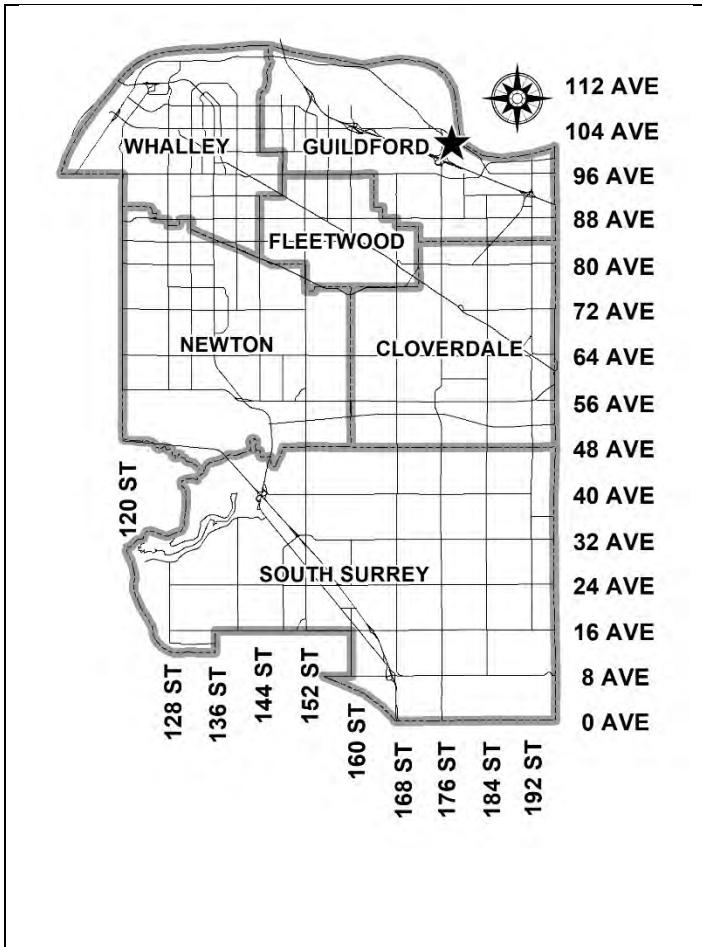


City of Surrey  
**PLANNING & DEVELOPMENT REPORT**

Application No.: 7918-0164-00

Planning Report Date: March 7, 2022



**PROPOSAL:**

- **OCP Amendment** for a portion of the site from Suburban to Urban
- **LAP Amendment** for a portion of the site from Low Density Townhouse 12-15 UPA and Single Family Residential 4-6 UPA to Urban Residential 8-10 UPA
- **Rezoning** portions from RA to RF and RF-13
- **Development Permit**
- **Development Variance Permit**

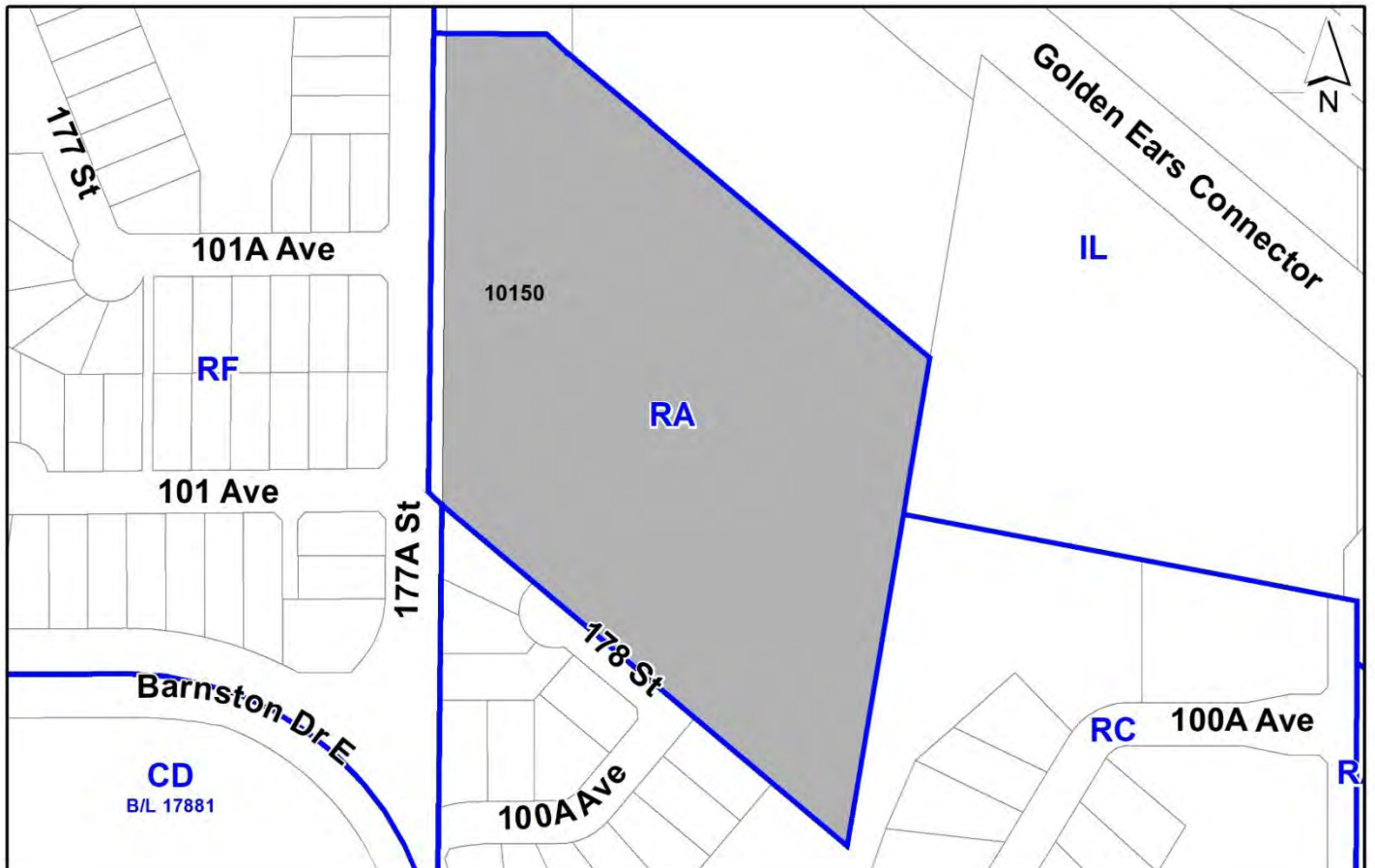
to allow subdivision into 6 RF lots, 21 RF-13 lots, an open space (riparian protection) lot, and a remnant lot.

**LOCATION:** 10150 - 177A Street

**ZONING:** RA

**OCP DESIGNATION:** Suburban

**LAP DESIGNATION:** Single Family Residential 4-6 UPA, Low Density Townhouse 12-15 UPA, Landscape Buffer and Future Natural Area/Buffer Fishclass B 15m



## RECOMMENDATION SUMMARY

- By-law Introduction and set date for Public Hearing for:
  - OCP Amendment; and
  - Rezoning.
- 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 an amendment to the Official Community Plan (OCP) for a portion of the site from Suburban to Urban.
- Proposing an LAP amendment for a portion of the site from Low Density Townhouse 12-15 UPA and Single Family Residential 4-6 UPA to Urban Residential 8-10 UPA.
- Proposing to reduce the minimum front yard and side yard setback requirements of the RF Zone and RF-13 Zones and relax lot depth of the RF and RF-13 Zones.

## RATIONALE OF RECOMMENDATION

- The proposal complies with the General Urban designation in the Metro Vancouver Regional Growth Strategy (RGS).
- The proposed Urban OCP designation over a portion of the subject site is consistent with the intended land uses in the Abbey Ridge Local Area Plan. OCP Amendments necessary to facilitate the land uses and densities outlined in the Abbey Ridge LAP, which was endorsed by Council on February 6, 2017, were anticipated to be undertaken through individual development applications.
- The applicant is proposing to redesignate portions of the site from "Low Density Townhouse 12-15 UPA" and "Single Family Residential 4-6 UPA" to "Urban Residential 8-10 UPA" and also amend the road layout to provide a through road and additional cul-de-sac to the site. The proposed changes are in keeping with the density transition approach of the plan and have been supported by the Fraser Heights Community Association.
- The proposal complies with the Development Permit requirements in the OCP for both Hazard Lands (Steep Slopes) and Sensitive Ecosystems (Streamside Areas). The proposal includes the dedication of one(1) open space lot, equivalent to 18.7% of the gross site area, for the protection of an unnamed watercourse along the southeast portion of the site.
- The proposed variances will ensure that functional floor plans, maximizing both floor area ratio (FAR) and lot coverage, and useable rear yard space can be achieved during the future construction of a single family dwelling on all lots.

## RECOMMENDATION

The Planning & Development Department recommends that:

1. A By-law be introduced to amend the OCP Figure 3: General Land Use Designations for a portion of the subject site (Appendix V) from Suburban to Urban and a date for Public Hearing be set.
2. Council determine the opportunities for consultation with persons, organizations and authorities that are considered to be affected by the proposed amendment to the Official Community Plan, as described in the Report, to be appropriate to meet the requirement of Section 475 of the Local Government Act.
3. A By-law be introduced to rezone the portion of the subject site as shown as Block 1 on the attached Survey Plan (Appendix I) from "One-Acre Residential Zone (RA)" to "Single Family Residential Zone (RF)" and Block 2 on the attached Survey Plan from "One-Acre Residential Zone (RA)" to "Single Family Residential (13) Zone (RF-13)" and a date be set for Public Hearing.
4. Council authorize staff to draft Development Permit No. 7918-0164-00 generally in accordance with the finalized Ecosystem Development Plan and Geotechnical Report.
5. Council approve Development Variance Permit No. 7918-0164-00 (Appendix VII) varying the following, to proceed to Public Notification:
  - (a) to reduce the minimum rear yard setback of the RF-13 Zone from 7.5 metres to 6.0 metres to the principal building face for proposed Lots 9, 10, 11, 13 and 26;
  - (b) to reduce the minimum rear yard setback of the RF Zone from 7.5 metres to 2.4 metres to the principal building face and to reduce the minimum front yard setback from 7.5 metres to 3.6 metres to the principal building face and 6.0 metres to the garage for proposed Lot 24;
  - (c) to reduce the minimum rear yard setback of the RF-13 Zone from 7.5 metres to 5.5 metres for 50% of the rear principal building face and 4.0 metres for the other 50% of the rear principal building face for proposed Lot 25;
  - (d) to reduce the minimum lot depth of the RF-13 Zone from 24 metres to 21 metres for proposed Lots 25 and 26; and
  - (e) to reduce the minimum lot depth of the RF Zone from 28 metres to 20.4 metres for proposed Lot 24.
6. 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) Approval from the Ministry of Transportation & Infrastructure;
  - (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 to the City;
  - (h) submission of a finalized Geotechnical Report to the satisfaction of City staff;
  - (i) registration of a Section 219 Restrictive Covenant to ensure that future buildings, structures, or improvements comply with the accepted geotechnical recommendations;
  - (j) demolition of existing buildings and structures to the satisfaction of the Planning and Development Department; and
  - (k) 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.
7. Council pass a resolution to amend the Abbey Ridge Local Area Plan (LAP) to redesignate a portion of the land from Low Density Townhouse 12-15 UPA and Single Family Residential 4-6 UPA to Urban Residential 8-10 UPA and also amend the road layout to provide a through road and additional cul-de-sac to the site when the project is considered for final adoption (Appendix V).

Low Density Townhouse 12-15 UPA and Single Family Residential 4-6 UPA to Urban Residential 8-10 UPA and also amend the road layout to provide a through road and additional cul-de-sac to the site

#### SITE CONTEXT & BACKGROUND

Direction	Existing Use	LAP Designation	Existing Zone
Subject Site	Vacant treed lot.	Low Density Townhouse 12-15 UPA, Single Family Residential 4-6 UPA, Landscape Buffer and Future Natural Area	RA
North:	Industrial building and vacant lot.	Landscape Buffer and Industrial	IL

Direction	Existing Use	LAP Designation	Existing Zone
East (Across watercourse):	Single family dwellings, Barnston Park and an industrial building	Single Family Residential 4-6 UPA, Industrial, Existing Natural Area and Existing Neighbourhood Park.	IL and RC
South (Across 178 Street cul-de-sac):	Single family dwellings.	Single Family Residential 4-6 UPA.	RC
West (Across 177A Street):	Single family dwellings.	Single Family Residential 4-6 UPA	RF

### Context & Background

- The subject lot is 3.6 hectares in area and is designated Suburban in the OCP. The lot is split designated in the Abbey Ridge plan with the southern portion designated Single Family Residential 4-6 UPA and the north portion designated Low Density Townhouse 12-15 UPA.
- The site includes a watercourse that runs along the southeast boundary.
- The site slopes down approximately 15 metres to the north. Portions of the site fall within a Hazard Lands/Steep Slope Development Permit Area
- In 2015, the property was subdivided from three lots to two lots to allow for industrial development fronting the Golden Ears Connector.

### DEVELOPMENT PROPOSAL

#### Planning Considerations

- The applicant proposes the following in order permit the development of 6 RF lots and 21 RF-13 lots:
  - OCP Amendment of a portion of the site from Suburban to Urban;
  - Abbey Ridge LAP Amendment for a portion of the site from Low Density Townhouse 12-15 UPA and Single Family Residential 4-6 UPA to Urban Residential 8-10 UPA;
  - Rezoning portions of the site from RA to RF and RF-13 and leaving a large 1.69 hectare portion of the site as a remnant RA lot for future development;
  - Development Permit for Hazard Lands (Steep Slopes) and Sensitive Ecosystems (Streamside Areas and GIN); and
  - Development Variance Permit for reduced rear and front yard setbacks in the RF-13 Zone for 7 proposed lots and reduced lot depth for one proposed RF lot and 2 RF-13 lots.

	Proposed
<b>Lot Area</b>	
Gross Site Area:	3.6 ha.
Road Dedication:	0.65 ha.
Undevelopable Area:	0.28 ha.
Remnant Lot:	1.48 ha.

	Proposed	
Net Site Area:	2.68 ha. (0.85 ha for RF-13, 0.36 ha for RF and 1.48 ha for remnant)	
	RF	RF-13 (Type II)
Number of Lots:	6	21
Gross Density and Area:	12.2 UPH (5.0 UPA)	16.7 UPH (6.0 UPA)
Net Density and Area:	16.7 UPH (6.7 UPA)	24.7 UPH (10.0 UPA)
Range of Lot Sizes	561 – 633 m <sup>2</sup>	337 – 563 m <sup>2</sup>
Range of Lot Widths	15 – 32 metres	13.4 – 20 metres
Range of Lot Depths	20.5 m. – 43.6 m.	20.2 m. – 44 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 38 school-age children generated by this development, of which the School District has provided the following expected student enrollment.**

12 Elementary students at Bothwell Elementary School  
8 Secondary students at Fraser Heights Secondary School

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.

(Appendix III)

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

Parks, Recreation & Culture: Parks will accept cash-in-lieu of the 5% unencumbered parkland subdivision requirement. In addition, Parks will accept proposed lot for riparian protection purposes. The lot is to be conveyed to the City, without compensation, as part of this application.

Ministry of Transportation & Infrastructure (MOTI): No concerns.

Surrey Fire Department: No concerns.

## Transportation Considerations

- As part of the subject application, the applicant will be required to undertake the following road-related dedications and works:
  - Dedicate 1.928 metres along the 176 Street frontage;

- Dedicate 20 metres for 100A Avenue;
  - Dedicate 16.5 metres for 101 Avenue
  - Dedicate varying road allowances for an ultimate 17 metre road allowance and completion of the cul-de-sac for both 178 Street and 101 Avenue (new cul-de-sac); and
  - Dedicate 3.0-metre x 3.0-metre corner cuts at the intersection of 100A Avenue and 173 Street, 100A Avenue and 101 Avenue, 100A Avenue and 177A Street.
- The applicant is proposing to complete the remaining half of the 178 Street cul-de-sac and construct a curved through-road connecting 100A Avenue and 101A Avenue with a small cul-de-sac bulb (101 Avenue) within the center of the site.
  - Proposed Lots 1 to 4 will have access from 177A Street, and all other lots will have access from interior roads. The remnant lot will likely have one or two accesses from the new through road.
  - Driveways shall be paired when possible.
  - The subject site is approximately one kilometer from transit service.

### **Natural Area Considerations**

- A Class B (yellow-coded) Natural Stream is located along the southeast portion of the subject site. The applicant proposes to voluntarily convey, without compensation, the Part 7A Streamside Protection setback areas (approximately 15 metres from the top-of-bank except where approved flex provisions have been used) associated with the watercourse. All trees and vegetation within the conveyance areas are to be retained except for tree 1500 which is to be cut at the stump as it is unhealthy and deemed hazardous by the project arborist.

### **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 subject site is compliant with the General Urban Land Use Designation of Metro Vancouver's Regional Growth Strategy.

### **Official Community Plan**

#### Land Use Designation

- The proposal does not comply with the current Suburban designation of the subject site in the Official Community Plan; therefore, the applicant is seeking an OCP Amendment to redesignate a portion of the subject site from Suburban to Urban.

### Amendment Rationale

- The proposed Urban OCP designation is consistent with the proposed land use in the Abbey Ridge LAP.
- The proposed development is supported by the following policies of the Official Community Plan:
  - Growth Management
    - Growth Priorities: Comprehensively-planned new neighbourhoods within approved Secondary Plan areas.
  - Centres, Corridors and Neighbourhoods:
    - Healthy Neighbourhood: Design housing units to front directly onto public streets in order to facilitate a safe, welcoming, public streetscape and public realm.
    - Healthy Neighbourhood: Protect and retain significant trees, forest stands and other natural features within new and existing neighbourhoods.
    - Urban Design: Ensure a new development responds to the existing architectural character and scale of its surroundings, creating compatibility between adjacent sites and within neighbourhoods.
  - Ecosystems
    - Energy, Emissions and Climate Resiliency: Design a community that is energy-efficient, reduces carbon emissions and adapts to a changing environment through a design that meets typical sustainable development criteria.
- As described in Corporate Report No. R243; 2015, it is anticipated that individual OCP Amendment applications will be brought forward, where applicable, with the companion rezoning applications, in the Abbey Ridge LAP area.

### Public Notification for Proposed OCP Amendment

- Pursuant to Section 475 of the Local Government Act, it was determined that it was not necessary to consult with any persons, organizations or authorities with respect to the proposed OCP amendment, other than those contacted as part of the pre-notification process.

### **Secondary Plans**

#### Land Use Designation

- The subject site is designated "Low Density Townhouse 12-15 UPA", "Single Family Residential 4-6 UPA", "Landscape Buffer" and "Buffer Fish Class B (15m)" in the Abbey Ridge Local Area Plan (see Appendix VI).
- The applicant is proposing an amendment to "Urban Residential 8-10 UPA" over a 1.92 hectare portion of the site (see Appendix VI). The remnant lot is proposed to be remain as "Low Density Townhouses 12-15 UPA Gross".



### Amendment Rationale

- The applicant is proposing to redesignate portions of the site from Low Density Townhouse 12-15 UPA and Single Family Residential 4-6 UPA to Urban Residential 8-10 UPA and also amend the road layout to provide a through road and additional cul-de-sac to the site.
- The proposed amendment to the Abbey Ridge Local Area Plan (LAP) to redesignate a portion of the subject site from Low Density Townhouse 12-15 UPA and Single Family Residential 4-6 UPA to Urban Residential 8-10 UPA will accommodate 6 RF lots and 21 RF-13 lots and a large 1.69 hectare remnant lot while still being consistent with the land use intent of the Abbey Ridge LAP.
- The proposed LAP amendment is a reduction in density from Low Density Townhouse 12-15 UPA to Urban Residential 8-10 UPA for 1.43 hectares of the site and an increase in density from Single Family Residential 4-6 UPA to Urban Residential 8-10 UPA for a 0.494 hectare portion of the site. The proposed density of the RF portion is 16.5 units per hectare (6.7 units per acre) which is above the 4-6 UPA stipulated in the Abbey Ridge LAP.
- The proposal is to provide single family homes over the entire development area rather than a mix of single family dwellings and low-density townhouses that were envisioned in the Abbey Ridge LAP. In the future, the applicant will be submitting a development application for townhouses for the 1.69-hectare remnant lot.
- The applicant has worked with staff and consulted with the Fraser Heights Community Association (FHCA).
- The proposed development will not be subject to the Tier 2 Capital Plan Project CACs as overall the density is being decreased in the Secondary Plan designation.

### Themes/Objectives

- The proposed development is consistent with the following planning objectives:
  - Provide an appropriate interface between new and established neighbourhoods through compatible density, form and scale of housing, and through landscaped and natural buffers.
  - Protect environmental areas by retaining the creek area developable area where feasible on development sites.

### **Zoning By-law**

- The applicant proposes to rezone the subject site from "One-Acre Residential Zone (RA)" to "Single Family Residential Zone (RF)" and Type II "Single Family Residential (13) Zone (RF-13)".
- The tables below provides an analysis of the development proposal in relation to the requirements of the Zoning By-law, including the "Single Family Residential Zone (RF)" and Type II "Single Family Residential (13) Zone (RF-13)", streamside setbacks and parking requirements. The applicant proposes that all RF-13 lots are Type II.

<b>RF Zone (Part 16)</b>	<b>Permitted and/or Required</b>	<b>Proposed</b>
<b>Unit Density:</b>	14.8 units per hectare (6 units per acre)	Gross Density: 12.2 UPH (5.0 UPA) Net Density: 16.7 UPH (6.7 UPA)
<b>Yards and Setbacks</b>		
Front Yard:	7.5 m.	7.5 m.*
Side Yard:	1.8 m.	1.8 m.
Side Yard Flanking:	3.6 m.	3.6 m.
Rear:	7.5 m.	7.5 m.*
<b>Lot Size</b>		
Lot Size:	560 sq.m.	Min. 561 sq.m.
Lot Width:	15.0 m.	Min. 14.9 m. (confirm)
Lot Depth:	28.0 m.	Min. 20.5 m.*
<b>Parking (Part 5)</b>		
<b>Required</b>	<b>Required</b>	<b>Proposed</b>
<b>Number of Spaces</b>	3 per lot	4 per lot

\*variance requested

<b>RF-13 Zone (Type II)(Part 16B)</b>	<b>Permitted and/or Required</b>	<b>Proposed</b>
<b>Unit Density:</b>	28.5 units per hectare (11.5 units per acre)	Gross Density: 16.7 UPH (6.0 UPA) Net Density: 24.7 UPH (10.0 UPA)
<b>Yards and Setbacks</b>		
Front Yard:	6.0 m.	6.0 m.*
Side Yard:	1.2 m.	1.2 m.
Side Yard Flanking:	2.4 m.	2.4 m.
Rear:	7.5 m.	7.5 m.*
<b>Lot Size</b>		
Lot Size:	336 sq.m. interior 380 sq. m. corner	Min. 526 sq.m.
Lot Width:	13.4 m. interior 15.4 m. corner	Min. 16.7 m.
Lot Depth:	24.0 m.	Min. 28.7 m.
<b>Parking (Part 5)</b>		
<b>Required</b>	<b>Required</b>	<b>Proposed</b>
<b>Number of Spaces</b>	3 per lot	4 per lot

\*variance requested

### Setback and Lot Depth Variances

- The applicant is requesting the following variances:
  - to reduce the minimum rear yard setback of the RF-13 Zone from 7.5 metres to 6.0 metres to the principal building face for proposed Lots 9, 10, 11, 13 and 26;

- (b) to reduce the minimum rear yard setback of the RF Zone from 7.5 metres to 2.4 metres to the principal building face and to reduce the minimum front yard setback from 7.5 metres to 3.6 metres to the principal building face and 6.0 metres to the garage for proposed Lot 24;
  - (c) to reduce the minimum rear yard setback of the RF-13 Zone from 7.5 metres to 5.5 metres for 50% of the rear principal building face and 4.0 metres for the other 50% of the rear principal building face for proposed Lot 25;
  - (d) to reduce the minimum lot depth of the RF-13 Zone from 24 metres to 21 metres for proposed Lots 25 and 26; and
  - (e) to reduce the minimum lot depth of the RF Zone from 28 metres to 20.4 metres for proposed Lot 24.
- The proposed variances will permit the construction of an appropriately sized dwelling on each of the proposed lots in addition to providing for appropriate rear yard space.
  - Proposed Lot 24 is encumbered by an 8-metre wide easement along the north of the lot which will allow for a large functional back yard.
  - Staff support the requested variances to proceed for consideration.

#### Lot Grading and Building Scheme

- The applicant retained Mike Tynan of Tynan Consulting 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 VII).
- Styles recommended for this site include "Neo-Traditional" and "West Coast Contemporary".
- A preliminary lot grading plan, submitted by Aplin and Martin Engineering, and dated March 1, 2022, has been reviewed by staff and found to be generally acceptable. The applicant does propose 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.
- 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 (\$2,000 per new unit).

- The proposed development will not be subject to the Tier 2 Capital Plan Project CACs as the applicant is proposing to reduce the densities in the Abbey Ridge LAP.

### **Affordable Housing Strategy**

- On April 9, 2018, Council approved the City's Affordable Housing Strategy (Corporate Report No. Ro66; 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.
- The applicant will be required to register a Section 219 Restrictive Covenant to address the City's needs with respect to the City's Affordable Housing Strategy.

### **PUBLIC ENGAGEMENT**

- Pre-notification letters were sent on January 25, 2022, and the Development Proposal Signs were installed on January 24, 2022. Staff received one (1) response from a neighbouring resident (*staff comments in italics*):
  - Concerns with the no sidewalks along the existing 100A Avenue adjacent to the south of the development. Residents would like to see a new sidewalk installed on one side of the street to connect with the new development.  
  
*(As the existing road is outside of the development area, the resident was provided details on submitting a Parking Petition form for the city to explore installing a sidewalk along this section of 100A Avenue)*
- The subject development application was reviewed by the Fraser Heights Community Association which had no concerns.

### **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 an existing Class B (yellow-coded) watercourse which flows within the southwest portion of the subject site. 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, a Class B (yellow-coded) watercourse requires a minimum streamside setback of 15 metres, as measured from the top of bank. The proposed setbacks comply with the requirements outlined in the Zoning By-law.
- The riparian area is 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 Ian Whyte, *P. Ag.*, of Envirowest Consultants Inc. and dated January 26, 2022, and peer reviewed by Kyla Milne of Pacific Land Group on January 26, 2022 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) Corridor located a minimum 15 metres to the east of the proposed site. 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 a Regional BCS Corridor within the subject site, in the Fraser River Industrial BCS management area, with a moderate ecological value.
- 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 Corridor width of 60 meters. The BCS recommends a target Hub Area of 280 square meters or 1% of the subject property.
- The development proposal conserves/enhances 280 square meters of the subject site through Parkland Conveyance which is 280 square meters or 1% of the total gross area of subject site. This method of GIN retention/enhancement 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 Ian Whyte, *P. Ag.*, of Envirowest Consultants Inc. and dated January 26, 2022, and peer reviewed by Kyla Milne of Pacific Land Group on January 26, 2022, 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 contains steep slopes in excess of 20% gradient. The Hazard Land (Steep Slope) Development Permit is required to protect developments from hazardous conditions.
- The subject property slopes from 26 metres at the southern extent of the site down to approximately 6 metres at the northern extent of the site over approximately 200 metres for an average slope of 10 percent. Portions of the site fall within the 20% gradient.

- A geotechnical report, prepared Patrick Martz P. Eng. of GeoPacific Consultants Inc. and dated February 22, 2022. The report was reviewed by staff and still requires a slope stability assessment which the applicant will complete as they further refine their grading and servicing concept. The finalized geotechnical report, which still requires staff review and a peer review, 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 development 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 engineered fill for foundations.
- 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.

## TREES

- Glyn Romaine, ISA Certified Arborist of VDZ & Associates Consulting Ltd. prepared an Arborist Assessment for the subject property. The table below provides a summary of the tree retention and removal by tree species:

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

Tree Species	Existing	Remove	Retain
<b>Alder and Cottonwood Trees</b>			
Alder	37	22	15
Cottonwood	16	9	7
<b>Deciduous Trees (excluding Alder and Cottonwood Trees)</b>			
Apple	3	3	0
Big Leaf Maple	19	13	6
Cherry	10	10	0
Norway maple	3	3	0
Paper Birch	3	3	0
Plum	2	2	0
Red Maple	1	1	0
Red Oak	3	3	0
Willow	9	8	1
<b>Coniferous Trees</b>			
Deodar Cedar	4	4	0
Douglas Fir	5	5	0
Shore Pine	5	5	0

<b>Tree Species</b>	<b>Existing</b>	<b>Remove</b>	<b>Retain</b>
Western Hemlock	3	1	2
Western Red Cedar	37	22	15
<b>Total (excluding Alder and Cottonwood Trees)</b>	<b>107</b>	<b>83</b>	<b>24</b>
<b>Additional Trees on the remnant lot (future townhomes)</b>	<b>49</b>	<b>0</b>	<b>49</b>
<b>Total Replacement Trees Proposed (excluding Boulevard Street Trees)</b>		<b>60</b>	
<b>Total Retained and Replacement Trees</b>		<b>106</b>	
<b>Contribution to the Green City Program</b>		<b>\$54,800</b>	

- The Arborist Assessment does not include the remnant lot which has approximately 49 trees which are all proposed to be retained as part of the subject application.
- The Arborist Assessment states that there a total of 160 mature trees on the site, excluding Alder and Cottonwood trees. 53 existing trees, approximately 33% of the total trees on the site, are Alder and Cottonwood trees. It was determined that 46 trees can be retained 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.
- The trees within the proposed riparian area will be retained, except for one tree where removal is required due to hazardous/unhealthy 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, and a 2 to 1 replacement ratio for all other trees. This will require a total of 197 replacement trees on the site. Since only 60 replacement trees can be accommodated on the site (based on an average of 2.2 trees per lot), the deficit of 137 replacement trees will require a cash-in-lieu payment of \$54,800, representing \$400 per tree, to the Green City Program, in accordance with the City's Tree Protection By-law.
- In addition to the replacement trees, boulevard street trees will be planted on 101A Avenue and 177A Street. This will be determined by the Engineering Department during the servicing design review process.
- In summary, a total of 106 trees, as well as approximately 49 trees on the remnant lot, are proposed to be retained or replaced on the site with a contribution of \$54,800 to the Green City Program.

## INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

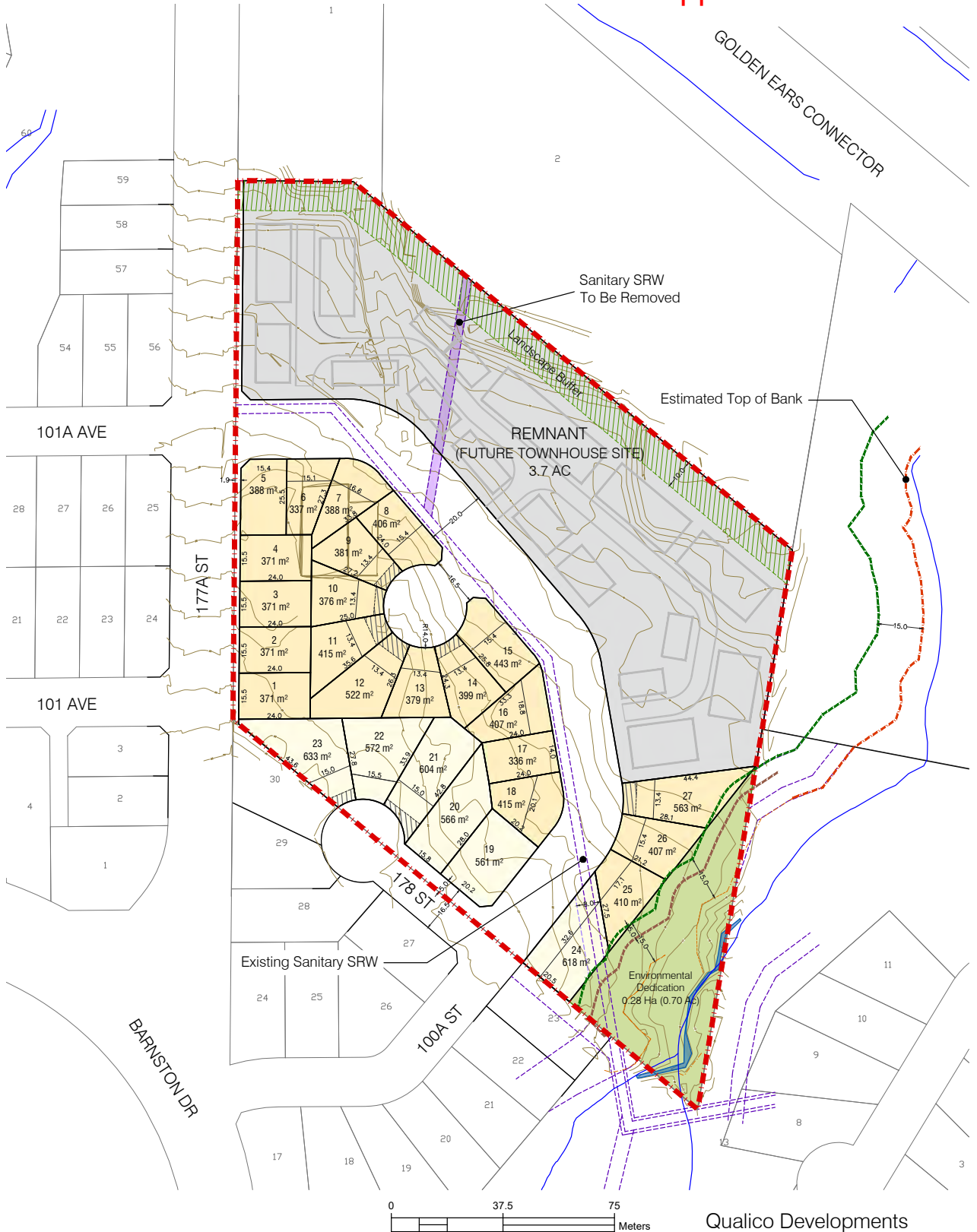
Appendix I.	Survey Plan and Proposed Subdivision Layout
Appendix II.	Engineering Summary
Appendix III.	School District Comments
Appendix IV.	Summary of Tree Survey and Tree Preservation
Appendix V.	NCP Plan
Appendix VI.	OCP Redesignation Map
Appendix VII.	Development Variance Permit No. 7918-0164-00
Appendix VIII.	Summary of Building Scheme

*approved by Ron Gill*

Jeff Arason  
Acting General Manager  
Planning and Development

JKS/cm





**GROSS AREA**  
 3.61 Ha (8.9 Ac)  
 1.43 Ha (3.5 Ac) RF-13  
 0.49 Ha (1.2 Ac) RF  
 1.69 Ha (4.2 Ac) Rem

**NET AREA**  
 2.68 Ha (6.6 Ac)  
 0.85 Ha (2.1 Ac) RF-13  
 0.36 Ha (0.9 Ac) RF  
 1.48 Ha (3.7 Ac) Rem

**YIELD**  
 Existing Lots: 1  
 Proposed Lots: 27 + Rem  
 21 RF-13  
 6 RF

**GROSS DENSITY**  
 RF-13: 12.2 UPH (5.0 UPA)  
 RF: 16.7 UPH (6.0 UPA)

**NET DENSITY**  
 RF-13: 24.7 UPH (10.0 UPA)  
 RF: 16.7 UPH (6.7 UPA)

Blended (excludes Rem): 22.5 UPH (9.1 UPA)

**EXISTING DESIGNATIONS**  
 OCP: Suburban  
 LAP: Single Family Residential (4-6 UPA)  
 Low Density Townhouse (12-15 UPA)  
 Zoning: RA

**PROPOSED DESIGNATIONS**  
 OCP: Urban  
 LAP: Urban Residential (8-10 UPA),  
 Low Density Townhouse (12-15 UPA)  
 Zoning: RA, RF, RF-13

RF  
 RF-13  
 RA



Scale: 1:1250

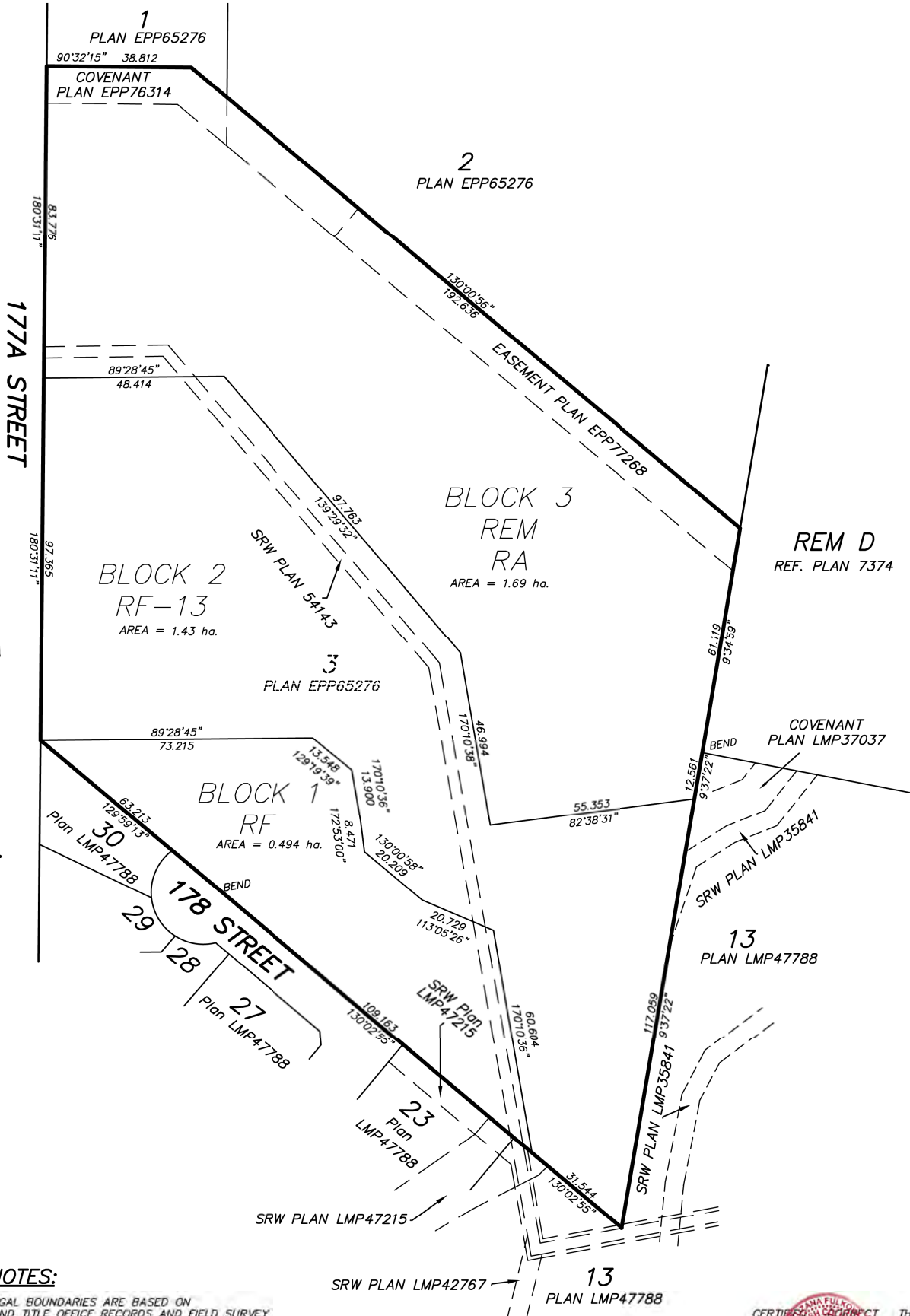
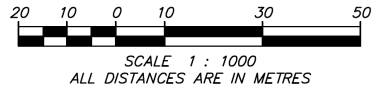
Qualico Developments  
 Residential Subdivision  
 10150 177A St Surrey, BC

## SUBDIVISION CONCEPT

**APLIN  
 MARTIN**  
 Project 17-470  
 02 / 03 / 2022

Drawing  
**1**

**SURVEY PLAN TO ACCOMPANY CITY OF SURREY  
ZONING BYLAW — — — OVER LOT 3 DISTRICT  
LOT 389A GROUP 2 NEW WESTMINSTER DISTRICT  
PLAN EPP65276**



**NOTES:**

LEGAL BOUNDARIES ARE BASED ON LAND TITLE OFFICE RECORDS AND FIELD SURVEY AND SUBJECT TO CHANGE.

CERTIFIED TO ACCOMPANY THIS  
11TH DAY OF FEBRUARY, 2022.



ZUZANA FULKOVA

B. C. L. S.

---

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

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

DATE: **February 28, 2022** PROJECT FILE: **7818-0164-00**

---

RE: **Engineering Requirements  
Location: 10150 177A Street**

**OCP AMENDMENT/LAP AMENDMENT/ DEVELOPMENT PERMIT/DEVELOPMENT  
VARIANCE PERMIT**

There are no engineering requirements relative to the OCP Amendment, LAP Amendment, Development Permit, and Development Variance Permit other than those stated below.

**REZONE/SUBDIVISION**

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

- Dedicate 1.928 m along 177A Avenue.
- Dedicate 5.0 m along 178 Street and additional dedication for cul-de-sac.
- Dedicate 20.0 m toward 100A Avenue.
- Dedicate 16.5 m toward 101 Avenue and additional dedicated for cul-de-sac.
- Dedicate 3.0 m x 3.0 m corner cuts at the intersections.
- Register 0.5 m Statutory Right-of-Way (SRW) along 177A Avenue, 178 Street, 100A Avenue and 101A Avenue frontages.
- Register additional SRW for the sanitary trunk main.

***Works and Services***

- Construct east side of 177A Avenue.
- Construct north side of 178 Street with cul-de-sac.
- Construct 100A Avenue and 101 Avenue with cul-de-sac.
- Construct water, storm, and sanitary mains to service the lot.
- Provide water, storm, and sanitary service connections to each lot.
- Address downstream storm and sanitary constraints as required.
- Construct onsite sustainable drainage features as determined through detailed design.
- Register applicable restrictive covenants on title.

A Servicing Agreement is required prior to Rezone/Subdivision.



Jeff Pang, P.Eng.  
Development Services Manager

AY

NOTE: Detailed Land Development Engineering Review available on file

**School Enrolment Projections and Planning Update:**

The following tables illustrate the enrolment projections (with current/approved ministry capacity) for the elementary and secondary schools serving the proposed development.

Bothwell Elementary 10 year enrolment projections show a growth trend that can be attributed to the increased density being considered along the bluff to the east of Highway 17 (South Fraser Perimeter Road). With Highway 17 dissecting the Bothwell catchment, as part of the District's 2022/2023 Capital Plan submission to the Ministry, the District is requesting to purchase a new site in the new Abbey Ridge area in the next 5 years: followed by, building a new elementary school after 2030. There has been no Ministry funding approval for these project. Until then, enrolment growth at Bothwell elementary will be accommodated by portables.

Fraser Heights Secondary is currently operating at 111% capacity. The school's 10 year projections show enrolment to continue to grow as the Bothwell and Abbey Ridge communities continue to build out. As a result, the District has requested as part of their 2022/2023 Capital Plan submission to the Ministry a 300 capacity addition for the school, targeted to open in 2025. There has been no Ministry funding approval for this project.

**THE IMPACT ON SCHOOLS**

APPLICATION #: 18 0164 00

**SUMMARY**

The proposed 27 Single family with suites are estimated to have the following impact on the following schools:

**Projected enrolment at Surrey School District for this development:**

Elementary Students:	12
Secondary Students:	8

**September 2021 Enrolment/School Capacity**

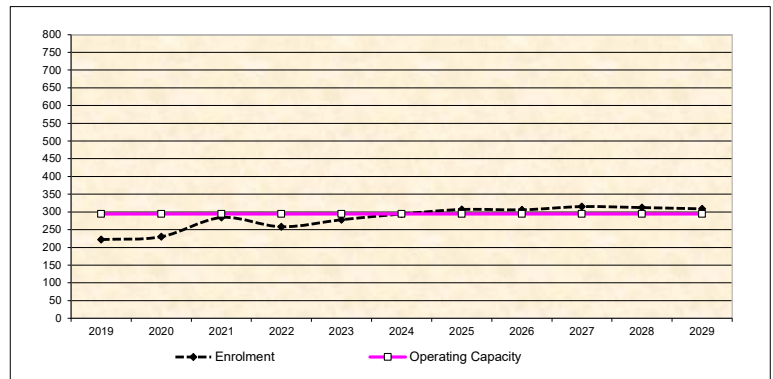
<b>Bothwell Elementary</b>	
Enrolment (K/1-7):	48 K + 236
Operating Capacity (K/1-7)	38 K + 256
<b>Fraser Heights Secondary</b>	
Enrolment (8-12):	1472
Capacity (8-12):	1200

<b>Projected population of school-age children for this development:</b>	38
--	----

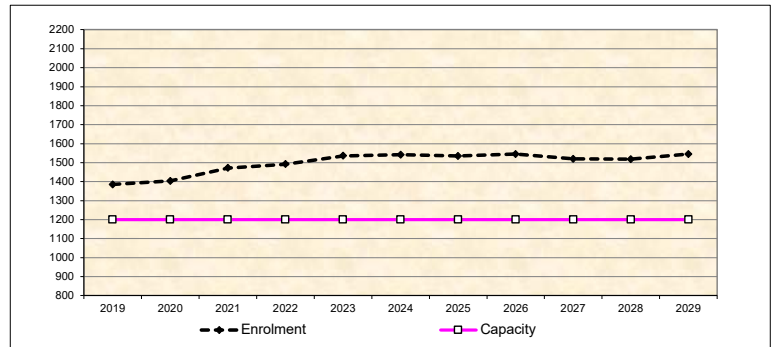
**Population:** The projected population of children aged 0-19 Impacted by the development.

**Enrolment:** The number of students projected to attend the Surrey School District ONLY.

**Bothwell Elementary**



**Fraser Heights Secondary**



\* Nominal Capacity is estimated by multiplying the number of enrolling spaces by 25 students.  
Maximum operating capacity is estimated by multiplying the number of enrolling spaces by 27 students.



## APPENDIX B: TREE PRESERVATION SUMMARY

**Surrey Project No:**

**Address:** 10150 177A St., Surrey, BC

**Registered Arborist:** D. Glyn Romaine - PN 7929A

On-site Trees	Number of Trees
<b>Protected Trees Identified</b> (on-site and shared trees, including trees within boulevards and proposed streets and lanes, but excluding trees in proposed open space or riparian areas)	<b>160</b>
<b>Protected Trees to be Removed</b>	<b>114</b>
<b>Protected Trees to be Retained</b> (excluding trees within proposed open space or riparian areas)	<b>46</b>
<b>Total Replacement Trees Required:</b> <ul style="list-style-type: none"> <li>- Alder &amp; Cottonwood Trees Requiring 1 to 1 Replacement Ratio  <math>\underline{\quad 31 \quad} \times \text{one (1)} = 31</math></li> <li>- All other Trees Requiring 2 to 1 Replacement Ratio  <math>\underline{\quad 83 \quad} \times \text{two (2)} = 166</math></li> </ul>	<b>197</b>
<b>Replacement Trees Proposed</b>	<b>60</b>
<b>Replacement Trees in Deficit</b>	<b>137</b>
<b>Protected Trees to be Retained in Proposed [Open Space / Riparian Areas]</b>	<b>N/A</b>

Off-Site Trees	Number of Trees
<b>Protected Off-Site Trees to be Removed</b>	<b>2</b>
<b>Total Replacement Trees Required:</b> <ul style="list-style-type: none"> <li>- Alder &amp; Cottonwood Trees Requiring 1 to 1 Replacement Ratio  <math>\underline{\quad 0 \quad} \times \text{one (1)} = 0</math></li> <li>- All other Trees Requiring 2 to 1 Replacement Ratio  <math>\underline{\quad 2 \quad} \times \text{two (2)} = 4</math></li> </ul>	<b>4</b>
<b>Replacement Trees Proposed</b>	<b>TBD</b>
<b>Replacement Trees in Deficit</b>	<b>4</b>

**Summary, report, and plan prepared and submitted by:**

(Signature of Arborist)

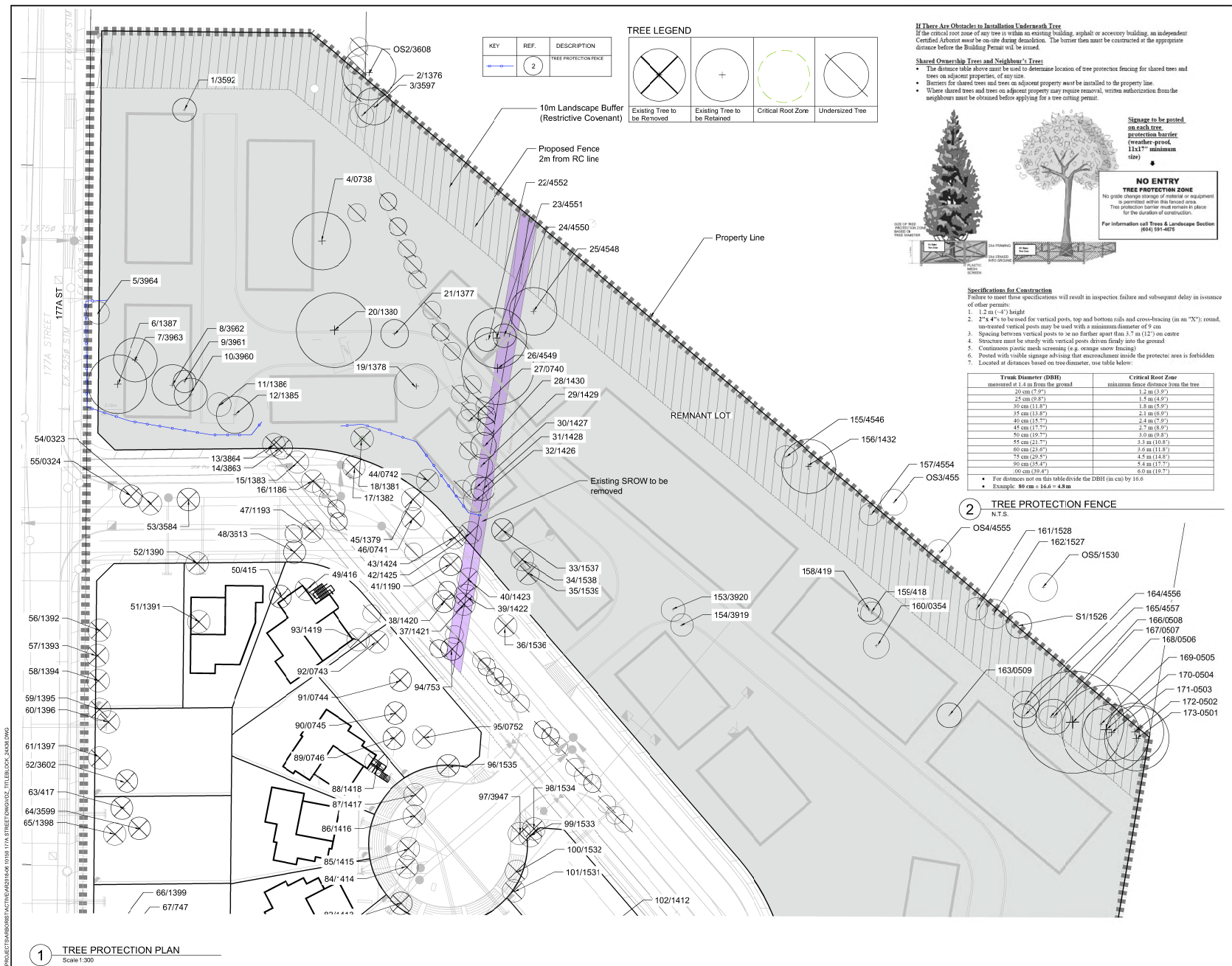
March 2, 2022

Date

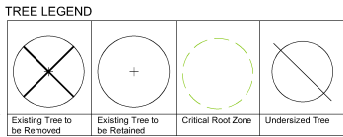


## APPENDIX B1: SUMMARY OF TREE PRESERVATION BY TREE SPECIES

Tree Species	Existing	Remove	Retain
<b>Alder and Cottonwood Trees</b>			
Alder	<b>37</b>	<b>22</b>	<b>15</b>
Cottonwood	<b>16</b>	<b>9</b>	<b>7</b>
<b>Deciduous Trees</b> (excluding Alder and Cottonwood Trees)			
Apple	3	3	0
Bigleaf maple	19	13	6
Flowering cherry	10	10	0
Norway maple	3	3	0
Paper birch	3	3	0
Plum	2	2	0
Red maple	1	1	0
Red oak	3	3	0
Willow	9	8	1
<b>Coniferous Trees</b>			
Deodar cedar	4	4	0
Douglas fir	5	5	0
Shore pine	5	5	0
Western hemlock	3	1	2
Western redcedar	37	22	15
<b>Total (excluding Alder and Cottonwood Trees)</b>	<b>107</b>	<b>83</b>	<b>24</b>
<b>Additional Trees in the proposed Open Space / Riparian Area</b>	-	-	-
<b>Total Replacement Trees Proposed (excluding Boulevard Street Trees)</b>		<b>60</b>	
<b>Total Retained and Replacement Trees</b>		<b>106</b>	



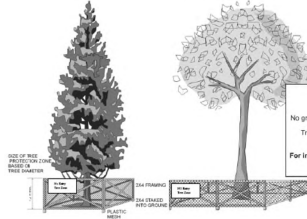
KEY	REF.	DESCRIPTION
	2	TREE PROTECTION FENCE



**If There Are Obstacles to Installation Underneath Tree**  
 If the critical root zone of any tree is within an existing building, asphalt or accessory building, an independent Certified Arborist must be on-site during demolition. The burner must be constructed at the appropriate distance before the Building Permit will be issued.

**Shared Ownership Trees and Neighbour's Trees**

- The distance table above must be used to determine location of tree protection fencing for shared trees and trees on adjacent properties, if any exist.
- Barriers for shared trees and trees on adjacent property must be installed to the property line.
- Where shared trees and trees on adjacent property may require removal, written authorization from the neighbours must be obtained before applying for a tree cutting permit.



- Specifications for Construction**
- Failure to meet these specifications will result in inspection failure and subsequent delay in issuance of other permits:
- 1.2 in (4") height
  2. 2" x 4" to be used for vertical posts, top and bottom rails and cross-bracing (in an "X"); round, untreated vertical posts may be used with a minimum diameter of 5" cm
  3. Spacing between vertical posts to be no further apart than 1.7 m (12') on centre
  4. Structure must be sturdy with vertical posts driven firmly into the ground
  5. Customized plastic mesh screening (e.g. orange snow fencing)
  6. Posted with visible signage advising that encroachment inside the protect area is forbidden
  7. Located at distances based on tree diameter, use table below:

Trunk Diameter (DBH) measured at 1.4 m from the ground	Critical Root Zone minimum fence distance from the tree
20 cm (7.9")	1.2 m (3.9')
25 cm (9.8")	1.5 m (4.9')
30 cm (11.8")	1.8 m (5.9')
35 cm (13.8")	2.1 m (6.9')
40 cm (15.7")	2.4 m (7.9')
45 cm (17.7")	2.7 m (8.9')
50 cm (19.7")	3.0 m (9.8')
55 cm (21.7")	3.3 m (10.8')
60 cm (23.6")	3.6 m (11.8')
75 cm (29.5")	4.5 m (14.8')
90 cm (35.4")	5.4 m (17.7')
100 cm (39.4")	6.0 m (19.7')

• For distances not on this table divide the DBH (in cm) by 16.6  
 • Example: 80 cm = 80 ÷ 16.6 = 4.8 cm

**2 TREE PROTECTION FENCE**  
 N.T.S.

**van der Zalm + associates inc.**  
 Urban Design • Landscape Architecture  
 Suite 1, 2017 177A Avenue P 604 882 0024  
 Coquitlam, British Columbia F 604 882 0002  
 V3M 6A99 P 604 882 0002 info@vz-ai.ca



Key Map (N.T.S.)



No.	By:	Description	Date
7	AL	Issued for Arborist Report Update	Feb. 2, 2022
6	KM	Issued for Arborist Report Update	Feb. 8th, 2021
5	AL	Issued for Arborist Report Update	Jan. 15, 2021
4	DC	Issued for Windfirm Assessment	Jan. 10, 2021
3	DC	Issued for Windfirm Assessment	Dec. 13, 2019
2	MW	Issued for Reconnig&Sartwain	May 15, 2019
1	MW	Issued for Reconnig&Sartwain	Sep. 26, 2018

**REVISIONS TABLE FOR DRAWINGS**  
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No.	By:	Description	Date
REVISIONS TABLE FOR SHEET			

**Project:**  
10150 177A Street

**Location:**  
10150 177 A Street,  
Surrey, BC

<b>Drawn:</b> MW	<b>Stamp:</b>
<b>Checked:</b> MW	
<b>Approved:</b> MVDZ	<b>Original Sheet Size:</b> 24"x36"
<b>Scale:</b> 1:200	<b>CONTRACTOR SHALL CHECK ALL DIMENSIONS ON THE WORK AND REPORT ANomalies TO THE CONSULTANT BEFORE PROCEEDING. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE SPECIFIED. THE CONSULTANT SHALL BE RESPONSIBLE FOR THE WORK AND ANY DIMENSIONS OR DIMENSIONS NOT BEING PROVIDED BY THE CONSULTANT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.</b>

**1 TREE PROTECTION PLAN**  
 Scale: 1:300

Drawing Title: TREE PROTECTION PLAN A

V02 Project #: AR2018-06  
 Drawing #: L-01



Key Map (N.T.S.)



No.	By:	Description	Date
7	AL	Issued for Arborist Report Update	Feb. 2, 2022
6	KM	Issued for Arborist Report Update	Feb. 8th, 2021
5	AL	Issued for Arborist Report Update	Jan. 15, 2021
4	DC	Issued for Windfirm Assessment	Jan. 10, 2021
3	DC	Issued for Windfirm Assessment	Dec. 13, 2019
2	MW	Issued for Reconciling&Survival	May 15, 2019
1	MW	Issued for Reconciling&Survival	Sep. 26, 2018

REVISIONS TABLE FOR DRAWINGS

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REVISIONS TABLE FOR SHEET

No.	By:	Description	Date
Project:			
10150 177a Street			
Location:			
10150 177 A Street, Surrey, BC			

Project:  
10150 177a Street

Location:  
10150 177 A Street,  
Surrey, BC

Drawn:  
MW

Checked:  
MW

Approved:  
MVDZ

Original Sheet Size:  
24"x36"

Scale:  
1:200

CONTRACTOR SHALL CHECK ALL DIMENSIONS ON THE WORK AND REPORT ANY DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE SPECIFIED BY THE DRAWING. THE WORK SHALL BE DONE TO THE DIMENSIONS SHOWN AND SHALL NOT BE SUBJECT TO THE CONTRACTOR'S INTERPRETATION UNLESS OTHERWISE SPECIFIED BY THE CONTRACT DOCUMENTS.

Drawing Title: TREE PROTECTION PLAN B



V02 Project #: AR2018-06

Drawing #: L-02

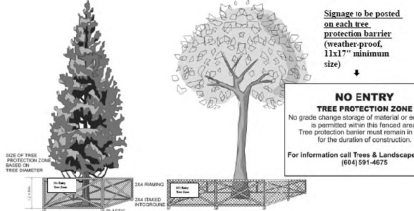


1 TREE PROTECTION PLAN

Scale 1:300

**If There Are Obstacles to Installation Underneath Tree**  
 If the critical root zone of any tree is within an existing building, asphalt or accessory building, an independent Certified Arborist must be on-site during demolition. The barrier time must be commenced at the appropriate distance before the Building Permit will be issued.

- Shared Ownership Trees and Neighbour's Trees**
- The distance table above must be used to determine location of tree protection fencing for shared trees and trees on adjacent properties of any size.
  - Barriers for shared trees and trees on adjacent property must be installed to the property line.
  - Where shared trees and trees on adjacent property may require removal, written authorization from the neighbours must be obtained before applying for a tree cutting permit.



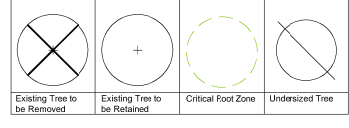
**Specifications for Construction**  
 Failure to meet these specifications will result in inspection failure and subsequent delay in issuance of other permits:

- 1.2 m (4') height
- 2" x 4" to be used for vertical posts, top and bottom rails and cross-bracing (in mm "C"): round, un-treated vertical posts may be used with a minimum diameter of 9 cm
- Spacing between vertical posts to be no further apart than 3.7 m (12') or centre
- Structure must be sturdy with vertical posts driven firmly into the ground
- Continuous plastic mesh screening (e.g. orange safety fencing)
- Posted with visible signage advising that encroachment into the protected area is forbidden
- Located at distances based on tree diameter, use table below:

Trunk Diameter (DBH) measured at 1.4 m from the ground	Critical Root Zone minimum fence distance from the tree
20 cm (7.9")	1.2 m (3.9')
25 cm (9.8")	1.5 m (4.9')
30 cm (11.8")	1.8 m (5.9')
35 cm (13.8")	2.1 m (6.9')
40 cm (15.7")	2.4 m (7.9')
45 cm (17.7")	2.7 m (8.9')
50 cm (19.7")	3.0 m (9.9')
55 cm (21.7")	3.3 m (10.8')
60 cm (23.6")	3.6 m (11.8')
65 cm (25.6")	4.0 m (12.8')
70 cm (27.6")	4.5 m (14.8')
75 cm (29.5")	5.0 m (15.7')
80 cm (31.5")	5.5 m (17.7')
85 cm (33.5")	6.0 m (19.7')

• For distances not on this table divide the DBH (in cm) by 16.6  
 • Example: 80 cm ÷ 16.6 = 4.8 m

TREE LEGEND

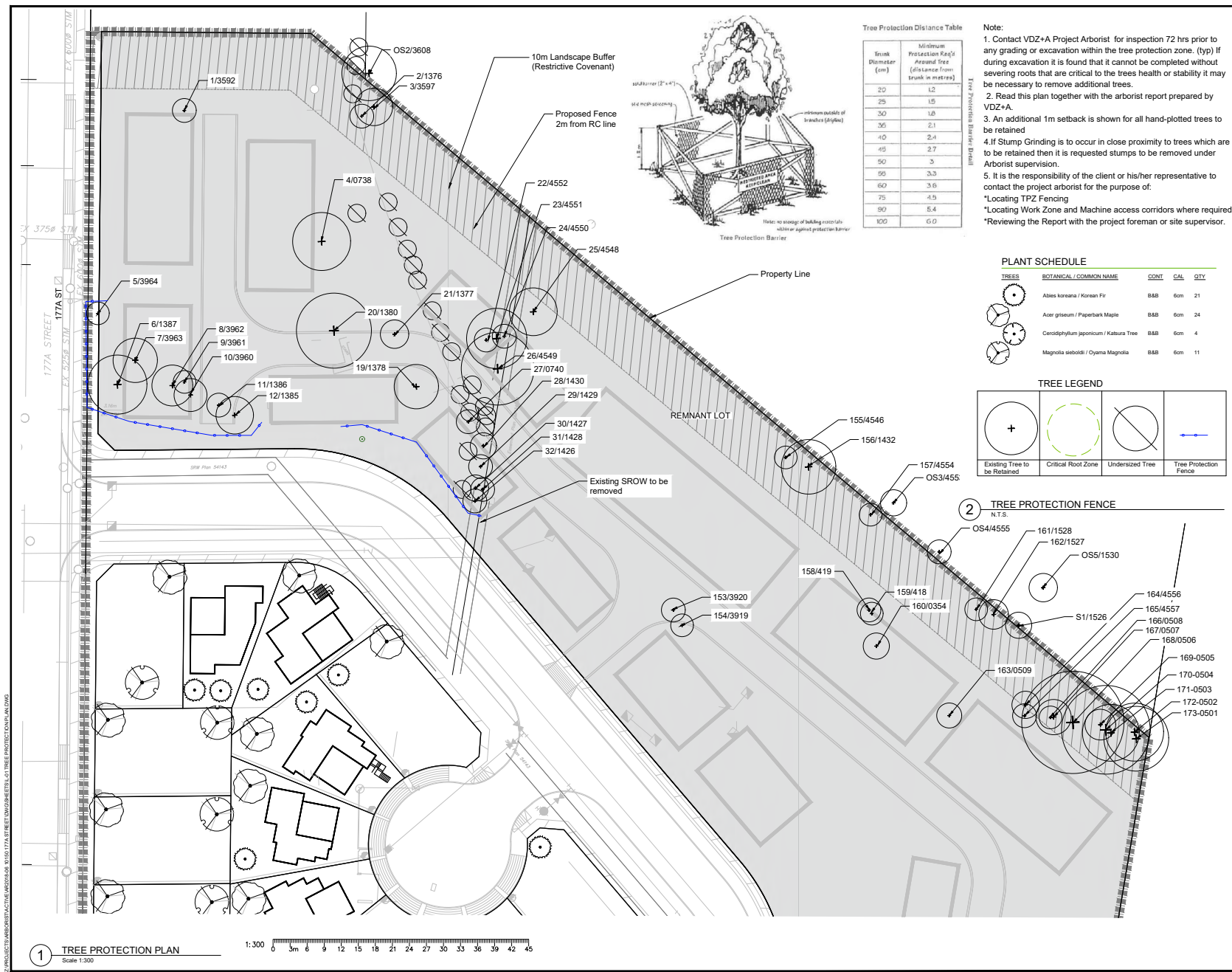


KEY	REF.	DESCRIPTION
←	2	TREE PROTECTION FENCE

2 TREE PROTECTION FENCE

N.T.S.

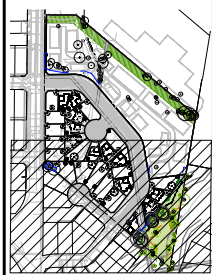




Drawn: AL YY	Stamp:
Checked: GR	
Approved: MVDZ	Original Sheet Size: 24"x36"
Scale: 1:300	



Key Map (N.T.S.)



No.	By	Description	Date
8	YJ	Issued for Tree Planning Plan	Mar 1, 2022
7	AL	Issued for Arborist Report Update	Feb 2, 2022
6	KM	Issued for Arborist Report Update	Jan 8th, 2021
5	AL	Issued for Arborist Report Update	Jan 15, 2021
4	DC	Issued for Windfirm Assessment	Jan 10, 2021
3	DC	Issued for Windfirm Assessment	Dec 13, 2019
2	MW	Issued for Rezoning/Subdivision	May 13, 2019
1	MW	Issued for Rezoning/Subdivision	Sep 28, 2016

No.	By	Description	Date

REVISIONS TABLE FOR SHEET

Project:  
10150 177A Street

Location:  
10150 177 A Street,  
Surrey, BC

Drawn:  
AL  
YY

Checked:  
GR

Approved:  
MVDZ

Stamp:  
Original Sheet Size:  
24"x36"

Scale:  
1:300

CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE WORK AND REPORT ANY DISCREPANCY TO THE CONSULTANT BEFORE PROCEEDING. EXCLUSIVE PROPERTY OF THE OWNER AND MADE AS BELIEVED BY THE CONSULTANT. THE CONSULTANT'S RESPONSIBILITY FOR ANY DISCREPANCY SHALL BE LIMITED TO THE INFORMATION PROVIDED IN THIS DRAWING. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND SHALL BE RESPONSIBLE FOR ANY DISCREPANCY.

Drawing Title: TREE PROTECTION PLAN B

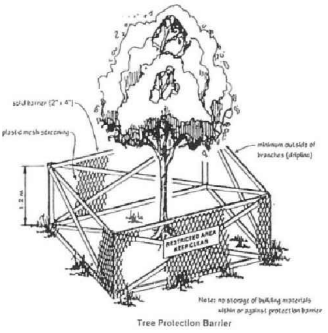


VZ Project #: AR2018-06

Drawing #: L-02

**1 TREE PROTECTION PLAN**  
Scale 1:300

- Note:
- Contact VZ+A Project Arborist for inspection 72 hrs prior to any grading or excavation within the tree protection zone. (Typ) If during excavation it is found that it cannot be completed without severing roots that are critical to the trees health or stability it may be necessary to remove additional trees.
  - Read this plan together with the arborist report prepared by VZ+A.
  - An additional 1m setback is shown for all hand-plotted trees to be retained
  - If Stump Grinding is to occur in close proximity to trees which are to be retained then it is requested stumps to be removed under Arborist supervision.
  - It is the responsibility of the client or his/her representative to contact the project arborist for the purpose of:
    - \*Locating TPZ Fencing
    - \*Locating Work Zone and Machine access corridors where required
    - \*Reviewing the Report with the project foreman or site supervisor.



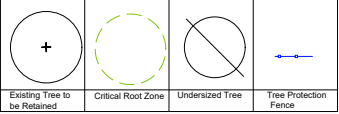
Tree Protection Distance Table

Trunk Diameter (cm)	Minimum Protection Radius Around Tree (distance from trunk in metres)
20	1.2
25	1.5
30	1.8
35	2.1
40	2.4
45	2.7
50	3
55	3.3
60	3.6
75	4.5
90	5.4
100	6.0

PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	QNT	CAL	HTY
	Abies korara / Korean Fir	888	6cm	21
	Acer griseum / Paperbark Maple	888	6cm	24
	Carodiphyllum japonicum / Katsura Tree	888	6cm	4
	Magnolia seedoid / Oyama Magnolia	888	6cm	11

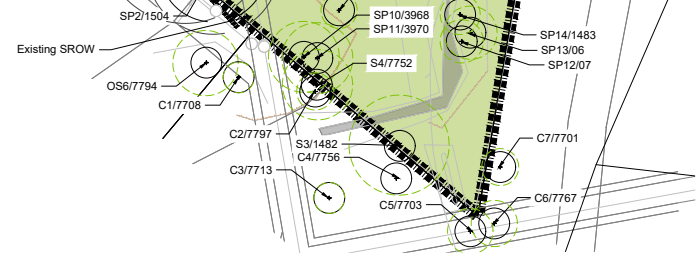
TREE LEGEND



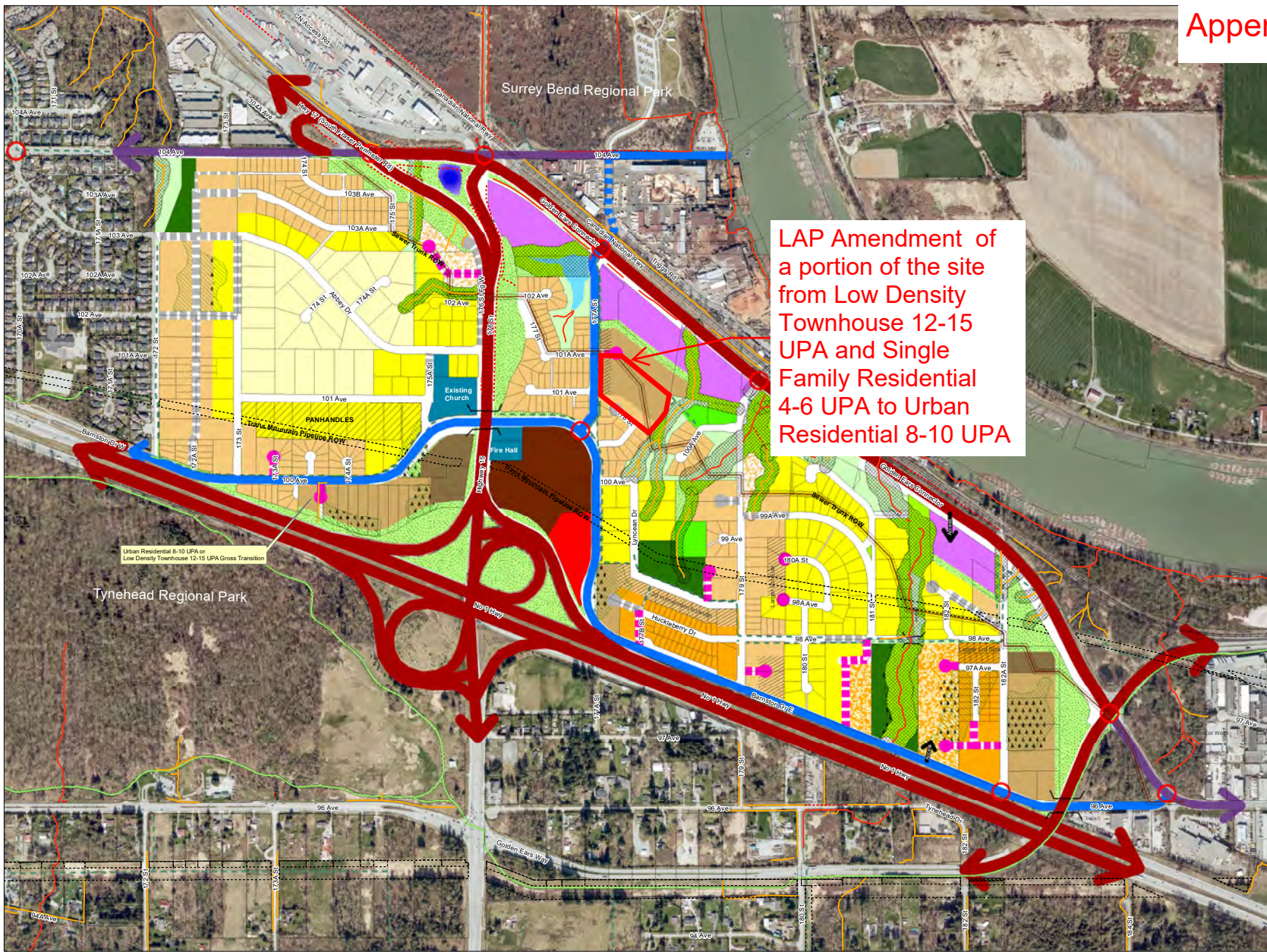
**2 TREE PROTECTION FENCE**  
N.T.S.

ARBORIST SUPERVISION ZONE. Arborist must be present for disturbance activities within these areas.

Existing SROW



ALL DIMENSIONS AND LOCATIONS ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.



LAP Amendment of a portion of the site from Low Density Townhouse 12-15 UPA and Single Family Residential 4-6 UPA to Urban Residential 8-10 UPA

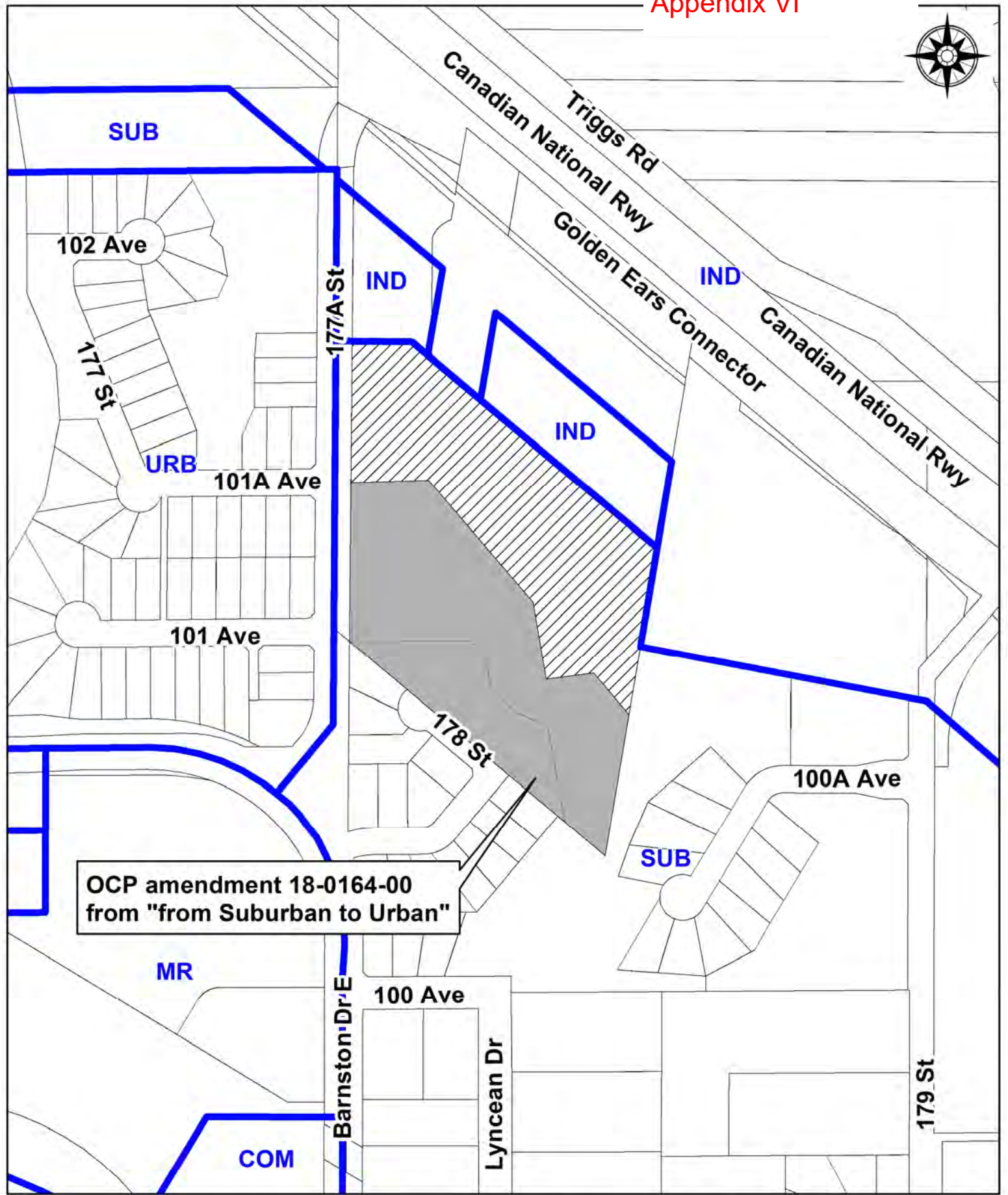
- Acreage Residential 1-2 UPA
- Suburban Residential 2-4 UPA Gross
- Urban Transition 4-5 UPA
- Low Density Cluster 4-6 UPA Gross
- Single Family Residential 4-6 UPA
- Medium Density Cluster 10-12 UPA Gross
- Urban Residential 8-10 UPA Transition
- Urban Residential 8-10 UPA
- Low Density Townhouse 12-15 UPA Gross Transition
- Low Density Townhouse 12-15 UPA Gross
- High Density Multiple Residential 30-45 UPA
- Neighbourhood Commercial
- Industrial
- Institutional
- Existing Natural Area
- Future Natural Area
- Existing Neighbourhood Park
- Future Neighbourhood Park
- Landscape Buffer
- Storm Water Pond
- Wet Land
- Tree Retention Area

**Transportation Network**

- Proposed City Greenway
- Railway
- Signalized Intersection
- Cul De Sac
- Flex Cul De Sac
- Provincial Highway
- Arterial 30m
- Collector 24m
- Future Collector 24m
- Proposed Local 20m
- Proposed Flex Local Road
- Proposed Local Lane 6m
- Proposed Greenways 4m
- In Service Greenways 4m

**Utilities & Other**

- SanitaryTrunkSewer\_ROW\_10m\_AbbyRidge
- SanitaryTrunkSewer\_AbbyRidge
- Significant Tree Stand
- Trans Mountain Pipeline ROW (18.6m)
- Stream Class A
- Stream Class B
- Buffer of Fishclass A and AO 30m
- Buffer of Fishclass B 15m



OCP amendment 18-0164-00  
 from "from Suburban to Urban"



CITY OF SURREY

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7918-0164-00

Issued To:

(the "Owner")

Address of Owner:

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: 030-340-969  
 Lot 3 District Lot 389A Group 2 New Westminster District Plan EPP65276  
 10150 - 177A Street

(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 address(es) change(s), the City Clerk is directed to insert the new civic address(es) for the Land, as follows:

\_\_\_\_\_

4. Surrey Zoning By-law, 1993, No. 12000, as amended is varied as follows:
  - (a) In Section F of Part 16B "Single Family Residential (13) Zone (RF-13)" the minimum rear yard setback is reduced from 7.5 metres to 6.0 metres to the principal building face for Lots 9, 10, 11, 13 and 26;
  - (b) In Section F of Part 16 "Single Family Residential Zone (RF)" the minimum rear yard setback is reduced from 7.5 metres to 2.4 metres to the principal building face and the minimum front yard setback is reduced from 7.5 metres to 3.6 metres to the principal building face and 6.0 metres to the garage for proposed Lot 24;
  - (c) In Section F of Part 16B "Single Family Residential (13) Zone (RF-13)" the minimum rear yard setback is reduced from 7.5 metres to 5.5 metres for 50% of the rear principal building face and 4.0 metres for the other 50% of the rear principal building face for proposed Lot 25;
  - (d) In Section K of Part 16B "Single Family Residential (13) Zone (RF-13)" the minimum lot depth is reduced from 24 metres to 21 metres for proposed Lots 25 and 26; and
  - (e) In Section K of Part 16 "Single Family Residential Zone" the minimum lot depth of the is reduced from 28 metres to 20.4 metres for proposed Lot 24.
  
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. This development variance permit does not apply to additions to, or replacement of, any of the existing buildings shown on attached 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, THE      DAY OF      , 20 .  
ISSUED THIS      DAY OF      , 20 .

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Mayor – Doug McCallum

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City Clerk – Jennifer Ficocelli

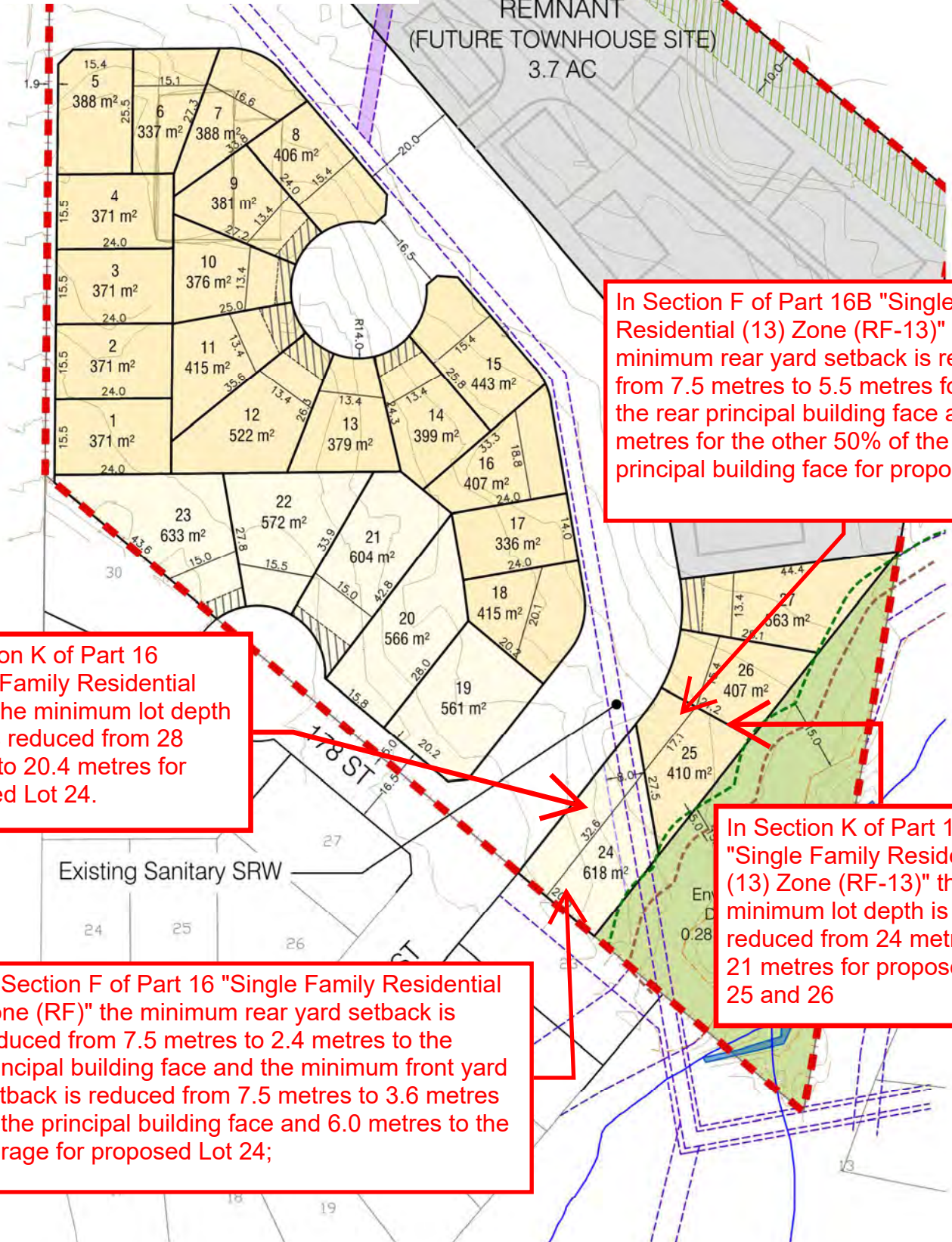
Sanitary SRW  
To Be Removed

Landscape Buffer

Estimated Top of Ba

In Section F of Part 16B "Single Family Residential (13) Zone (RF-13)" the minimum rear yard setback is reduced from 7.5 metres to 6.0 metres to the principal building face for Lots 9, 10, 11, 13 and 26;

REMNANT  
(FUTURE TOWNHOUSE SITE)  
3.7 AC



In Section F of Part 16B "Single Family Residential (13) Zone (RF-13)" the minimum rear yard setback is reduced from 7.5 metres to 5.5 metres for 50% of the rear principal building face and 4.0 metres for the other 50% of the rear principal building face for proposed Lot 25

In Section K of Part 16 "Single Family Residential Zone" the minimum lot depth of the is reduced from 28 metres to 20.4 metres for proposed Lot 24.

In Section K of Part 16B "Single Family Residential (13) Zone (RF-13)" the minimum lot depth is reduced from 24 metres to 21 metres for proposed Lots 25 and 26

In Section F of Part 16 "Single Family Residential Zone (RF)" the minimum rear yard setback is reduced from 7.5 metres to 2.4 metres to the principal building face and the minimum front yard setback is reduced from 7.5 metres to 3.6 metres to the principal building face and 6.0 metres to the garage for proposed Lot 24;



## **BUILDING GUIDELINES SUMMARY**

Surrey Project no: 18-0164-00  
Project Location: 10150 - 177A Street, Surrey, B.C.  
Design Consultant: Tynan Consulting Ltd., (Michael E. Tynan)

**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. Residential Character**

#### **1.1 General Description of the Existing and/or Emerging Residential Character of the Subject Site:**

In the 10000 and 10100 blocks, on the west side of 177A Street, directly opposite the subject site is an area-defining 59 lot RF zoned subdivision indentified as Surrey project 05-0086-00. The homes are all 10-15 year old Two-Storey type with in-ground basement, ranging in size from 2800 sq.ft. - 3550 sq.ft. including garages (but excluding basements). The area has a themed appearance, with the style range limited to "Neo-Traditional" and "Neo-Heritage". All of the homes are considered to have mid-scale massing designs, a result of the RF zone requirement to recess the upper floor from the main floor at the front of the home, resulting in a roof system extending up from the main floor to the upper floor walls, thus concealing upper floor wall mass. One and 1 ½ storey high front entrance porticos are evident, with more than half of existing homes having a 1 ½ storey entrance. Nearly all homes are configured with a main common hip roof with between one and five street facing feature gabled (common gable and Dutch Hip) projections articulated with wood shingles, wood battens over Hardipanel, or Hardiplank. Most homes are clad in vinyl with a masonry accent, though stucco with masonry accent has also been used. The colour range includes neutral, natural, and primary colours. Trim and detailing standards are typical of those found on most homes constructed in post year 2000's RF zone developments. Landscapes are considered of average quality when compared against other RF zone developments from this era.

South of the site is a 17 lot RC (Residential Cluster Zone) site, developed under Surrey project 99-0199-00. Although homes at this site are on average five years older than homes at the site described above, they are similarly configured in terms of home type, size, massing design and scale, and building materials (i.e. they are consistent in theme, representation and character with homes in Surrey project 05-0086-00).

Southeast of the site are densely forested environmental lands surrounding a 12 lot RC zoned subdivision that is not visible from the subject site.

To the north and northeast are Industrial (IL) zoned lands containing structures that are not relevant to the subject site.

## 1.2 Features of Surrounding Dwellings Significant to the Proposed Building Scheme:

- 1) **Context Homes:** There are numerous homes in this area that could be considered to provide acceptable architectural context. However, massing design, construction materials, and trim and detailing standards for new homes constructed in new RF and RF-13 zone subdivisions now exceed standards evident on the context homes. The recommendation therefore is to adopt standards commonly found in post year 2020 RF and RF-13 zoned subdivisions, rather than to emulate specific components of the aforesaid context homes
- 2) **Style Character :** Existing surrounding homes are of styles typical of those found in modern urban developments in Surrey in the early 2000's. Styles recommended for this site include "Neo-Traditional" and "Neo-Heritage" and compatible styles as determined by the consultant. Note that style range is not restricted in the building scheme. However, the consultant refers to the character study when reviewing plans for meeting style-character intent.
- 3) **Home Types :** All surrounding homes are Two-Storey type, and it is expected that all new homes constructed at the subject site will be Two-Storey type. However, home type (Two-Storey, Bungalow, Basement Entry, Split Level, etc..) will not be regulated in the building scheme.
- 4) **Massing Designs :** Massing designs should meet new standards for RF and RF-13 zoned subdivisions. New homes should exhibit "mid-scale" massing. Various elements and projections on the front of the home should be interesting architecturally, and should be in pleasing natural proportions to one another. These elements and projections should be located so as to create balance across the façade.
- 5) **Front Entrance Design :** Front entrance porticos range from one to 1 ½ storeys in height. The recommendation is to limit the range of entrance portico heights to between one storey and 1 ½ storeys to ensure there is not proportional overstatement of this one element.
- 6) **Exterior Wall Cladding :** A wide range of cladding materials have been used in this area, including vinyl, cedar, stucco, fibre cement board, brick, and stone. Reasonable flexibility should therefore be permitted, including the use of vinyl siding, provided the overall quality of wall cladding materials meets or exceeds common standards for post 2020 RF and RF-13 zone developments.
- 7) **Roof surface :** This is area in which most homes (more than 95%) have asphalt shingle roofs. It is expected that most new homes will also have asphalt shingle roofs, and for continuity, asphalt shingles are recommended. A single cedar shingle or concrete tile roof would stand out as inconsistent due the large difference in textures (thickness) between asphalt shingles and cedar shingles or concrete tiles, and so these products are not recommended. However, where opportunities arise to introduce new environmentally sustainable products, they should be embraced. Generally, these materials have thicknesses between asphalt shingles and cedar shingles and will not appear out of place texturally. Therefore, to ensure consistency of character, only shake profile asphalt shingles and shake profile sustainable products are recommended. Where required by the BC Building Code for lower slope applications membrane roofing products can be permitted subject to consultant approval. Small decorative metal roofs should also be permitted.
- 8) **Roof Slope :** The recommendation is to set the minimum roof slope at 6:12. A provision is also recommended to allow slopes less than 6:12 where it is determined by the consultant that the design is of such high architectural integrity that the roof slope reduction can be justified, or that lower slopes are needed on feature projections or at the front entrance veranda to ensure upper floor windows can be installed without interference with the roof structure below.

**Streetscape:** The streetscape appears "themed", with 2800 - 3550 sq.ft. Two-Storey homes in a style range that currently includes only "Neo-Traditional" and "Neo-Heritage" style homes. The homes have mid-scale massing characteristics with proportionally consistent projections and balanced massing across the facades. Most homes have a 1 ½ storey high front entrance. Roof slopes range from 6:12 to 12:12 and most homes have a shake profile asphalt shingle roof surface. Most homes are clad in vinyl with a masonry accent, though there are a few stucco homes. Landscapes are average for early to mid year 2000's RF and RF-13 zone developments.

## 2. Proposed Design Guidelines

### 2.1 Specific Residential Character and Design Elements these Guidelines Attempt to Preserve and/or Create:

- the new homes are readily identifiable as one of the following styles: "Neo-Traditional", "Neo-Heritage", or other compatible styles with appropriate transitions in massing and character, as determined by the design *consultant*. Note that the proposed style range is not contained within the building scheme, but is contained within the residential character study which forms the basis for interpreting building scheme regulations.
- a new single family dwelling *constructed* on any *lot* meets year 2020's design standards, which include the proportionally correct allotment of mass between various street facing elements, the overall balanced distribution of mass within the front facade, readily recognizable style-authentic design, and a high trim and detailing standard used specifically to reinforce the style objectives stated above.
- trim elements will include several of the following: furred out wood posts, articulated wood post bases, wood braces and brackets, louvered wood vents, bold wood window and door trim, highly detailed gable ends, wood dentil details, stone or brick feature accents, covered entrance verandas and other style-specific elements, all used to reinforce the style (i.e. not just decorative).
- the development is internally consistent in theme, representation, and character.
- the entrance element will be limited in height (relative dominance) to 1 to 1 ½ storeys.

### 2.2 Proposed Design Solutions:

#### **Interfacing Treatment with existing dwellings)**

There are many homes in this area that could be considered to provide acceptable architectural context. However, massing design, construction materials, and trim and detailing standards for new homes constructed in most new (post year 2020) RF and RF-13 zone subdivisions now exceed standards evident on the context homes. The recommendation therefore is to adopt standards commonly found in post year 2020 RF and RF-13 zoned subdivisions, rather than to specifically emulate the aforesaid two context homes.

#### **Exterior Materials/Colours:**

Stucco, Cedar, Vinyl, Fibre-Cement Board, Brick, and Stone.

"Natural" colours such as browns, greens, clays, and other earth-tones, and "Neutral" colours such as grey, white, and cream are permitted. "Primary" colours in subdued tones such as navy blue, colonial red, or forest green can be considered

providing neutral trim colours are used, and a comprehensive colour scheme is approved by the consultant. "Warm" colours such as pink, rose, peach, salmon are not permitted. Trim colours: Shade variation of main colour, complementary, neutral, or subdued contrast only.

**Roof Pitch:** Minimum 6:12, with exceptions to prevent roof ridges from becoming too high (overshadowing of neighbouring lots), to allow for veranda roofs that do not cover upper floor windows, to allow for artistic expression in feature roofs, and to provide a path for exceptional designs with lower slope roofs to be approved subject to consultant approval.

**Roof Materials/Colours:** Only shake profile asphalt shingles with a raised ridge cap and new environmentally sustainable roofing products providing that aesthetic properties of the new materials are equal to or better than the traditional roofing products. Greys, browns, or black only. Membrane roofs also permitted where required by B.C. Building Code, and small metal feature roofs also permitted.

**In-ground basements:** In-ground basements are subject to determination that service invert locations are sufficiently below grade to permit a minimum 50 percent in-ground basement to be achieved. If achievable, basements will appear underground from the front.

**Treatment of Corner Lots:** Significant, readily identifiable architectural features are provided on both the front and flanking street sides of the dwelling, resulting in a home that architecturally addresses both streets. One-storey elements on the new home shall comprise a minimum of 33 percent of the width of the front and flanking street elevations of the single family dwelling. The upper floor is set back a minimum of 0.9 metres [3'- 0"] from the one-storey elements.

**Landscaping:** *Moderate modern urban standard:* Tree planting as specified on Tree Replacement Plan plus shrubs of a minimum 3 gallon pot size as follows: on interior *lots* 1, 2, 3, 4, 6, 7, 9-14 inclusive, 16, 17, 18, 25, 26, and 27, provide a minimum of 17 shrubs. On interior *lots* 20-23 inclusive, and lot 24, provide a minimum of 20 shrubs. On corner *lots* 5, 8, 15, and 19, provide a minimum of 30 shrubs of which not less than 13 shrubs are planted in the flanking street sideyard area. Sod from street to face of home. Driveways: exposed aggregate, interlocking masonry pavers, stamped concrete, or coloured concrete in dark earth tones or medium to dark grey only, or pervious, or architecturally treated concrete as approved by the consultant.

**Compliance Deposit:** \$5,000.00

**Summary prepared and submitted by:** Tynan Consulting Ltd.      **Date:** February 22, 2022

**Reviewed and Approved by:**       **Date:** February 22, 2022