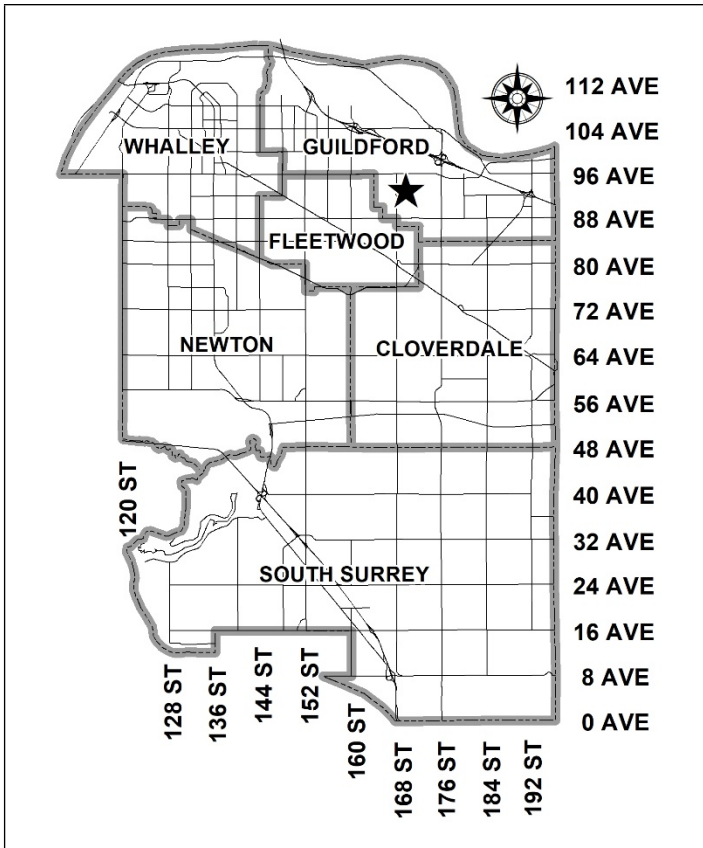


City of Surrey  
**PLANNING & DEVELOPMENT REPORT**  
Application No.: 7923-0030-00  
Planning Report Date: February 12, 2024



**PROPOSAL:**

- **Rezoning** from A-1 to RF-13  
**Development Permit**
- **Development Variance Permit**

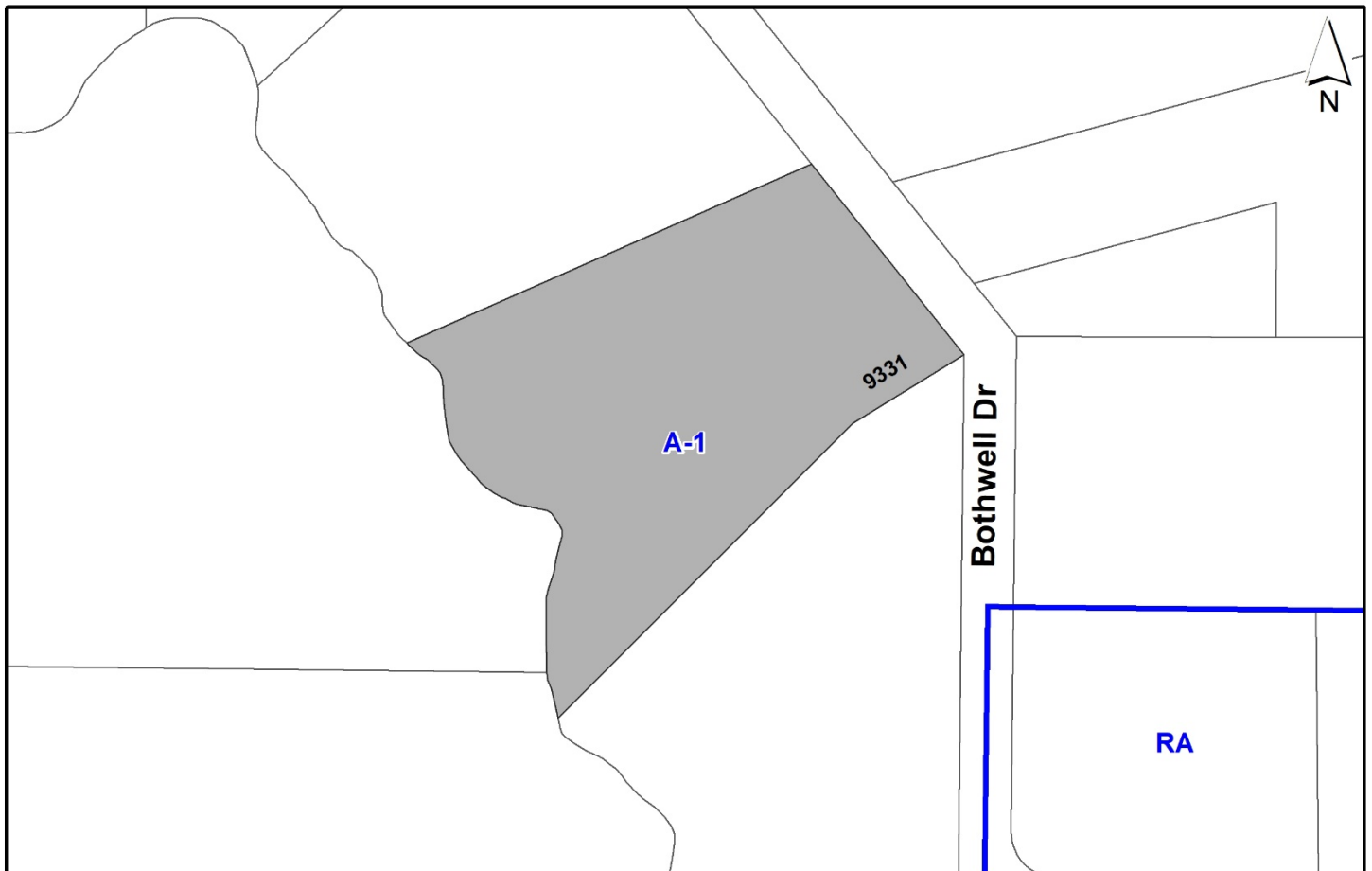
To allow subdivision into twenty-one single family residential lots.

**LOCATION:** 9331 Bothwell Drive

**ZONING:** A-1

**OCP DESIGNATION:** Urban

**NCP DESIGNATION:** Low Density Cluster, Riparian Area



## RECOMMENDATION SUMMARY

- Rezoning By-law to proceed to Public Notification. If supported the By-law will be brought forward for First, Second and Third Reading.
- Approval to draft Development Permit for Hazard Lands and Sensitive Ecosystems.
- Approval for Development Variance Permit to proceed to Public Notification.

## DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- Proposing to vary the Type II interior lot width and depth requirements of the RF-13 Zone.

## RATIONALE OF RECOMMENDATION

- The proposal complies with the “Urban” designation in the Official Community Plan (OCP).
- The proposal complies with the “Low Density Cluster” designation in the Anniedale-Tynehead Neighbourhood Concept Plan (NCP).
- The proposal complies with the “General Urban” designation in the Metro Vancouver Regional Growth Strategy (RGS).
- The proposed density and building form are appropriate for this part of the Anniedale-Tynehead neighbourhood.
- The proposal complies with the Development Permit requirements in the OCP for Sensitive Ecosystems (Streamside Areas & Green Infrastructure Areas) and with the Development Permit requirements in the OCP for Hazard Lands (Steep Slopes & Flood Prone).
- The proposed reduced lot widths and depths result from balancing the requirement of delivering a protected riparian area, and public trail, with the lot yield anticipated in the NCP. The proposed lot dimensions are representative of the smaller, clustered, urban lots anticipated by the ‘low density cluster’ designation in the Anniedale-Tynehead NCP. All lots meet or exceed minimum lot area requirements of the RF-13 Zone.
- Based on precedence, staff are confident that a double side-by-side garage can be reasonably accommodated on Lot 10 despite the reduced width.
- In accordance with changes to the Local Government Act, Section 464, under Bill 44 (2023) a Public Hearing is not permitted for the subject rezoning application as the proposed rezoning is consistent with the Official Community Plan (OCP). As such, Council is requested to endorse the Public Notification to proceed for the proposed Rezoning By-law. The Rezoning By-law will be presented to Council for consideration of First, Second, and Third Reading, after the required Public Notification is complete, with all comments received from the Public Notification presented to Council prior to consideration of the By-law readings.

## RECOMMENDATION

The Planning & Development Department recommends that:

1. Council endorse the Public Notification to proceed for a By-law to rezone the subject site from "General Agriculture Zone (A-1)" to "Single Family Residential (13) Zone (RF-13)".
2. Council authorize staff to draft Development Permit No. 7923-0030-00 for Hazard Lands (Steep Slopes and Flood Prone) and Sensitive Ecosystems (Streamside Areas and Green Infrastructure Areas) generally in accordance with the attached drawings (Appendix I), and the accepted Ecosystem Development Plan and Geotechnical Report.
3. Council approve Development Variance Permit No. 7923-0030-00 (Appendix VI) varying the following, to proceed to Public Notification:
  - (a) to reduce the minimum Type II - Interior lot width of the RF-13 Zone from 13.4 metres to 12.5 metres for proposed Lot 10;
  - (b) to reduce the minimum Type II - Interior lot depth of the RF-13 Zone from 24 metres to 22 metres for proposed Lots 6-7, 9-10, and 13-14;
  - (c) to permit a front access, side-by-side double garage on a lot less than 13.4 metres in width in the RF-13 Zone for proposed Lot 10.
4. Council instruct staff to resolve the following issues prior to final adoption:
  - (a) ensure that all engineering requirements and issues including restrictive covenants, dedications, and rights-of-way where necessary, are addressed to the satisfaction of the General Manager, Engineering;
  - (b) submission of a subdivision layout to the satisfaction of the Approving Officer;
  - (c) submission of a finalized landscaping plan and landscaping cost estimate to the specifications and satisfaction of the Planning and Development Department;
  - (d) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;
  - (e) the applicant satisfy the deficiency in tree replacement on the site, to the satisfaction of the Planning and Development Department;
  - (f) submission of a finalized Ecosystem Development Plan and Impact Mitigation Plan to the satisfaction of City staff;
  - (g) conveyance of riparian areas and Biodiversity Conservation Strategy areas (Lot 29) to the City;
  - (h) submission of a finalized and peer-reviewed Geotechnical Report to the satisfaction of City staff;

- (i) the applicant satisfy the requirements for a P-15 agreement;
- (j) the applicant adequately address the City’s needs with respect to the City’s Affordable Housing Strategy, to the satisfaction of the General Manager, Planning & Development Services;
- (k) demolition of existing buildings and structures to the satisfaction of the Planning and Development Department;
- (l) registration of a Section 219 Restrictive Covenant that requires the owner to develop the site in accordance with the conditions in the geotechnical report;
- (m) registration of a Section 219 Restrictive Covenant to restrict habitable floor area below the Flood Construction Level (FCL) and to inform current and future owners that the subject property is located within a floodplain area and that any buildings or structures constructed upon the lot may be damaged by flooding or erosion; and
- (n) registration of a combined Statutory Right-of-Way / Section 219 Restrictive Covenant over the designated Streamside Protection Area measured from top-of-bank of the A/O and B streamside setback areas adjacent to Bothwell Drive for both “No Build” and conveyance access.

**SITE CONTEXT & BACKGROUND**

Direction	Existing Use	OCP/NCP Designation	Existing Zone
Subject Site:	Single family dwelling on multi-acre site with agricultural accessory building.	OCP: Urban  NCP: Low Density Cluster, Riparian Area, Green Density Transfer, Fish Class 15m & 30m Buffer, and Trail.	A-1
North:	Single family dwelling on multi-acre site with agricultural accessory building.	OCP: Urban  NCP: Low Density Cluster, Riparian Area, Green Density Transfer, and Fish Class 15m & 30m Buffer.	A-1

Direction	Existing Use	OCP/NCP Designation	Existing Zone
East (across Bothwell Drive):	Single family dwelling on a multi-acre site.	OCP: Urban NCP: Medium Density Cluster, and Green Density Transfer.	A-1
South:	Vacant multi-acre site.	OCP: Urban NCP: Low Density Cluster, Green Density Transfer, Fish Class 15m & 30m Buffer Class B, Riparian Area, and Trail.	A-1
West (across the Serpentine River):	Single family dwellings on a multi-acre site.	OCP: Suburban NCP: Suburban Cluster, Green Density Transfer, and Riparian Area.	A-1

### Context & Background

- The subject property is located at 9331 Bothwell Drive in the Anniedale-Tynehead neighbourhood and is approximately 2.07-hectares in size. The property is zoned “General Agriculture Zone (A-1)” and designated “Urban” in the Official Community Plan. The Anniedale-Tynehead NCP designates this site as “Low Density Cluster”. The site is adjoined along the western property line by the Serpentine River.

### DEVELOPMENT PROPOSAL

#### Planning Considerations

- In order to accommodate the proposed single-family development consisting of 28 residential lots, the applicant proposes the following:
  - Rezoning from RA to RF-13;
  - Development Permits for Hazard Lands (DP<sub>2</sub>), and Sensitive Ecosystems (DP<sub>3</sub>);
  - Development Variance Permit to vary lot widths and depths; and
  - Subdivision into twenty-one residential lots and one lot for riparian protection purposes.

- Specific details on the development proposal are provided in the table below:

	Proposed
<b>Lot Area</b>	
Gross Site Area:	20,660 sq. m.
Road Dedication:	2,284 sq. m.
Undevelopable Area:	9,277 sq. m.
Net Site Area:	9,099 sq. m.
<b>Number of Lots:</b>	21 residential lots, 1 lot for riparian protection
<b>Unit Density:</b>	10.1 uph (gross) / 4.1 upa (gross)
<b>Range of Lot Sizes</b>	336 - 673 sq. m.
<b>Range of Lot Widths</b>	12.5 - 15.4 m.
<b>Range of Lot Depths</b>	22 - 34.2 m.

**Referrals**

Engineering: The Engineering Department has no objection to the project subject to the completion of Engineering servicing requirements as outlined in Appendix II.

School District: The School District has advised that there will be approximately twenty (20) school-age children generated by this development, of which the School District has provided the following expected student enrollment.

10 elementary students at Serpentine Heights Elementary School  
 7 secondary students at North Surrey Secondary School

(Appendix III)

Note that the number of school-age children is greater than the expected enrollment due to students attending private schools, home school or different school districts.

The applicant has advised that the dwelling units in this project are expected to be constructed and ready for occupancy by the fall of 2024.

**Parks, Recreation & Culture:**

Parks will accept cash-in-lieu of the 5% unencumbered parkland subdivision dedication requirement. The land valuation is to be based on the most recent PLA or PLA extension date.

Parks accepts the voluntary conveyance of the streamside setback protection area as a lot, without compensation, for conservation purposes under the Maximum Safeguarding provision of the DP3 – Sensitive Ecosystem Development Permit area. The area must be conveyed as a lot on the subdivision plan.

Future active parkland is proposed within 415-metres walking distance of the development as part of the Anniedale-Tynehead Neighborhood Concept Plan (NCP). The development will be conveying natural area parkland through the application.

**Transportation Considerations**

- The applicant will be providing the following improvements to support the subject proposal:
  - Construction of the west side of Bothwell Drive to the City’s local road standard; and
  - Dedication and construction of a new road, Silverberry Drive, to the City’s local road standard.
- The subject site is anticipated to generate approximately one vehicle every two to three minutes in the peak hour. The proposal is below the City’s threshold for requiring a transportation impact analysis.
- Access to the proposed lots will be via Bothwell Drive and Silverberry Drive.

**Parkland and/or Natural Area Considerations**

- The subject site is flanked on the west by the Serpentine River which has been identified as a Class A (red-coded) natural stream with a 30-metre setback measured from top-of-bank, and by an unnamed tributary on the north which is a Class A (red-coded) channelized stream with a 25-metre setback measured from top-of-bank.
- The QEP of record notes that the Serpentine River exhibits “flashy tendencies” with water levels prone to rising a couple meters in a few hours and overtopping banks during heavy precipitation events. The report identifies and provides for surveyed 5-year active floodplain boundaries (i.e., High Water Mark [HWM]) that exceed top-of-bank in localized places along the western end of the subdivision west of the proposed Lots 9-11. Staff note that this is one of the rare examples where the 30-metre Riparian Areas Protection Regulations (RARP) setbacks exceed the City of Surrey’s setbacks prescribed under Part 7A of the zoning by-law. These setbacks have been adhered to and incorporated into the overall subdivision proposal.

- The proposal appears to successfully leverage the streamside flexing provisions in Part 7A(B)(1) of the zoning-by-law. While the Part 7A flex balance has been conditionally accepted, a detailed review will be required prior to final adoption.
- The applicant is proposing to voluntarily convey the streamside setback protection area to the City as a lot at the time of subdivision which will ensure its ongoing protection.

### **Sustainability Considerations**

- The applicant has met all of the typical sustainable development criteria, as indicated in the Sustainable Development Checklist.

## **POLICY & BY-LAW CONSIDERATIONS**

### **Regional Growth Strategy**

- The site is designated 'General Urban' in the Regional Growth Strategy. The proposal complies with this designation.

### **Official Community Plan**

#### Land Use Designation

- The site is designated 'Urban' in the Official Community Plan (OCP). The proposal complies with this designation.

#### Themes/Policies

The proposed development complies with the following OCP themes/policies:

- A1.3 – Accommodate urban land development according to the following order of growth management priorities:
  - A1.3d – Comprehensively-planned new neighbourhoods within approved Secondary Plan areas.

*(The proposal will be a comprehensively planned new neighbourhood within the approved Anniedale-Tynehead NCP).*

### **Secondary Plans**

#### Land Use Designation

- The site is designated "Low Density Cluster" and "Riparian Area" in the Anniedale-Tynehead NCP. The proposal complies with this designation.

#### Themes/Objectives



- The proposal is consistent with the following NCP Themes/Objectives:
- Retain significant environmental features including creeks, important vegetation, and Green Infrastructure (Ecosystem Hubs, Sites and Corridors). Encourage cluster development which enables density transference and site-specific design that responds to the area’s natural features.

*(The applicant is proposing to convey approximately 1-acre in riparian and GIN area to the city. Riparian enhancement, compensation, and suitable landscaping is proposed within this space to preserve and enhance GIN corridors 116 and 118. Residential development is clustered in the eastern part of this site to ensure residential development is out of the 200-year floodplain).*

- Provide a variety of housing types, densities, and forms to accommodate a range of lifestyle and housing choices for people across the spectrum of family type, age, and income levels.

*(The applicant is proposing RF-13 lots which will support housing choice for future residents of the Anniedale-Tynehead neighbourhood).*

**Zoning By-law**

- The applicant proposes to rezone the subject site from "General Agriculture Zone (A-1)" to "Single Family Residential (13) Zone (RF-13)".
- The table below provides an analysis of the development proposal in relation to the requirements of the Zoning By-law, including the "Single Family Residential (13) Zone (RF-13)", streamside setbacks, and parking requirements.

<b>RF-13 Zone (Part 16B)</b>	<b>Permitted and/or Required</b>	<b>Proposed</b>
<b>Unit Density:</b>	28 uph	24.4 uph
<b>Yards and Setbacks</b>		
Front Yard:	6.0 m	6.0 m
Side Yard:	1.2 m	1.2 m
Street Side Yard:	2.4 m	2.4 m
Rear:	7.5 m	7.5 m
<b>Lot Size</b>		
<u>Type II (Corner)</u>		
Lot Size:	380 sq. m.	380 sq. m.
Lot Width:	15.4 m	15.4 m
Lot Depth:	24.0 m	24.0 m
<u>Type II (Interior)</u>		
Lot Size:	336 sq. m.	336 q. m.
Lot Width:	13.4 m	12.5 m*
Lot Depth:	24.0 m	22 m*
<b>Streamside (Part 7A)</b>	<b>Required</b>	<b>Proposed</b>
<b>Streamside Setbacks</b>		
Class A (red-coded) Natural Stream:	30.0 m	30.0 m

<b>RF-13 Zone (Part 16B)</b>	<b>Permitted and/or Required</b>	<b>Proposed</b>
Class A (red-coded) Channelized Stream:	25.0 m	25.0 m
Class A/O (red-coded) Ditch:	10.0 m	10.0 m
Class B (yellow-coded) Ditch:	7.0 m	7.0 m
<b>Parking (Part 5)</b>	<b>Required</b>	<b>Proposed</b>
<b>Number of Spaces</b>	3	3

*\*Variances requested.*

### Lot Variances

- The applicant is requesting the following variances:
  - *to reduce the minimum Type II - Interior lot width of the RF-13 Zone from 13.4 metres to 12.5 metres for proposed Lot 10; and*
  - *to reduce the minimum Type II - Interior lot depth of the RF-13 Zone from 24 metres to 22 metres for proposed Lots 6-7, 9-10, and 13-14.*
- The proposed reduced lot widths result from balancing the requirement of delivering a protected riparian area with the lot yield anticipated in the NCP. The proposed lot dimensions are representative of the smaller, clustered, urban lots anticipated by the 'low density cluster' designation in the Anniedale-Tynehead NCP.
- Lots 6-7, 9-10, and 13-14 will require a depth variance ranging between 1.5 - 2.0 meters. This is a limited variance which was requested by the developer to allow for the delivery of the public trail anticipated by the NCP. All lots meet or exceed area requirements despite the reduced depth.
- Lot 10 will require a width variance of 0.9 meters. This is an isolated variance request to allow for the delivery of a pedestrian connection from the public trail to the cul-de-sac bulb. The reduced lot width should not adversely affect the ability to deliver a front-facing double-garage.
  - *to permit a double side-by-side garage on all lots less than 13.4 metres in width for proposed Lot 10.*
- Based on precedence, staff are confident that a double side-by-side garage can be reasonably accommodated on Lot 10 despite the reduced width.
- Staff support the requested variances to proceed for consideration.

### Lot Grading and Building Scheme

- The applicant retained Angus J. Muir of AJ Muir Design Ltd. as the Design Consultant. The Design Consultant conducted a character study of the surrounding homes and based on the findings of the study, proposed a set of building design guidelines (Appendix IV).

- A range of styles recommended for this site include Neo-Traditional, Neo-Heritage, West Coast, Craftsman, Contemporary, Modern Farmhouse, Modern Prairie, French Country, and French Provincial.
- A preliminary lot grading plan, submitted by Hub Engineering Inc., and dated June 12, 2023, has been reviewed by staff and found to be generally acceptable. The applicant is currently proposing in-ground basements. The feasibility of in-ground basements will be confirmed once the City's Engineering Department has reviewed and accepted the applicant's final engineering drawings.

### **Capital Projects Community Amenity Contributions (CACs)**

- On December 16, 2019, Council approved the City's Community Amenity Contribution and Density Bonus Program Update (Corporate Report No. R224; 2019). The intent of that report was to introduce a new City-wide Community Amenity Contribution (CAC) and updated Density Bonus Policy to offset the impacts of growth from development and to provide additional funding for community capital projects identified in the City's Annual Five-Year Capital Financial Plan. A fee update has been approved in April 2023, under Corporate Report No. R037; 2023.
- The proposed development will be subject to the Tier 1 Capital Plan Project CACs. The contribution will be payable at the rate applicable at the time of Final Subdivision Approval. The current rate is \$2,136 per new lot.
- The proposed development will not be subject to the Tier 2 Capital Plan Project CACs as the proposal complies with the densities in the secondary plan designation.

### **Affordable Housing Strategy**

- On April 9, 2018, Council approved the City's Affordable Housing Strategy (Corporate Report No. R066; 2018) requiring that all new rezoning applications for residential development contribute \$1,000 per new unit to support the development of new affordable housing. The funds collected through the Affordable Housing Contribution will be used to purchase land for new affordable rental housing projects. A fee update has been approved in April 2023, under Corporate Report No. R037; 2023.
- The applicant will be required to contribute \$1,068 per new lot to support the development of new affordable housing.

### **PUBLIC ENGAGEMENT**

- Pre-notification letters were sent on May 02, 2023, and the Development Proposal Signs were installed on April 27, 2023. Staff received no responses from neighbours on this project.

### **DEVELOPMENT PERMITS**

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

- The subject property falls within the Sensitive Ecosystems Development Permit Area (DPA) for Streamside Areas in the OCP, given the location of existing Class A (red-coded) watercourses which flow along the western and northern property lines. The Sensitive Ecosystems (Streamside Areas) Development Permit is required to protect aquatic and terrestrial ecosystems associated with streams from the impacts of development.
- In accordance with Part 7A Streamside Protection setbacks of the Zoning By-law, the following setbacks apply:
  - A Class A (red-coded) natural stream (Serpentine River) requires a minimum streamside setback of 30-metres, as measured from the top-of-bank;
  - A Class A (red-coded) channelized stream (Serpentine Tributary) requires a minimum streamside setback of 25-metres, as measured from the top-of-bank;
  - A Class A/O (red-coded) ditch, located along Bothwell Drive approximately 3-metres south of the old access crossing, requires a minimum streamside setback of 10-metres, as measured from the top-of-bank;
  - A Class B (yellow-coded) ditch, located along Bothwell Drive immediately downstream of the old access crossing, requires a minimum streamside setback of 7-metres, as measured from the top-of-bank; and
  - A Class A/O (red-coded) ditch, located along the south property line, requires a minimum streamside setback of 10-metres, as measured from the top-of-bank. The upstream extents of this ditch (i.e, Ditch 3) were determined by the QEP of record to be a non-RAPR dry ditch with no applicable setback. The portions of the ditch with applicable setback are on lands proposed to be conveyed to the city.

All prescribed setbacks are being met. The portions of the subject site encumbered by setbacks measured from the Class A/O and B ditches adjacent to Bothwell Drive will be protected by a combined Statutory Right-of-Way / Section 219 Restrictive Covenant for both “No Build” and conveyance access purposes.

- The riparian areas measured from the Serpentine River and the Unnamed Serpentine Tributary (west and north property lines) are proposed to be conveyed to the City as a lot for conservation purposes as a condition of rezoning approval, in compliance with the OCP.
- An Ecosystem Development Plan, prepared by Alexander Drake, *R.P. Bio.*, of Phoenix Environmental Services Ltd. and dated November 2023, was reviewed by staff and found to be generally acceptable, with some modifications to content and format of the report still required. The finalized report and recommendations will be incorporated into the Development Permit.

### **Sensitive Ecosystems (Green Infrastructure Areas) Development Permit Requirement**

- The subject property falls within the Sensitive Ecosystems DPA for Green Infrastructure Areas in the OCP, given the location of a Biodiversity Conservation Strategy (BCS) Green Infrastructure Network (GIN) corridors located along the west and north property lines. The Sensitive Ecosystems (Green Infrastructure Areas) Development Permit is required to protect environmentally sensitive and/or unique natural areas from the impacts of development.

- 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 Regional BCS Corridors within the subject site, in the Serpentine/Nicomekl BCS management area, with a Moderate to High ecological value.
- The BCS further identifies the GIN area of the subject site as having a Very High habitat suitability rating, derived from species at risk presence, species accounts and known ecosystem habitat inventories. The BCS recommends a target Corridor width of 60-meters.
- The development proposal conserves 1.4-acres of the subject site through Riparian Conveyance which is 27.5% of the total gross area of subject site. This method of GIN retention will assist in the long-term protection of the natural features and allows the City to better achieve biodiversity at this location consistent with the guidelines contained in the BCS.
- An Ecosystem Development Plan, prepared by Alexander Drake, *R.P. Bio.*, of Phoenix Environmental Services Ltd. and dated November 2023, was reviewed by staff and found to be generally acceptable, with some modifications to content and format of the report still required. The finalized report and recommendations will be incorporated into the Development Permit.

### **Hazard Lands (Steep Slope) Development Permit Requirement**

- The subject property falls within the Hazard Lands (Steep Slope) Development Permit Area (DPA) in the OCP, given that the site is within 30 metres from the top of a slope. The Hazard Land (Steep Slope) Development Permit is required to protect developments from hazardous conditions.
- The site topography of the east half is very gently sloping from east to west at approximately 4% slope with a drop of only 3-metres. A constructed berm approximately 2.4-metres high consisting of fill soil was observed on the west side of the site, approximately 20-metres away from the Serpentine River. The land between the berm and the Serpentine River is vegetated with medium growth trees. The riverbed is approximately 2.5-metres deep. A watercourse was also observed along the north property line which is approximately 1.5-metres deep.
- A geotechnical report, prepared by Tegbir S. Bajwa *P. Eng.*, of Able Geotechnical Ltd. and dated May 26, 2023, was reviewed by staff and found to conform to the OCP Development Permit guidelines for Hazard Lands, with some modifications to the content of the report and peer review required. The finalized peer-reviewed geotechnical report will be incorporated into the Development Permit.
- The geotechnical report investigated issues related to slope stability and natural storm water drainage, from a geotechnical perspective, to determine the feasibility of developing the site and proposes recommendations to ensure the ongoing stability of the slope.
- The consultant has determined that the development is feasible provided that the recommendations in their report are incorporated into the overall design of the site, including a geotechnical setback of 15-metres is recommended from the top of bank of the Serpentine River.

- Registration of a Section 219 Restrictive Covenant that requires the owner to develop the site in accordance with the conditions in the geotechnical report is required as a condition of final adoption.
- At Building Permit stage, the Building Division will require Letters of Assurance from a geotechnical engineer to ensure that the building plans comply with the recommendations in the approved geotechnical report.

### **Hazard Lands (Flood Prone) Development Permit Requirement**

- The subject property falls within the Hazard Lands (Flood Prone) Development Permit Area (DPA) in the OCP, given that the site is within the 200-year floodplain of the Serpentine River. The Hazard Land (Flood Prone) Development Permit is required to protect developments from hazardous conditions.
- The site topography of the east half is very gently sloping from east to west at approximately 4% slope with a drop of only 3-metres. A constructed berm approximately 2.4-metres high consisting of fill soil was observed on the west side of the site, approximately 20-metres away from the Serpentine River. The land between the berm and the Serpentine River is vegetated with medium growth trees. The riverbed is approximately 2.5-metres deep. A watercourse was also observed along the north property line which is approximately 1.5-metres deep.
- A feasibility study, prepared by Tegbir S. Bajwa *P. Eng.*, of Able Geotechnical Ltd. and dated May 26, 2023, was reviewed by staff and found to conform to the OCP Development Permit guidelines for Hazard Lands, with some modifications to content of the report still required. The finalized study will be incorporated into the Development Permit.
- The study investigated issues related to flooding to determine the feasibility of developing the site and proposes recommendations to mitigate potential hazards.
- A minimum flood plain elevation of approximately 6.0 (south) - 6.3 (west) metres geodetic is required. The applicant is proposing a main floor elevation of 6.4-metres geodetic elevation, which is approximately 0.1-metres above the minimum flood plain level.
- The consultant has determined that the development is feasible provided that the recommendations in their report are incorporated into the overall design of the site, including meeting the required flood construction levels.
- Registration of a Section 219 Restrictive Covenant to restrict habitable floor area below the Flood Construction Level (FCL) and to inform current and future owners that the subject property is located within a floodplain area and that any buildings or structures constructed upon the lot may be damaged by flooding or erosion is required as a condition of final adoption.

### **TREES**

- Adrian Szabunio, ISA Certified Arborist of Woodbridge Tree Consulting Arborists Ltd. prepared an Arborist Assessment for the subject property (Appendix X). The table below provides a summary of the proposed tree retention and removal by tree species:

**Table 1: Summary of Proposed Tree Preservation by Tree Species:**

Tree Species	Existing	Remove	Retain
<b>Alder and Cottonwood Trees</b>			
Alder	3	3	0
Cottonwood	3	3	0
<b>Deciduous Trees (excluding Alder and Cottonwood Trees)</b>			
Bigleaf Maple	11	11	0
Silver Poplar	1	1	0
<b>Coniferous Trees</b>			
Sawara Cypress	4	4	0
Sitka Spruce	5	5	0
Fir (Abies)	1	1	0
Western Red Cedar	15	15	0
<b>Total (excluding Alder and Cottonwood Trees)</b>	<b>37</b>	<b>37</b>	<b>0</b>
<b>Additional Trees in the proposed Riparian Area</b>	<b>22</b>	<b>0</b>	<b>22</b>
<b>Total Replacement Trees Proposed (excluding Boulevard Street Trees)</b>		<b>21</b>	
<b>Total Retained and Replacement Trees Proposed</b>		<b>21</b>	
<b>Estimated Contribution to the Green City Program</b>		<b>\$32,450 / TBC</b>	

- The Arborist Assessment states that there are a total of 37 mature trees on the site, excluding Alder and Cottonwood trees. Six (6) existing trees, approximately 13.9% of the total trees on the site, are Alder and Cottonwood trees. The applicant proposes to retain no (0) trees within the net developable area as part of this development proposal. The proposed tree retention was assessed taking into consideration the location of services, building footprints, road dedication and proposed lot grading.
- Table 1 includes an additional 22 protected trees that are located within the proposed riparian area. The trees within the proposed riparian area will be retained, except where removal is required due to hazardous conditions. This will be determined at a later time, in consultation with the Parks, Recreation and Culture Department.
- For those trees that cannot be retained, the applicant will be required to plant trees on a 1 to 1 replacement ratio for Alder and Cottonwood trees that are outside the streamside protection area, and a 2 to 1 replacement ratio for all other trees, including Alder and Cottonwood that are within a streamside protection area. This will require a proposed total of 80 replacement trees on the site. Since only a proposed 21 replacement trees can be accommodated on the site, the proposed deficit of 59 replacement trees will require an estimated cash-in-lieu payment of \$32,450 representing \$550 per tree to the Green City Program, in accordance with the City’s Tree Protection By-law.

- The proposed tree retention and replacement strategy will continue to be refined as the applicant works through the detailed design process.

### INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	Proposed Subdivision Layout
Appendix II.	Engineering Summary
Appendix III.	School District Comments
Appendix IV.	Building Design Guidelines Summary
Appendix V.	Summary of Tree Survey and Tree Preservation
Appendix VI.	Development Variance Permit No. 7923-0030-00

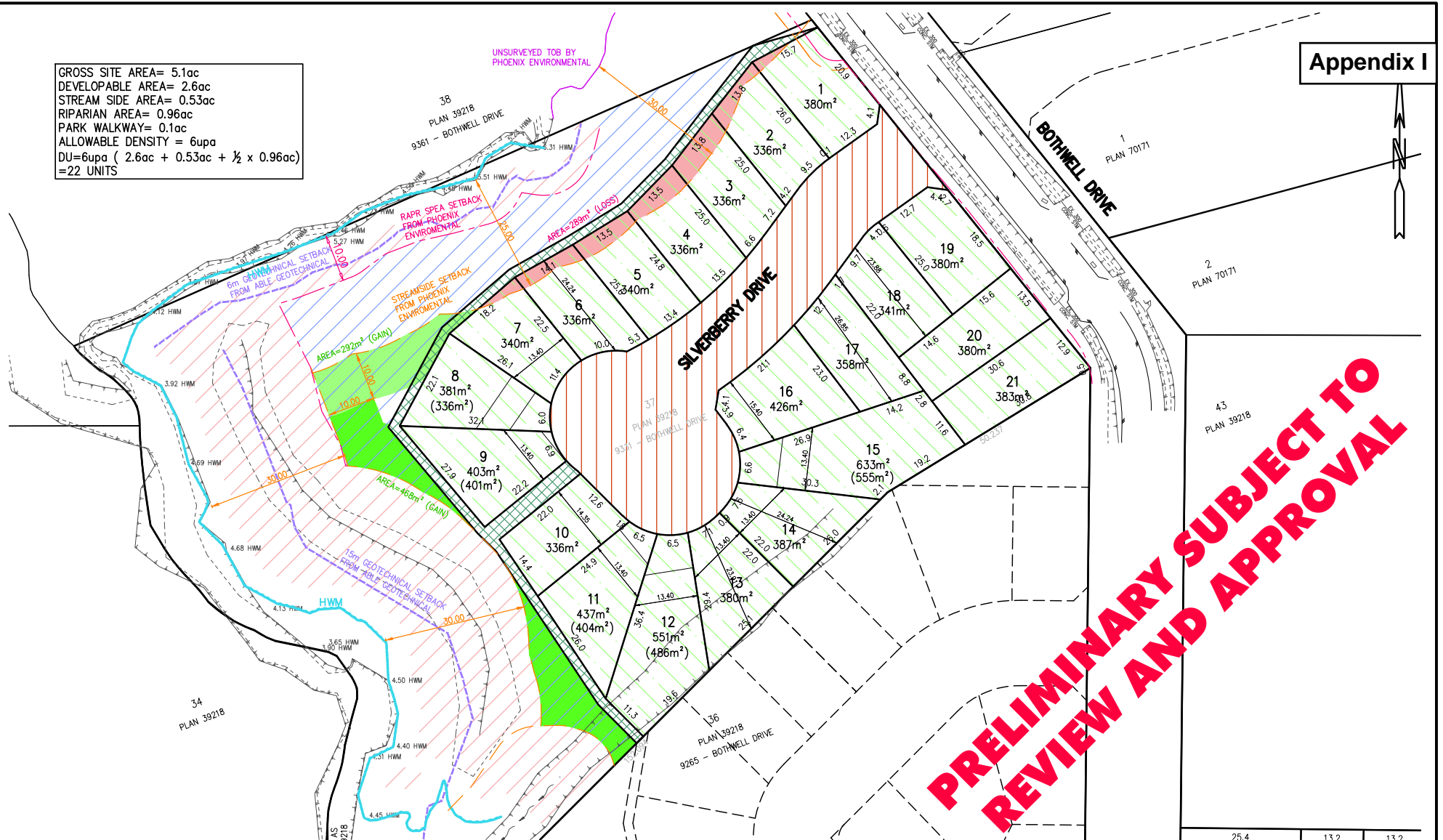
*approved by Ron Gill*

Don Luymes  
General Manager  
Planning and Development

RO/ar



GROSS SITE AREA= 5.1ac  
 DEVELOPABLE AREA= 2.6ac  
 STREAM SIDE AREA= 0.53ac  
 RIPARIAN AREA= 0.96ac  
 PARK WALKWAY= 0.1ac  
 ALLOWABLE DENSITY = 6upa  
 DU=6upa ( 2.6ac + 0.53ac + 1/2 x 0.96ac )  
 =22 UNITS



**PRELIMINARY SUBJECT TO REVIEW AND APPROVAL**

CLIENT:		PROJECT: 9331 BOTHWELL DRIVE			
DRAWING TITLE: RESIDENTIAL SUBDIVISION					
PROJECT No.	22039	DATE:	FEB 2024	LEGAL:	
SCALE: 1:750			MUNICIPAL PROJECT No:		
PRELIMINARY PLAN - SUBJECT TO APPROVAL(S) FROM FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES					

**Hub Engineering Inc.**

Engineering and Development Consultants

EGBC Permit to Practice Number: 1003404  
 Suite 212, 12992 - 76 Avenue, Surrey, B.C. V3W 2V6  
 tel: 604-572-4328 | fax: 604-501-1625 | mail@hub-inc.com | www.hub-inc.com

G:\Projects\22039\22039\_01\AD Drawings\Layouts\Lot Layout Enviro - Op. 36 - Feb. 6, 2024.dwg [Lot Layout 11x17]

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TO: **Director, Area Planning & Development  
- North Surrey Division  
Planning and Development Department**

FROM: **Development Services Manager, Engineering Department**

DATE: **July 18, 2023** PROJECT FILE: **7823-0030-00**

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RE: **Engineering Requirements  
Location: 9331 Bothwell Dr**

**REZONE/SUBDIVISION**

***Property and Right-of-Way Requirements***

- Dedicate 17.0 m for Silverberry Drive.
- Dedicate 3.0 x 3.0 m corner cut at intersection of Bothwell Drive and Silverberry Drive.
- Dedicate varying widths for cul-de-sac at Silverberry Drive.
- Register 0.5 m SRW along Bothwell Drive.
- Register 0.5 m SRW along Silverberry Drive.
- Register RC for the on-site storm water mitigation features as required.
- Register 0.50 m SRW along all road frontages.
- Secure off-site SRWs as required to service the site.

***Works and Services***

- Construct west side of Bothwell Drive.
- Construct Silverberry Drive.
- Construct water and sanitary mains required to service the site.
- Provide on-lot stormwater mitigation .
- Provide storm, sanitary, and water services.

A Servicing Agreement is required prior to Rezone/Subdivision.

**DEVELOPMENT PERMIT/DEVELOPMENT VARIANCE PERMIT**

There are no engineering requirements relative to issuance of the Development Permit/  
Development Variance Permit.



Jeff Pang, P.Eng.  
Development Services Manager

SY

NOTE: Detailed Land Development Engineering Review available on file

Department: **Planning and Demographics**  
Date: **April 17, 2023**  
Report For: **City of Surrey**

**Development Impact Analysis on Schools For:**

Application #: **23 0030 00**

The proposed development of **21** Single Family with Suite units are estimated to have the following impact on elementary and secondary schools within the school regions.

<b>School-aged children population projection</b>	20
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<b>Projected Number of Students From This Development In:</b>	
Elementary School =	10
Secondary School =	7
Total Students =	17

<b>Current Enrolment and Capacities:</b>	
<b>Serpentine Heights Elementary</b>	
Enrolment	359
Operating Capacity	434
# of Portables	0
<b>North Surrey Secondary</b>	
Enrolment	1478
Operating Capacity	1175
# of Portables	8

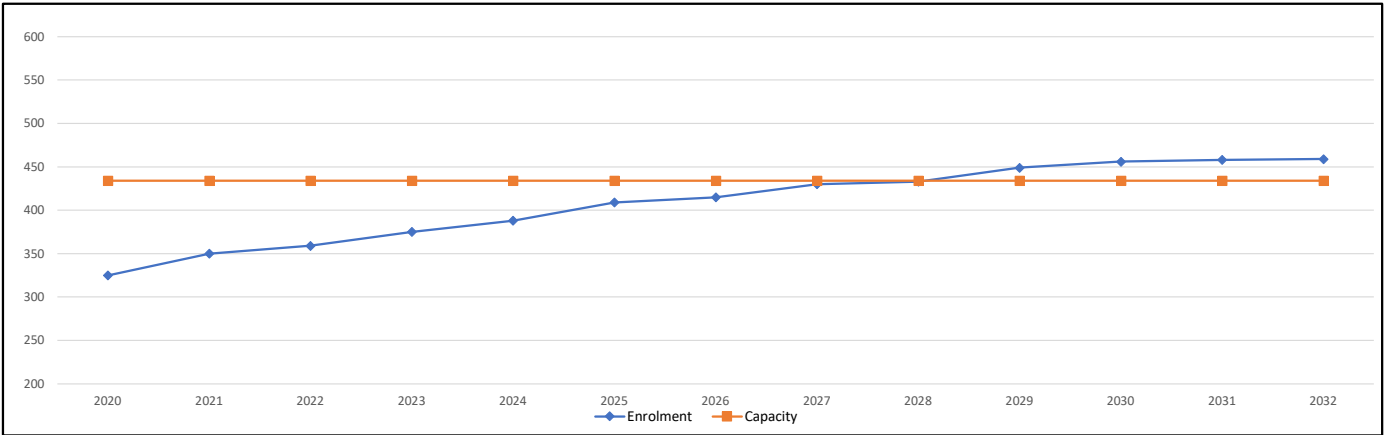
**Summary of Impact and Commentary**

The following tables illustrate the historical, current and future enrolment projections including current/approved ministry operating capacity for the elementary and secondary schools serving the proposed development.

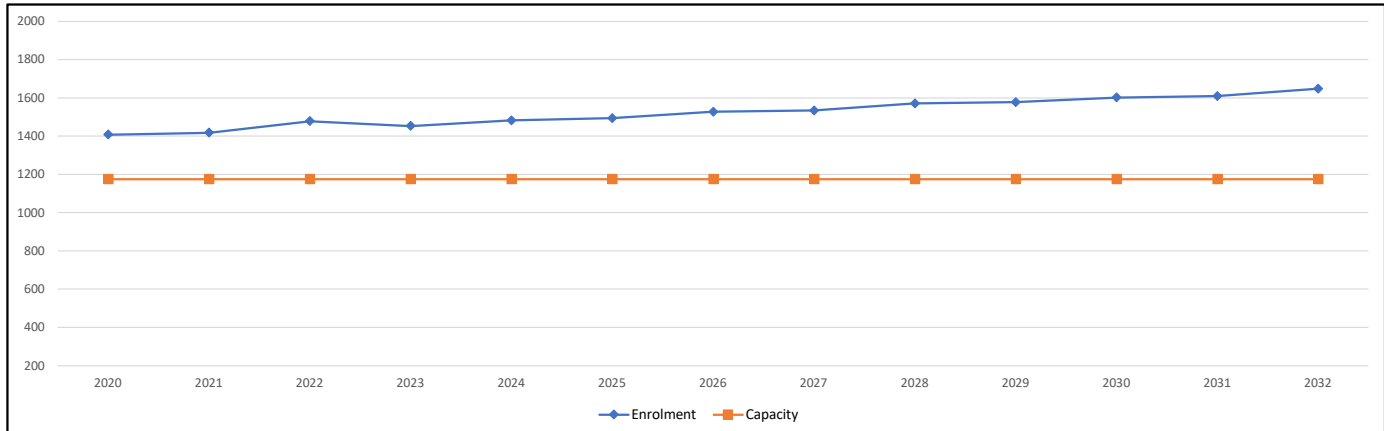
Serpentine Heights is one of the few elementary schools in the northeast area of the District that still has enrolling space available. This school will serve the future Anniedale/Tynehead community, until the west side of NCP new residential housing can support a new school in the local area. The enrolment projection table should be regarded as conservative. Serpentine Heights will accommodate any enrolment growth within its existing capacity and portables until a new school is constructed in the community.

North Surrey Secondary is currently operating at 126% with eight portables on site. Over the next 10 years, enrolment is projected to increase significantly due to development growth around the Skytrain area. As part of the District's 2023/24 Five Year Capital Plan submission, there is a request of 525 capacity addition targeted to open September 2030. This project has yet to be approved by the Ministry.

**Serpentine Heights Elementary**



**North Surrey Secondary**



**Population:** The projected population of children aged 0-17 impacted by the development.  
**Enrolment:** The number of students projected to attend the Surrey School District ONLY.

# BUILDING GUIDELINES SUMMARY

Surrey Project no: 23-0030-00  
Project Location: 9331 Bothwell Drive, Surrey BC  
Design Consultant: Angus J. Muir – AJ Muir Design Ltd.  
Date: June 01, 2023

**The draft Building Scheme proposed for this Project has been filed with the City Clerk. The following is a summary of the Residential Character Study and the Design Guidelines which highlight the important features and form the basis of the draft Building Scheme.**

## 1. Context Neighbourhood and Context Homes

### 1.1 Establishing the Context Neighbourhood:

The Context Neighbourhood includes the parent parcel(s) of the proposed development (herein called the Subject Site) and surrounding properties. The Context Neighbourhood (as outlined graphically on Appendix A within the Character Study) was established by considering the geographical area, road system, and generally what would be perceived as the Neighbourhood to which the parent parcel(s) belongs. This includes consideration of homes visible from the Subject Site and along the main access route. The Context Neighbourhood should be seen as the area to which the parent parcel(s) is part of, and would be affected by development of the Subject Site as new lots are created and added to the Neighbourhood.

The Context Neighborhood is bounded by 168 Street to the west of the Subject Site, 172 Street to the east of the Subject Site, 94A Avenue to the north of the Subject Site, and 92 Avenue to the south of the Subject Site. The Context Neighborhood generally includes a number of A-1 zoned properties of mixed size, along with a number of RA zoned properties at the north end of the Context Neighborhood.

The greater area beyond the Context Neighborhood is primarily residential acreage lots to the north and east of the Context Neighborhood, and agricultural land to the south and west of the Context Neighborhood. The Context Neighborhood that was selected fairly represents this broader area, and this study would not have different findings if this broader area was included within the Context Neighborhood for the sake of this study.

### 1.2 Establishing Context Homes within the Context Neighbourhood:

In the Residential Character Study for this development existing homes in the Context Neighbourhood have been reviewed to determine if they are Context Homes and have features that are considered when developing the recommendations for the Design Guidelines and Building Scheme. The Context Neighbourhood is comprised of 28 properties not including the Subject Site. None of the existing homes within the Context Neighbourhood have been determined to be Context Homes and none of the existing homes will be considered when developing restrictions for the Building Scheme. The Character Study for this development elaborates on the review process and determination.

## 2. Residential Character

### 2.1 General Description of the Existing and/or Emerging Residential Character of the Subject Site and Context Neighbourhood:

The parent parcel for the proposed subdivision at the Subject Site is located between 94A Avenue to the north and 92 Avenue to the south, and is on the west side of Bothwell Drive. The proposed development includes 21 new RF-13 zoned residential lots along with a new access road and a significant riparian area adjacent to Serpentine River.

The Context Neighborhood includes a significant number of agricultural properties, many of which will be rezoned and subdivided into residential neighborhoods in the next few years. Some of the adjacent farmland in the Agricultural Land Reserve will remain as actively farmed agricultural land. The existing residential properties in the Context Neighborhood are very low density and will undergo significant development and densification in the near future.

The proposed development at the Subject Site represents an interface between the future residential neighborhoods to the north and east, and the farmland to the south. The proposed land use in the Anniedale-Tynehead Neighborhood Concept Plan reflects this interface area.

Considering the character of the existing Context Neighborhood and broader area, compared to what is proposed for development at the Subject Site, and for the broader development area in the Anniedale-Tynehead Neighborhood Concept Plan, the Residential Character of the area could only be called emerging.

### 2.2 Prevailing Features of the Context Homes Significant to the Proposed Design Guidelines and Recommendations for the Building Scheme:

As outlined and established in Section 1, the existing Residential Character, and specifically the character and features of existing homes in the Context Neighborhood, cannot effectively be considered for new homes to be in keeping with the Anniedale-Tynehead Neighborhood Concept Plan. Due to the significant redevelopment of the entire area planned for the near future, the Design Guidelines for new homes should support current levels of quality in design along with industry standard materials and detailing which will ensure the new Residential Character of the area is of consistent high quality.

In this section various components of home and landscaping are considered and recommendations are made for developing the restrictions in the Design Guidelines to be registered as a Building Scheme on all of the new Single Family lots in the proposed development at the Subject Site.

#### House Styles

- Current popular and appropriate home styles include Neo-Traditional and Neo-Heritage, West Coast, Craftsman, Contemporary, Modern Farmhouse, Modern Prairie, French Country and French Provincial. These styles are indicative of what has been popular over the last ten years to present. The homes may share many common elements of roof design and massing but identify separately as specific styles by the cladding, detailing and colours used.
- **Recommendation:** The Design Guidelines for the new lots on the Subject Site should encourage these popular styles while acknowledging shifting trends towards more modern styles, but not to the degree that radically modern styles would be permitted. Some hybrid styles such as Modern Prairie, Modern Farmhouse, Contemporary-Traditional or Contemporary-French Provincial may suit the area. Names of styles need to be avoided in

the Design Guidelines but rather the specific styles should be supported or restricted by identifying which contributing elements, massing, roof form and materials create the overall style, and then restrictions specific to these elements should be carefully crafted.

### **Building Massing**

- Building Massing considers the overall mass and form of the exterior of the home. The general concept is that softer massing is often more pleasing while bold and tall massing may only suit specific styles. Massing can be reduced by offsetting upper walls behind lower walls, adding roof forms which break up wall massing, or adding a combination of vertical and horizontal articulation to the home. For Single Family Dwellings a softer or reduced front façade massing can often prevent a home from appearing to be imposing on the streetscape. Where lot grades inherently expose one side of a home more than the others the massing can also become undesirable.
- **Recommendation:** The Design Guidelines for the new lots on the Subject Site should discourage full two storey massing and limit two storey elements by requiring portions of the upper floor to be set back from the main floor, and where two storey elements occur they should be broken up by design elements such as skirt roofs and boxed out windows. Some two storey massing should be permitted if it suits the specific style or achieves a particular design element. It would be recommended to have portions of the front of the home with one storey massing, and the second floor should be stepped back from the first floor. For upslope lots additional massing restrictions should be included to ensure front facades are not overbearing. For side slope lots additional grading and retaining requirements should be included to reduce large side wall massing, and should also consider special restrictions for conditions where large wall massing may be undesirable.

### **Corner Lot Design**

- A home on a corner lot inherently exposes more sides of the home to be visible from the street. Attention to secondary elevations which face a street will ensure that the home is appealing from more than just the front view. Flanking side elevations of the home may be treated similar to front facing elevations but also needs to consider privacy within the home and the rear yard.
- **Recommendation:** The Design Guidelines for the new lots on the Subject Site should require flanking side elevations to have upgraded facades compared to elevations that do not face a street, including requirements for additional articulation, softened massing and upgraded cladding and detailing. The flanking side elevations should have similar requirements as the front elevation massing noted above, but perhaps a better ratio would be minimum 25% one storey elements.

### **Roof Form and Material**

- Roof Form is one of the most important design elements of a home. Careful consideration of specific roof forms help to reinforce the overall style of a home. Certain roof forms are indicative of certain styles and if not combined properly with the appropriate detailing and massing, the home will not appear to have pleasing aesthetics or overall quality of design. Elements of roof design include pitch, material, fascias & barge boards, overhangs and colour.
- **Recommendation:** The Design Guidelines for the new lots on the Subject Site should encourage a range of roof forms indicative of the current popular and appropriate styles noted above, but should restrict the use of monoplane and flat roof forms to ensure they are appropriate to the style. The main roof form should be restricted to 3/12 or higher pitched roofs or flat roofs. Feature roofs should be encouraged and alternate materials for feature roofs should be permitted if it suits the style. Asphalt shingle roofing with minimum 30 year warranty and manufactured ridge caps should be the primary roofing materials but cedar roofing and concrete tile should be permitted. Modern roofing materials such as fiberglass or environmentally friendly products should also be permitted with similar rating as the asphalt

roofing. Some feature roofs may require torch-on roofing but this should only be permitted if it is not visible from the street.

### **Cladding and Detailing**

- The current popular and appropriate styles noted above would primarily use a mix of traditional building materials and cladding such as stone, stucco, horizontal bevel siding, vertical board and batten siding, wall shakes and brick. Modern building materials such as panel systems may also be used if it suits the intended style. Trim should be encouraged on front facing facades and may be precast moldings, wood or stucco depending on the main cladding material used and the overall style of the home. Some feature elements and materials such as timber or metal bracing may be appropriate along with good window design and feature cladding to achieve style-specific exterior façades. Generally the use of materials should encourage a high level of quality in the cladding and detailing and should not be sparse or minimal.
  
- **Recommendation:** The Design Guidelines for the new lots on the Subject Site should encourage the use and application of high quality materials and detailing. Minimum requirements for trim and use of feature elements should be required for front facing elevations, including minimum 1x4 window trim, 2x10 base trim and combinations of accent materials which cover at least 10% of the front elevation, however certain styles would suit a minimalistic trim scheme and this needs to be considered on a case-by-case basis. A broad range of cladding materials should be permitted but modern cladding systems such as cementitious and metal panel systems should be carefully used for intended styles. Vinyl siding should not be permitted as per the NCP for the area. Material restrictions for fascias, fascia bands and barge boards should be outlined.

### **Surfacing Materials:**

- Surfacing Materials refers to the material and finish of driveways, walkways, porches and patios. Materials such as gravel and asphalt are considered lower quality, and materials such as concrete and masonry unit pavers are considered higher quality. Concrete and unit pavers come in a wide range of finishes, with cast-in-place concrete having the broadest range of possible finishes. Additional interest can be added by using a combination of materials and finishes such as having a separate material or finish for borders.
- **Recommendation:** The Design Guidelines for the new lots on the Subject Site should encourage driveway and walkway surfacing to be unit pavers or concrete in a range of finishes such as exposed aggregate, stamped or other similar architectural treatments. Borders should be permitted and may be of a contrasting material or finish. Gravel and asphalt driveways and front walkways should not be permitted. Walkways and patios which are not visible from the street should have more flexibility for materials and finishes.

### **Garages:**

- The proposed single family lots are all front loaded and will all have attached garages with driveways that connect to the fronting road. Garages will have overhead doors which are front facing. Minimum parking requirements include three spaces for principal dwelling and one additional space for a secondary suite. The driveway configuration will include room for outside parking spaces.
- **Recommendation:** The Design Guidelines for the new lots on the Subject Site should

require all garages to be at least one car and provide the minimum dimensions to satisfy parking requirements. Garages should have doors which close and the panel design of the door should suit the style of the home. Carports should not be permitted.

### **Front Entry and Porches**

- Front entry porches are an important element of a home as they provide a focal point of the façade and make the home feel welcoming. The front entry porch can assist in defining the style of the home as well as adding extra articulation to soften massing. However, a porch needs to be proportionate and should avoid being either too insignificant or overpowering.
- **Recommendation:** The Design Guidelines for the new lots on the Subject Site should encourage a dominant front entry porch and door which is visible from the road but should be limited to a single storey. Restrictions for porch roof height above the porch surface should be included and a maximum dimension of 12'-0" for this is recommended unless it suits the specific style.

### **Landscaping**

- The landscaping on a property generally refers to the areas of the yard which are not covered by buildings, patios, walkways, driveways, etc. Appropriate landscaping considers the addition of natural features to the yard, and can help to soften the look of transitions in grade and transitions from grade to buildings. However, it needs to be carefully planned so it does not block the home from the street at the front, but can provide privacy for other yards. Front yard landscaping most often includes a combination of lawn, planting beds, shrubs and trees. Fencing can be added for privacy but in front yards is often only decorative.
- **Recommendation:** The Design Guidelines for the new lots on the Subject Site should require a mix of planting beds and lawn area in the front yards along with guidelines for hedging and planting materials to ensure front yards remain manageable and provide natural transitions from the street. A minimum of 13 shrubs should be required in the front yards and on corner lots this should be increased to 25 for the combined front and flanking side. High fencing and hedging should be limited to the sides and rear yards to ensure new homes remain visible, presentable and neighborly. Entry columns and low decorative privacy walls and fences in front yards should be permitted but only with specific review and approval from the Design Consultant.

### **Retaining:**

- Retaining walls are generally only required where grade transitions are not possible by naturally sloping the lot grades. They are also commonly used to provide lowered or depressed areas such as garage access and basement access below grade. Retaining walls to raise areas higher than existing grade are typically considered to be far more visible than retaining walls to create depressed areas below grade. Where retaining is not visible from the street the consideration of the finish and aesthetic is not as important as highly visible retaining.
- **Recommendation:** The Design Guidelines for the new lots on the Subject Site should limit retaining walls visible from the street to be 1.2m or less in height and terraced where higher transitions are required. Taller walls should be permitted where garages are at the basement level or significantly lower than the front entry porch. Where retaining is visible from the road the material and finish should be restricted to higher quality materials. Where retaining is not visible from the road, such as with sunken basement wells in rear yards, they should have relaxed requirements for material and finish and permit materials such as wood or cast-in-place concrete.




**Conclusion:**

The emerging Residential Character of the overall area will be established by the proposed new development at the Subject Site. By carefully considering industry standard levels of quality and current trends in design, along with well-established and timeless design concepts, restrictions can be implemented which will set the desired tone. The Design Guidelines for the proposed development can provide flexibility while ensuring the new homes suit the concept for the new neighborhood and maintain levels of quality which will safeguard the new home owners in this development and surrounding areas.

**Compliance Deposit:** \$10,000.00

**Summary prepared and submitted by:** Angus J. Muir, AJ Muir Design Ltd. Date: June 01, 2023

**Reviewed and Approved by:** Angus J. Muir  Date: June 01, 2023

## Summary of Tree Preservation by Tree Species:

Tree Species	Existing	Remove	Retain
<b>Alder and Cottonwood Trees</b>			
Alder	3	3	0
Cottonwood	3 live, 1 dead excluded from count	3	0
<b>Deciduous Trees</b> (excluding Alder and Cottonwood Trees)			
Bigleaf Maple	11	11	0
Silver Poplar	1	1	0
<b>Coniferous Trees</b>			
Sawara Cypress	4	4	0
Sitka Spruce	5	5	0
Fir ( <i>Abies</i> )	1	1	0
Western Red Cedar	15	15	0
<b>Total</b> (excluding Alder and Cottonwood Trees)	37	37	0
<b>Additional [Estimated] Trees in the proposed [Open Space / Riparian Area] -<i>planner/arborist to choose</i></b>	22		
<b>Total Replacement Trees Proposed</b> (excluding Boulevard Street Trees)			
<b>Total Retained and Replacement Trees</b>			

# Tree Preservation Summary

Surrey Project No:

Address: 9331 Bothwell Drive, Surrey

Registered Arborist: Woodridge Tree Consulting Arborists Ltd., Adrian Szabunio PR-5079A

On-Site Trees	Number of Trees	Off-Site Trees	Number of Trees
Protected Trees Identified *	43 +1 dead	Protected Trees Identified	3
Protected Trees to be Removed	43+1 dead	Protected Trees to be Removed	0
Protected Trees to be Retained (excluding trees within proposed open space or riparian areas)	0	Protected Trees to be Retained	3
<b>Total Replacement Trees Required:</b>		<b>Total Replacement Trees Required:</b>	
- Alder & Cottonwoods to be removed (1:1) 6 X one (1) = 6	80	- Alder & Cottonwoods to be removed (1:1) 0 X one (1) = 0	
- All other species to be removed (2:1) 37 X two (2) = 74		- All other species to be removed (2:1) 0 X two (2) = 0	
Replacement Trees Proposed	21	Replacement Trees Proposed	0
Replacement Trees in Deficit	59	Replacement Trees in Deficit	0
Protected Trees to be Retained in Proposed Open Space or Riparian Areas	22		
*on-site and shared trees, including trees within boulevards and proposed streets and lanes, but excluding trees in proposed open space or riparian areas			

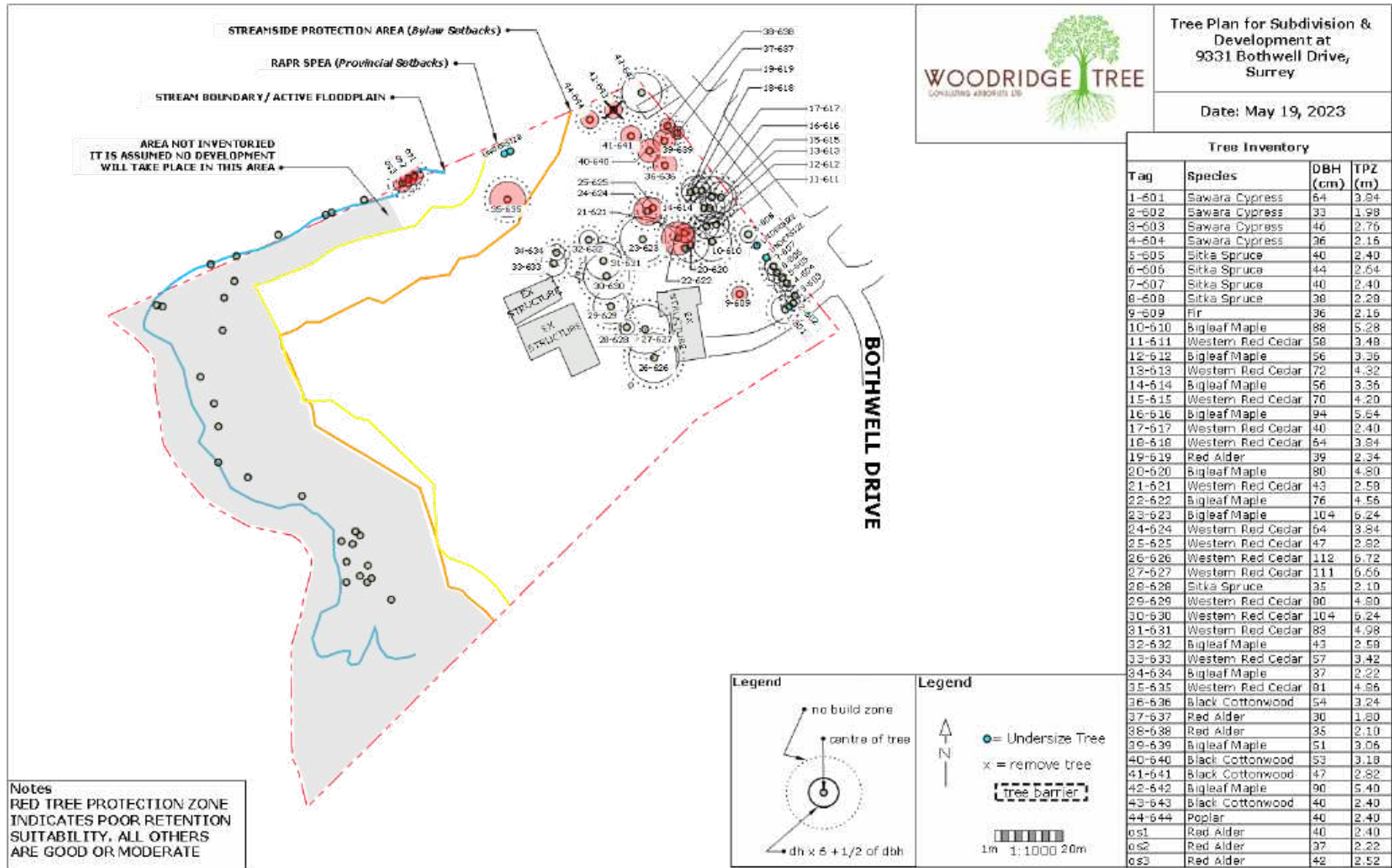
Summary, report and plan prepared and submitted by:



(Signature of Arborist)

April 19, 2023

Date

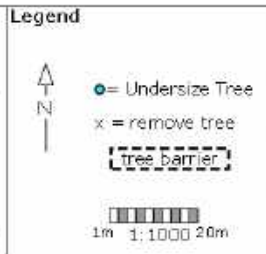
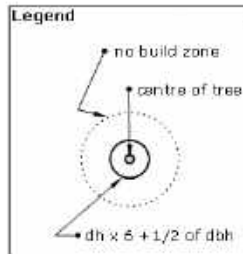


Tree Plan for Subdivision & Development at 9331 Bothwell Drive, Surrey

Date: May 19, 2023

Tree Inventory			
Tag	Species	DBH (cm)	TPZ (m)
1-601	Sawara Cypress	64	3.84
2-602	Sawara Cypress	33	1.98
3-603	Sawara Cypress	46	2.76
4-604	Sawara Cypress	36	2.16
5-605	Sitka Spruce	40	2.40
6-606	Sitka Spruce	44	2.64
7-607	Sitka Spruce	40	2.40
8-608	Sitka Spruce	38	2.28
9-609	Fir	36	2.16
10-610	Bigleaf Maple	88	5.28
11-611	Western Red Cedar	58	3.48
12-612	Bigleaf Maple	56	3.36
13-613	Western Red Cedar	72	4.32
14-614	Bigleaf Maple	56	3.36
15-615	Western Red Cedar	70	4.20
16-616	Bigleaf Maple	94	5.64
17-617	Western Red Cedar	40	2.40
18-618	Western Red Cedar	64	3.84
19-619	Red Alder	39	2.34
20-620	Bigleaf Maple	80	4.80
21-621	Western Red Cedar	43	2.58
22-622	Bigleaf Maple	76	4.56
23-623	Bigleaf Maple	104	6.24
24-624	Western Red Cedar	64	3.84
25-625	Western Red Cedar	47	2.82
26-626	Western Red Cedar	112	6.72
27-627	Western Red Cedar	111	6.66
28-628	Sitka Spruce	35	2.10
29-629	Western Red Cedar	80	4.80
30-630	Western Red Cedar	104	6.24
31-631	Western Red Cedar	83	4.98
32-632	Bigleaf Maple	43	2.58
33-633	Western Red Cedar	67	3.42
34-634	Bigleaf Maple	37	2.22
35-635	Western Red Cedar	81	4.86
36-636	Black Cottonwood	54	3.24
37-637	Red Alder	30	1.80
38-638	Red Alder	35	2.10
39-639	Bigleaf Maple	51	3.06
40-640	Black Cottonwood	53	3.18
41-641	Black Cottonwood	47	2.82
42-642	Bigleaf Maple	90	5.40
43-643	Black Cottonwood	40	2.40
44-644	Poplar	40	2.40
os1	Red Alder	40	2.40
os2	Red Alder	37	2.22
os3	Red Alder	42	2.52

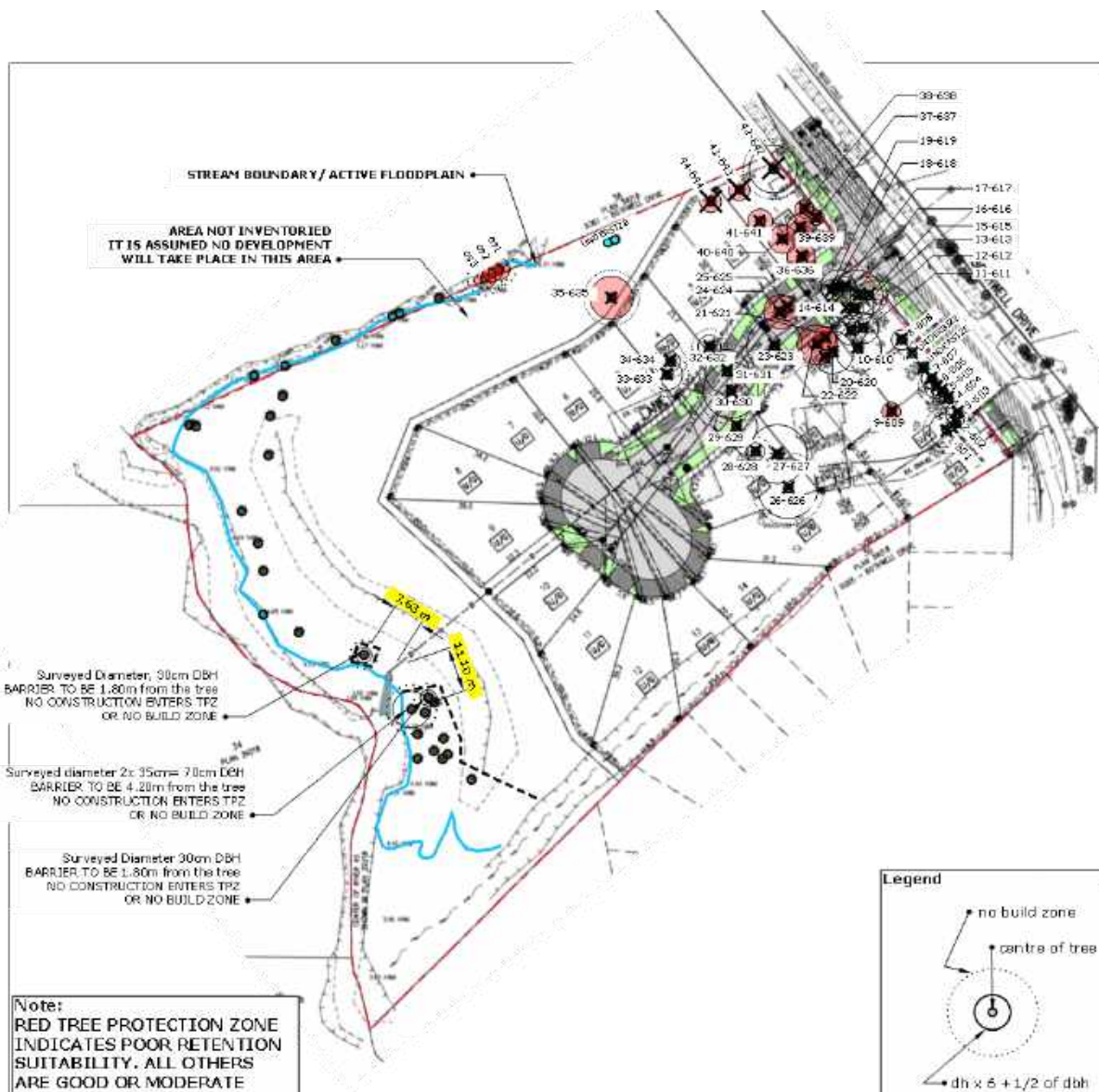
Notes  
 RED TREE PROTECTION ZONE INDICATES POOR RETENTION SUITABILITY, ALL OTHERS ARE GOOD OR MODERATE



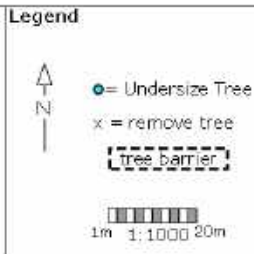
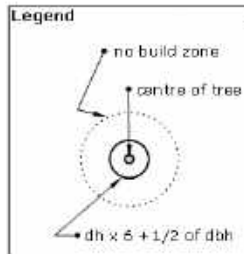


**Tree Plan for Subdivision & Development at 9331 Bothwell Drive, Surrey**

Date: May 19, 2023



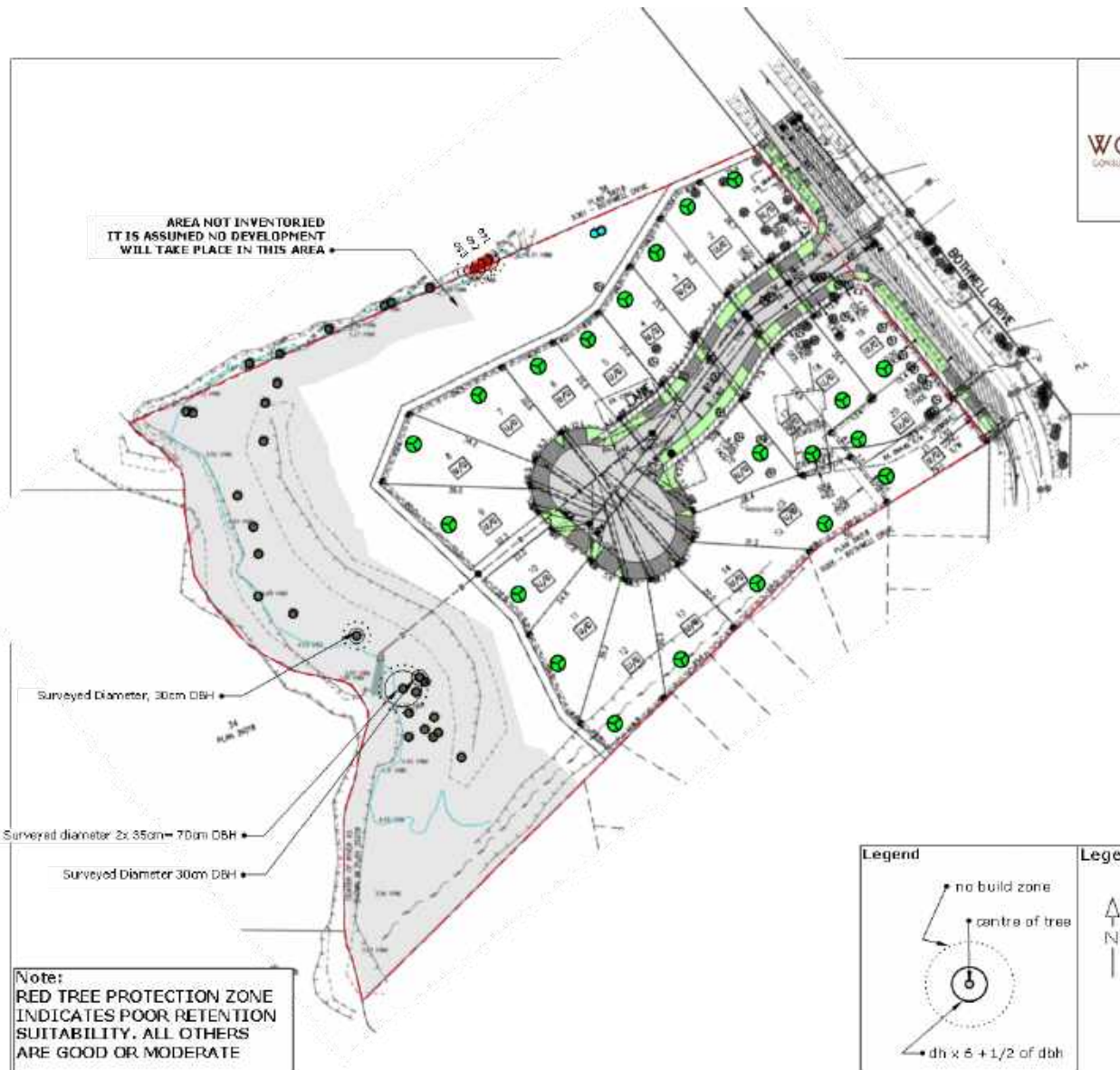
Tree Inventory			
Tag	Species	DBH (cm)	TPZ (m)
1-501	Sawara Cypress	64	3.94
2-502	Sawara Cypress	33	1.98
3-503	Sawara Cypress	46	2.76
4-504	Sawara Cypress	36	2.16
5-505	Sitka Spruce	40	2.40
6-506	Sitka Spruce	44	2.64
7-507	Sitka Spruce	40	2.40
8-508	Sitka Spruce	38	2.28
9-509	Fir	36	2.16
10-510	Bigleaf Maple	88	5.28
11-511	Western Red Cedar	58	3.48
12-512	Bigleaf Maple	56	3.36
13-513	Western Red Cedar	72	4.32
14-514	Bigleaf Maple	56	3.36
15-515	Western Red Cedar	70	4.20
16-516	Bigleaf Maple	94	5.64
17-517	Western Red Cedar	40	2.40
18-518	Western Red Cedar	54	3.24
19-519	Red Alder	39	2.34
20-520	Bigleaf Maple	80	4.80
21-521	Western Red Cedar	43	2.58
22-522	Bigleaf Maple	76	4.56
23-523	Bigleaf Maple	104	6.24
24-524	Western Red Cedar	54	3.24
25-525	Western Red Cedar	47	2.82
26-526	Western Red Cedar	112	6.72
27-527	Western Red Cedar	111	6.66
28-528	Sitka Spruce	35	2.10
29-529	Western Red Cedar	90	5.40
30-530	Western Red Cedar	104	6.24
31-531	Western Red Cedar	88	5.28
32-532	Bigleaf Maple	43	2.58
33-533	Western Red Cedar	57	3.42
34-534	Bigleaf Maple	37	2.22
35-535	Western Red Cedar	81	4.86
36-536	Black Cottonwood	54	3.24
37-537	Red Alder	30	1.80
38-538	Red Alder	35	2.10
39-539	Bigleaf Maple	51	3.06
40-540	Black Cottonwood	53	3.18
41-541	Black Cottonwood	47	2.82
42-542	Bigleaf Maple	90	5.40
43-543	Black Cottonwood	40	2.40
44-544	Poplar	40	2.40
os1	Red Alder	40	2.40
os2	Red Alder	37	2.22
os3	Red Alder	42	2.52





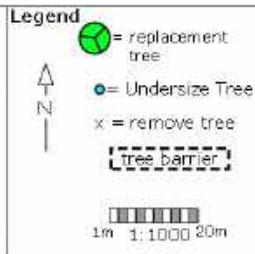
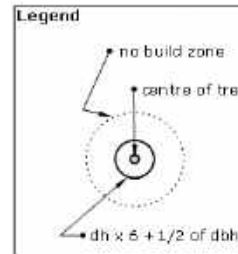
**Tree Plan for Subdivision & Development at 9331 Bothwell Drive, Surrey**

Date: May 19, 2023



**Tree Inventory**

Tag	Species	DBH (cm)	TPZ (m)
1-601	Sawara Cypress	64	3.84
2-602	Sawara Cypress	33	1.98
3-603	Sawara Cypress	46	2.76
4-604	Sawara Cypress	36	2.16
5-605	Sitka Spruce	40	2.40
6-606	Sitka Spruce	44	2.64
7-607	Sitka Spruce	40	2.40
8-608	Sitka Spruce	38	2.28
9-609	Fir	36	2.16
10-610	Bigleaf Maple	88	5.28
11-611	Western Red Cedar	58	3.48
12-612	Bigleaf Maple	56	3.36
13-613	Western Red Cedar	72	4.32
14-614	Bigleaf Maple	56	3.36
15-615	Western Red Cedar	70	4.20
16-616	Bigleaf Maple	94	5.64
17-617	Western Red Cedar	40	2.40
18-618	Western Red Cedar	64	3.84
19-619	Red Alder	39	2.34
20-620	Bigleaf Maple	80	4.80
21-621	Western Red Cedar	43	2.58
22-622	Bigleaf Maple	76	4.56
23-623	Bigleaf Maple	104	6.24
24-624	Western Red Cedar	64	3.84
25-625	Western Red Cedar	47	2.82
26-626	Western Red Cedar	112	6.72
27-627	Western Red Cedar	111	6.66
28-628	Sitka Spruce	35	2.10
29-629	Western Red Cedar	80	4.80
30-630	Western Red Cedar	104	6.24
31-631	Western Red Cedar	83	4.98
32-632	Bigleaf Maple	43	2.58
33-633	Western Red Cedar	67	3.42
34-634	Bigleaf Maple	37	2.22
35-635	Western Red Cedar	81	4.86
36-636	Black Cottonwood	54	3.24
37-637	Red Alder	30	1.80
38-638	Red Alder	35	2.10
39-639	Bigleaf Maple	51	3.06
40-640	Black Cottonwood	53	3.18
41-641	Black Cottonwood	47	2.82
42-642	Bigleaf Maple	90	5.40
43-643	Black Cottonwood	40	2.40
44-644	Poplar	40	2.40
6s1	Red Alder	40	2.40
6s2	Red Alder	37	2.22
6s3	Red Alder	42	2.52



(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7923-0030-00

Issued To:

("the Owners")

Address of Owners:

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: 008-578-371  
 Lot 37 Section 31 Township 8 New Westminster District Plan 39218  
 9331 Bothwell Drive

(the "Land")

3. (a) As the legal description of the Land is to change, the City Clerk is directed to insert the new legal description for the Land once title(s) has/have been issued, as follows:

Parcel Identifier: \_\_\_\_\_

- (b) If the civic addresses change, the City Clerk is directed to insert the new civic addresses for the Land, as follows:

\_\_\_\_\_

4. Surrey Zoning By-law, 1993, No. 12000, as amended is varied as follows:
  - (a) In Section K.2 of Part 16B "Single Family Residential (13) Zone (RF-13)" the minimum lot depth for a Type II interior lot created through subdivision is reduced from 24

metres to 22 metres for proposed Lots 6-7, 9-10, and 13-14.

- (b) In Section K.2 of Part 16B “Single Family Residential (13) Zone (RF-13)” the minimum lot width for a Type II interior lot created through subdivision is reduced from 13.4 metres to 12.5 metres for proposed Lot 10.
  - (c) In Section H.3(a)iii. Off-Street Parking of Part 16B “Single Family Residential (13) Zone (RF-13)” a front access, side-by-side double garage shall be permitted on a lot less than 13.4 metres wide for proposed Lot 10.
5. This development variance permit applies to only the portion of the Land shown on Schedule A which is attached hereto and forms part of this development variance permit.
  6. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this development variance permit.
  7. This development variance permit shall lapse unless the subdivision, as conceptually shown on Schedule A which is attached hereto and forms part of this development variance permit, is registered in the New Westminster Land Title Office within three (3) years after the date this development variance permit is issued.
  8. The terms of this development variance permit or any amendment to it, are binding on all persons who acquire an interest in the Land.
  9. This development variance permit is not a building permit.

AUTHORIZING RESOLUTION PASSED BY THE COUNCIL/DELEGATED OFFICIAL, THE  
DAY OF           , 20 .

ISSUED THIS    DAY OF           , 20 .

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Mayor – Brenda Locke

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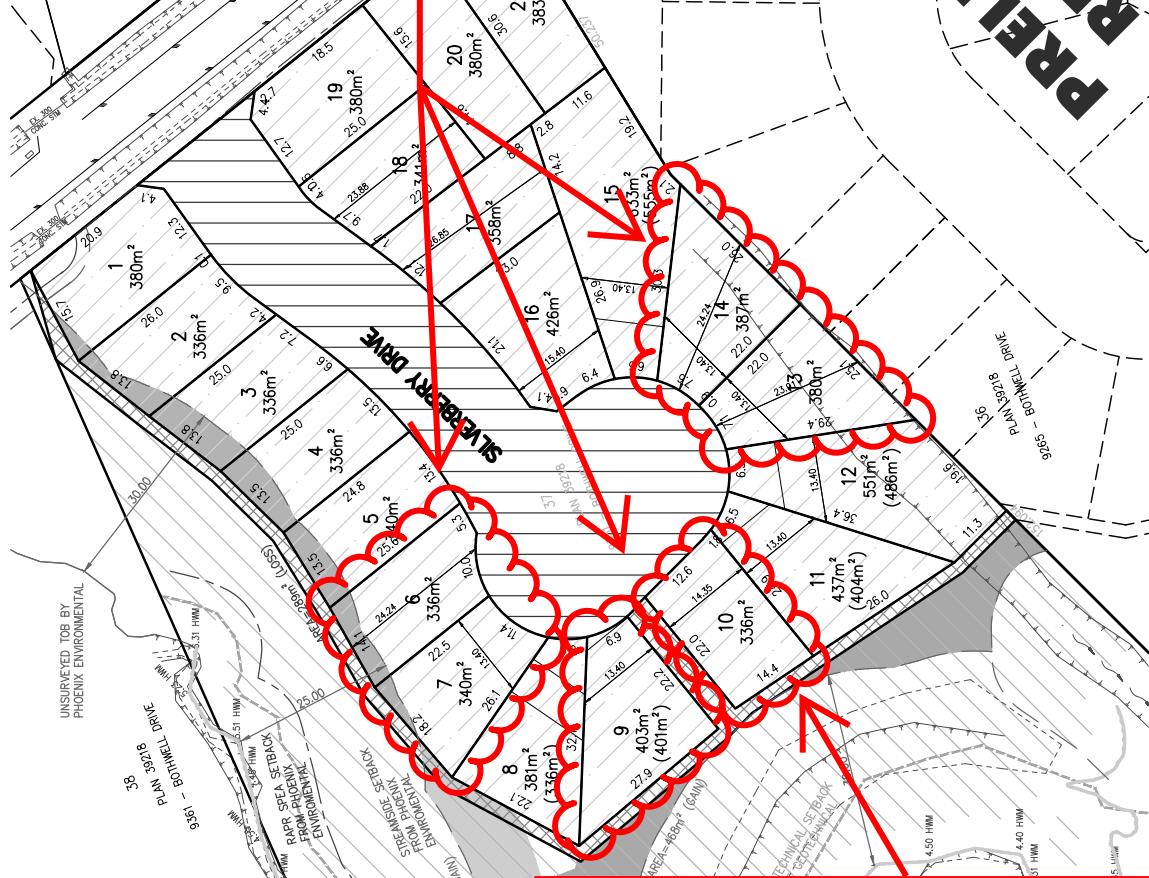
City Clerk – Jennifer Ficocelli



**PRELIMINARY SUBJECT TO REVIEW AND APPROVAL**

**Hub Engineering Inc.**  
 Engineering and Development Consultants  
 EGBC Permit to Practice Number: 1003404  
 Suite 212, 12992 - 76 Avenue, Surrey, B.C. V3V 2V6  
 Tel: 604-572-4328 | Fax: 604-501-1625 | mail@hub-inc.com | www.hub-inc.com

In Section K.2 of Part 16B "Single Family Residential (13) Zone (RF-13)" the minimum lot depth for a Type II interior lot created through subdivision is reduced from 24 metres to 22 metres for proposed Lots 6-7, 9-10, and 13-14.



In Section K.2 of Part 16B "Single Family Residential (13) Zone (RF-13)" the minimum lot width for a Type II interior lot created through subdivision is reduced from 13.4 metres to 12.5 metres for proposed Lot 10.

In Section H.3(a)iii. Off-Street Parking of Part 16B "Single Family Residential (13) Zone (RF-13)" a front access, side-by-side double garage shall be permitted on a lot less than 13.4 metres wide for proposed Lot 10.

GROSS SITE AREA= 5.1ac  
 DEVELOPABLE AREA= 2.6ac  
 STREAM SIDE AREA= 0.53ac  
 RIPARIAN AREA= 0.96ac  
 PARK WALKWAY= 0.1ac  
 ALLOWABLE DENSITY = 6uppa  
 DU=6uppa ( 2.6ac + 0.53ac + 1/2 x 0.96ac )  
 =22 UNITS

CLIENT:	9331 BOTHWELL DRIVE
DRAWING TITLE:	
PROJECT NO.:	
SCALE:	1:750
MUNICIPAL PROJECT NO.:	
SUBJECT TO APPROVAL(S) FROM FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES	