

City of Surrey  
**PLANNING & DEVELOPMENT REPORT**

File: 7917-0369-00

Planning Report Date: January 14, 2019

**PROPOSAL:**

- Development Permit
- Development Variance Permit

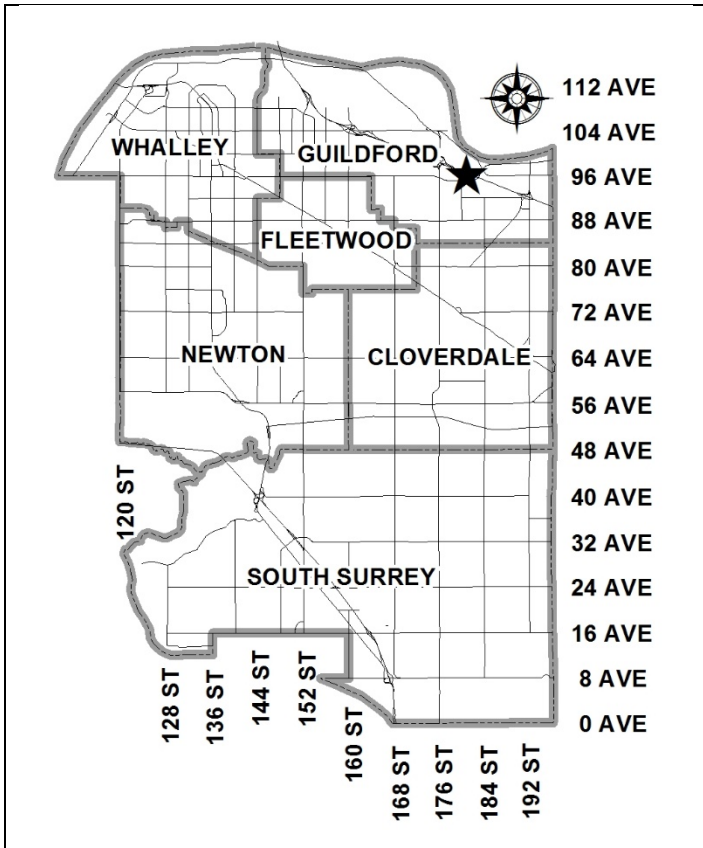
to allow a free-standing, two-sided electronic message board sign along Highway No. 1.

**LOCATION:** 18087 - 96 Avenue

**ZONING:** RA

**OCP DESIGNATION:** Mixed Employment

**NCP DESIGNATION:** Light Industrial, Landscape Buffer and Fish Class 15m & 30m Buffer Class B



### RECOMMENDATION SUMMARY

- Approval to draft Development Permit.
- Approval for Development Variance Permit to proceed to Public Notification.

### DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- The proposed free-standing, two-sided electronic message board sign does not comply with the Sign By-law.

### RATIONALE OF RECOMMENDATION

- Currently, there are seven (7) free-standing, two-sided electronic message board signs installed in Surrey. These signs were approved in 2010, 2011, 2014 and 2015, and they are located at the Guildford Recreation Centre, the Surrey Sports and Leisure Centre, along King George Boulevard (east of the Pattullo Bridge), along Highway No. 1 (east of the Port Mann Bridge), on a City-owned lot on the south-west corner of Nordel Way and 88 Avenue (12172 - 88 Avenue), and at Highway No. 10 and 144 Street.
- On January 8, 2018, Council approved the eighth (8<sup>th</sup>) free-standing, two-sided electronic message board sign under Development Application No. 7917-0420-00. This sign will be located on the east side of Highway No. 15 at 61A Avenue on city-owned land at the Cloverdale Fairgrounds, and has yet to be installed.
- The proposed free-standing, two-sided electronic message board sign on the subject site is of high quality and incorporates the same unique design as the other approved signs in the City.
- The proposed free-standing, two-sided electronic message board sign will allow the City to generate additional revenue and will also be used as a communication tool to relay information to the public. To date, the City's messages have included information regarding fire prevention, water conservation, recycling services, recreational programs and the promotion of City events.
- The foundation footprint of the proposed digital sign is outside of the Green Infrastructure Network (GIN) and the Streamside Protection Area (SPEA). No variances are proposed to the Streamside Protection Area (SPEA), and the City's Environmental staff do not have any concerns with the proposal.

RECOMMENDATION

The Planning & Development Department recommends that:

1. Council authorize staff to draft Development Permit No. 7917-0369-00, for Form and Character and Sensitive Ecosystems (streamside and green infrastructure), generally in accordance with the attached drawings and Sensitive Ecosystem Development Plan (Appendix II).
2. Council approve Development Variance Permit No. 7917-0369-00 (Appendix III) varying the following Sign By-law regulations, to proceed to Public Notification:
  - (a) to allow a free-standing, electronic message board sign to be installed on a City-owned property (18087 – 96 Avenue) adjacent to Highway No. 1;
  - (b) to allow a free-standing, electronic message board sign to be located within 60 metres (200 ft.) of Highway No. 1;
  - (c) to reduce the minimum required setback from the northern property line for the proposed free-standing electronic message board sign from 2.0 metres (6.5 ft.) to 0.0 metre (0 ft.);
  - (d) to allow third party advertising to exceed 30% of the allowable copy area on the proposed free-standing, two-sided electronic message board sign;
  - (e) to increase the maximum permitted sign area for the proposed two-sided free-standing, electronic message board sign from 28 square metres (300 sq. ft.) to 125 square metres (1,345 sq.ft.);
  - (f) to allow the maximum permitted copy area of the proposed free-standing, two-sided, electronic message board sign to exceed 50% of the sign area; and
  - (g) to increase the maximum permitted height of the proposed free-standing, two-sided, electronic message board sign from 4.5 metres (15 ft.) to 19.5 metres (64 ft.).
3. Council instruct staff to resolve the following issues prior to final approval:
  - (a) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;
  - (b) submission of a finalized landscaping plan and landscaping cost estimate to the specifications and satisfaction of the Planning and Development Department; and
  - (c) approval from the Ministry of Forests, Lands and Natural Resource Operations under the Water Sustainability Act for the proposed vehicle and pedestrian crossing over a portion of the ditch along the south property line.

REFERRALS

Engineering: The Engineering Department has no objection to the proposal.

Ministry of Transportation & Infrastructure (MOTI): MOTI has no objection to the proposal.

SITE CHARACTERISTICS

Existing Land Use: Vacant, treed lot.

Adjacent Area:

Direction	Existing Use	OCP / NCP Designation	Existing Zone
North (Across Highway No. 1):	Treed, vacant lot featuring Class A stream	Suburban	RA
East:	Unopened road right-of-way with Class A channelized stream	Mixed Employment Fish Class 15m & 30m Buffer Class B	RA
South (Across 96 Avenue):	Single family dwelling with a Class A ditch along the northeast portion of the lot	Mixed Employment Park and Fish Class 15m & 30m Buffer Class B	RA
West:	Treed, vacant lot (under Application No. 7916-0710-00) for a Temporary Use Permit to allow truck parking (pre-Council)	Mixed Employment Light Industrial	RA

DEVELOPMENT CONSIDERATIONSBackground

- In September 2009, following a public request for proposals process, Council awarded a digital sign program to Pattison Outdoor Advertising Ltd. As part of this program, eight (8) free-standing, electronic message board signs have been approved in the City thus far, seven (7) of which are installed and in operation:

Location	Digital Screen Size	Sign Height	Application No.	Date of Approval
Guildford Community Centre	3.0 m x 6.0 m (10 ft. x 20 ft.)	10.5 metres (34.2 ft.)	No. 7910-0012-00	April 12, 2010, and installed
Surrey Sports and Leisure Centre	3.0 m x 6.0 m (10 ft. x 20 ft.)	10.5 metres (34.2 ft.)	No. 7910-0036-00	April 12, 2010, and installed
East of the Pattullo Bridge	4.2 m x 14.6 m	19.5 metres	No. 7910-0013-00	October 04, 2010,

Location	Digital Screen Size	Sign Height	Application No.	Date of Approval
(road right-of-way)	(14 ft. x 48 ft.)	(64 ft.)		and installed
East of the Port Mann Bridge	4.2 m x 14.6 m (14 ft. x 48 ft.)	19.5 metres (64 ft.)	No. 7910-0304-00	January 09, 2012, and installed
Nordel Way (east of 120 Street)	3.0 m x 6.0 m (10 ft. x 20 ft.)	9.8 metres (32 ft.)	No. 7914-0148-00	December 1, 2014, and installed
Scott Road, south of Larson Road (east side road right-of-way)	3.0 m x 6.0 m (10 ft. x 20 ft.)	10.5 metres (34.2 ft.)	No. 7914-0233-00	February 2, 2015, and installed
Highway No. 10 at 144 Street	3.0 m x 10.7 m (10 ft. x 35 ft.)	8.9 metres (29.2 ft.)	No. 7915-0105-00	July 27, 2015, and installed
Highway No. 15 at 61A Avenue	3.0 m x 6.0 m (10 ft. x 20 ft.)	9.8 metres (32 ft.)	No. 7917-0420-00	January 08, 2018, and not yet installed

- The advertising space on each of the digital signs is presented in continuing one-minute cycles consisting of nine (9) separate advertising spots. Each advertising spot presents a static image that remains on the sign for approximately six (6) seconds, and then moves to the next static advertising message for another six (6) seconds and so on. The signs do not display any streaming or live video.
- The City has been allocated one or more advertising spots in each one-minute cycle on each sign. To date, the City's messages have included information regarding fire prevention, water conservation, recycling services, recreational programs and the promotion of City events.
- Strong support for the digital signs and their advertising opportunities has been shown by the local business community. Pattison is responsible for all aspects of the signs, from selling the advertising spots to maintenance, while the City receives the greater of a guaranteed minimum revenue stream or a percentage of the advertising revenues generated by each sign.
- Pattison will be submitting applications to the City for additional signs in the future. Staff will continue to gauge the effectiveness of the signs, the acceptability of such signs to the public and other related matters, and will provide further reports to Council in due course.

#### Current Proposal

- The current proposal is for a larger-format two-sided electronic message board sign, which is similar to the two (2) other signs that have been previously installed adjacent to the Port Mann and Pattullo Bridges. The message board screen is approximately 4.2 metres x 14.6 metres (14 ft. x 48 ft.) in size.
- The proposed sign height is 19.5 metres (64 ft.), which is identical to the height of the larger-format free-standing electronic message board sign installed adjacent to the Port Mann and Pattullo Bridges.
- The proposed sign location is situated immediately south of Highway No. 1 and north of 96 Avenue. The site is a City-owned property designated Mixed Employment in the Official Community Plan (OCP), and Light Industrial, Landscape Buffer and Fish Class 15m & 30m Buffer Class B in the Anniedale-Tynehead Neighbourhood Concept Plan (NCP), and zoned One-Acre Residential (RA).

- A 6.0-metre (20-ft.) wide gravel access road for sign maintenance is proposed from the sign to the south property line, connecting to 96 Avenue.
- The proposed free-standing, two-sided electronic message board sign requires a Development Permit, and Council will also need to consider several variances to the Sign By-Law, as noted in the following table:

<b>Part varied</b>	<b>From</b>	<b>To</b>
Part 1, Prohibited Signs (10)(13)	Electronic message board signs are prohibited	Allow a free-standing, two-sided electronic message board sign to be installed on a City property adjacent to Highway No. 1
Part 1, General Provisions (7)(a)	When a lot fronts or abuts another highway located within 150 metres of Highway No. 1, free-standing signs must be located a minimum of 60 metres (200 ft.) from the right-of-way of Highway No. 1	Allow a free-standing, electronic message board sign to be located within 60 metres (200 ft.) of Highway No. 1
Part 5, Signs in Commercial/Industrial Zones (27)(1)(e)	Sign shall be located at a minimum 2.0 metres (6.5 ft.) from any lot line	Allow a free-standing sign to be located at 0.0 metre (0 ft.) from the north lot line of the subject property
Part 1, General Provisions (6)(11)	Third party advertising restricted to a maximum of 30% of the copy area	Allow third party advertising to exceed 30% of the allowable copy area on the proposed free-standing, electronic message board sign
Part 5, Signs in Commercial/Industrial Zones (27)(1)(g)	Maximum sign area for a double-sided sign is 28 square metres (300 sq. ft.)	Increase the maximum permitted sign area to 125 square metres (1,345 sq. ft.)
Part 5, Signs in Commercial/Industrial Zones (27)(1)(i)	Maximum copy area shall not exceed 50% of the sign area	Allow the maximum permitted copy area to exceed 50% of the sign area
Part 5, Signs in Commercial/Industrial Zones (27)(1)(k)	Maximum height of a free-standing sign at this location is 4.5 metres (15 ft.)	Increase the maximum permitted height to 19.5 metres (64 ft.)

#### DESIGN PROPOSAL AND REVIEW

- The proposed free-standing, electronic message board sign is double-sided, approximately 19.5 metres (64 ft.) high, with a total sign area of 125 square metres (1,345 sq. ft.), and almost identical to the electronic message board signs installed and in operation near the Port Mann and Pattullo Bridges.
- The sign is supported by a solid pole with aluminum cladding painted metallic, which will be installed on a concrete foundation.

- The proposed sign will be capped with a curved aluminum roof and a perforated aluminum structure that will accommodate the City of Surrey logo.
- The two (2) electronic message boards on the proposed free-standing sign will be angled towards the street, to increase readability for passersby. The angled board creates a bold and distinctive design unlike many standard electronic billboard signs.
- The proposed free-standing, two-sided electronic message board sign is of high-quality with a unique design. The sign utilizes state-of-the-art light-emitting diode (LED) digital technology, which is designed to provide clear, precise reproduction of still images and artwork. The sign has been designed to be more energy efficient and produce less glare compared to standard digital signs without LED technology.
- The sign will be visible for both westbound and eastbound traffic along Highway No. 1, but caters to those travelling eastbound.

#### Sensitive Ecosystems (Streamside Areas) Development Permit

- The subject property falls within the Sensitive Ecosystems (Streamside Areas) Development Permit Area (DPA) in the OCP. According to the City's COSMOS mapping system, there is an unnamed Class B (yellow-coded) ditch running parallel to the south property line along the 96<sup>th</sup> Avenue right-of-way, which flows to the Class A (red-coded) ditch on the abutting site (unopened road right-of-way) to the east.
- The Ecosystem Development Plan (EDP), prepared by Kyla Bryan-Milne, R.P. Bio. of Pacific Land Resource Group Inc. and dated February 22, 2018, confirmed that the "Class B (yellow-coded) Ditch" classification as noted on COSMOS is correct. However, the EDP stated that the existing watercourse on the abutting site to the east should be classified as a "Class A (red-coded) Channelized Stream" and not a 'ditch'. Therefore, the EDP has recommended a 7.0-metre (23-ft.) setback for the "Class B (yellow-coded) Ditch" from top-of-bank, and a 25-metre (82-ft.) setback for the "Class A (red-coded) Channelized Stream" from top-of-bank. These setbacks are in accordance with Part 7A Streamside Protection setbacks of the Zoning By-law.
- A culvert is required over the "Class B Ditch" along the south property line in order to access 96 Avenue, but otherwise the proposed sign location and driveway access do not encroach into the streamside setbacks. The proposed vehicle crossing will not require a Development Variance Permit (DVP), but will require approval from the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) under the Water Sustainability Act.
- The City's Environmental staff have reviewed the report and the proposal, and do not have any concerns. The Sensitive Ecosystem Development Plan will form part of the proposed Development Permit.

#### Biodiversity Conservation Strategy

- The City of Surrey Biodiversity Conservation Strategy (BCS) Green Infrastructure Network (GIN) map, adopted by Council on July 21, 2014 (Corporate Report No. R141; 2014), identifies a Local BCS Corridor along the east edge of the subject site, in the Tynehead BCS management

area, with a Moderate ecological value. The majority of the BCS Corridor is situated on the abutting site to the east.

- The BCS further identifies the GIN area of the subject site as having a Moderate habitat suitability rating, derived from species at risk presence, species accounts and known ecosystem habitat inventories. The BCS recommends a target BCS Corridor width of 50 metres, a small portion of which falls along the east boundary of the subject site.
- The Ecosystem Development Plan (EDP) states that although the proposed sign is located within the GIN buffer for the BCS corridor, it is not expected to negatively impact the integrity of the corridor and the Green Infrastructure Network in general.
- The protection of portions of the subject site, including the GIN buffer areas, will be achieved through the installation of 1.2-metre (4-ft.) high three-rail split fencing.

### TREES

- Tim Swain, ISA Certified Arborist of BC Tree Service Ltd., prepared an Arborist Assessment for the subject property. The assessment states that there are approximately 125 to 150 undersized trees, consisting of poplar, maple, alder and willow, on the site. There are also ten (10) protected trees on the site, including eight (8) Cottonwood and two (2) Big Leaf Maple trees, near the north property line along Highway No. 1.
- The ten (10) protected, on-site trees are proposed for removal. The proposed tree removal is required in order to construct the foundation and provide adequate maintenance access for the proposed free-standing, electronic message board sign. The trees proposed for removal will also allow for sign visibility from Highway No. 1.
- Four (4) protected, off-site trees (all Cottonwoods) were also noted in the Arborist Assessment, with two (2) of these off-site trees proposed for retention and two (2) proposed for removal. The property owner to the west (Ministry of Transportation & Infrastructure) has agreed to remove these two (2) off-site trees.
- The majority of the undersized, on-site trees are of low value. According to the arborist report, many of the undersized trees proposed for removal from the site are also damaged or decayed. This was as a result of being upheaved from the saturated soil or had fallen from previous windstorms.
- The arborist indicates that the area to be cleared is measured approximately 30 metres (100 ft.) from the north property line (Appendix IV). Based on discussions between the applicant, the arborist and the sign construction crew, it was confirmed that the 30-metre (100-ft.) distance from the north property line is the minimum space required to complete the excavation and construction, to access and maintain the sign once installed, and for sign visibility along Highway No. 1.
- For those trees that cannot be retained, the applicant will be required to plant trees on a 1 to 1 replacement ratio for the Cottonwood trees, and a 2 to 1 replacement ratio for the Big Leaf Maple trees. Since ten (10) Cottonwood and two (2) Big Leaf Maple trees are proposed for



removal, this will require a total of fourteen (14) replacement trees on the site. The applicant is proposing 14 replacement trees, meeting the City requirement.

- The new trees to be planted on the site will consist of maple and willow trees, which the arborist deemed as the most appropriate tree species, given the moist soil conditions and its proximity to the highway.

#### BY-LAW VARIANCES AND JUSTIFICATION

(a) Requested Variances:

- To vary Part 1, Prohibited Signs (10)(13) of the Sign By-law to allow a free-standing, two-sided electronic message board sign to be installed on City property adjacent to Highway No. 1;
- To vary Part 6 General Provisions (7)(a) of the Sign By-law to allow a free-standing, electronic message board sign to be located within 60 metres (200 ft.) of Highway No. 1; and
- To vary Part 5 Commercial / Industrial Signs (27)(1)(e) of the Sign By-law to reduce the minimum required setback for a free-standing sign along the north property line from 2.0 metres (6.5 ft.) to 0.0 metre (0 ft.).

Applicant's Reasons:

- The proposed free-standing, electronic message board sign is part of a City program, which generates revenue through advertising and displays valuable City information.
- The proposed free-standing, electronic message board sign is of a high-quality design, and in a highly visible location, which will increase the effectiveness of the messages.
- There will not be any impact to vehicle traffic along Highway No. 1.

Staff Comments:

- The proposed free-standing, electronic message board sign will be installed on a vacant City-owned lot, which will not impact pedestrian or vehicular traffic.
- A number of locations were discussed for the proposed free-standing, electronic message board sign, and it was determined that the current proposed location was the most appropriate given issues pertaining to functionality, visibility and safety along Highway No. 1.
- As part of the subject development application, two (2) existing, eastbound highway guide signs will be relocated and installed east of the proposed free-standing, electronic message board sign (see Appendix II). The Ministry of Transportation and Infrastructure (MOTI) has agreed to the sign relocation and has not raised any other concerns or objections to the proposed free-standing, electronic message board sign.

- Despite the proposed setback reduction to 0.0 metre (0 ft.) along the north lot line of the subject property, the proposed sign is still more than 8.0 metres (26 ft.) away from the edge of the highway shoulder. Therefore, the proposed sign will not interfere with traffic movement, including oversized vehicles, along Highway No. 1.
- Staff support this variance.

(b) Requested Variance:

- To vary Part 1 General Provision (6)(11) of the Sign By-law to allow third party advertising to exceed 30% of the allowable copy area on the proposed free-standing, two-sided electronic message board sign.

Applicant's Reason:

- Third party advertising is important to the feasibility of the proposed free-standing, electronic message board sign.

Staff Comments:

- In addition to acting as a communication tool for the City to relay information to the public, the proposed free-standing, electronic message board sign will offer third parties an opportunity to advertise their goods and services. At given times, it is expected that third party advertising may occupy 100% of the copy area.
- The proposed free-standing, electronic message board sign is a significant financial venture. Thus, the success and viability of the proposed sign is contingent on third-party advertising.
- Staff support this variance.

(c) Requested Variances:

- To vary Part 5 Commercial / Industrial Sign (27)(1)(g) of the Sign By-law to increase the maximum permitted sign area for the proposed double-sided free-standing, electronic message board sign from 28 square metres (300 sq. ft.) to 125 square metres (1,345 sq. ft.); and
- To vary Part 5 Commercial / Industrial Signs (27)(1)(i) of the Sign By-law to allow the maximum permitted copy area of the proposed free-standing, electronic message board sign to exceed 50% of the sign area.

Applicant's Reasons:

- The size of the free-standing, electronic message board sign will optimize the impact for the advertiser and provide adequate size and clarity to ensure brand recall and message understanding.
- The proposed free-standing sign will reduce glare and light pollution compared to standard digital signs without LED technology. The proposed digital message board

sign will be energy efficient, particularly at night, as the LED lights automatically adjust to ambient light levels.

Staff Comments:

- The sign area comprises only the digital messaging screen of the proposed free-standing, electronic message board sign, and does not include the architectural elements or the sign pole.
- The proposed free-standing, electronic message board sign is a larger-format electronic message board sign, similar to ones installed and in operation near the Port Mann Bridge and Pattullo Bridge.
- The proposed sign is well-designed and utilizes state-of-the-art LED digital technology to relay information to the public. The City will be dedicated at least 10% of the advertising time for real time City, RCMP, public service, emergency, community event, and economic development messaging.
- The proposed increase in the copy area is reasonable when considering the purpose of the electronic message board sign and its ability to project larger images and advertisements.
- Staff support this variance.

(d) Requested Variance:

- To vary Part 5 Commercial / Industrial Signs (27)(1)(k) of the Sign By-law to increase the maximum permitted height of the proposed free-standing sign from 4.5 metres (15 ft.) to 19.5 metres (64 ft.).

Applicant's Reason:

- The proposed free-standing, electronic message board sign is well-designed and utilizes the same LED technology used in other free-standing, electronic message board signs currently operating in the City. The proposed size will allow for greater clarity and the ability to easily share advertisements and information with the public.

Staff Comments:

- The overall height of the proposed free-standing, electronic message board sign is 19.5 metres (64 ft.), which includes the decorative element affixed above the electronic message board. The proposed height is consistent with the larger-format electronic message board signs currently in operation throughout the City (Port Mann and Pattullo Bridges).
- The proposed free-standing, electronic message board sign has been designed and copyrighted by Pattison to incorporate innovative architectural features and design elements that are unique to Surrey.

- The proposed free-standing, electronic message board sign will provide additional revenue source for the City, which can be used to improve infrastructure and facilities.
- Staff support this variance.

INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I. Lot Owners and Action Summary (Confidential)  
Appendix II. Sign Drawings  
Appendix III. Development Variance Permit No. 7917-0369-00  
Appendix IV. Site Clearing Map

*original signed by Ron Gill*

Jean Lamontagne  
General Manager  
Planning and Development

DN/cm

APPENDIX I HAS BEEN  
REMOVED AS IT CONTAINS  
CONFIDENTIAL INFORMATION

PROJECT:

**Surrey Digital Sign - Hwy 1  
& 96 Avenue**

DRAWING TITLE:

**Sign Location Plan with  
Setbacks**

PRELIMINARY PLAN - SUBJECT TO APPROVAL(S) FROM  
FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES

CLIENT:

**City of Surrey**

SCALE:

**1:500**

DATE:

**October 10, 2018**

PROJECT No:

**13-1131**

DRAWING No:

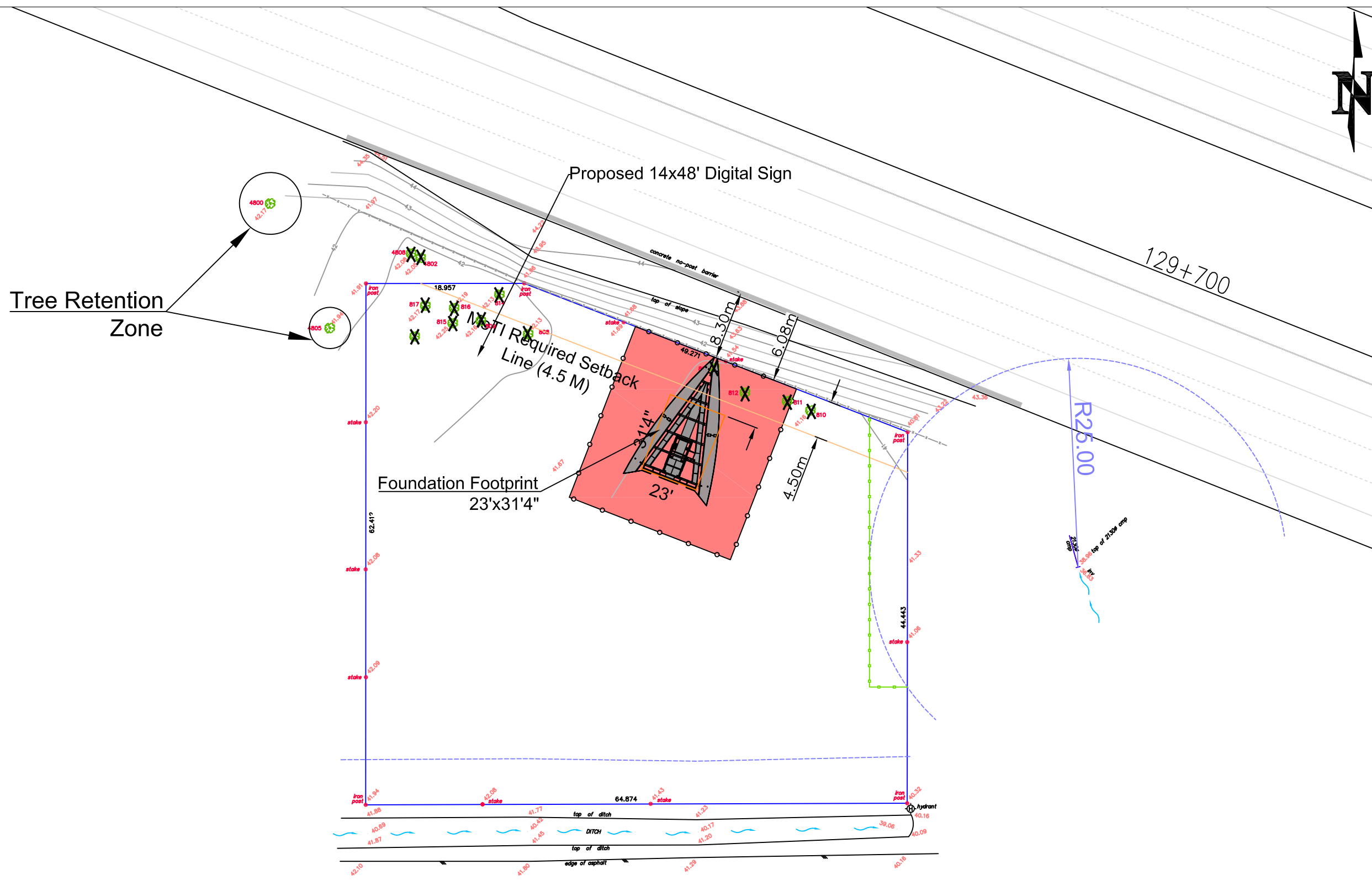
**01-1**

DESIGNED BY:

**EW**

CHECKED BY:

**OV**



**Statistics**  
 Required Ditch Setback : 7 M  
 Required Watercourse Setback: 25 M  
 Proposed Digital Sign: 14' x 48'  
 Proposed Trees Removal: 12  
 Impacted GIN Corridor Buffer Area: 454 M<sup>2</sup>

Required Sign Foundation Setback: 4.5 M  
 Proposed Sign Foundation Setback: 6.08 M  
 Required Sign Setback from Hwy 1: 60 M  
 Proposed Sign Setback from Hwy 1: 0 M  
 Distance from Sign to Hwy 1 Barriers: 8.3 M  
 Development Variance Permit Required

**LEGEND**

Trees to be Removed

**Pacific Land Resource Group Inc.**

Suite 212 - 12992 76 Avenue  
Surrey, British Columbia  
Canada V3W 2V6

Tel: 604-501-1624  
Fax: 604-501-1625

www.pacificlandgroup.ca  
info@pacificlandgroup.ca

PROJECT:

**Surrey Digital Sign - Hwy 1  
& 96 Avenue**

DRAWING TITLE:

**Sign Profile**

PRELIMINARY PLAN - SUBJECT TO APPROVAL(S) FROM  
FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES

CLIENT:

**City of Surrey**

SCALE:

**1:200**

DATE:

**October 10, 2018**

PROJECT No:

**13-1131**

DRAWING No:

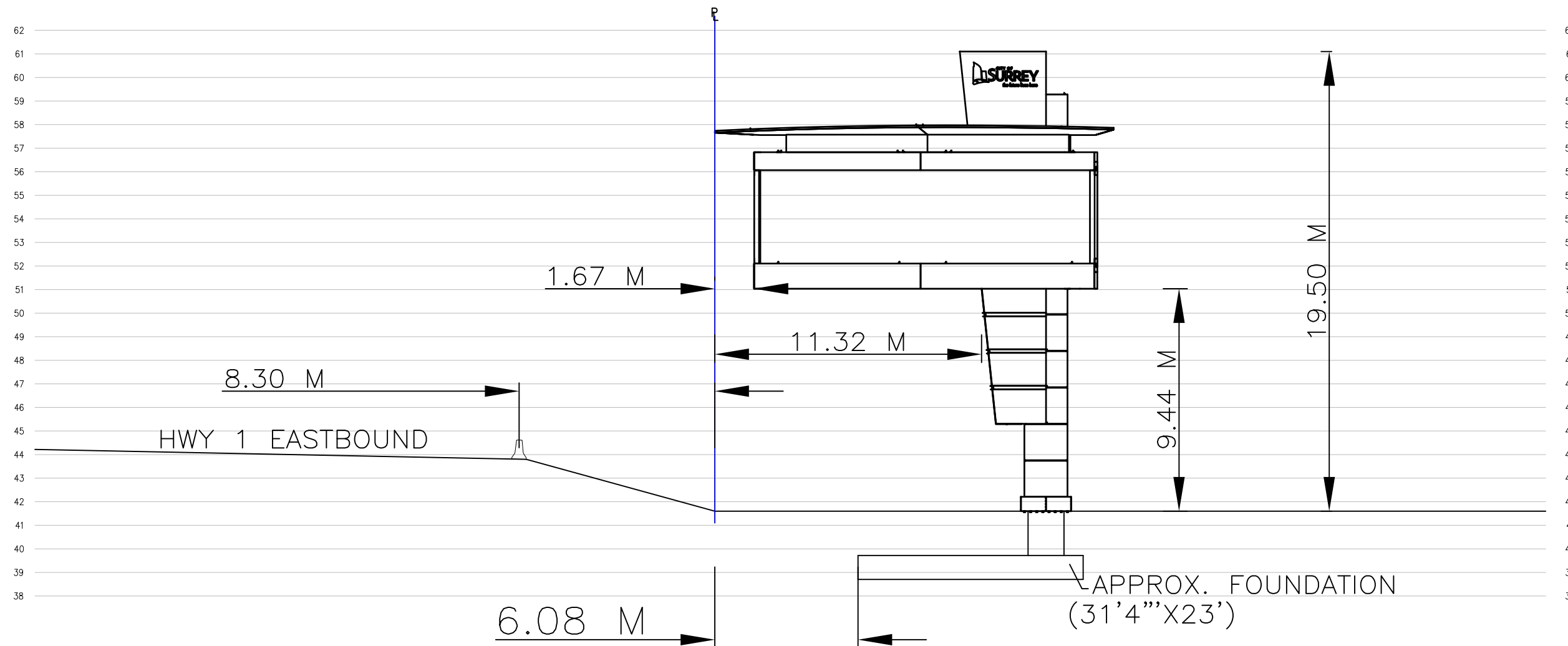
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DESIGNED BY:

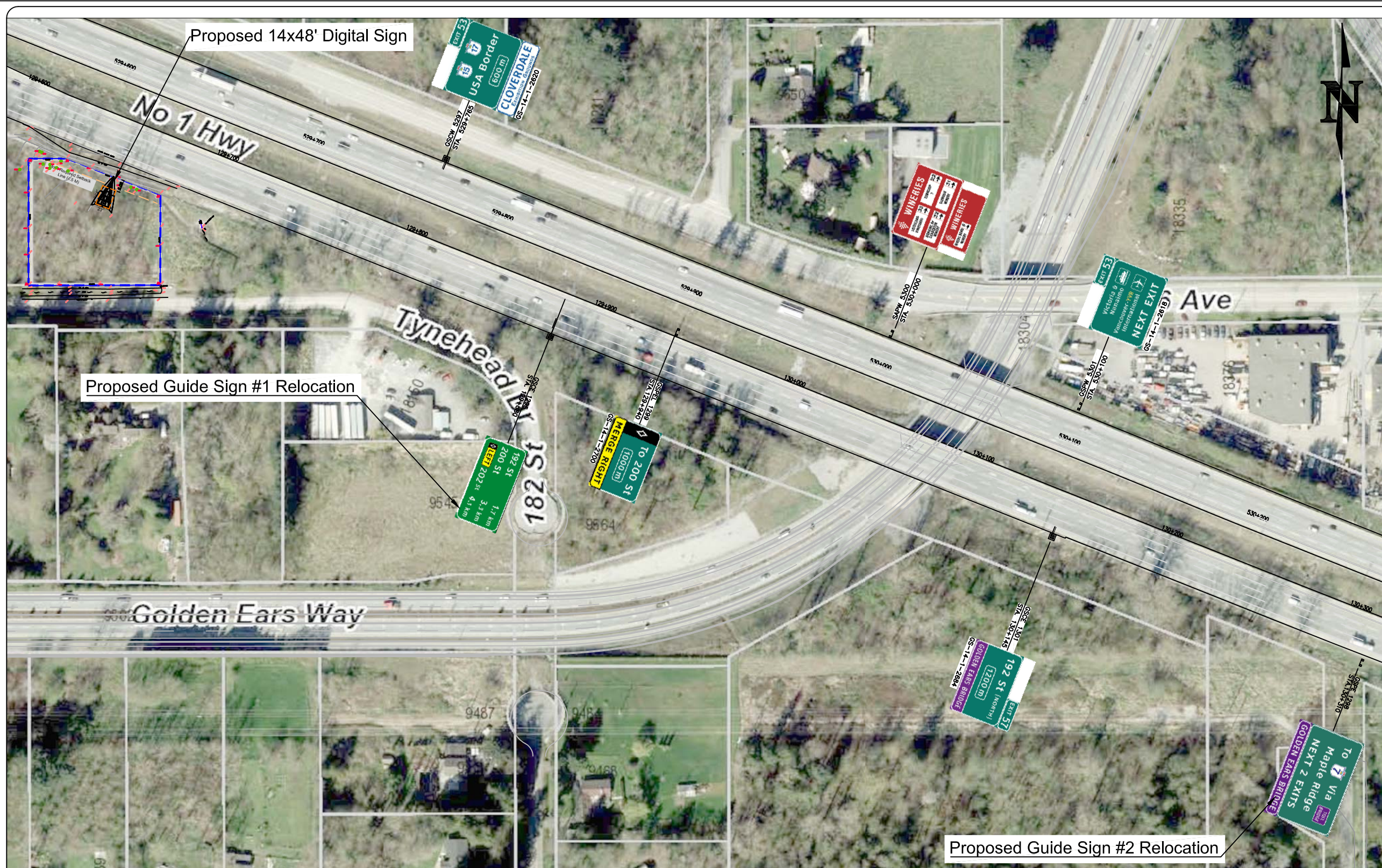
**EW**

CHECKED BY:

**OV**







**Pacific Land Resource Group Inc.**

Suite 212 - 12992 76 Avenue  
Surrey, British Columbia  
Canada V3W 2V6  
Tel: 604-501-1624  
Fax: 604-501-1625  
www.pacificlandgroup.ca  
info@pacificlandgroup.ca

PROJECT:  
**Surrey Digital Sign - Hwy 1 & 96 Avenue**

DRAWING TITLE:  
**Guide Sign Relocation Context Plan**

PRELIMINARY PLAN - SUBJECT TO APPROVAL(S) FROM FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES

CLIENT:  
**City of Surrey**

SCALE:  
**1:500**

DATE:  
**August 23, 2018**

PROJECT No:  
**13-1131**

DRAWING No:  
**00**

DESIGNED BY: <b>EW</b>	CHECKED BY: <b>OV</b>
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**STATISTICS**  
Proposed Guide Signs Relocation  
#1: GSCE 1295 from STA. 129+580 to STA.129+880  
#2: GSPE 1298 from STA. 129+880 to STA. 130+310

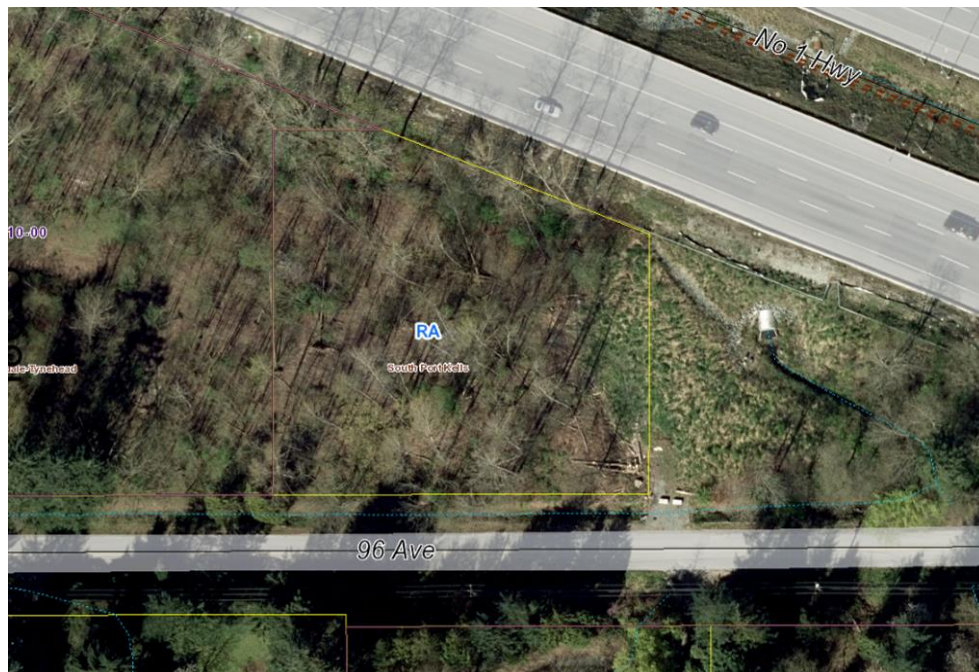
**NOTE:**  
Existing Guide Signs at Westbound of Hwy 1 to be Retained, Relocation is not Required.



# SENSITIVE ECOSYSTEM DEVELOPMENT PLAN

## Surrey Digital Signs – Highway 1 and 96 Avenue

PREPARED FOR: Pattison Group for submission to the City of Surrey



PREPARED BY:



Pacific Land Resource Group Inc.  
212-12992 76 Avenue | Surrey, British Columbia | V3W 2V6 | 604-501-1624

27 November 2018 | Project #: 13-1131

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- Appendix 1 – Arborist Report
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## List of Acronyms

ALR	Agricultural Land Reserve
BCS	Biodiversity Conservation Strategy
BIT	Biologist in Training
BMPs	Best Management Practices
CDC	Conservation Data Center
COSMOS	City of Surrey Mapping Online System
DBH	Diameter at Breast Height
DP3	Sensitive Ecosystem Development Permit
GIN	Green Infrastructure Network
OCP	Official Community Plan
PLG	Pacific Land Group
QEP	Qualified Environmental Professional
SARA	Species at Risk Act
SPEA	Streamside Protection Enhancement Area
TOB	Top of Bank

**Table 1: Reviewer DP3 Checklist**

<b>D. Submission Requirements – Ecosystem Development Plan</b>		
<b>Consultant Qualifications</b>		
23	All registered professionals have demonstrated education expertise and are qualified to conduct work associated with this project	X
24	ISA Certified Arborists were engaged	N/A <sup>1</sup>
25	All QEPs and ISA Certified Arborists have been listed and verified	X
26	The primary QEP has been identified	X
<b>Protection Areas</b>		
27 a	The zoning bylaw has been considered with respect to streamside protection areas	X
27 b	The Biodiversity Conservation Strategy has been considered to identify the Green Infrastructure Area	X
<b>Levels of Safeguarding</b>		
28	Maximum level of safeguarding has been considered	X <sup>2</sup>
29	Minimum level of safeguarding has been considered	X <sup>2</sup>
<b>Pre-Development Site Conditions</b>		
30	Existing site buildings, structures, and landscaped areas have been identified	X
31	A geotechnical assessment was conducted	N/A
32	An arborist survey was conducted to identify trees and existing vegetation	N/A <sup>1</sup>
33	A reconnaissance survey was conducted to identify the presence of provincially/federally protected species	X
34	Streamside protection areas have been identified	N/A <sup>2</sup>
35	Existing site drainage conditions have been determined	X
36	Existing drainage and storm water conditions have been reviewed and discussed	X
<b>Proposed Development Conditions and Specifications</b>		
37 a	Streamside protection areas have been clearly demarcated	N/A <sup>2</sup>
37 b	Green Infrastructure Protection Areas have been discussed	X
38	Sensitive areas have been identified with respect to Biodiversity Management Areas and the GIN	X

<sup>1</sup> An arborist has prepared a report and a tree replacement plan has been included

<sup>2</sup> Safeguarding measures have been considered but not proposed as the property is located within the Green Infrastructure Area buffer.

<b>D. Submission Requirements – Ecosystem Development Plan</b>		
39	Construction details have been discussed	TBD <sup>3</sup>
40	Development plans conform to City of Surrey Regulations and Bylaws	X
41	Building details have been included	X
42	Construction timing and schedules have been included	TBD <sup>3</sup>
43	Site grading plans have been included in attached figures	X
44	Existing vegetation is discussed	X
45	Tree retention, removal, and landscape additions are identified	X <sup>1</sup>
46	Details have been included on how the SPEA and GIN will be respected have been considered	X
47	A restoration, maintenance and cost estimate plan and/or Impact Mitigation Plan has been included	NA <sup>4</sup>
48	Proposed development meets the objective and recommendations of the GIN and BCS	X
49	Details on how wildlife habitat will be protected have been included	X
50	Post development drainage conditions have been considered	X <sup>2</sup>
51	Flooding risk and water quality degradation have been considered	X
<b>Impact Mitigation Plan</b>		
52	An impact mitigation plan has been included and discusses overall site, building and construction, soils, trees and vegetation, habitat and wildlife and drainage	NA <sup>4</sup>

<sup>3</sup> Additional details on construction timing, materials, and techniques can be determined upon submission of a Building Permit. The proposed footprint and disturbance are identified in the report.

<sup>4</sup> A Development Variance Permit for the Streamside Setback Area is not proposed.

## 1.0 INTRODUCTION

The City of Surrey has adopted Sensitive Ecosystem Development Permit policies within their Official Community Plan (OCP) that affects projects that are located in a Green Infrastructure Area (GIN) or Streamside Protection Enhancement Area (SPEA), or both, as defined in Part 7A of the zoning bylaw. Pattison Group (the Client) is planning to submit a Sensitive Ecosystem Development Permit (SEDP or DP3) in support of the installation of a highway digital sign on the northeast side 18087 96 Avenue ("subject property"). The footprint of the proposed digital sign is outside of the GIN and the SPEA, but is within a SPEA and GIN buffer.

## 2.0 ECOSYSTEM DEVELOPMENT PLAN

### 2.1 Qualified Environmental Consultants

**Table 2: Qualified Environmental Persons (QEPs)**

<b>Name:</b>	<b>Qualification:</b>	<b>Position on the project:</b>
Kyla Bryant-Milne*	R.P.Bio	QEP for PLG
Melissa Englouen	B.I.T.	QEP for PLG
Bo Huang	B.I.T	QEP for PLG
Tim Swain	Arborist (PN6339A)	BC Tree Service

\*Primary QEP

PLG has verified the qualifications for all QEPs involved with the project.

## 3.0 PROTECTION AREAS

### 3.1 Streamside Protection and Enhancement Areas and Zoning Bylaw

Surrey City Council considered and adopted ecosystem protection measures on September 12, 2016, which included an addition of a Sensitive Ecosystem Development Permit Area in the OCP and an addition to the zoning bylaw for streamside protection. A background review of the City of Surrey's Mapping Online System (COSMOS) identifies the subject property as within a SPEA, partially within a GIN and within a 50 metre buffer area for both a SPEA and a GIN Corridor.

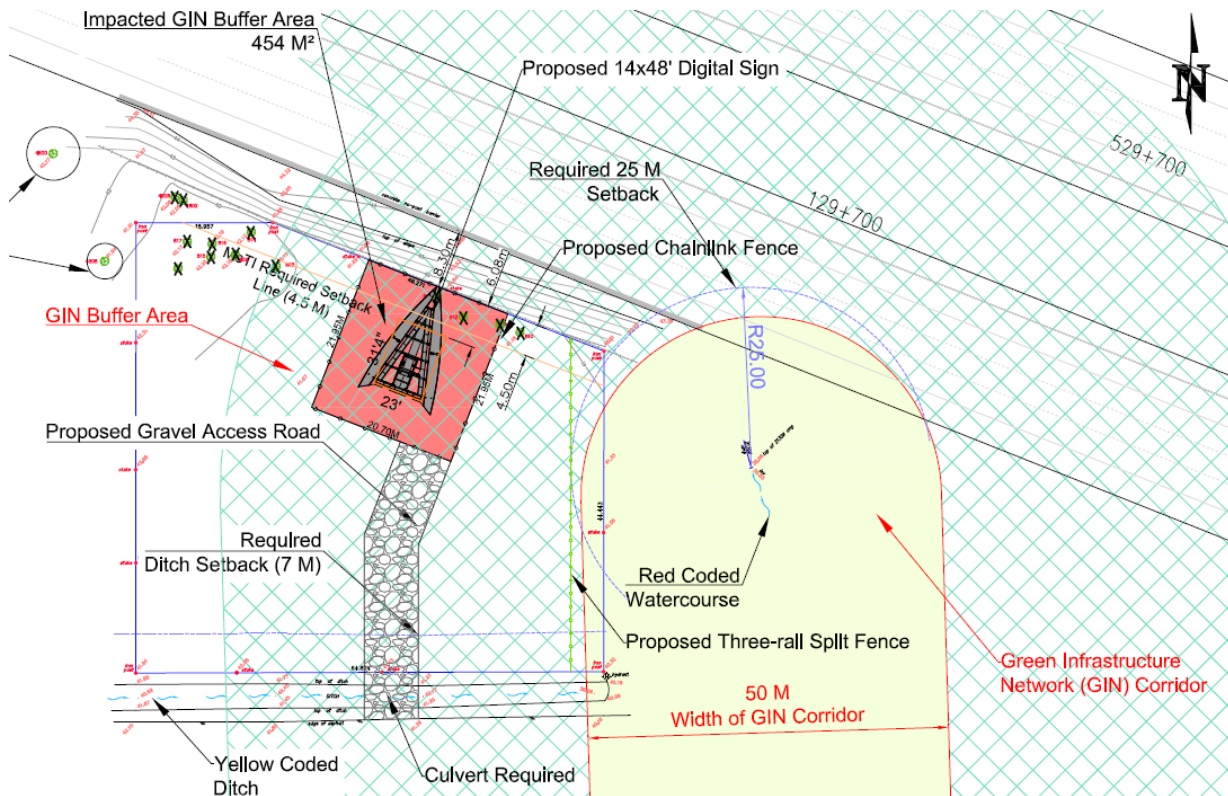
COSMOS identifies one Class B, open channel ditch, to the south of the property. This watercourse would be subject to a 7 m setback as per the bylaw. COSMOS also identifies one Class A, open channel ditch, approximately 21 m to the east of the property. This watercourse would be subject to a 25 m setback as per section B.1 of the zoning bylaw, for channelized watercourses. Both watercourses were confirmed during a site visit on May 2, 2017, by PLGs QEP and site visit findings are available in Section 5.6.

### 3.2 Green Infrastructure Network and Biodiversity Conservation Strategy

The Biodiversity Conservation Strategy (BCS) identifies the subject property as within the 50 metre buffer area of a Green Infrastructure Network Corridor (ID# 123) and, within the 'Tynehead Management Area'. It is described as having a moderate ecological value and a high risk of development. It has a regional corridor type with an ideal target width of 50 meters (Figure 1 and attached). GIN ID #123 is characterized as follows:

**Table 3: GIN Hubs and Sites – Inventory of GIN 123<sup>5</sup>**

ID	Risk of Development	Ecological Value	Corridor Type	Target Width (m)	Recommendations
123	High	Moderate	Regional	50	Fragmented forest habitat through low density residential neighbourhood. Area is planned for development. Follows planned greenways and parks. Provides connectivity between proposed Hub A and the ALR north to underpass of Highway 1 and the riparian corridor of Leoran Brook. Naturalize edges of planned greenways. Traffic calming and signage at 180 St. Provide a movement corridor under Golden Ears Way.



**Figure 1. GIN Buffer Area**

The objectives of the Tynehead Management Area are to preserve natural and semi-natural habitat on private land during re-development, increase protection of natural areas, establish movement corridors connecting Tynehead Park to the ALR, and increase tree cover adjacent to the ALR.

The subject property is located east of Tynehead Regional Park, south of Highway No. 1, and located in an area designated for Mixed Employment in the OCP. To the west is a Province-owned lot which is undeveloped with a medium density of trees. Properties to the south consist of large single-family lots (zoned One-Acre Residential) with a mix of large conifers and deciduous tree cover, a vacant, treed lot where GIN Corridor 123 traverses, and a truck parking facility under a temporary use permit.

As the subject property is between Highway 1 and Golden Ears Way, connectivity of Leoran Brook and its tributaries across the major transportation corridors are piped. Connectivity of GIN 123 in the immediate area of the subject property appears to be intact with medium density tree cover.

<sup>5</sup> As per the City of Surrey's Biodiversity Conservation Strategy, produced by Diamond Head Consulting (January 2014)

#### 4.0 LEVELS OF SAFEGUARDING

Minimum or maximum safeguarding is not proposed for the subject property for the following reasons:

- Only a small edge along the east side of the property is located within the 25 m setback area of the Class A watercourse (identified on Figure 2 and attached).
- The proposed sign location is not proposed within the setbacks for the Class A and Class B watercourses.
- The subject property is located within the GIN buffer (identified on Figure 1 and attached). Although the footprint for the proposed sign is within the GIN buffer, it is not expected to affect the integrity of connectivity of GIN #123.
- The site is currently heavily treed and vegetated and will provide adequate habitat support for the Class A watercourse SPEA and the GIN Corridor 123.

Protection of the proposed digital sign and GIN areas will be achieved through installation of fencing (Figure 2). Approximately 65 metres of chainlink fence is proposed for installation around the entire proposed digital sign, with a maximum height of 5'11". A 4' height three rail split fence approximately 39 metres in length is proposed for installation along the eastern portion of the Subject Property, to protect the GIN buffer area.

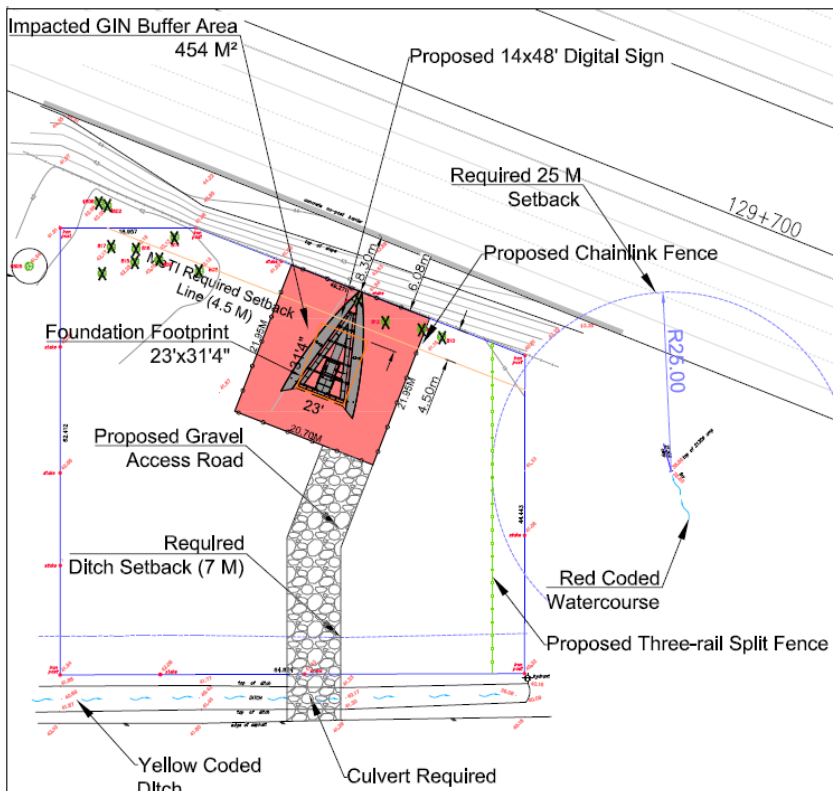


Figure 2. SPEA Setback Plan

#### 5.0 PRE-DEVELOPMENT SITE CONDITIONS

A site visit was conducted by a PLG QEP on May 2, 2017 to characterize on-site waterbodies, document existing biological conditions and identify any potential environmental sensitivities



which may be present that could pose constraints to future development. The site is approximately 0.90 acres in size with access from 96<sup>th</sup> Avenue along the southern boundary of the property. No steep slope was observed within the property (Figure 3).



**Figure 3:** COSMOS Map outlining the Subject Property, sensitive ecosystem protection areas, and property boundaries

### 5.1 Building and Construction

There are currently no buildings or infrastructure within the subject property (Photograph 1).



**Photograph 1:** View facing north, at the north end of the Subject Property



## 5.2 Soils

The subject property is not located in a steep slope area; therefore, a geotechnical report is not required. The site is relatively flat and grades generally slope to the south-east, as determined by the topographic survey. The site visit confirmed the site topography.

## 5.3 Trees

An arborist report was prepared by Tim Swain of BC Tree Service to review the trees on the property and confirm that the proposed sign placement/construction is in compliance with the City of Surrey's Tree Preservation Bylaw No. 16100. The site has an estimated 125 to 150 undersize trees of medium density, which mostly consist of poplar (*Populus* sp.), maple (*Acer* sp.), alder (*Alnus* sp.), and some willow (*Salix* sp.). A total of 12 bylaw sized trees are recommended to be removed to allow for the installation of the proposed sign (Appendix A in the arborist report) and includes 14 required replacement trees (10 willow and 4 maple trees). As the subject property is a naturally wooded area, the removed trees are recommended to be chipped and spread around the site, and the larger trunks and logs can be incorporated into the adjacent landscape in order to promote the surrounding wildlife habitat (Photograph 2).

A tree replacement plan has been prepared by the arborist and includes a 2:1 replacement strategy for the maple trees and a 1:1 replacement plan for the cottonwood, based on the City of Surrey's tree protection bylaw.



**Photograph 2:** Trees within the subject property includes Black cottonwood, Red alder, and Bigleaf maple.

## 5.4 Vegetation

Within the boundaries of the property the tree canopy was dominated by Bigleaf maple (*Acer macrophyllum*), Red alder (*Alnus rubra*), and Black cottonwood (*Populus balsamifera* ssp. *trichocarpa*) (some with DBH > 25 CM, trees' location referred to in Appendix A of the arborist

report). Vegetation underneath the canopy consisted of common Grasses (*Poaceae*), Japanese knotweed (*Fallopia japonica*), Salmonberry (*Rubus spectabilis*), and some juvenile Willow (*Salix* sp.) (near Class A ditch only) (Photograph 3).



**Photograph 3:** Vegetation underneath the canopy consists of Grass, Japanese knotweed, Salmonberry, and some juvenile Willow.

#### 5.5 Wildlife/Wildlife Habitat

A background review of electronic databases, maps, and provincial and federal government websites was conducted to determine wildlife habitat values. Background searches indicated that there was neither species at risk nor critical habitat located within the subject property. There were no federally or provincially protected species observed within the subject property during the site visit.

No permanent bird nests were noted during the site visit, likely due to highway traffic noise making the property a less than favourable long-term residence for local species. Urban adapted bird species (i.e., crows, robins, song sparrows) and small wildlife (i.e., squirrels, rabbits) would likely utilize the site and are unlikely to be impacted as a result of construction activity. No birds, small mammals or amphibians were observed during the site visit.

#### 5.6 Drainage

The City of Surrey's online mapping system COSMOS identified a Class B open channel ditch along the southern property boundary, and a Class A open channel ditch to the east of the property (Figure 4). The two drainages are connected to watercourses to the south and north (across Highway 1) via drainage mains.





**Figure 4:** COSMOS Map outlining the drainage within and adjacent to the Subject Property including a Class B Ditch (Yellow) and a Class A Ditch (Red).

A PLG QEP conducted a site visit of the property on May 2, 2017 to confirm the top-of-bank of the two ditches mentioned above.

For the Class B open channel ditch (Photograph 4), the following applies:

- A **7 metre setback** would be applied to this watercourse and proposed construction activities will remain outside of this setback.
- Class B open channel ditches are considered streams that are constructed drainage channels that carry water and do not originate from a headwater source.

For the Class A channelized stream (Photograph 5), the following applies:

- For the Class A stream, a **25 metre setback** would be applied and proposed construction activities on the subject property will be required to adhere to this setback.
- Channelized Class A streams are considered streams that have been dyked, diverted, or straightened that carry drainage flows from headwaters or significant sources of groundwater. This watercourse receives headwater flows from Leoran Brook, which is north of Highway 1.





**Photograph 4:** A Class B open channel ditch was observed along the southern property boundary.



**Photograph 5:** A Class A open channel ditch was located to the east of the subject property.

Further evaluation of the potential additional arm of conveyance to the Class A channelized stream on November 27, 2018 concluded that the area in question is rip rapped and is not an aquatic feature (Photograph 6). In addition, the drainage layer in COSMOS shows a 3310 mm culvert located under Highway 1 (i.e., not in the direction of the rip rap) that suggests drainage flows north during periods of heavy rainfall and does not divert northwest into the rip rapped area (Photograph 7).





**Photograph 6:** Rip rap located northwest of mapped Class A open channel ditch and culvert connection to the east of the Subject Property. Photo taken May 2, 2017.

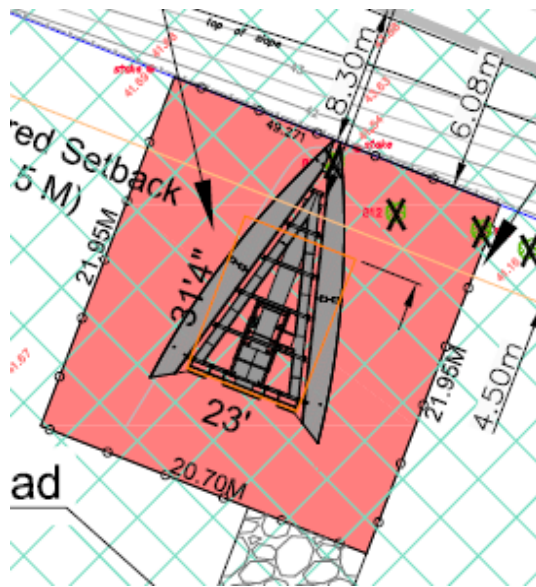


**Photograph 7:** Class A open channel ditch and culvert to the east of the Subject Property. No hydrologic connectivity to rip rapped portion observed. Photo taken November 27, 2018.

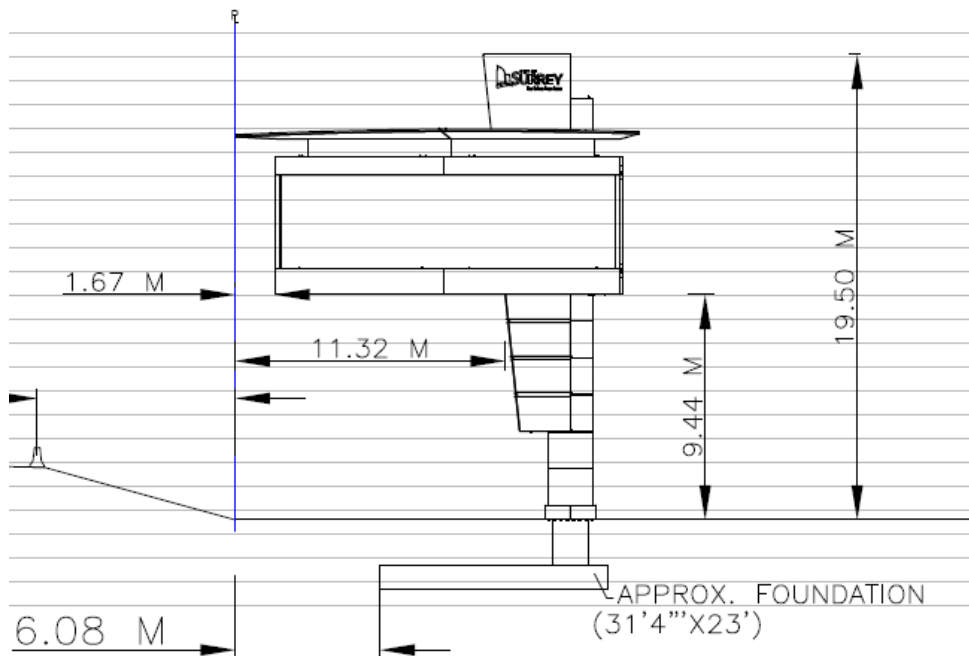
## 6.0 PROPOSED DEVELOPMENT CONDITIONS AND SPECIFICATIONS

### 6.1 Overall Site

The proposed sign footprint (23'x31'4") (Figure 5 and 6) would be within a portion of the 50 metre GIN buffer and a SPEA buffer adjacent to the northeast boundary; however, all work is outside the SPEA setbacks (25 m for the Class A and 7 m for the Class B) and will not affect the integrity of the GIN corridor itself. An Impact Mitigation Plan is not a requirement of this submission as a setback variance is not requested, and safeguarding is not proposed for the subject property as the proposed sign is not located within the GIN Corridor and well beyond the setbacks of the Class A and Class B watercourses.



**Figure 5.** 23'x31'4" construction footprint



**Figure 6.** Sign profile figure

## 6.2 Building and Construction/Soils

A new highway sign footprint within the property boundaries is planned and is not expected to impact the functionality of the GIN Corridor, SPEA buffer or streamside setbacks. Detailed plans are attached. A building permit will likely be applied for following the approval of this Sensitive Ecosystem Development Plan for anticipated construction in Spring 2018.

It is recommended that any exposed soils, as a result of construction work, within the Subject Property be seeded with native grass seed mix to promote vegetation restoration in the

exposed areas. Native seed will be selected as per the City of Surrey's Landscape Specifications.

### 6.3 Trees and Vegetation

Disruption to vegetation outside the property boundaries will not occur. Based on the arborist report, a total of 12 bylaw sized trees are recommended for removal in order to commence work within the foundation footprint. A replacement plan (10 Willow and 4 Maple trees proposed) has been included as part of the BC Tree Service arborist report (attached). As the subject property is a naturally wooded area, the removed trees are recommended to be chipped and spread around the site, and the larger trunks and logs can be incorporated into the adjacent landscape in order to promote the surrounding wildlife habitat (Photograph 2).

As Japanese knotweed was observed within the Subject Property, it is recommended that the species be chemically treated prior to construction. Clearing of this invasive species is not recommended, as cutting promotes growth. Before vegetation clearing work commences, it is recommended that elimination by chemical treatment (e.g., Glyphosate) of all Japanese knotweed within the Subject Property occur. Care should be taken when handling and applying the treatment chemical, as per the BC Weed Act, and chemical application administered by a certified BC Pesticide Applicator.

### 6.4 Habitat

The proposed construction plans have been prepared in consideration of the GIN Corridor located to the east. Connectivity along the GIN corridor will be retained, which will maintain functionality of the corridor for wildlife movement below. The existing off-site trees and shrubs to the east of the subject property facilitate habitat movement along the corridor.

Although no permanent bird nests were noted during the site visit, vegetation clearing is recommended to be scheduled outside the breeding bird window (March 1 – September 1) to ensure minimal impacts to urban adapted bird species observed within the Subject Property. If clearing works are not possible outside of the breeding bird window, it is recommended that bird nest survey(s) be conducted within the Subject Property prior to clearing works.

### 6.5 Drainage

The Subject Property is not located in a floodplain and is not expected to have any flooding issues. There is no steep slope within the subject property. No drainage will be altered for the proposed construction activities and streamside setbacks will be adhered to and maintained.

As permanent fencing will not be installed for the Class B open channel ditch, it is recommended that identification of the required 7 metre SPEA boundary (e.g., caution tape, temporary fencing) be installed prior to construction works, and that all contractors understand that no-disturbance activities (e.g., walking, storage) are allowed within the identified protected area.

## 7.0 CONCLUSIONS



In anticipation of a building permit application, this Ecosystem Development Plan is submitted to address the Sensitive Ecosystem Development Permit guidelines set out in the OCP and zoning bylaw.

Two ditches were observed adjacent to the subject property. A Class B open channel ditch was observed along the southern property boundary. A 7 metre setback is required along the southern property boundary for the proposed construction activities. A Class A open channel ditch was noted to east of the subject property, and a 25 metre setback is required at the east of the property.

Although the property is located in the SPEA's 50 metre buffer and the GIN, the proposed highway sign location is not expected to affect the functionality and connectivity of the GIN Corridor, located to the east of the subject property as the subject property is currently well-treed.

Based on our site investigation, there is also adequate vegetation immediately east of the subject property in the form of shrubs and trees for the Corridor to carry out its intended function, thereby meeting the goals of the Biodiversity Conservation Strategy. A suitable replacement plan will be required to offset the 12 bylaw sized trees required to be removed to accommodate the sign placement.

#### **8.0 PROFESSIONAL STATEMENT**

I certify that the work described herein fulfills standards acceptable of a Professional Biologist.

Please contact the undersigned should you have comments or questions regarding this correspondence.

Sincerely,

**PACIFIC LAND RESOURCE GROUP INC.**



Kyla Bryant-Milne, R.P.Bio  
Environmental Specialist

# Appendix 1: Arborist Report

**BC TREE SERVICE LTD.**  
**3167 139TH ST SURREY BC**  
**V4P 2B9**

**ARBORIST REPORT**

**6049083000**  
**[www.bctreeservice.ca](http://www.bctreeservice.ca)**

**Date:** 13th February 2017

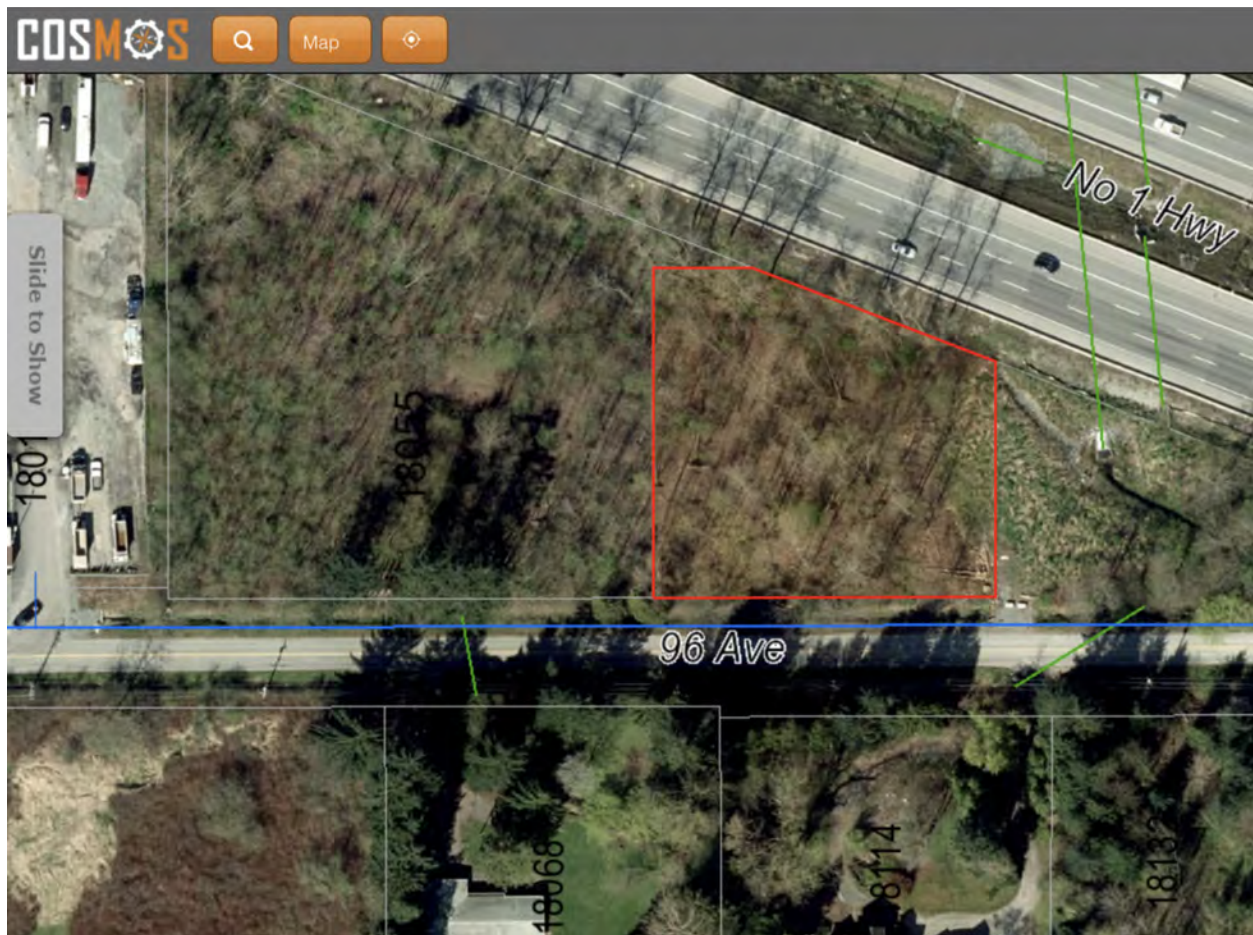
**Site address:**  
Highway 1 and 96 Ave Surrey

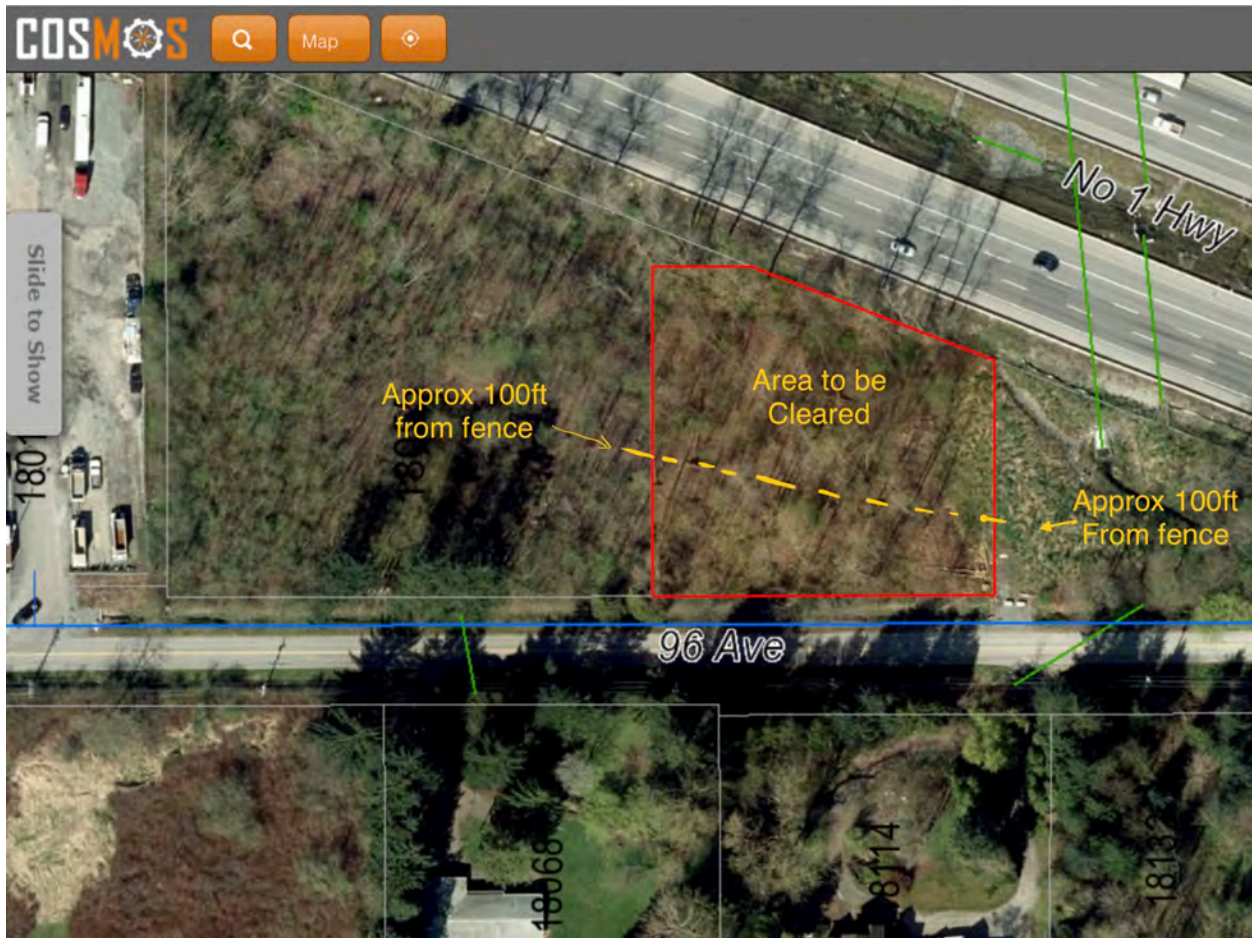
**Introduction:**

The purpose of this report is to provide information for the trees inside a proposed work area that are in the lot purchased by the City of Surrey opposite 18114 96 Ave in Surrey which is to have a digital advertising sign installed by Pattision signs which will face the Number 1 Highway. The trees mentioned in this report are from the fence line and 100ft to the south. This was a visual inspection on Monday the 6th of March 2017. No tree risk assessment, root zone or soil testing was conducted on this site visit.

**Observations:**

Site overview





The site is directly south of the Number 1 Highway and north of 96 Ave as shown above. The area is a very wet site with many trees, the density is medium in most areas. The trees are all open grown self seeded trees consisting of poplar (populus), maple (Acer), alder (Alnus) and some willow (Salix) There are 14 tagged trees on the survey which are recorded in the table below and an estimated 125-150 undersize trees that are not within the purview of the City of Surrey bylaw, this estimate does not very young saplings of less than 3 inch in diameter. The age of the trees range from young saplings to mature trees standing over 100ft tall. There are many fallen and damaged trees. Some are upheaved from the saturated soil in certain areas others are fallen after being decayed or from windfall.

The area of trees that will need to be cleared in order for the sign to be erected and used is along the northern fence line to 100ft South of the fence. There is a small area according to the survey where the neighbours property cuts in at the northwest corner. There are two cottonwoods and some undersized trees in this area that would need the neighbours permission to remove. The numbers of these trees are 4808 and 4802 . There are two other cottonwoods 4800 and 4805 that are outside the property line and should not affect the project to my knowledge.



**Summary:**

Overall the species and quality of trees on the site that will need to be cleared to make way for the installation of the Pattison digital advertising sign are of low value and quality.

As this is a naturally wooded area the removed trees can be chipped and spread around the site, the larger trunks and logs can be incorporated into a wildlife landscape that will encourage and support insect and bird life of the area.

This would obviously depend on what The City Of Surrey would like to happen with the site.

This report was generated for the purpose of general information in regards to the trees that are being cleared for the installation of a digital sign at this site.

No Risk assessments on the trees were undertaken nor soil or vegetation samples taken for further investigation or analysis.

No tree protection or relocation information has been included as that was not required.

If you have any questions regarding this report please contact me.

Thank you

Tim Swain

6047909097

[tim@bctreeservice.ca](mailto:tim@bctreeservice.ca)

**BC TREE SERVICE LTD.**  
**3167 139TH ST SURREY BC.**  
**V4P 2B9**  
**6049083000**  
**www.bctreeservice.ca**

## **TREE REPLANTING RECOMMENDATION**

**AMENDED Planting Plan** (Original planting plan dated 4th July 2017)

**Date:** 11th April 2018

**Site address:**  
Highway 1 and 96 Ave Surrey

### **Introduction:**

This is a follow up in relation to tree replanting trees on this site once trees have been removed for the installation and use of a digital sign for Pattison signs.

As stated in an earlier report dated February 13th 2017 multiple trees of varying variety will need to be removed at this site to create space for the installation of a large visual advertising sign too been seen from Highway 1.

### **Tree Replanting:**

There are 10 Cottonwood trees to be removed and 2 Maple trees removed.

The City of Surrey requires that cottonwood trees be replaced at 1:1 and the Maple trees replaced at 2:1

Total replacement trees required = 14

The area to be planted in was very wet when I visited the site for this reason I recommend the 10 cottonwood trees be replanted with 10 Willow trees (*Salix babylonica*)

This tree thrives in a wide range of soil conditions including wet areas and has some drought tolerance.

It has a fast growth rate and can reach a height of 30-40ft. The crown can spread to 35ft on a mature tree.

The tree typically provides nesting sites for small birds and animals.

The 2 maples that will be removed I recommend to replant with 4 x Red maple (*Acer rubrum*)

Red maple also thrive in a wide soil range and has a medium to fast growth rate. They can grow from 40-60ft and height and a crown spread of 40ft.

The Red Maple prefers wet soil but has some slight drought tolerance also.

The fruits provide food for squirrels and other small animals and the tree provide brilliant fall colour.

10 Cottonwood Removed = 10 Willow replaced

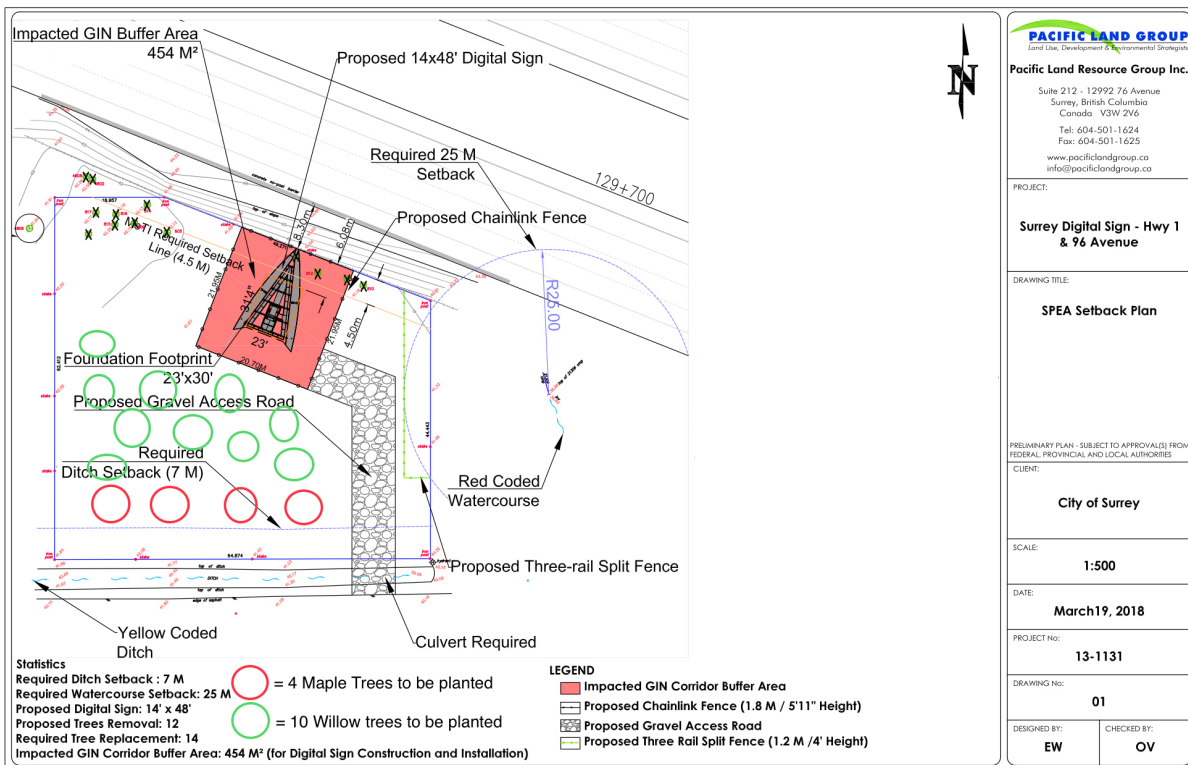
2 Maple Removed = 4 Red Maple replaced

In accordance with City of surrey tree replacement bylaw the trees must be at least 5cm calliper or 3 meters in height.

## Planting Area:

Below is a map showing the trees that will be removed and the green and red circles indicate where the new trees should be planted. This still allows the sign to be accessed and less chance of the trees interfering with the sign in the future and therefore more chance of the trees to grow in a natural state and thrive with less need for maintenance to keep the sign visible. I would recommend the trees be evenly divided and spaced between in the planting area. The maple trees should be planted furthest south in the planting areas as they will grow taller than the willows, this will keep the maples further away from the sight lines of the digital sign. Plantings in picture are approximate but should be spaced well away from each other to ensure each tree has room to grow naturally and spread. Trees should not be planted in a hedge like formation, directly on the property line or under any hydro wires.

## Updated Planting plan to avoid driveway.



Below is information on general tree planting from City of Surrey tree website.

By planting two different types of trees that can tolerate not only wet soils but are generally known to survive in multiple hardiness zones and thrive here in the lower mainland of British Columbia there will be a better likely hood of survival that will not only replace the trees that needed to be removed for the sign installation but enrich the area for many years to come with continuing to provide for local flora and fauna.

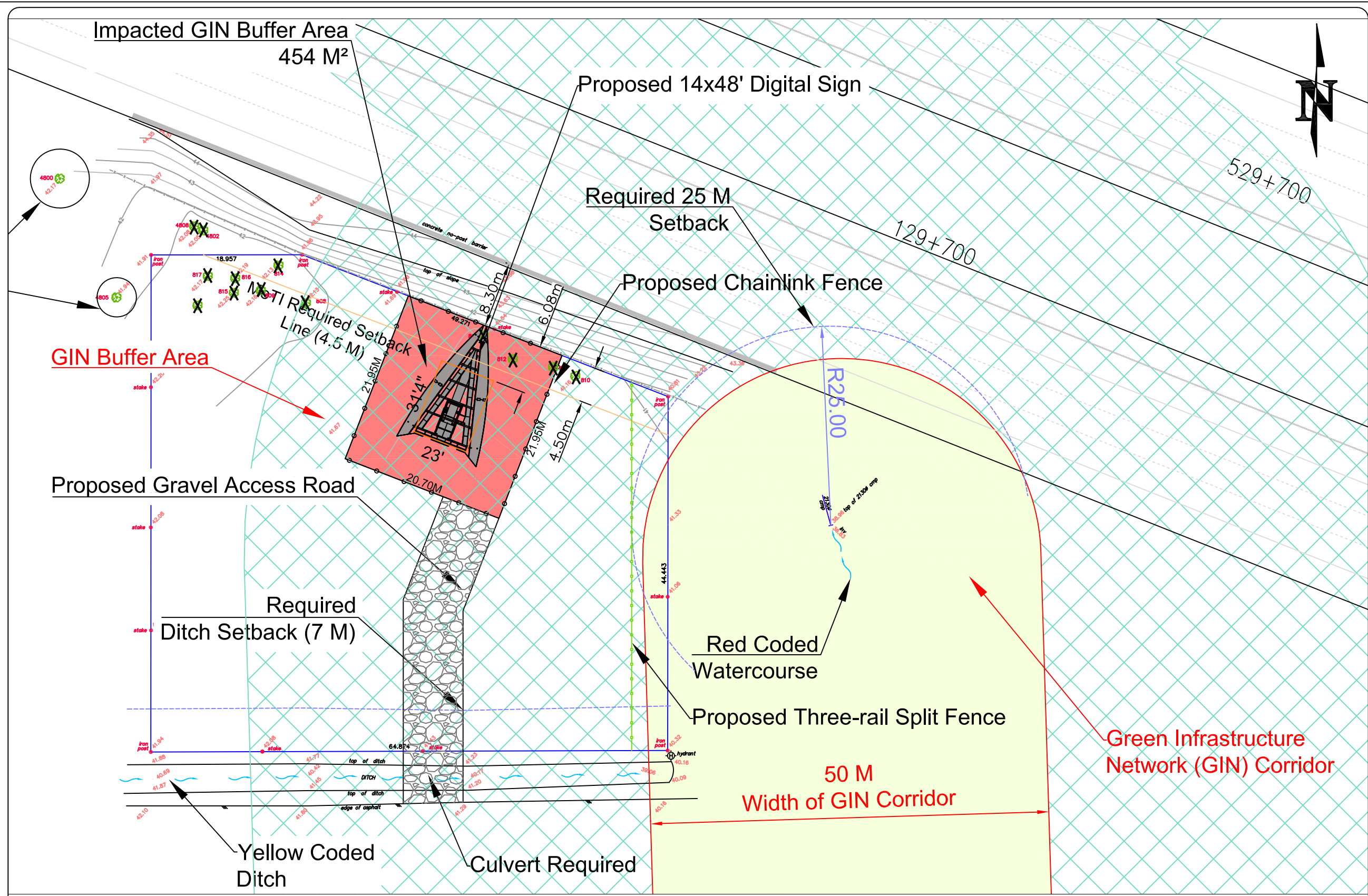
If there are any questions regarding this report please contact me

Thank You

Tim Swain  
ISA Certified Arborist & Tree Risk Assessor  
PN 6339-A  
604 790 9097  
tim@bctreeservice.ca



## **Appendix 2: GIN Buffer Area**



Suite 212 - 12992 76 Avenue  
Surrey, British Columbia  
Canada V3W 2V6  
Tel: 604-501-1624  
Fax: 604-501-1625  
www.pacificlandgroup.ca  
info@pacificlandgroup.ca

PROJECT:  
**Surrey Digital Sign - Hwy 1 & 96 Avenue**

DRAWING TITLE:  
**SPEA Setback Plan**

PRELIMINARY PLAN - SUBJECT TO APPROVAL(S) FROM FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES  
CLIENT:  
**City of Surrey**

SCALE:  
**1:500**

DATE:  
**November 23, 2018**

PROJECT No:  
**13-1131**

DRAWING No:  
**02-1**

DESIGNED BY: <b>EW</b>	CHECKED BY: <b>OV</b>
---------------------------	--------------------------

**Statistics**  
Required Ditch Setback : 7 M  
Required Watercourse Setback: 25 M  
Proposed Digital Sign: 14' x 48'  
Proposed Trees Removal: 12  
Impacted GIN Corridor Buffer Area: 454 M<sup>2</sup>

**LEGEND**  
 GIN Corridor (50 M Width)  
 GIN Corridor Buffer Area  
 Impacted GIN Corridor Buffer Area - 454 M<sup>2</sup> (for Digital Sign Construction and Installation)

# **Appendix 3: SPEA Setback Plan**





PROJECT:

**Surrey Digital Sign - Hwy 1  
& 96 Avenue**

DRAWING TITLE:

**Chainlink Fence Profile**

PRELIMINARY PLAN - SUBJECT TO APPROVAL(S) FROM  
FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES

CLIENT:

**City of Surrey**

SCALE:

**NTS**

DATE:

**November 23, 2018**

PROJECT No:

**13-1131**

DRAWING No:

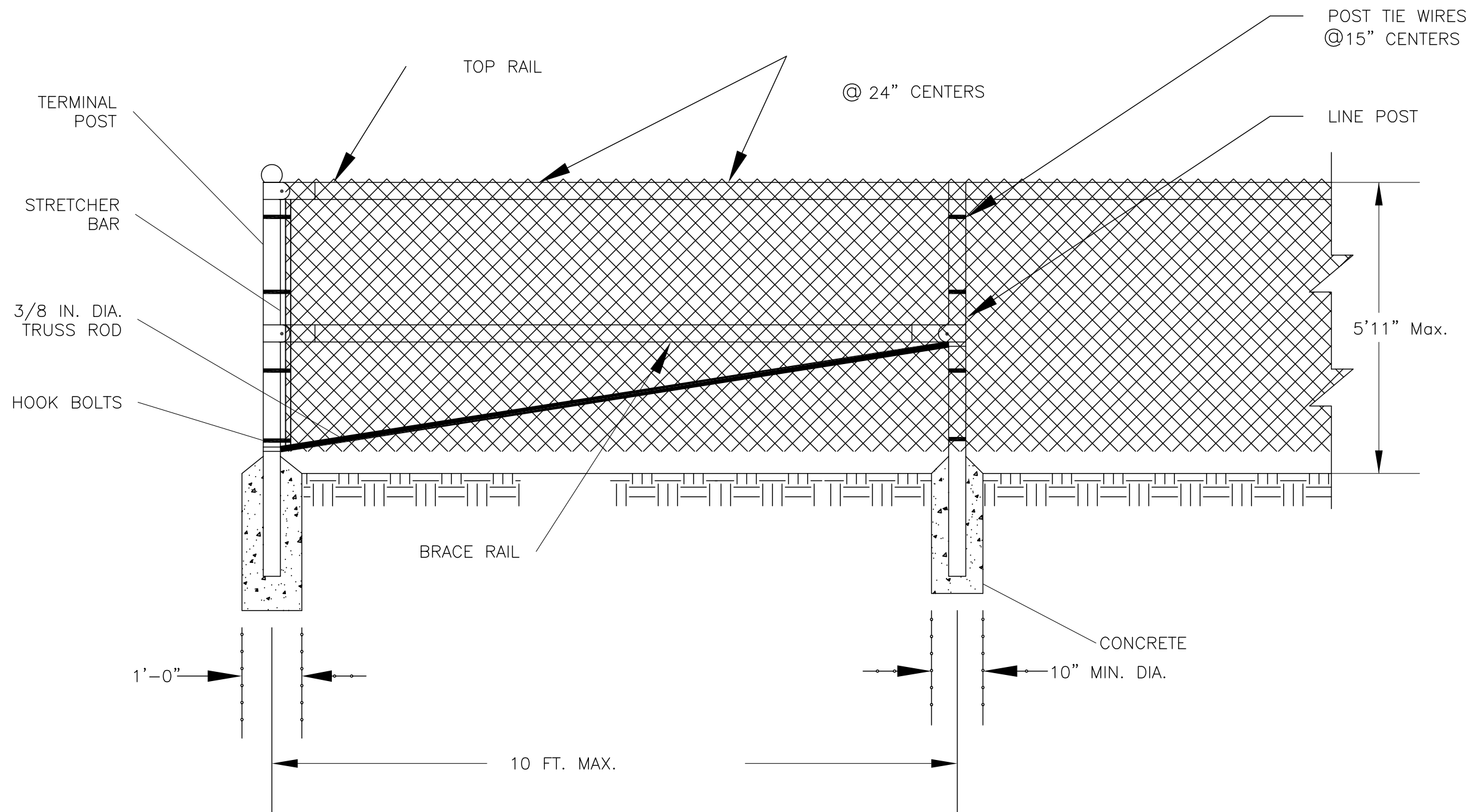
**02-3**

DESIGNED BY:

**EW**

CHECKED BY:

**OV**



**Chainlink Fence (5' 11" Height)**



PROJECT:

**Surrey Digital Sign - Hwy 1  
& 96 Avenue**

DRAWING TITLE:

**Three Rail Split Fence Profile**

PRELIMINARY PLAN - SUBJECT TO APPROVAL(S) FROM  
FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES

CLIENT:

**City of Surrey**

SCALE:

**NTS**

DATE:

**November 23, 2018**

PROJECT No:

**13-1131**

DRAWING No:

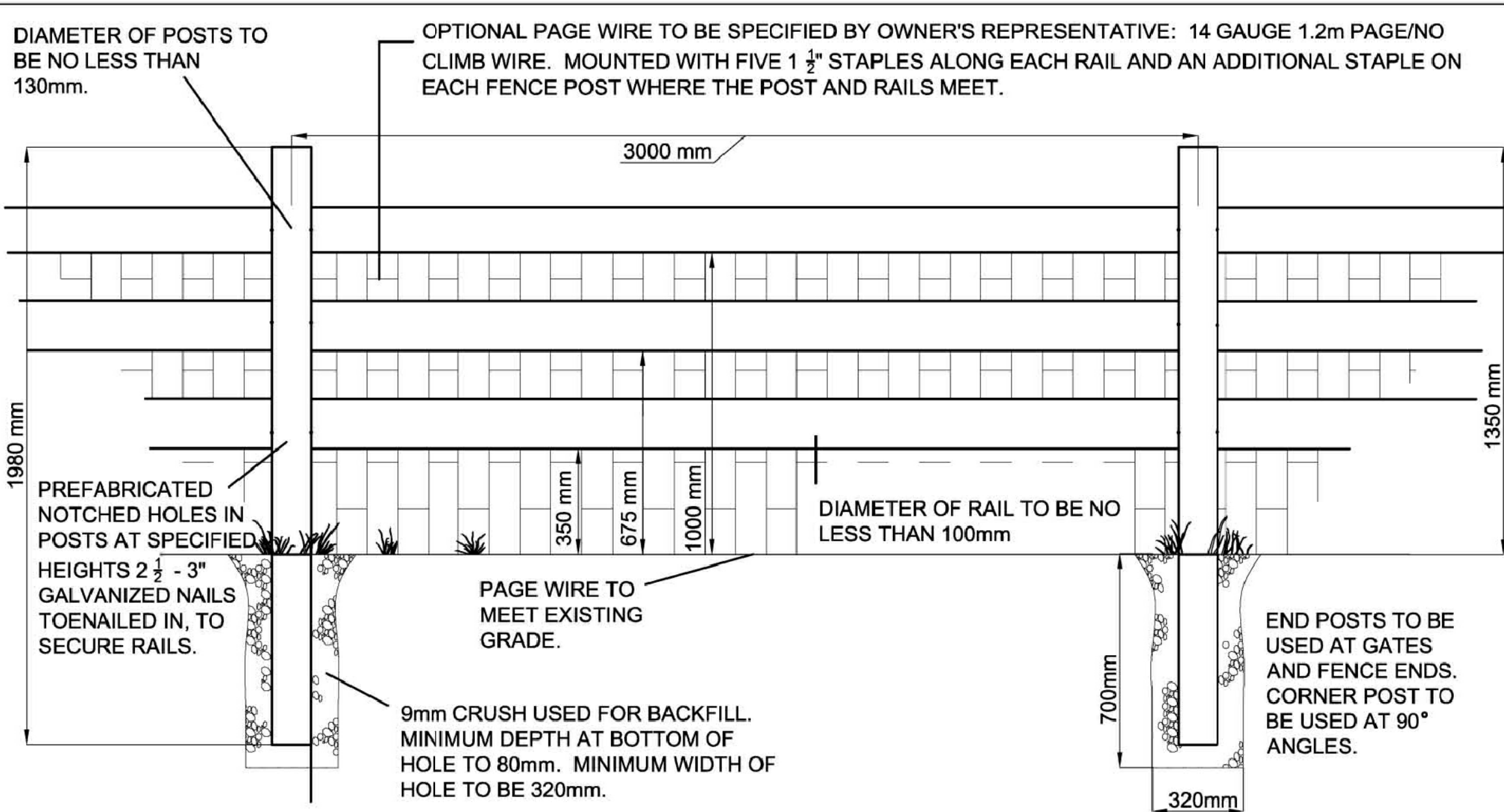
**02-4**

DESIGNED BY:

**EW**

CHECKED BY:

**OV**

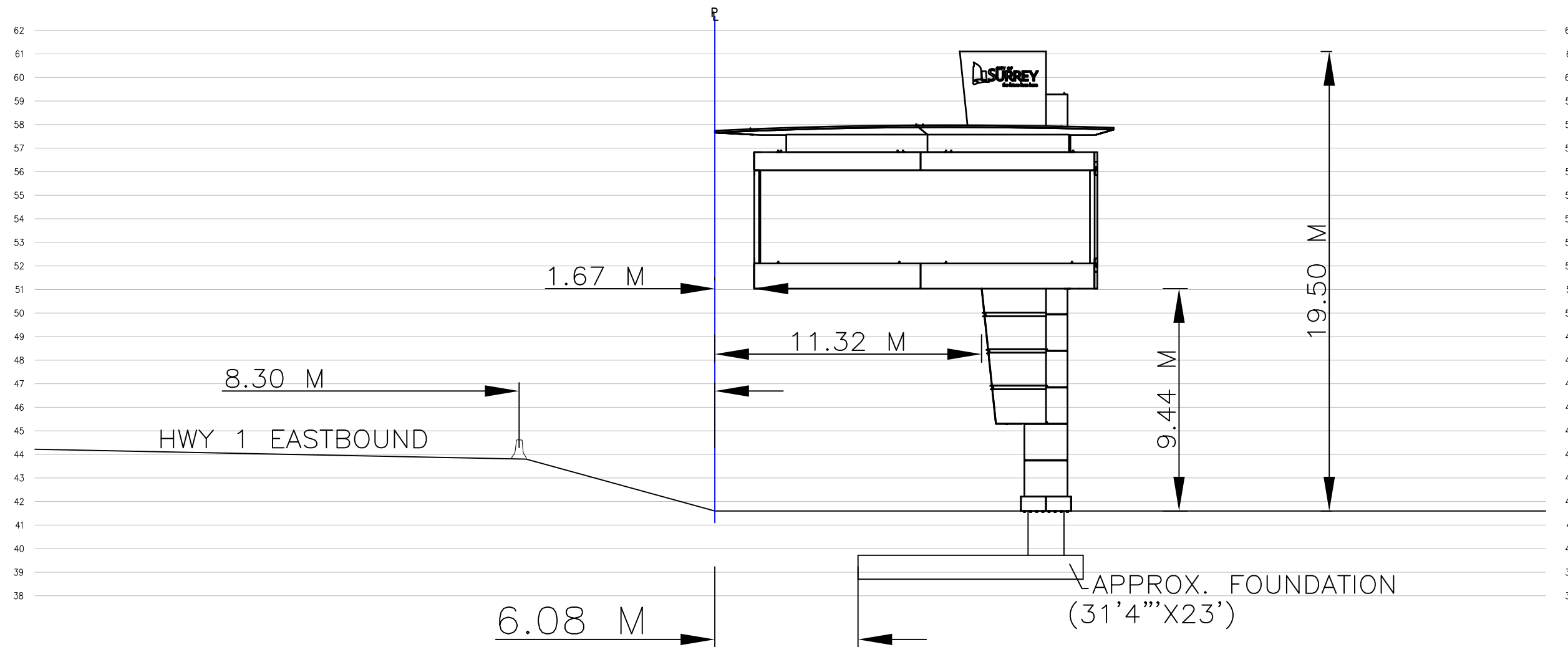


LUMBER AVAILABLE FROM RAYBERN ERECTORS LTD. (604-939-4671) OTHER SUPPLIES TO BE APPROVED BY OWNER'S REPRESENTATIVE, ASK FOR JUMBO SIZED RAILS AND POSTS.

Revision	Date	Approved	TITLE	SCALE	1:25	 <b>DRAWING NUMBER SSD-PK6112</b>
1			<b>THREE RAIL SPLIT FENCE</b>	DATE	06/02	
2				DRAWN	MEB	
3			ALL DIMENSIONS SHOWN IN MILLIMETRES UNLESS OTHERWISE STATED	REVISION	1	
4				APPROVED	TLU	

**Three Rail Split Fence (4' Height)**

# Appendix 4: Sign Profile Plan



PROJECT:

**Surrey Digital Sign - Hwy 1  
& 96 Avenue**

DRAWING TITLE:

**Sign Profile**

PRELIMINARY PLAN - SUBJECT TO APPROVAL(S) FROM  
FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES

CLIENT:

**City of Surrey**

SCALE:

**1:200**

DATE:

**October 10, 2018**

PROJECT No:

**13-1131**

DRAWING No:

**01-2**

DESIGNED BY:

**EW**

CHECKED BY:

**OV**



CITY OF SURREY

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7917-0369-00

Issued To: City of Surrey

(the "Owner")

Address of Owner: 13450 – 104 Avenue  
Surrey, BC V3T 1V8

1. This development variance permit is issued subject to compliance by the Owner with all statutes, by-laws, orders, regulations or agreements, except as specifically varied by this development variance permit.
2. This development variance permit applies to that real property including land with or without improvements located within the City of Surrey, with the legal description and civic address as follows:

Parcel Identifier: 029-570-557  
The Part of District Lot 121 Group 2 New Westminster District  
Shown as Closed Road on Plan EPP48783

18087 – 96 Avenue

(the "Land")

3. Surrey Sign By-law, 1999, No. 13656, as amended is varied as follows:
  - (a) To vary Part 1, Prohibited Signs (10)(13) to allow a free-standing, two-sided electronic message board sign to be installed on City property adjacent to Highway No. 1;
  - (b) To vary Part 6 General Provisions (7)(a) to allow a free-standing, electronic message board sign to be located within 60 metres (200 ft.) of Highway No. 1;
  - (c) To vary Part 5 Commercial / Industrial Signs (27)(1)(e) to reduce the minimum required setback for a free-standing sign along the north property line from 2.0 metres (6.5 ft.) to 0.0 metres (0 ft.);

- (d) To vary Part 1 General Provision (6)(11) to allow third party advertising to exceed 30% of the allowable copy area on the proposed free-standing, two-sided electronic message board sign;
  - (e) To vary Part 5 Commercial / Industrial Sign (27)(1)(g) to increase the maximum permitted sign area for the proposed double-sided free-standing, electronic message board sign from 28 square metres (300 sq. ft.) to 125 square metres (1,345 sq. ft.);
  - (f) To vary Part 5 Commercial / Industrial Signs (27)(1)(i) to allow the maximum permitted copy area of the proposed free-standing, electronic message board sign to exceed 50% of the sign area; and
  - (g) To vary Part 5 Commercial / Industrial Signs (27)(1)(k) to increase the maximum permitted height of the proposed free-standing sign in Commercial/Industrial Zones from 4.5 metres (15 ft.) to 19.5 metres (64 ft.).
4. This development variance permit applies to only the structures on the Land shown on Schedule A, which is attached hereto and forms part of this development variance permit.
  5. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this development variance permit.
  6. This development variance permit shall lapse if the Owner does not substantially start any construction with respect to which this development variance permit is issued, within two (2) years after the date this development variance permit is issued.
  7. The terms of this development variance permit or any amendment to it, are binding on all persons who acquire an interest in the Land.
  8. This development variance permit is not a building permit.

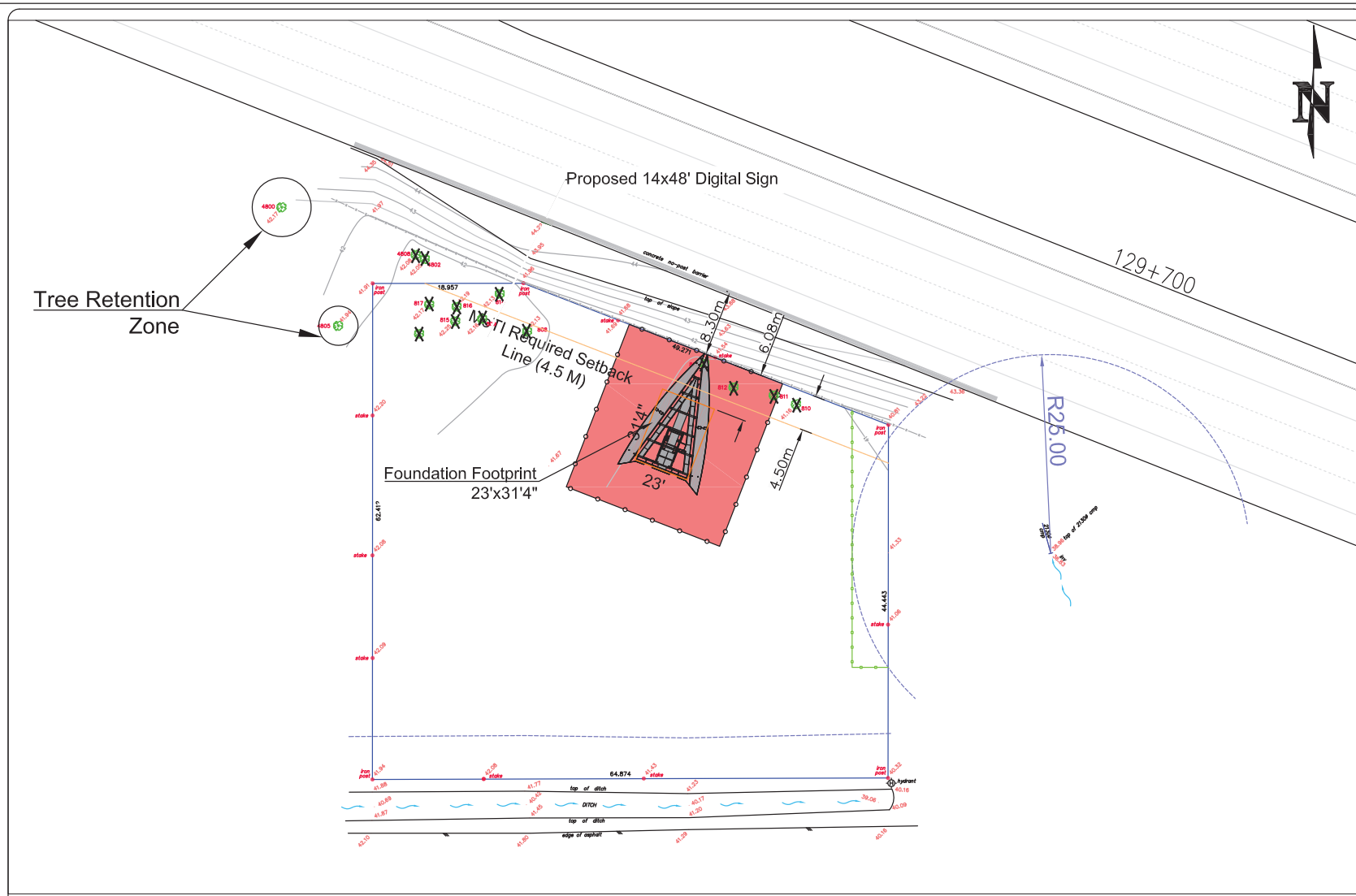
AUTHORIZING RESOLUTION PASSED BY THE COUNCIL, THE            DAY OF            , 2019.  
ISSUED THIS            DAY OF            , 2019.

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Mayor – Doug McCallum

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City Clerk



**Statistics**  
 Required Ditch Setback : 7 M  
 Required Watercourse Setback: 25 M  
 Proposed Digital Sign: 14' x 48'  
 Proposed Trees Removal: 12  
 Impacted GIN Corridor Buffer Area: 454 M<sup>2</sup>

Required Sign Foundation Setback: 4.5 M  
 Proposed Sign Foundation Setback: 6.08 M  
 Required Sign Setback from Hwy 1: 60 M  
 Proposed Sign Setback from Hwy 1: 0 M  
 Distance from Sign to Hwy 1 Barriers: 8.3 M  
 Development Variance Permit Required

**LEGEND**  
 Trees to be Removed



