5	Condo
DA2	Condo/Hotel
DA3	E&N Tower
DA4	Condo/Hotel
DA5	Condo/Hotel

Reference: Roundhouse at Bayview Place Development: Sewage Attenuation Calculations – Rev 3

3. Results

The Average Dry Weather Flow (ADWF), Peak dry Weather Flow (PDWF) and Peak Wet Weather Flow (PWWF) for the above lots was estimated using the design criteria and calculations described earlier in this report. The following table summarizes the flows for the proposed lots of the Roundhouse Development, as well as for the whole site.

Table 2. Summary of Sanitary flow calculations for the Post Development Site

Site	Land Use Description	Site Area (Ha)	Residential/Hotel (SF)	Rental (SF)	Commercial (SF)	Total - Gross Floor Area (sqft)	ADWF (L/day)	ADWF (L/sec)	POP Eq.	Peaking Factor (PF)	PDWF (L/sec)	I&I (L/sec)	PWWF (L/sec)
B2	Affordable Housing	0.330		150,700	4,500	155,200	82,464	0.954	345	3.20	3.05	0.02	3.07
B3	Rental	0.417		146,700	11,750	158,450	83,698	0.969	352	3.2	3.10	0.03	3.12
B4	Condo	0.335	161,200		300	161,500	86,113	0.997	359	3.2	3.19	0.02	3.21
H1	Stores Building	0.045			2,924	2,924	1,358	0.016	6	3.2	0.05	0.00	0.05
H2	Roundhouse + Carshop (extension) + backshop	0.661			32,809	32,809	15,240	0.176	73	3.2	0.56	0.04	0.60
Subtotal Esquimaux Road Catchment		1.79	161,200	297,400	52,285	510,883	268,873	3.1	1,135	3.2	9.83	0.11	9.93
B1	Condo	0.283	197,600		2,500	200,100	106,548	1.2	445	3.2	3.95	0.02	3.96
B5	Condo	0.333	217,300		10,050	227,350	120,562	1.4	505	3.2	4.47	0.02	4.49
DA2	Condo/Hotel	0.333	232,400		10,000	242,400	128,592	1.5	539	3.2	4.76	0.02	4.78
DA3	E&N Tower	0.357	205,162		8,611	213,773	113,420	1.3	475	3.2	4.20	0.02	4.22
DA4	Condo/Hotel	0.376	266,900		14,600	281,500	149,129	1.7	626	3.2	5.52	0.02	5.55
DA5	Condo/Hotel	0.245	211,000		8,000	219,000	116,249	1.3	487	3.2	4.31	0.01	4.32
Subtotal Kimms Road Catchment		1.93	1,330,362	-	53,761	1,384,123	734,499	8.5	3,076	2.8	24.18	0.12	18.87
Total		3.72	1,491,562	297,400	106,044	1,895,006	1,008,372	11.6	4,211	2.8	31.95	0.22	32.18

the Highlighted numbers are peaked based on the whole site.

The Total Post-Development Peak Dry Weather Flow is therefore estimated as **31.95 L/s** and the Peak Wet Weather Flow is calculated as **32.18 L/s**.

Reference: Roundhouse at Bayview Place Development: Sewage Attenuation Calculations – Rev 3

4. Conclusion

As per the requirements of the City of Victoria, if development of a site results in post-development sewage flows being higher than the pre-development flows, it is the developer’s responsibility to attenuate the post-development flows to not exceed the pre-development flows.

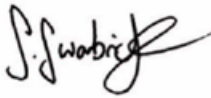
The 2012 sewage attenuation report outlined an original pre-development PDWF of **33.14 L/s**, based on the assumptions of the land use in accordance with the zoning bylaws at the time of writing the report. The 2012 report did not define pre-development PWWF. When applying the I&I calculations defined in this report (0.06 L/s/ha) to the pre-development area of 35,790m², the pre-development PWWF is estimated at **33.36 L/s**.

The calculations in this report estimate a PDWF of **31.95 L/s** and a PWWF of **32.18 L/s**. Therefore, the calculated post-development flows are less than the pre-development flows estimated in 2012. As there have been many assumptions built into these calculations and because circumstances may change as the development gets built out, we recommend that sewage attenuation requirements be evaluated as each property is designed and developed.

If you have any questions concerning the above, please contact the undersigned.

Regards,

Stantec Consulting Ltd.



Shaun Swarbrick P.Eng.
Civil Engineer
Phone: 250 389 2545
Shaun.Swarbrick@stantec.com



Nicolas Tardy EIT
Civil Designer
Phone: 250 389 2337
nicolas.tardy@stantec.com

Attachments: Roundhouse Development: Sewage Attenuation Calculations, April 10, 2012

**Stantec**

April 10, 2012
File: 112610210

City of Victoria Engineering Department,
#1 Centennial Square,
Victoria, B.C. V8W 1P6

Attention: Steven Fifield, Manager of Underground Utilities

Dear Mr Fifield:

Reference: Roundhouse Development: Sewage Attenuation Calculations

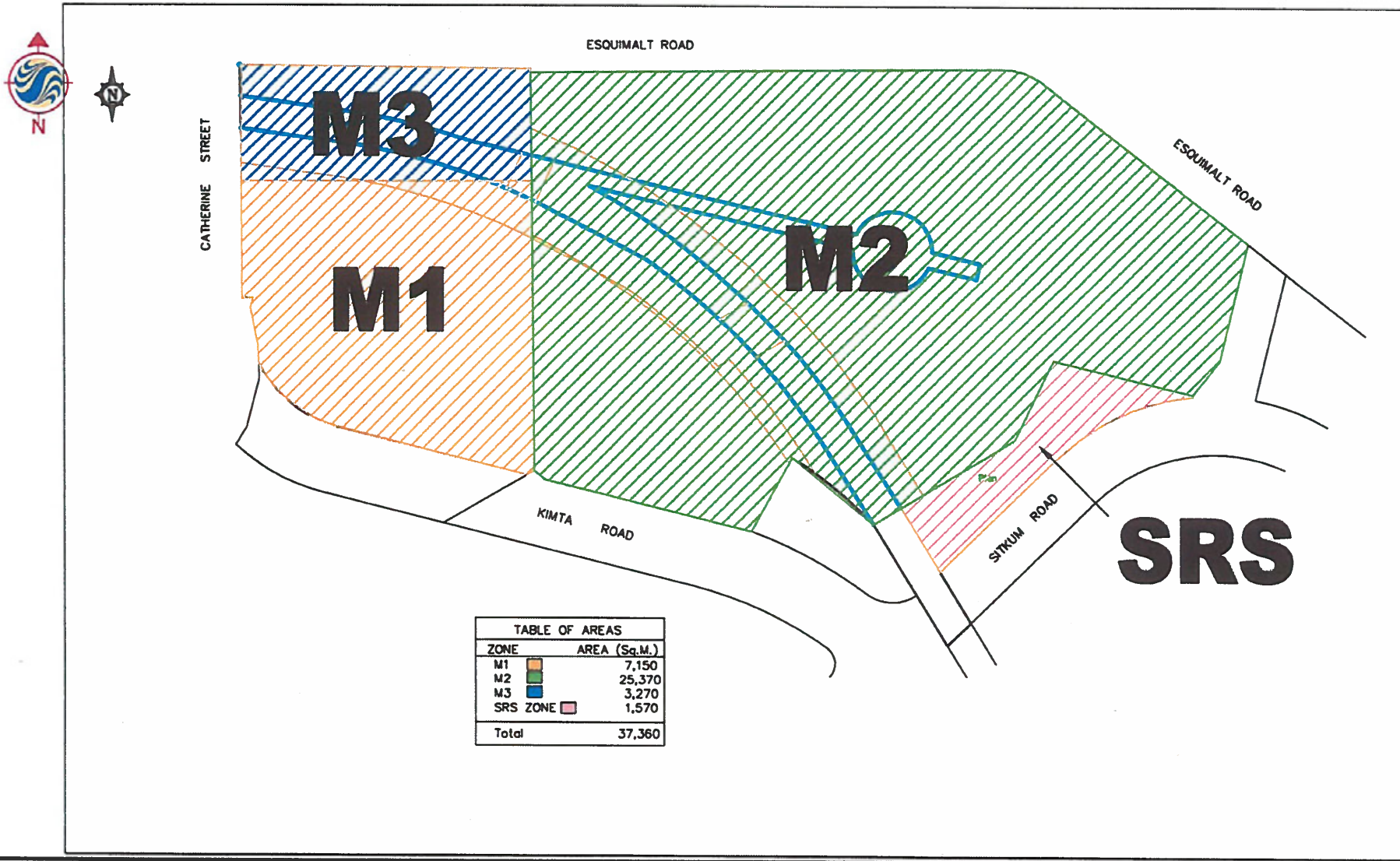
Stantec has prepared the following letter to summarize the findings of our recent investigation into the sewage attenuation requirements for the proposed Roundhouse Development in Victoria, BC.

The City of Victoria has a policy in place concerning new development applications. All applications for rezoning which result in a potentially larger sewage flow than the original zoning must attenuate the additional flow on-site and release to the municipal system at a rate no higher than the maximum possible peak flow with the original zoning designation. The revised zoning to the Roundhouse site would potentially result in an increased density, and as such sewage attenuation must be considered.

The site was originally divided into four different zoning designations:

- M1 Zone, Limited Light Industrial. Area = 7,150m²
- M2 Zone, Light Industrial. Area = 20,475m² (plus 4,895m² of rail easement also zoned M2)
- M3 Zone, Heavy Industrial. Area = 3,270m²
- SRS Zone, Songhees Single Family Residential District. Area = 1,570m²
- TOTAL SITE AREA = 37,360m²

Figure 1 on the following page shows the original parcels and zoning designations on the Roundhouse site:



APRIL 2012
112610210

ORIGINAL SHEET - ISO A3



Stantec Consulting Ltd.
400 655 Tye Road
Victoria BC Canada
V9A 6X5
Tel. 250.388.9161
Fax. 250.382.0514
www.stantec.com

Client/Project
CITY OF VICTORIA
ROUNDHOUSE DEVELOPMENT
SEWAGE ATTENUATION
Figure No.
FIG. 1
Title
ORIGINAL ZONING SITE PLAN

Stantec

April 10, 2012
 Steven Fifield, Manager of Underground Utilities
 Page 3 of 7

Reference: Roundhouse Development: Sewage Attenuation

To calculate the total amount of required retention, it is necessary to first calculate the potential flow from the existing site with the original zonings. The below summary details a method of calculating the original zoning sewage flow by using the maximum allowable FSR and allowable occupancies under the applicable zoning designations.

Calculation of the Original Zoning Sewage Flows

During this investigation, we have used figures quoted in the following publications:

- MMCD Design Guideline Manual, 2005
- The BC Sewerage Standard Practice Manual Version 2 (September 2007).
- City of Victoria Zoning Bylaw.

Calculation by Worst Case Scenario Based on FSR and Acceptable Uses

A potential method of calculating the potential sewage flows as per the existing zoning is by applying the allowable uses and FSR permitted in the zoning bylaw for each zoning designation. This method allows for an infinite number of potential scenarios based on what combination of the allowable uses was used to calculate the flow. Some of these potential scenarios may not be a realistic proposition, but the zoning bylaw allows these potentially unrealistic scenarios to be built.

We calculated the flows for a given scenario in which the areas zoned as M1, M2, M3 had various high sanitary use businesses on-site, such as car washes, gas stations, restaurants, manufacturing plants, dry cleaners/Laundromats etc. as allowed in the zoning bylaw. Although the scenarios may not be realistic, the exercise proved that it is possible to estimate very large flows for the original zoning designation by this method, to the point where the flows as per the original zoning designation can match and exceed the post-development sewage flows.

This method is typically used to calculate flows when the actual uses and the size of the non-residential units on a site are better defined. Using it in this instance, as mentioned earlier, can result in an infinite number of potential scenarios.

One potential scenario with its resultant original zoning flow is outlined below:

- The maximum allowable FSR allowed by Industrial zones M1, M2 and M3 is 3:1, and an allowable occupancy of all the zonings is a restaurant. This scenario assumes all zones designated as industrial are to be used exclusively as a large scale restaurant complex.
- The total area of the industrial zones on the site is 35,790m². With a FSR of 3:1, this results in total floor space on the site being 107,370m².
- It is assumed for this scenario that 2/3 of that space is restaurant seating area, with the other 1/3 being for other uses. Assuming dense table spacing, it is assumed that the density is 1 table of 4 per 9m². This results in there being a number of 7,953 tables with 31,812 seats.

Stantec

April 10, 2012
Steven Fifield, Manager of Underground Utilities
Page 4 of 7

Reference: Roundhouse Development: Sewage Attenuation

- The BC Sewerage SPM quotes a recommended figure for estimating sanitary loading of 90L/day/seat, which results in a total flow of 2,863,080L/day = **33.14L/s**.

While it is acknowledged that the scenario presented here is a very unlikely one in practicality, it is a possibility under current applicable zoning bylaw regulations.

Detailed calculations for the above described flows are provided at the end of this report.

A more practical example may be that of a brewery being placed on the site. The M3 zone allows for breweries to be built, and with a FSR of 3:1, the total area on the M3 portion of the site would be just over a hectare (the M3 portion of the site is less than 10% of the total site area). Stantec have in recent years performed sewage discharge reviews for breweries in BC and Ontario, and found the discharge rate to be approximately 1 Million L/day/hectare. If these numbers were applied to the original zoning on the Roundhouse Site, approximately 1 Million L/day could be generated from the M3 parcel alone. This is an example of the potentially high sanitary discharges from uses such as breweries and distilleries.

The below table summarizes the existing sewage flows and projected sewage flows from a brewery located on a 2 hectare site on the BC mainland, as determined through Stantec's investigations:

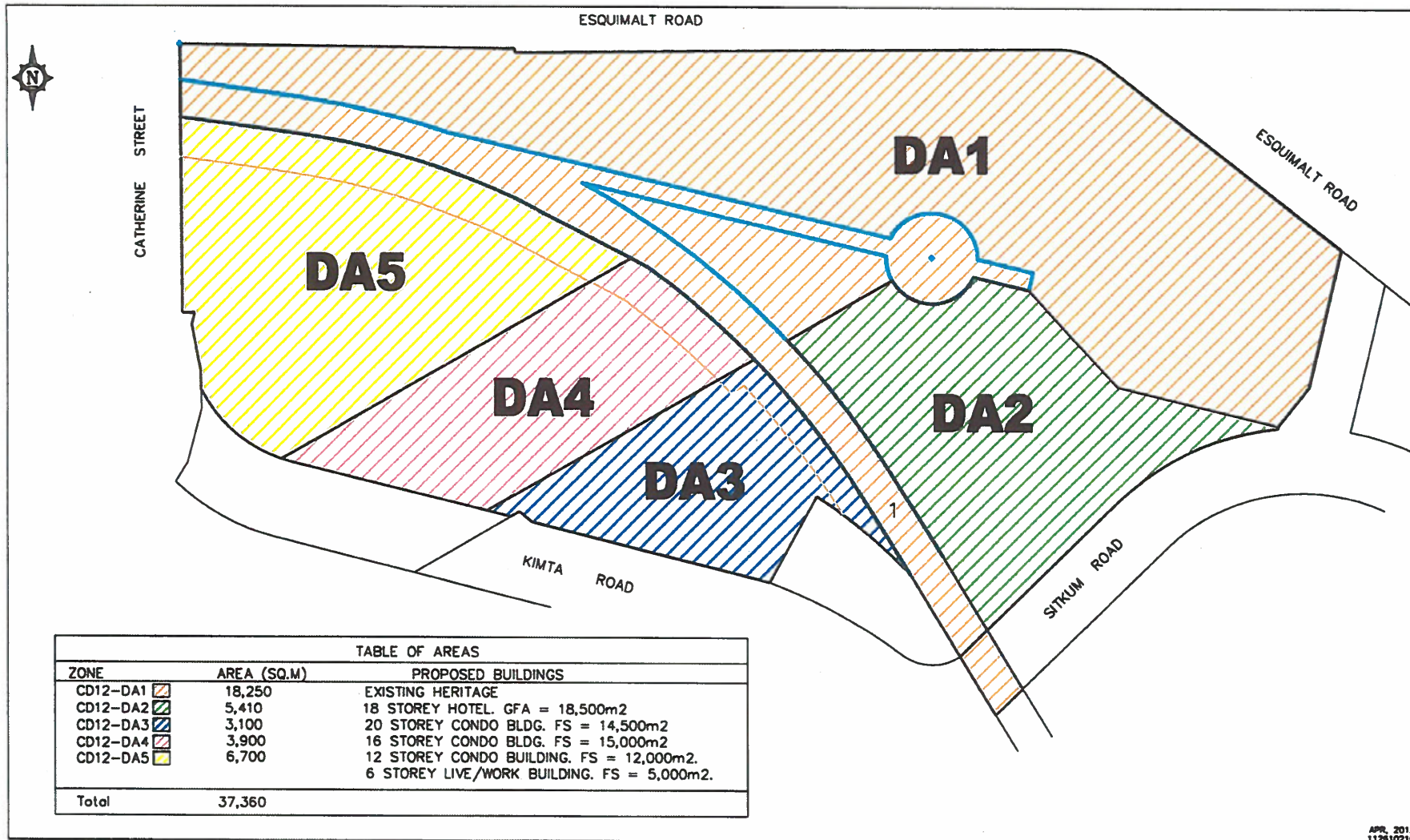
Existing and Projected Flows from a 2 Hectare Brewery – BC Mainland						
Year	2010	2011	2012	2013	2014	2015
Production Increase from 2010 Levels	0	0.2%	0.2%	9%	13%	23%
Average Sanitary Flow (m ³ /day)	1,925	1,928	1,928	2,096	2,181	2,375

Calculation of the Post-Development Sewage Flows

The following design criteria were used during this investigation:

- Average Sewage Flow per person = 300L/day
- Peaking Factor = Harmons Equation
- Residential Condo size = 900ft² (approximately 83m²)
- People per Condo unit = 2

Figure 2 on the following page illustrates the current zoning on the site:



APR. 2012
112610210

ORIGINAL SHEET - ISO A3

Stantec Consulting Ltd.
400 655 Tye Road
Victoria BC Canada
V9A 6X5
Tel. 250.388.9161
Fax. 250.382.0514
www.stantec.com

Client/Project
CITY OF VICTORIA
ROUNDHOUSE DEVELOPMENT
SEWAGE ATTENUATION
Figure No.
FIG 2
Title
CURRENT ZONING SITE PLAN

Stantec

April 10, 2012
Steven Fifield, Manager of Underground Utilities
Page 6 of 7

Reference: Roundhouse Development: Sewage Attenuation

The proposed development at the Roundhouse site is divided into 5 separate parcels. The proposed composition of the units for the parcels, which the following calculations are based upon, is as follows:

- Lot 1: Retail and Public Use (Existing heritage buildings)
- Lot 2: 18 Storey Hotel with 1 Storey Retail.
- Lot 3: 20 Storey Condo Building
- Lot 4: 16 Storey Condo Building
- Lot 5: 12 Storey Condo Building and 6 Storey Live/Work Space Building

The Average Dry Weather Flow (ADWF) for the above lots was calculated using the design criteria quoted earlier in this report. In the absence of more complete data for the commercial units, the Equivalent Population of 120 people/ha was used to estimate the sewage flows for those units.

The following table summarizes the ADWF for proposed Lots 1-5 of the Roundhouse Development:

<u>Lot # and Description</u>	<u>ADWF (L/day)</u>
Lot 1: Retail and Public Use	65,100L/day
Lot 2: 18 Storey Hotel with 1 Storey Retail.	133,795L/day
Lot 3: 20 Storey Condo Building	105,000L/day
Lot 4: 16 Storey Condo Building	108,600L/day
Lot 5: 12 Storey Condo Building/ 6 Storey Live/Work	123,600L/day
TOTAL	536,095L/day (6.2L/s)

Applying the Peaking Factor as per Harmons equation, the Total Post-Development Peak Dry Weather Flow is calculated as **22.44L/s**.

Detailed calculations for the above post-development flow summary are provided at the end of this report.

Sewage Attenuation Options and Volumes

As per the requirements of the City of Victoria, if development of a site results in post-development sewage flows being higher than the pre-development flows, it is the developer's responsibility to attenuate the post-development flows to not exceed the pre-development flows.

It should be noted that Inflow and Infiltration has not been allowed for in either the original zoning or Post-Development flow calculations for storage.



Stantec

April 10, 2012
Steven Fifield, Manager of Underground Utilities
Page 7 of 7

Reference: Roundhouse Development: Sewage Attenuation

Sewage Attenuation Required when Original Flows Calculated Using FSR and Allowable Occupancies

PDWF Pre-Development = **33.14L/s** (our demonstrated scenario).

PDWF Post-Development = **22.44L/s**.

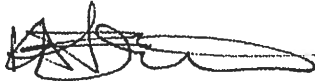
As was noted earlier in this report, the method of calculating the original zoning sewage flows by Allowable Occupancies as per the Zoning bylaw results in an infinite number of potential scenarios which result in an infinite number of different sewage flows. Our calculations proved that the Post-Development flows could be matched by using the higher sanitary use allowable occupancies under the zoning bylaw and maximizing the FSR, to calculate the original zoning Flows.

In this case, no attenuation would be required.

If you have any questions concerning the above, please contact the undersigned.

Respectfully,

Stantec Consulting Ltd.



Ken French
Associate
Tel: (250) 389-2345
Fax: (250) 382-0514
ken.french@stantec.com

Attachment:

cc. Ally Dewji

sls v:\1126\active\112610210\report\20120106_sewage_attenuation\roundhouse\et_ss_20120405_sewage_attenuation_roundhouse_final.docx



Stantec

January 25th, 2012
112610210 Task 302

①

Roundhouse Dev. Sewage Attenuation
Original Zoning (Pre-Development) Flows

Max Sewage Flows By Allowable Occupancies (Original Zoning):

- M1 Area = 7,150m². Zoned Limited Light Industrial.
- M2 Area = 20,475m². Zoned Light Industrial.
- M3 Area = 3,270m². Zoned Heavy Industrial.

Scenario 1: Whole of the site is a restaurant.

An allowable use for M1, M2, M3 is a restaurant. The following calcs assure the entire roundhouse site could be used as a large restaurant complex (except for the SRS Zone):

- Area of M1, M2 and M3 zones = 35,790m².
- Max Allowable FSR = 3:1. ∴ Total floor area = 35,790 × 3 = 107,370m²

- Assume 2/3 of total area = Restaurant Seating Area.
- Assume dense table spacing of 1 table of 4 per 9m².

∴ $107,370 \times \frac{2}{3} = 71,580\text{m}^2$ (Restaurant Seating Area)

$\frac{71,580}{9} = 7,953.3 \approx 7,953$ Tables

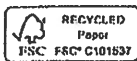
$7,953 \times 4 = 31,812$ Seats

- As per BC Sewerage Manual, assume 90L/day/seat.

Total Estimated Flow = 31,812 seats × 90 L/day
= 2,863,080 L/day = 33.1kL/d

Designed by:

Checked by:



Printed on 100% recycled and 100% percent recycled (post-consumer waste) paper





Stantec

January 6th, 2012 112610210 Task 302
Roundhouse Dev. Sewage Attenuation

(5)

Proposed Flows (By Parcel)

CONFIRM THESE NUMBERS
WITH ALI DEWJI (388-9924)

Lot 1: Retail + Public Use

No new Buildings being added. Simply retaining existing heritage Buildings.

As per discussion with Ali Dewji (client), in the absence of more definitive information on restaurant size and other retail uses, we will use M.M.C.D. Equivalent population for commercial buildings of 120 people/hectare.

$$\begin{aligned} \text{Total Floor space of existing buildings} &= 2860 + 735 + 270 \text{ m}^2 \\ &= \underline{\underline{3,865 \text{ m}^2}} \end{aligned}$$

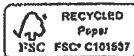
$$\text{Total Area of lot} = 18,082 \text{ m}^2$$

$$\begin{aligned} \therefore \text{Equivalent Population} &= 18,082 \times 120 \\ &= 216,984 \approx 217 \text{ people} \end{aligned}$$

$$\begin{aligned} \text{AOWF} &= 217 \times 300 \text{ L/day/cap} \\ &= \underline{\underline{65,100 \text{ L/day}}} \end{aligned}$$

Designed by:

Checked by:



Printed on FSC-certified and 100 percent recycled post-consumer waste paper



Stantec

January 6th, 2012 112610210 Task 302
Rousselle Dev. Sewerage Attenuation

6

Lot 2: 18 Storey Hotel with 1 storey Retail. Approx 18,500m² floor space.
- 17 storey Residential. $\frac{17}{18} \times 18,500 = 17,475\text{m}^2$ Residential.

Assume 1 unit = 900ft² (~~833~~ $\approx 83\text{m}^2$)
 \therefore # of units = $\frac{17,475}{83} = 210.5$ units ≈ 211 units.

Assume 2 people per condo: $211 \times 2 = 422$ people.

ADWF from Lot 2 (Residential) = $422 \times 300\text{L/day/capita}$
 $= \underline{126,600\text{L/day}}$

1 storey retail (Assume General Retail i.e. no café or restaurant):

"BC Sewerage BPM" provides figure of 7L/day/m² of floor space for shopping centre (excluding café or laundry).

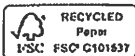
\therefore Estimated ADWF for retail = $\left(\frac{1}{18} \times 18,500\right) \times 7\text{L/day}$

= 7,194.44 $\approx \underline{7,195\text{L/day}}$

Total ADWF from both residential and retail = 133,795L/day

Designed by:

Checked by:



Printed on FSC-certified and 100 percent recycled post-consumer waste paper





Stantec

January 6th, 2012 112610210 Task 302
Roundhouse Dev. Sewerage Attenuation

⑦

Lot 3: 20 Storey Condo Building

$$\text{Floor Space} = 14,500\text{m}^2 \quad \therefore \# \text{ of units @ } 83\text{m}^2 \text{ each} \\ = \frac{14,500}{83} = 174.69 \approx 175 \text{ units}$$

$$\therefore \text{Population @ 2 people per unit} = 175 \times 2 \\ = 350 \text{ people}$$

$$\therefore \text{ADWF} = 350 \times 300\text{L/day/c} = \underline{\underline{105,000\text{L/day}}}$$

Lot 4: 16 Storey Condo Building

$$\text{Floor Space} = 15,000\text{m}^2 \quad \therefore \# \text{ of units @ } 83\text{m}^2 \text{ each} \\ = \frac{15,000}{83} = 180.72 \approx 181 \text{ units}$$

$$\therefore \text{Population @ 2 people per unit} = 181 \times 2 = 362 \text{ people}$$

$$\therefore \text{ADWF} = 362 \times 300\text{L/day/c} = \underline{\underline{108,600\text{L/day}}}$$

Lot 5: 12 Storey Condo Building + 6 Storey Live/Work Space

$$12 \text{ Storey Condo: Floor space} = 12,000\text{m}^2 \quad \therefore \# \text{ of units} = 144.57 \text{ units} \\ \approx 145 \text{ units}$$

$$\text{Population @ 2 people per condo} = 145 \times 2 = 290 \text{ people}$$

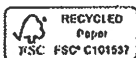
$$\text{(Treat as condos)} \quad 6 \text{ storey Live/Work: Floor Space} = 5,000\text{m}^2 \quad \therefore \# \text{ of units} = 60.25 \text{ units} \\ \approx 61 \text{ units}$$

$$\text{Population @ 2 people per unit} = 61 \times 2 = 122 \text{ people}$$

$$\text{Total Lot 5 Equiv. Pop.} = 122 + 290 = 412 \text{ People} \quad \text{ADWF} = 412 \times 300\text{L/day/cap} \\ = \underline{\underline{123,600\text{L/day}}}$$

Designed by:

Checked by:



Printed on FSC-certified and 100 percent recycled post-consumer waste paper



January 6th, 2012 11261021P Task 302
Roundhouse Dev: Sewage Attenuation

(A)

TOTAL POST-DEVELOPMENT FLOW:

- Lot 1 = 65,100 L/day
- Lot 2 = 133,795 L/day
- Lot 3 = 105,000 L/day
- Lot 4 = 108,600 L/day
- Lot 5 = 123,600 L/day

$$536,095 \text{ L/day} = \underline{6.2 \text{ L/s}} \quad (\text{ADWF}) \quad (\text{Eq. Pop} = 1,786-98)$$

$$PF = 1 + \frac{14}{4 + \sqrt{11000}} \quad (\text{Harmons})$$

$$= 1 + \frac{14}{4 + \sqrt{11,786}} = 3.62$$

$$\therefore \text{PDWF} = 3.62 \times 6.2 = \underline{22.44 \text{ L/s}}$$

(Peaking Factor based on entire site, not individual parcels)

1 a/c allowance (MMCD = 0.17 L/s/hectare)

$$= 3.736 \times 0.17 = 54,874 \text{ L/day}$$

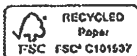
$$= \underline{0.635 \text{ L/s}}$$

(Same as pre-development)

$$\text{TOTAL POST-DEVELOPMENT FLOW} = 22.44 + 0.635 = \underline{23.08 \text{ L/s}}$$

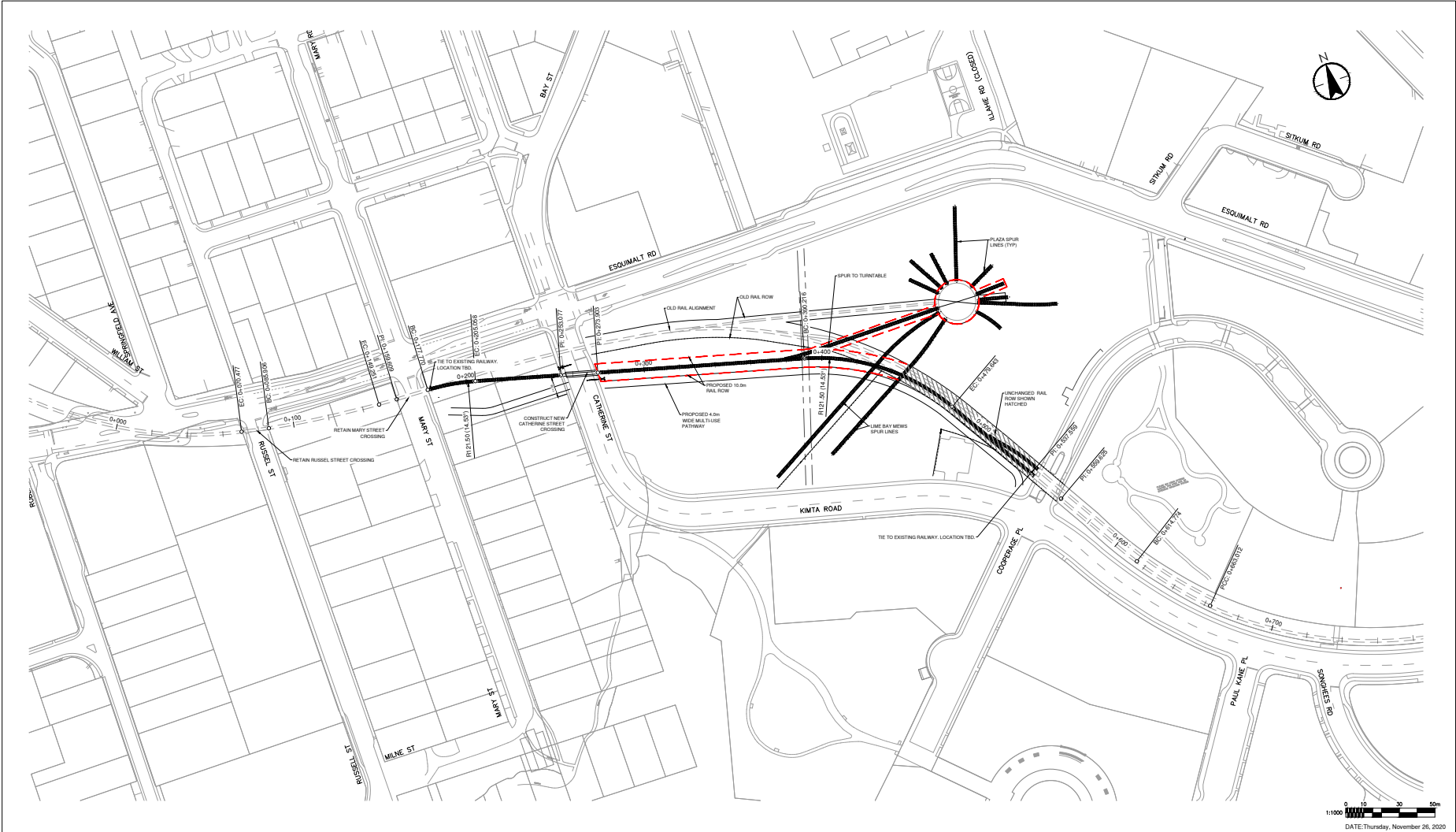
Designed by:

Checked by:



Printed on FSC-certified and 100% recycled post-consumer waste paper





Revision	By	App'd	Y/M/D
CITY APPROVAL	KP	21.02.26	
Issued	By	App'd	Y/M/D

Consultants	

Permit/Sec'd	

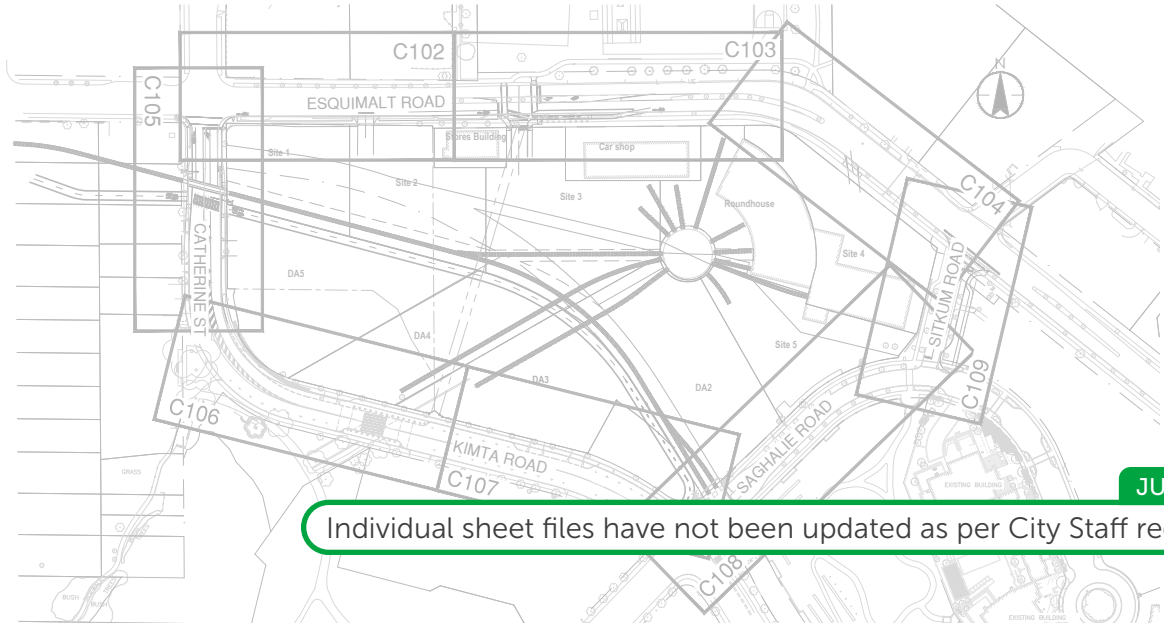

 461-455 Tyeer Road
 Victoria, BC
 www.stantec.com
Copyright Reserved
 The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing; any error or omission shall be reported to Stantec immediately. The Copyright to all designs and drawings are the property of Stantec. Reproduction for any purpose other than that authorized by Stantec is prohibited.

Client/Project	
Bayview Place LP	
Roundhouse Development	
Victoria, BC	
Name:	Date: 2019.06.18
Drawn:	Checked: T.Y. HALLIDAY

Title			
Railways Realignment 2020 Master Plan ROW Plan			
Project No. 112610210	Scale 1:1000	Revision	
Drawing No. RR-3	Sheet of	Revision -	



ROUNDHOUSE SUBDIVISION MASTER PLANNING



LOCATION PLAN
SCALE: NOT TO SCALE

GENERAL NOTES:

1. ALL WORK AND MATERIAL TO BE IN ACCORDANCE WITH THESE DRAWINGS, PROJECT SPECIFICATIONS, CITY OF VICTORIA SUPPLEMENTARY SPECIFICATIONS AND APPLICABLE SECTIONS OF MASTER MUNICIPAL CONSTRUCTION DOCUMENT (MMCD), LATEST EDITION.
2. SITE MEETING REQUIRED PRIOR TO STARTING CONSTRUCTION. CITY OF VICTORIA, CIVIL ENGINEER AND CONTRACTOR TO ATTEND.
3. THE CITY OF VICTORIA PROJECT CO-ORDINATOR AND CIVIL ENGINEER TO BE NOTIFIED ONE WEEK PRIOR TO COMMENCEMENT OF WORK OFF-SITE.
4. CONNECTION TO, OR ALTERATION OF EXISTING CITY-OWNED UTILITIES TO BE UNDERTAKEN BY CITY OF VICTORIA FORCES ONLY, AT THE DEVELOPER'S EXPENSE, UNLESS OTHERWISE AUTHORIZED BY THE CITY ENGINEER. CONTRACTOR TO CONFIRM AND COORDINATE ANY OFF-SITE WORKS PRIOR TO CONSTRUCTION.
5. ALL SEWER, DRAIN & WATER WORKS IN EXISTING ROAD RIGHT-OF-WAYS TO BE PERFORMED BY THE CITY AT THE DEVELOPER'S EXPENSE.
6. A "PERMIT TO CONSTRUCT WORKS WITHIN STREETS, LANES AND CITY PROPERTY AREAS" ADJACENT TO THE DEVELOPMENT SITE WILL BE REQUIRED WHERE CONSTRUCTION IS TO BE UNDERTAKEN IN THESE AREAS.
7. ALL EXISTING SERVICES TO BE EXPOSED PRIOR TO CONSTRUCTION AND LOCATIONS CONFIRMED WITH CIVIL ENGINEER.
8. ALL PVC PIPES SHALL BE SDR 35 FOR GRAVITY MAINS UNLESS OTHERWISE NOTED.
9. ALL SANITARY SEWER, STORM DRAIN, WATER AND OTHER UNDERGROUND SERVICES SHALL BE INSTALLED PRIOR TO THE COMPLETION OF THE ROAD PAVING.
10. ALL PAVEMENT CUTS TO BE SAW CUT SQUARE.
11. ALL NECESSARY PERMITS TO BE OBTAINED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION.
12. ADJACENT CURB OR SIDEWALK GRADES TO BE SET PRIOR TO ANY HYDRANT, TRANSFORMER PAD OR SERVICE BOX ADJUSTMENTS.
13. ALL ELEVATIONS BASED ON METRIC GEODETIC DATUM.
14. CONTRACTOR TO RESET ALL UTILITY BOXES, CASTINGS ETC. TO NEW FINISHED GRADES.
15. REMOVAL OF EXISTING CURB & GUTTER AND SIDEWALK TO BE AT EXISTING CONSTRUCTION JOINTS OR SAW CUT AT LOCATIONS APPROVED BY THE CITY ENGINEER.
16. ALL FILL UNDER SIDEWALKS, ROADWAYS & TRAVEL AREAS TO BE COMPACTED TO MINIMUM 95% MODIFIED PROCTOR DENSITY UNLESS NOTED OTHERWISE. PROVIDE COPIES OF TEST RESULTS TO CIVIL ENGINEER FOR REVIEW.
17. REFER TO LANDSCAPE DRAWINGS AND CITY OF VICTORIA SPECIFICATIONS AND STANDARD DRAWINGS FOR PUBLIC REALM SIDEWALK PATTERNS AND TREATMENTS AS WELL AS TREE & SHRUB PLANTING DETAILS WITHIN CITY RIGHT OF WAYS.
18. REFER TO LANDSCAPE FOR IRRIGATION REQUIREMENTS.
19. REFER TO ARCHITECTURAL & LANDSCAPE DRAWINGS FOR STREET FURNITURE LOCATIONS AND DETAILS.
20. NEW PAVEMENT MARKINGS AND SIGNAGE TO COMPLY WITH CITY OF VICTORIA REQUIREMENTS AND TRANSPORTATION ASSOCIATION OF CANADA - MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR CANADA. ALL PAVEMENT MARKINGS AND LANE LINE ADJUSTMENTS TO BE BY CITY OF VICTORIA AT DEVELOPER'S EXPENSE.
21. LOCATIONS AND ELEVATIONS OF ALL EXISTING SERVICES, FEATURES AND APPURTENANCES SHOWN ON THE DRAWINGS ARE TO BE CONSIDERED APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY ALL LOCATIONS AND ELEVATIONS IN THE FIELD, BY CONDUCTING CAREFUL TEST EXCAVATIONS OR USING NON DESTRUCTIVE IN-SITU TESTING. CUT & CAP ALL EXISTING REDUNDANT SERVICES AT PROPERTY LINE. CITY OF VICTORIA PLUMBING DEPARTMENT TO INSPECT AND APPROVE ALL CAPPED SERVICES PRIOR TO NEW SERVICE INSTALLATIONS. RECORD LOCATION, MATERIAL, SIZE & DEPTH OF CAPPED & ABANDONED SERVICES.
22. ALL ENGINEERING (FILL/S) CONCRETE AND ASPHALT PLACED FOR THIS PROJECT TO BE TESTED FOR COMPLIANCE WITH PROJECT AND CITY OF VICTORIA SPECIFICATIONS BY A QUALIFIED THIRD PARTY TESTING AGENCY. ALL RESULTS TO BE SUPPLIED TO THE CITY AND CIVIL ENGINEER FOR REVIEW AND ACCEPTANCE. TESTING RESULTS SHOWING NON-COMPLIANCE CAN AND MAY BE REJECTED BY THE CITY OR ENGINEER AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REMOVE/ REPLACE THE NON-COMPLIANT MATERIALS.

Individual sheet files have not been updated as per City Staff request

JUN 2022

LEGEND:

- EXISTING PROPERTY LINE
- EXISTING DRAIN
- EXISTING SANITARY
- EXISTING GAS
- EXISTING TEL
- EXISTING HYDRO
- EXISTING LIGHTING
- EXISTING WATER
- EXISTING DRAIN MANHOLE
- EXISTING DRAIN VENT LID
- EXISTING CATCH BASIN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING PARKING METER
- EXISTING HYDRO MANHOLE
- EXISTING HYDRO BOX
- EXISTING TEL MANHOLE
- EXISTING TEL BOX
- EXISTING LIGHT STANDARD
- EXISTING SIGN
- PROPOSED SANITARY MAIN
- PROPOSED DRAIN SERVICE
- PROPOSED DRAIN MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED SANITARY MAIN
- PROPOSED SANITARY MANHOLE
- PROPOSED WATER SERVICE

KEY PLAN
SCALE: 1:1000

Sheet Number	Sheet Title
C000	KEY PLAN, LOCATION PLAN, LEGEND, GENERAL NOTES AND SHEET INDEX
C100	OVERALL SITE PLAN - ROADS
C101	OVERALL SITE PLAN - UTILITIES
C102	ESQUIMALT RD STA 3+000 TO 3+130
C103	ESQUIMALT RD STA 3+130 TO 3+250
C104	ESQUIMALT RD STA 3+250 TO 3+380
C105	Catherine St STA 0+000 TO 0+100
C106	KIMTA RD STA 0+100 TO 0+230
C107	KIMTA RD STA 0+230 TO 0+360
C108	SAGHALIE RD STA 1+000 TO 1+150
C109	SITKUM RD STA 2+000 TO 2+080
C110	ACCESS PROFILES

Revision	By	App'd	YYYY-MM-DD	Issued

Permit/Seal
**PRELIMINARY
NOT FOR
CONSTRUCTION**
Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Consultant

Stantec Consulting Ltd.
4044'S River Road
Victoria BC V9A 6S5
Tel: (250) 368-6161
www.stantec.com

Copyright Reserved

Client/Project Logo

Client/Project
FOCUS EQUITIES LTD.

ROUNDHOUSE SUBDIVISION
OFFSITE SERVICING

Victoria, BC

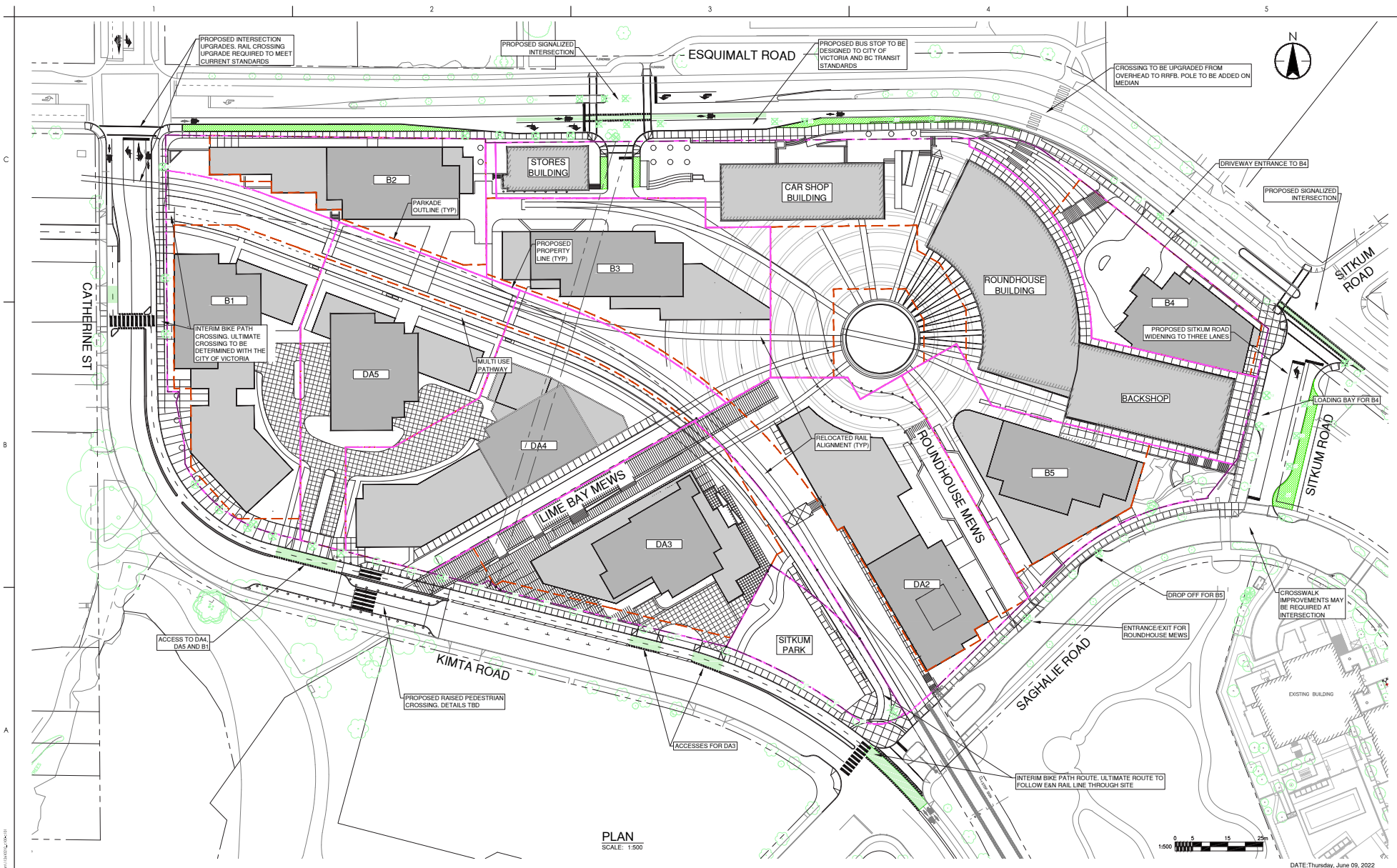
Title
**KEY PLAN, LOCATION PLAN, LEGEND,
GENERAL NOTES AND SHEET INDEX**

Project No.
112610210

Revision: Sheet of Drawing No. C000

Scale: 1:1000

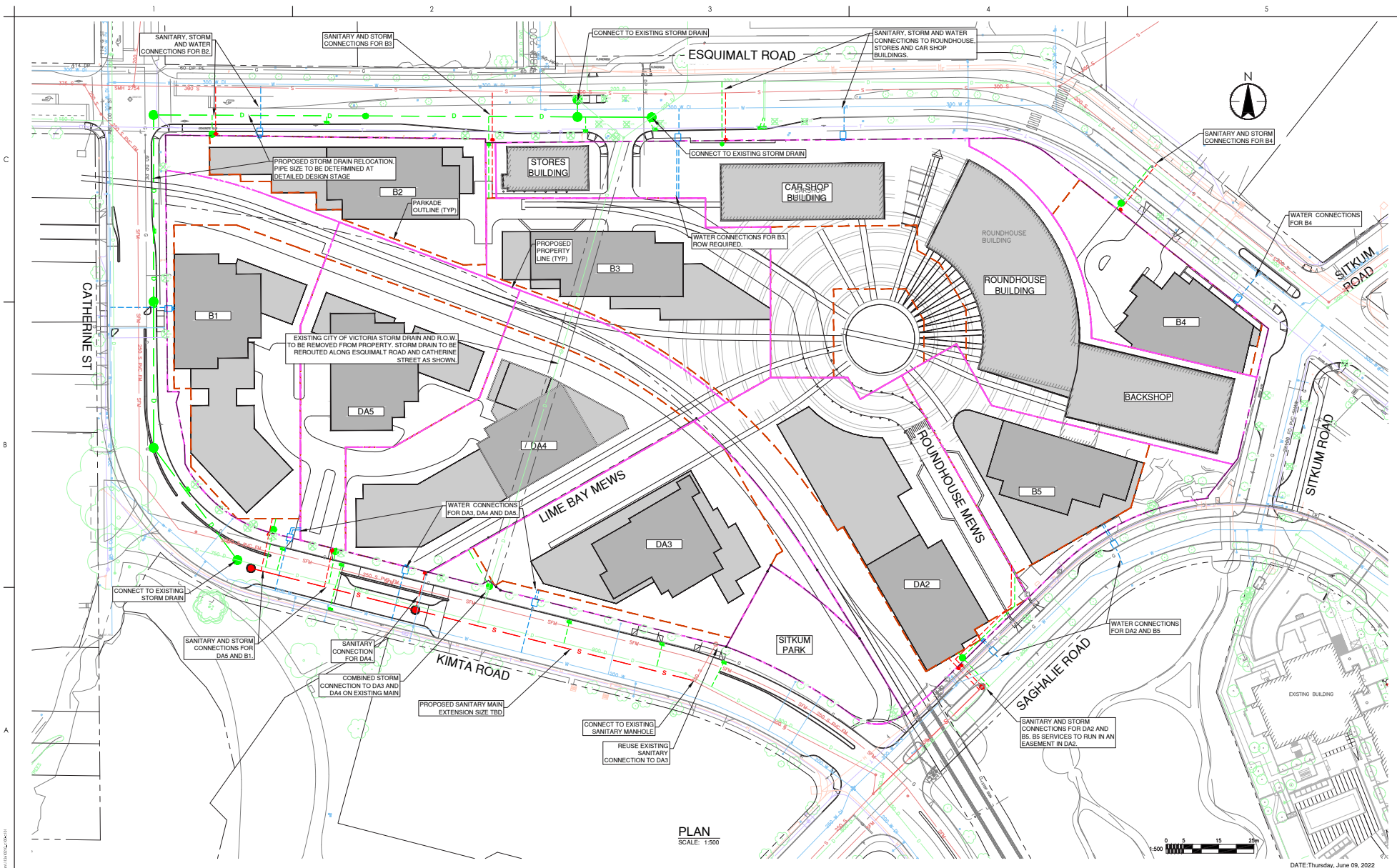
Date: 2022.06.09



PLAN
SCALE: 1:500

DATE: Thursday, June 09, 2022

<table border="1"> <tr> <th>Revision</th> <th>By</th> <th>App'd</th> <th>YYYY/MM/DD</th> <th>Issue</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		Revision	By	App'd	YYYY/MM/DD	Issue						<table border="1"> <tr> <th>REZONING SUPPORT</th> <th>By</th> <th>App'd</th> <th>YYYY/MM/DD</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		REZONING SUPPORT	By	App'd	YYYY/MM/DD					Permit/Seal PRELIMINARY NOT FOR CONSTRUCTION Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.	Consultant Stantec Consulting Ltd. 404655 Jervis Road Victoria BC V9A 4X5 Tel: (250) 388-7161 www.stantec.com Copyright Reserved	Client/Project Logo Client/Project FOCUS EQUITIES LTD. ROUNDHOUSE REZONING OFFSITE SERVICING Victoria, BC	Title SITE PLAN - FRONTAGE ROADWORKS CONCEPTUAL DESIGN Project No. 112610210 Scale AS SHOWN Revision Sheet of Drawing No. C100
Revision	By	App'd	YYYY/MM/DD	Issue																					
REZONING SUPPORT	By	App'd	YYYY/MM/DD																						



DATE: Thursday, June 09, 2022

Revision	By	App'd	YYYY/MM/DD	Issue	By	App'd	YYYY/MM/DD

Permit/Seal

**PRELIMINARY
NOT FOR
CONSTRUCTION**

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Consultant

Stantec Consulting Ltd.
40455 Tyne Road
Victoria BC V9A 4X5
Tel: (250) 388-9161
www.stantec.com

Copyright Reserved

The contents of this document are the property of Stantec. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is prohibited.

Client/Project Logo

Client/Project
FOCUS EQUITIES LTD.

ROUNDHOUSE REZONING
OFFSITE SERVICING

Victoria, BC

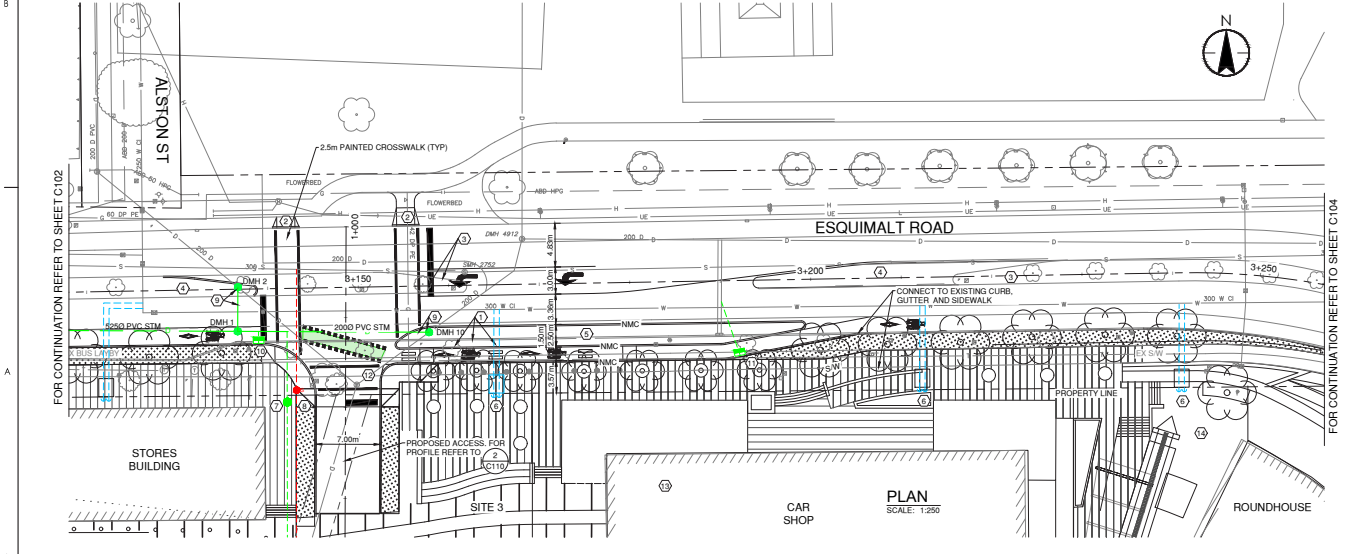
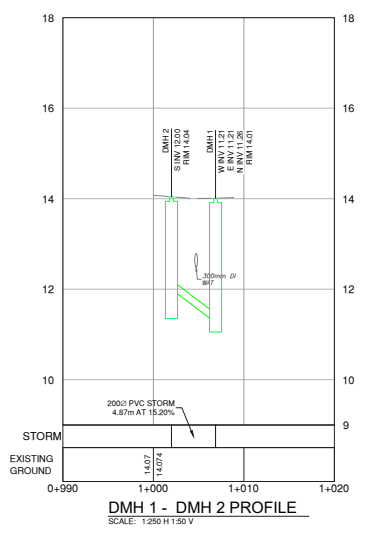
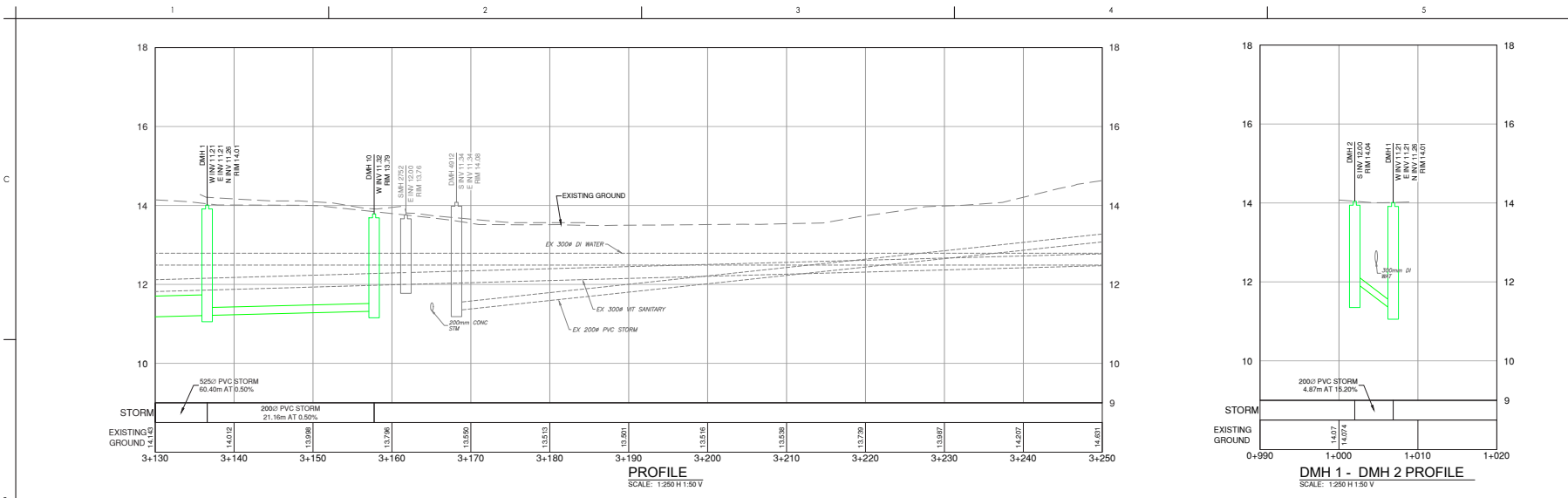
File Name: 112610210_C100-C101
Date: 2022.12.16
Drawn: []
Checked: []
App'd: []

Title
SITE PLAN - FRONTAGE UTILITIES
CONCEPTUAL
DESIGN

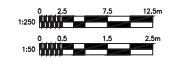
Project No.
112610210

Scale
AS SHOWN

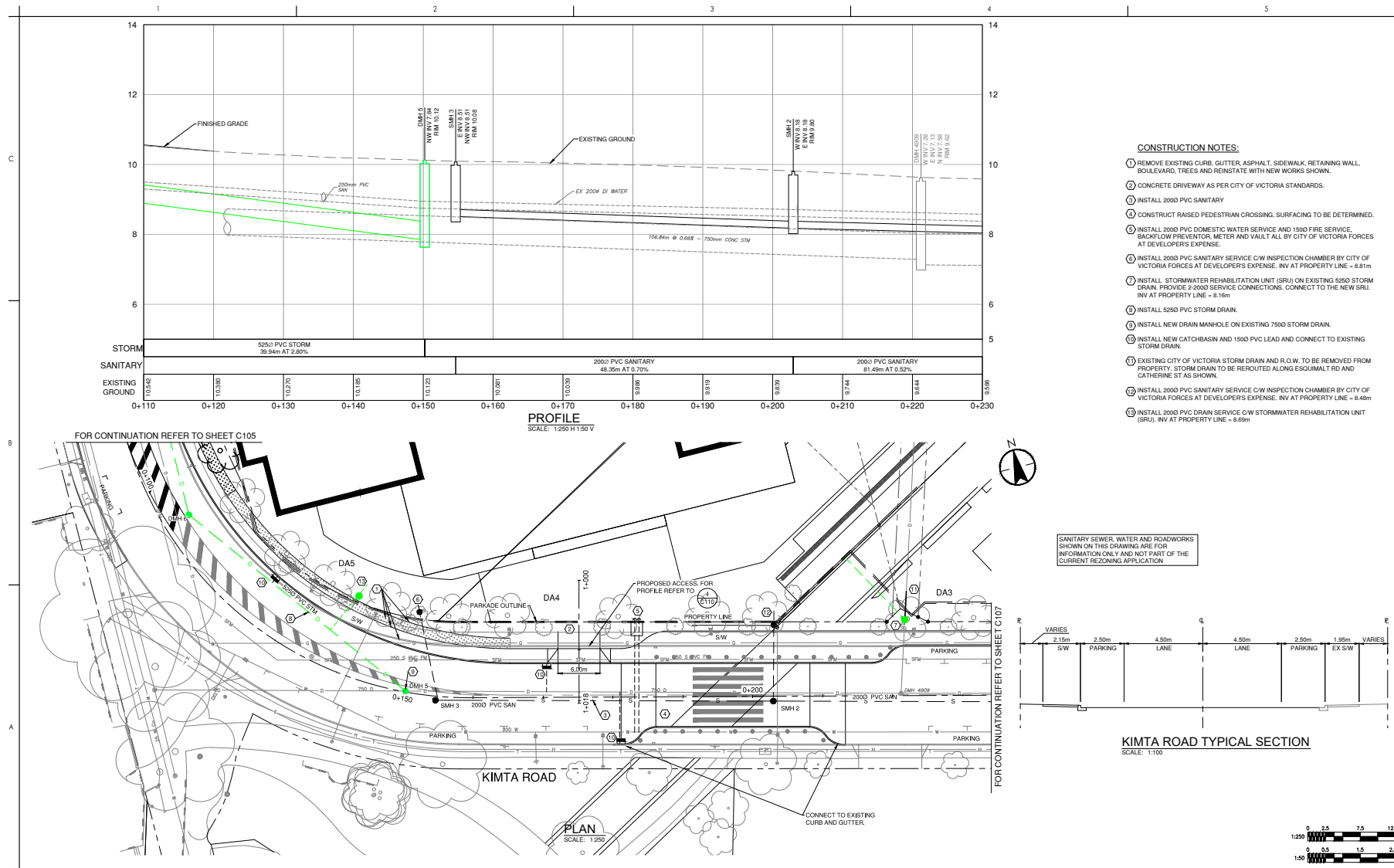
Revision Sheet of Drawing No.
C101



- CONSTRUCTION NOTES:**
- REMOVE EXISTING CURB, GUTTER, ASPHALT, SIDEWALK, BOULEVARD, TREES AND REINSTATE WITH NEW WORKS SHOWN.
 - CONSTRUCT NEW SIDEWALK AND CURB LETDOWNS
 - REMOVE EXISTING CURB, GUTTER AND TREES TO SUIT NEW WORKS SHOWN.
 - CONSTRUCT NEW MEDIAN TO SUIT NEW WORKS.
 - CONSTRUCT NEW CONCRETE BUS STOP AND BIKE PATH.
 - INSTALL 2000 PVC DOMESTIC WATER SERVICE AND 1500 FIRE SERVICE. BACKFLOW PREVENTOR, METER AND VALVE ALL BY CITY OF VICTORIA FORCES AT DEVELOPER'S EXPENSE.
 - INSTALL 2000 PVC DRAIN SERVICE C/W STORMWATER REHABILITATION UNIT (SRU). INV AT PROPERTY LINE = 11.56m
 - INSTALL 2000 PVC SANITARY SERVICE C/W INSPECTION CHAMBER BY CITY OF VICTORIA FORCES AT DEVELOPER'S EXPENSE. INV AT PROPERTY LINE = 14.47m
 - INSTALL 2000 PVC STORM DRAIN. INSTALL OVERBUILD MANHOLE ON EXISTING 2000 MAIN.
 - INSTALL NEW CATCHBASIN AND 1500 PVC LEAD AND CONNECT TO STORM DRAIN
 - INSTALL NEW CATCHBASIN AND 1500 PVC LEAD AND CONNECT TO EXISTING CATCHBASIN LEAD.
 - EXISTING CITY OF VICTORIA STORM DRAIN AND R.O.W. TO BE REMOVED FROM PROPERTY. STORM DRAIN TO BE ROUTED ALONG ESCQUIMALT RD AND CATHERINE ST AS SHOWN.
 - SANITARY AND STORM SERVICE TO THE CAR SHOP REQUIRES PUMPING OR GRAVITY SERVICE THROUGH THE PARKADE. TO BE DETERMINED.
 - SANITARY AND STORM SERVICE TO THE ROUNDHOUSE REQUIRES PUMPING OR GRAVITY SERVICE THROUGH THE PARKADE. TO BE DETERMINED.

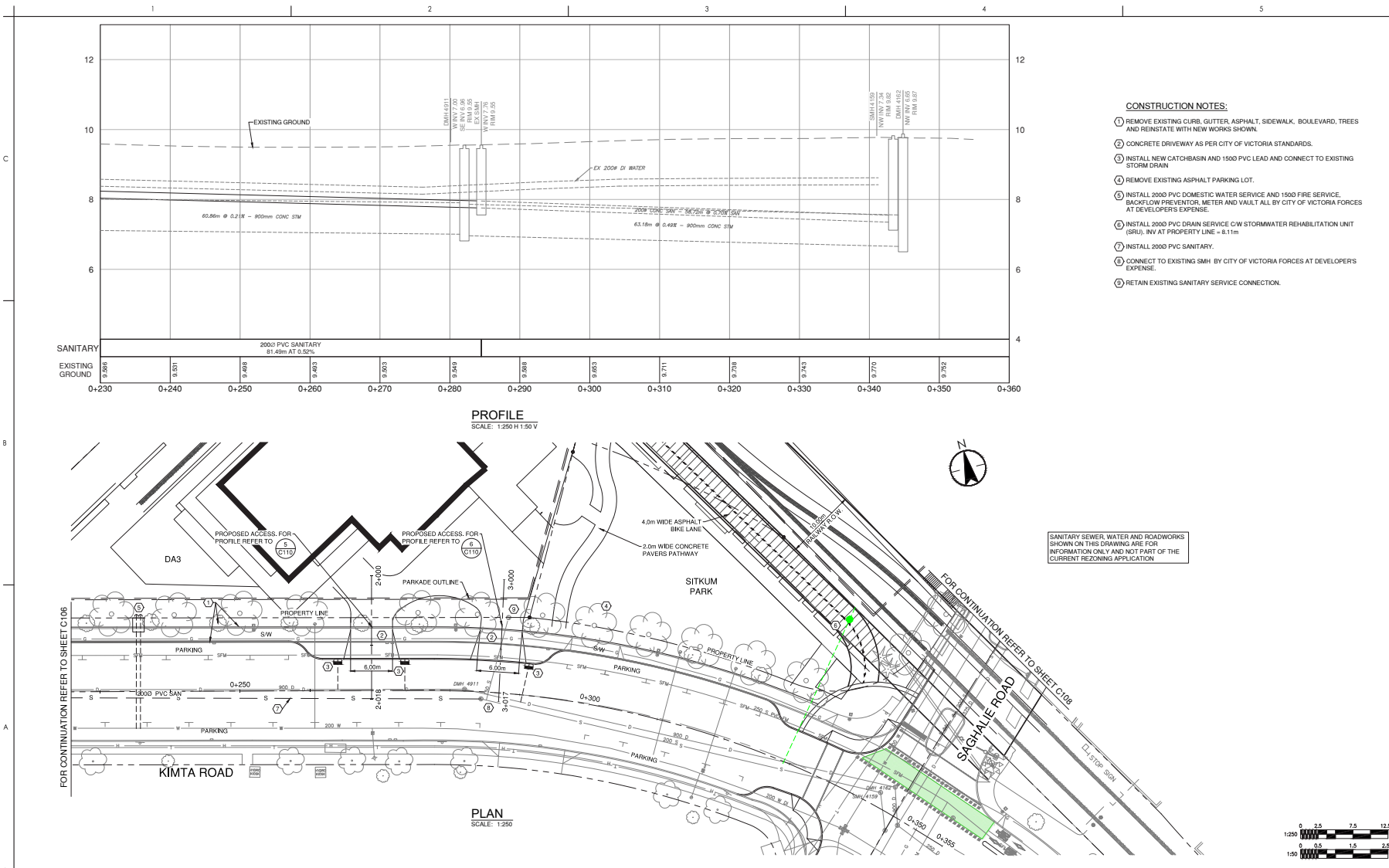


Permi/Seal PRELIMINARY NOT FOR CONSTRUCTION Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.		Consultant Stantec Consulting Ltd. 400-555 Tower Road Victoria BC V9A 6X5 Tel: (250) 388-6161 www.stantec.com Copyright Reserved		Client/Project Logo Client/Project FOCUS EQUITIES LTD. ROUNDHOUSE SUBDIVISION OFFSITE SERVICING Victoria, BC		Title ESQUIMALT RD STA 3+130 TO 3+250 PLAN AND PROFILE Project No. 112610210 Scale AS SHOWN Revision Sheet of Drawing No. C103	
Revision By Appd Issued		Date 2021.02.23 By Appd YYY.A.M.D.		Name: 112610210_PLAN_PROFILE Dwn. Sign. Cld. YYY.A.M.D.		0 2.5 7.5 12.5m 1:250 0 0.5 1.5 2.5m 1:500	

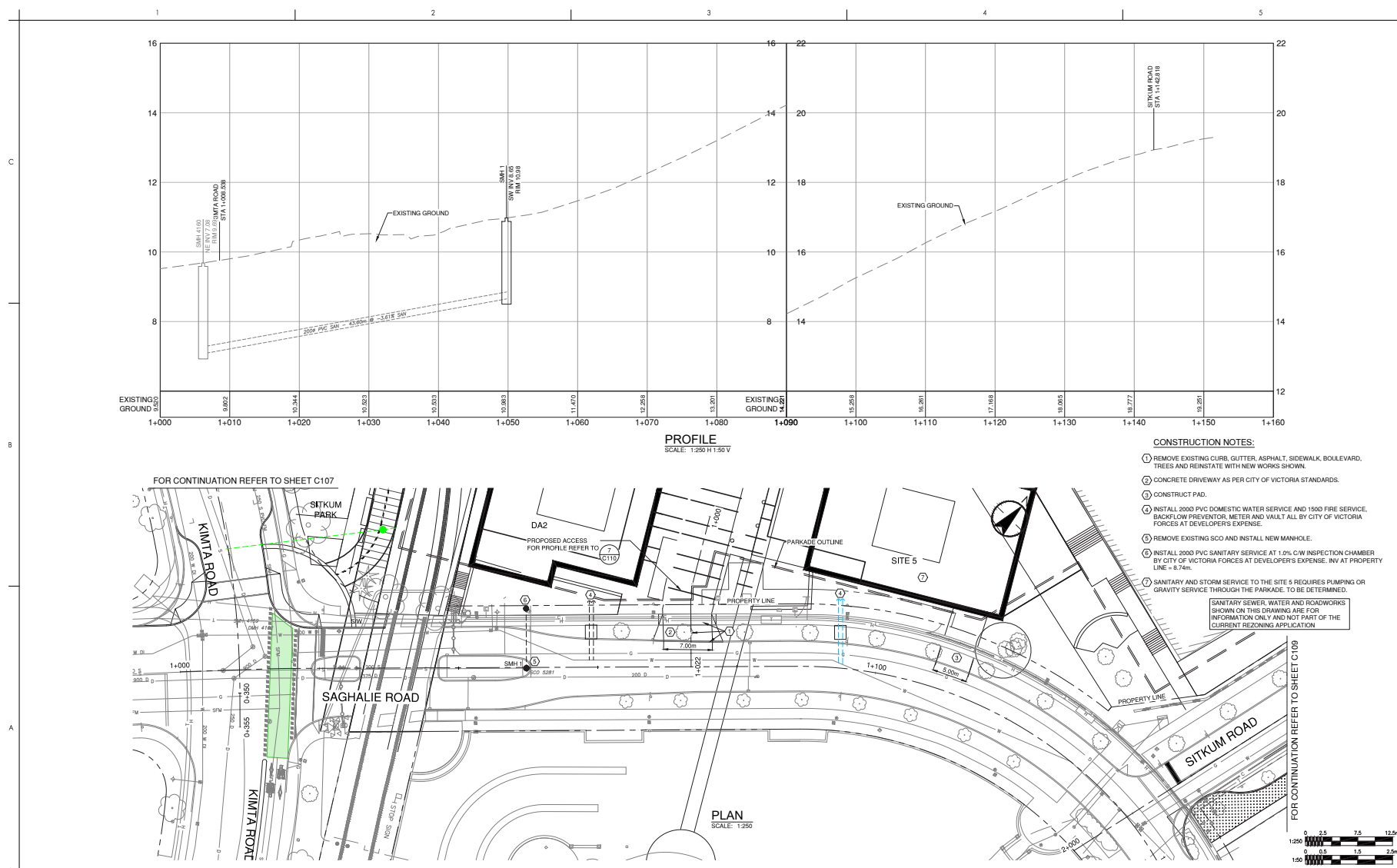


- CONSTRUCTION NOTES:**
- ① REMOVE EXISTING CURB, GUTTER, ASPHALT, SIDEWALK, RETAINING WALL, BOULEVARD, TREES AND REINSTATE WITH NEW WORKS SHOWN.
 - ② CONCRETE DRIVEWAY AS PER CITY OF VICTORIA STANDARDS.
 - ③ INSTALL 2000 PVC SANITARY
 - ④ CONSTRUCT RAISED PEDESTRIAN CROSSING. SURFACING TO BE DETERMINED.
 - ⑤ INSTALL 2000 PVC DOMESTIC WATER SERVICE AND 1500 FIRE SERVICE. BACKFLOW PREVENTOR, METER AND VAULT ALL BY CITY OF VICTORIA FORCES AT DEVELOPERS EXPENSE.
 - ⑥ INSTALL 2000 PVC SANITARY SERVICE C/W INSPECTION CHAMBER BY CITY OF VICTORIA FORCES AT DEVELOPERS EXPENSE. INV AT PROPERTY LINE = 8.81m
 - ⑦ INSTALL STORMWATER REHABILITATION UNIT (SRU) ON EXISTING 5250 STORM DRAIN. PROVIDE 2-2000 SERVICE CONNECTIONS. CONNECT TO THE NEW SRU. INV AT PROPERTY LINE = 8.16m
 - ⑧ INSTALL 5250 PVC STORM DRAIN.
 - ⑨ INSTALL NEW DRAIN MANHOLE ON EXISTING 7500 STORM DRAIN.
 - ⑩ INSTALL NEW CATCHBASIN AND 1500 PVC LEAD AND CONNECT TO EXISTING STORM DRAIN.
 - ⑪ EXISTING CITY OF VICTORIA STORM DRAIN AND R.O.W. TO BE REMOVED FROM PROPERTY. STORM DRAIN TO BE REROUTED ALONG ESQUIMALT RD AND CATHERINE ST AS SHOWN.
 - ⑫ INSTALL 2000 PVC SANITARY SERVICE C/W INSPECTION CHAMBER BY CITY OF VICTORIA FORCES AT DEVELOPERS EXPENSE. INV AT PROPERTY LINE = 8.48m
 - ⑬ INSTALL 2000 PVC DRAIN SERVICE C/W STORMWATER REHABILITATION UNIT (SRU). INV AT PROPERTY LINE = 8.69m

<table border="1"> <tr> <th>Revision</th> <th>By</th> <th>App'd</th> <th>YYYYMMDD</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		Revision	By	App'd	YYYYMMDD													Permi/Seal <p style="text-align: center;">PRELIMINARY NOT FOR CONSTRUCTION</p> Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.	Consultant Stantec Consulting Ltd. 400-655 Tweed Road Victoria BC V9A 6X5 Tel: (250) 388-6161 www.stantec.com Copyright Reserved <small>No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Stantec Consulting Ltd.</small>	Client/Project Logo Client/Project FOCUS EQUITIES LTD. ROUNDHOUSE SUBDIVISION OFFSITE SERVICING Victoria, BC Name: 112610210_PLAN_PROFILE Date: _____ Drawn: _____ Sign: _____ Check: _____ Date: 2022.12.14	Title KIMTA RD STA 0+100 TO 0+230 PLAN AND PROFILE Project No. 112610210 Scale AS SHOWN Revision Sheet of Drawing No. C106
Revision	By	App'd	YYYYMMDD																		



Permit/Seal PRELIMINARY NOT FOR CONSTRUCTION Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.		Consultant Stantec Consulting Ltd. 400-555 West Road Victoria BC V8A 6X5 Tel: (250) 384-6161 www.stantec.com Copyright Reserved		Client/Project Logo Client/Project FOCUS EQUITIES LTD. ROUNDHOUSE SUBDIVISION OFFSITE SERVICING Victoria, BC		Title KIMTA RD STA 0+230 TO 0+360 PLAN AND PROFILE Project No. 112610210 Scale AS SHOWN Revision Sheet of Drawing No. C107	
Revision By: Appd: YYYYMMDD Issued: By: Appd: YYYYMMDD		Date: 2022.02.28 By: Appd: YYYYMMDD		Name: 112610210_PLAN_PROFILE Dwn: Sign: Cld: 2022.12.14 By: Appd: YYYYMMDD			



Permitt/Seal PRELIMINARY NOT FOR CONSTRUCTION Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.		Consultant Stantec Consulting Ltd. 404455 Yew Road Victoria BC V9A 6X5 Tel: (250) 388-6161 www.stantec.com Copyright Reserved		Client/Project Logo Client/Project FOCUS EQUITIES LTD. ROUNDHOUSE SUBDIVISION OFFSITE SERVICING Victoria, BC		Title SAGHALIE RD STA 1+000 TO 1+150 PLAN AND PROFILE Project No. 112610210 Scale AS SHOWN Revision Sheet of Drawing No. C108	
Revision By: Appd: PYY/AM/DC Issued:		CE APPROVAL By: Appd: PYY/AM/DC		Name: 112610210_PLAN_PROFILE Date: 2021.12.14 Dwn: Sign: CWD: PYY/AM/DC			

This page intentionally left blank

