

**PROPOSAL:**

- **Rezoning** from RA to RF-12

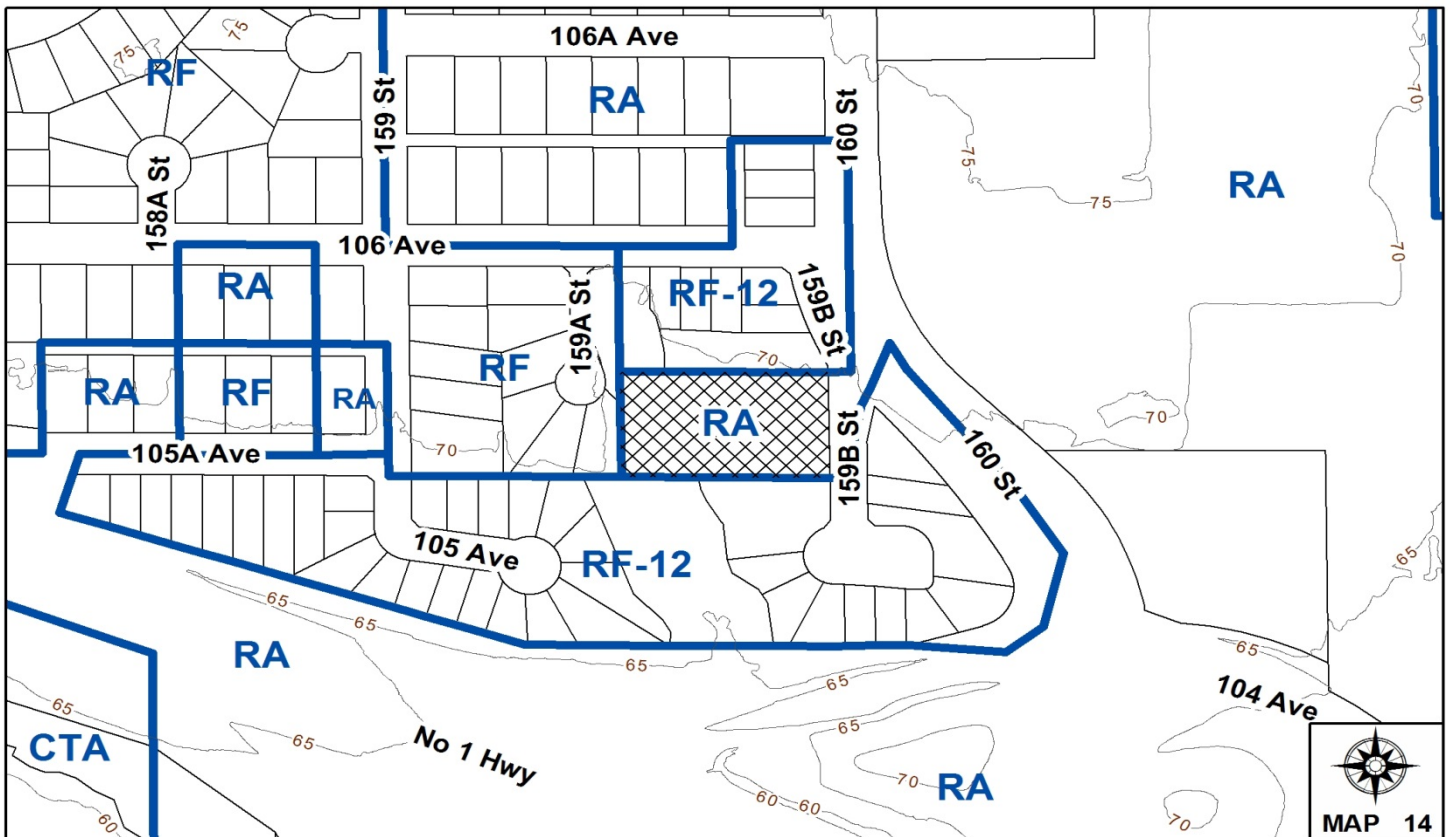
in order to allow subdivision with a portion of an adjoining RF-12 lot, into 6 small single family lots and 1 lot for riparian protection purposes.

**LOCATION:** 10555 - 160 Street

**OWNERS:** Dhama Sahota  
 Manjeet Sahota

**ZONING:** RA

**OCP DESIGNATION:** Urban



RECOMMENDATION SUMMARY

- By-law Introduction and set date for Public Hearing for Rezoning.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- None.

RATIONALE OF RECOMMENDATION

- Complies with the Urban designation in the OCP.
- Proposed Lots 1 to 5 are consistent in size with the existing RF-12 lots to the north and south of the subject site.
- Proposed Lot 6 may be further subdivided in the future with the abutting RF-12 lot to the north (10579 – 159B Street) to create lots similar in size to the existing RF-12 lots in the area.
- The applicant has volunteered to convey proposed Lot 7 to the City as open space without compensation, to protect the riparian area.

RECOMMENDATION

The Planning & Development Department recommends that:

1. a By-law be introduced to rezone the subject site from “One-Acre Residential Zone (RA)” (By-law No. 12000) to “Single Family Residential (12) Zone (RF-12) (By-law No. 12000) and a date be set for Public Hearing.
2. 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 and 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 address the concern for the impact the development may have on the riparian area forest, to the satisfaction of the General Manager, Parks, Recreation and Culture; and
  - (f) registration of a “no-build” Restrictive Covenant over proposed Lot 6 for future consolidation with the lot to the north (10579 – 159B Street).

REFERRALS

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

School District: **Projected number of students from this development:**

3 Elementary students at Dogwood Elementary School  
2 Secondary students at Fraser Heights Secondary School

The applicant has advised that the dwelling units in this project are expected to be constructed and ready for occupancy by Spring 2017.

(Appendix IV)

Parks, Recreation & Culture: Parks will require cash-in-lieu for the 5% parkland requirement. The open space dedication as proposed is acceptable, however, there is concern for the impact on the riparian area forest.

Kinder Morgan: No concerns.

Ministry of Transportation & Infrastructure (MOTI): MOTI has no concerns with the proposed rezoning and subdivision.

### SITE CHARACTERISTICS

Existing Land Use: Vacant, residential acreage

Adjacent Area:

Direction	Existing Use	OCP Designation	Existing Zone
North:	Vacant lot and a park lot.	Urban	RF-12
East (Across 159B Street and 160 Street):	Single family small lots and Fraser Heights Recreation Centre and park	Urban	RF-12 and RA
South:	Single family small lots and a park lot.	Urban	RF-12
West:	Serpentine Creek and single family dwellings on bare-land strata lots.	Urban	RF

### DEVELOPMENT CONSIDERATIONS

#### Background

- The subject property is located at 10555 – 159B Street in Fraser Heights, just northwest of the Highway No. 1 / 160 Street interchange. The property is designated "Urban" in the Official Community Plan (OCP) and is zoned "One-Acre Residential Zone (RA)".
- The subject property is approximately 4,635 square metres (1.1 acres) in size and is currently vacant.
- The western portion of the property is encumbered by a Class 'B' (yellow-coded) watercourse (Serpentine Creek) that traverses the property from north to south.
- A triangular sliver at the southwest corner of the property is encumbered by the Kinder Morgan Trans Mountain Oil right-of-way.
- On April 26, 2011, the owner submitted the current development application (File No. 7911 0097-00) to rezone the subject property (10511 – 160 Street) from "One-Acre Residential Zone (RA)" to "Single Family Residential (12) Zone (RF-12)" to allow subdivision into four (4) single family small lots and a parcel to be conveyed to the City as open space to protect the riparian area.
- At the time, the Province proposed to widen and upgrade Highway No. 1 as part of the Gateway Program, including improvements to the Highway No. 1 / 160 Street interchange.

- On May 2011, the Ministry of Transportation and Infrastructure (MOTI) granted preliminary approval for the proposed subdivision pending the final alignment of the Highway No. 1 / 160 Street interchange. The owner decided to place the project on hold until all road improvements were completed.
- All road upgrades and improvements to the Highway No. 1 / 160 Street interchange were completed by the end of 2012. However, the owner chose to not proceed with the development application at the time.
- On March 19, 2015, the owner's consultant submitted a revised subdivision layout that included a portion of the property to the south (10535 – 159B Street). Planning staff encouraged the owner to contact the property owner to the north (10579 – 159B Street) to discuss the inclusion of that property in the proposed subdivision, and therefore, complete the development in this block.
- Numerous attempts were made by the applicant to acquire the abutting property to the north or to proceed with a joint development application; however, no agreement could be reached.
- As an alternative, Planning staff suggested that the owner contact the developer that developed the RF-12 lots south of the subject site, and whose portion of 10535 - 159B Street (north of the Trans Mountain oil pipeline right-of-way) is included in the revised subdivision layout of the subject development application, to purchase the neighbour's property to the north (10579 – 159B Street) and include it with the current subdivision proposal. Again, no agreement could be reached.
- The applicant has exhausted all efforts to include the abutting property to the north in the current rezoning and subdivision application, and therefore, the current proposal will proceed with a "no-build" Restrictive Covenant registered over proposed Lot 6 for future consolidation with the lot to the north (10579 – 159B Street).

### Current Proposal

- The applicant proposes to rezone the subject property (10555 – 159B Street) from "One-Acre Residential Zone (RA)" to "Single Family Residential (12) Zone (RF-12)" in order to subdivide with a portion of the adjoining RF-12-zoned lot to the south (10535 – 159B Street) into six (6) small single family lots (proposed Lots 1 to 6) and a remainder lot for riparian protection purposes (proposed Lot 7).
- Proposed Lot 6 will have future subdivision potential with the abutting property to the north (10535 – 159B Street).
- The adjoining lot to the south at 10535 – 159B Street is designated "Urban" in the OCP and zoned "Single Family Residential (12) Zone (RF-12)". This lot was created under Development Application No. 7905-0165-00, which was granted final adoption of the rezoning by Council on April 28, 2014. The north portion of this lot (north of the Trans Mountain Oil pipeline right-of-way) is approximately 322 square metres (3,465 sq.ft.) in size and is included in the current proposal to create proposed Lots 1, 3 and 4.

- The applicant proposes to provide 5% cash-in-lieu to satisfy the parkland requirement. In addition, the applicant proposes to provide the full 15-metre (50 ft.) setback from the yellow-coded creek, which traverses the western portion of the site, and convey this area to the City (proposed Lot 7) without compensation for riparian protection purposes. This remnant parcel (proposed Lot 7) will extend and complete the City-owned open space that exists north and south of the site.
- Parks staff accept the proposed open space dedication, but have some concerns over the protection of the riparian forest. The applicant has been requested to work with Parks to address this concern.
- Proposed Lots 1 to 5 range in size from 329 square metres (3,540 sq.ft.) to 417 square metres (4,490 sq.ft.). The applicant's key plan shows driveway access for proposed Lot 1 via 159B Street, while driveway access to the remaining proposed lots is via 105A Avenue, which will be constructed as part of the subject development application.
- Proposed Lot 6 is approximately 940 square metres (10,105 sq.ft.) in size. A "no-build" Restrictive Covenant will be registered over proposed Lot 6 for future consolidation with the lot to the north (10579 – 159B Street). The future subdivision of proposed Lot 6 and the abutting lot to the north will create RF-12 lots similar in size to the existing RF-12 lots in the area.
- Proposed Lot 7 (open space lot) is approximately 1,243 square metres (0.3 acre) in size, and will be conveyed to the City for riparian protection purposes. Proposed Lot 7 represents about 25% of the area of the subject site.

### Policy Compliance

- Planning staff worked with the applicant to ensure that the proposed widths are comparable with the existing RF-12 lots in the area.
- The Small Lot Residential Zones Policy No. O-52 identifies guidelines for the location of RF-12 lots in Urban areas (Corporate Report No. Coo2 approved by Council on January 17, 2000). The RF-12 Zone may be considered in Urban-designated areas that are within 800 metres (1/2 mile) of the edges of City Centre, Town Centres, major employment centres or community nodes, and if they are self-contained and have a minimal impact on the neighbourhood.
- The subject site is located approximately 400 metres (1/4 mile) from the commercial node at the intersection of 108 Avenue and 160 Street. Fraser Heights Secondary School and Fraser Heights Park and Recreation Centre also fall within this 400-metre radius. As a result, a number RF-12 lots have been approved in the area.
- The existing RF-12 lots to the north and south of the subject site (see Appendix VII) were created under the following development applications:
  - Development Application No. 7904-0309-00 (southwest corner of 106 Avenue and 159B Street, abutting the subject site along the north lot line) was approved by Council on July 26, 2012 to allow six (6) RF-12 lots and one (1) open space lot;

- Development Application No. 7905-0165-00 (south and southwest of the subject site) was approved by Council on April 28, 2014 to allow thirty-six (36) RF-12 lots and one (1) open space lot; and
- Development Application No. 7912-0175-00 (north of 106 Avenue) was approved by Council on February 23, 2015 to allow three (3) RF-12 lots.

### PRE-NOTIFICATION

Pre-notification letters were sent on October 15, 2015, and staff received one (1) telephone call requesting additional information / clarification of the proposal. The caller was provided with the requested information, and no concerns were expressed.

### DESIGN PROPOSAL AND REVIEW

#### Building Design Guidelines

- Tynan Consulting Ltd. prepared the Neighbourhood Character Study and Building Scheme, dated July 23, 2015. The character study analyzed a number of existing homes in the neighbourhood in order to establish suitable design guidelines for the proposed subdivision. Proposed house styles include Neo-Traditional, Neo-heritage and West Coast Contemporary. A summary of the design guidelines is attached (Appendix V).

#### Lot Grading

- A preliminary lot grading plan submitted by H.Y. Engineering Ltd. and dated July 30, 2015 was reviewed by staff and found generally acceptable. A revised lot grading plan was submitted on December 7, 2015 to reflect the current subdivision plan, which was revised with minor changes to the proposed lot lines and to show the correct alignment of the cul-de-sac bulb. The revised lot grading plan will be reviewed by staff prior to final adoption of the Rezoning By-law.
- The applicant proposes in-ground basements. However, the ability to achieve in-ground basements on each lot will be determined once final Engineering drawings have been accepted by the City's Engineering Department.

### TREES

- Trevor Cox, ISA Certified Arborist of Diamond Head 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	9	9	0
Cottonwood	8	8	0
<b>Deciduous Trees (excluding Alder and Cottonwood Trees)</b>			
Apple	1	1	0
Bigleaf Maple	1	1	0
Lombardy Poplar	2	2	0
Paper Birch	1	1	0
Willow	1	1	0
<b>Coniferous Trees</b>			
Douglas Fir	8	1	0
Western Red Cedar	1	1	0
<b>Total (excluding Alder and Cottonwood Trees)</b>	<b>15</b>	<b>15</b>	<b>0</b>
<b>Additional trees in the proposed Open Space / Riparian Area</b>	<b>14</b>	<b>0</b>	<b>14</b>
<b>Total Replacement Trees Proposed (excluding Boulevard Street Trees)</b>		<b>15</b>	
<b>Total Retained and Replacement Trees</b>		<b>29</b>	
<b>Contribution to the Green City Fund</b>		<b>\$9,600</b>	

- The Arborist Assessment states that there are a total of thirty-two (32) mature trees on the site, excluding Alder and Cottonwood trees. Seventeen (17) additional on-site trees, approximately 53% of the total trees on the site, are Alder and Cottonwood trees and are proposed for removal. It was determined that none of the on-site 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, proposed lot grading, and the health / condition of the trees.
- Table 1 includes an additional fourteen (14) mature trees that are located within the open space/riparian area (proposed Lot 7). The trees within the proposed open space/riparian area will be retained, except where removal is required due to hazardous conditions. This is to be determined, 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 47 replacement trees. Since only fifteen (15) replacement trees can be accommodated on the proposed lots, the deficit of 32 replacement trees will require a cash-in-lieu payment of \$9,600 (\$300 per tree) to the Green City Fund.



SUSTAINABLE DEVELOPMENT CHECKLIST

The applicant prepared and submitted a sustainable development checklist for the subject site on May 5, 2015. The table below summarizes the applicable development features of the proposal based on the seven (7) criteria listed in the Surrey Sustainable Development Checklist.

Sustainability Criteria	Sustainable Development Features Summary
1. Site Context & Location (A1-A2)	<ul style="list-style-type: none"> <li>The site is an urban infill lot, and the proposed subdivision is consistent with the OCP and the existing RF-12 lots in the area.</li> </ul>
2. Density & Diversity (B1-B7)	<ul style="list-style-type: none"> <li>Secondary suites will be permitted</li> </ul>
3. Ecology & Stewardship (C1-C4)	<ul style="list-style-type: none"> <li>Swales, roof downspout disconnections and absorbent soils will be incorporated into the development.</li> </ul>
4. Sustainable Transport & Mobility (D1-D2)	<ul style="list-style-type: none"> <li>Transit service runs along 108 Avenue and 160 Street, with a transit stop within walking distance (500 metres / 0.3 mile) from the subject site along 108 Avenue.</li> </ul>
5. Accessibility & Safety (E1-E3)	<ul style="list-style-type: none"> <li>Houses will be oriented towards the cul-de-sac.</li> </ul>
6. Green Certification (F1)	<ul style="list-style-type: none"> <li>N/A</li> </ul>
7. Education & Awareness (G1-G4)	<ul style="list-style-type: none"> <li>A Development Proposal Sign was installed on site, and pre-notification letters were mailed to area residents.</li> </ul>

INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	Lot Owners, Action Summary and Project Data Sheets
Appendix II.	Proposed Subdivision Layout
Appendix III.	Engineering Summary
Appendix IV.	School District Comments
Appendix V.	Building Design Guidelines Summary
Appendix VI.	Summary of Tree Survey and Tree Preservation
Appendix VII.	Map of Approved and In-Process Development Applications in the Area

*original signed by Judith Robertson*

Jean Lamontagne  
General Manager  
Planning and Development

DN/dk

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# SUBDIVISION DATA SHEET

Proposed Zoning: RF-12

Requires Project Data	Proposed
<b>GROSS SITE AREA</b>	
Acres	1.15 acres
Hectares	0.463 hectares
<b>NUMBER OF LOTS</b>	
Existing	1
Proposed	6 + 1 park parcel
<b>SIZE OF LOTS</b>	
Range of lot widths (metres)	
Range of lot areas (square metres)	329 square metres to 940 square metres
<b>DENSITY</b>	
Lots/Hectare & Lots/Acre (Gross)	13 lots/ hectare (5.2 lots / acre)
Lots/Hectare & Lots/Acre (Net)	22 lots/ hectare (8.9 lots / acre)
<b>SITE COVERAGE (in % of gross site area)</b>	
Maximum Coverage of Principal & Accessory Building	50%
Estimated Road, Lane & Driveway Coverage	15%
Total Site Coverage	65%
<b>PARKLAND</b>	
Area (square metres)	1,243 square metres
% of Gross Site	25%
<b>Required</b>	
<b>PARKLAND</b>	
5% money in lieu	YES
<b>TREE SURVEY/ASSESSMENT</b>	
	YES
<b>MODEL BUILDING SCHEME</b>	
	YES
<b>HERITAGE SITE Retention</b>	
	NO
<b>BOUNDARY HEALTH Approval</b>	
	NO
<b>DEV. VARIANCE PERMIT required</b>	
Road Length/Standards	NO
Works and Services	NO
Building Retention	NO
Others	NO



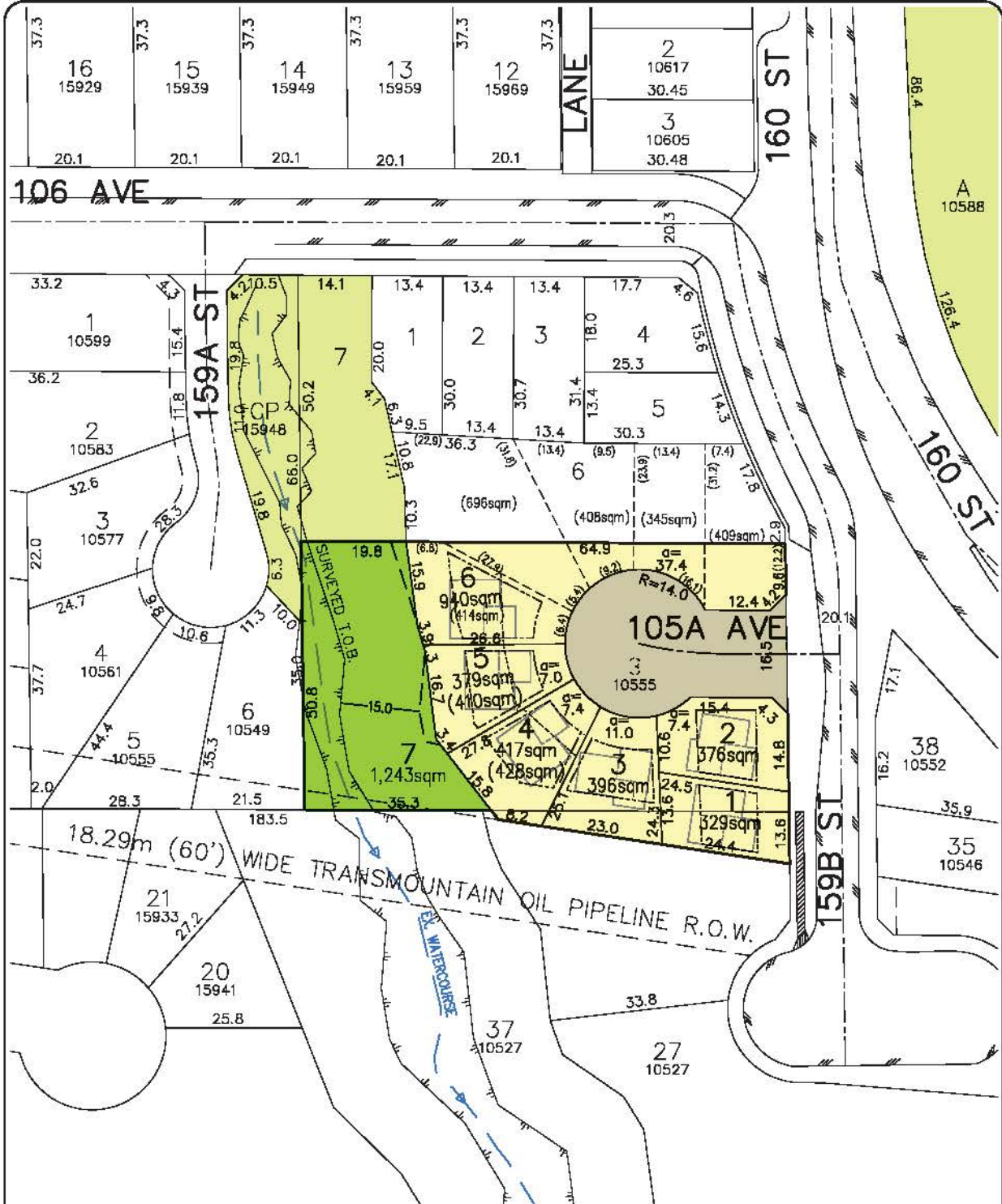
Planning & Development Department  
 14245 - 56 Avenue, Surrey,  
 British Columbia, Canada V3W 1K2  
 Tel. (604) 591-4441 Fax. (604) 591-2507

# PROPOSED SUBDIVISION LAYOUT

File No: 7911-0097-00  
 MAP #: 014  
 EXIST. ZONE: RA  
 PROP. ZONE: RF-12



**CIVIC ADDRESS: 10511/55 - 160 ST., SURREY, BC**  
**LEGAL: LOT B, EXPLANATORY PLAN 11850, AND LOT 3, EXPLANATORY PLAN 17095**  
**BOTH OF SECTION 22, BLOCK 5 NORTH, RANGE 1 WEST, N.W.D.**



• 4200-9128-152nd. St. Surrey, BC V3R 4E7 • TEL. 604-583-1616  
 • Website: www.hyengineering.com • FAX 604-583-1737

GROSS SITE AREA: 4,955sqm (1.22ac)  
 PARK DEDICATION: 1,243sqm (25.0%)

NOTE: ALL EXISTING ONSITE STRUCTURES ARE TO BE REMOVED UNLESS NOTED OTHERWISE

**H.Y.#:031910C ALTERNATIVE#02C DATE: 20 OCT/15 SCALE : 1:750**

Please dimension lot frontages & areas, name existing roads and indicate north  
 Preferred scales: 1:500, 1:1000, 1:2500, 1:10,000 Metric  
 Larger format drawings may be attached as required

H.Y. DWG. No. E:\PROJECTS\031910C\PLANNING\AL1025C.DWG

## INTER-OFFICE MEMO

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

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

DATE: **December 8, 2015** PROJECT FILE: **7811-0097-00**

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RE: **Engineering Requirements  
Location: 10535/55- 160 Street**

**REZONE/SUBDIVISION*****Property and Right-of-Way Requirements***

- dedicate 16.5 m for 105A Avenue to the Limited Local road complete with 14.0 m cul-de-sac; and
- dedicate 3.0 m x 3.0 m corner cut at 159B Street/105A Avenue intersection.

***Works and Services***

- construct west side of 159B Street to the 16.5 m Limited Local Road standard complete with 8.5 m pavement, 1.5 m concrete sidewalk, barrier curb and gutter, and street lighting;
- construct 105A Avenue to the 16.5 m Limited Local Road standard complete with 8.0 m pavement width (radius of 11 m for the cul-de-sac), barrier curb and gutter, and street lighting; and
- construct storm, water, and sanitary mains along 105A Avenue complete with service connection to each lot.

A Servicing Agreement is required prior to Rezoning and Subdivision.



*RD*  
Rémi Dubé, P.Eng.  
Development Services Manager

sk



Tuesday, December 08, 2015  
 Planning

**THE IMPACT ON SCHOOLS**

APPLICATION #: 11-0097-00

**SUMMARY**

The proposed 6 Single family with suites are estimated to have the following impact on the following schools:

**Projected # of students for this development:**

Elementary Students:	3
Secondary Students:	2

September 2015 Enrolment/School Capacity

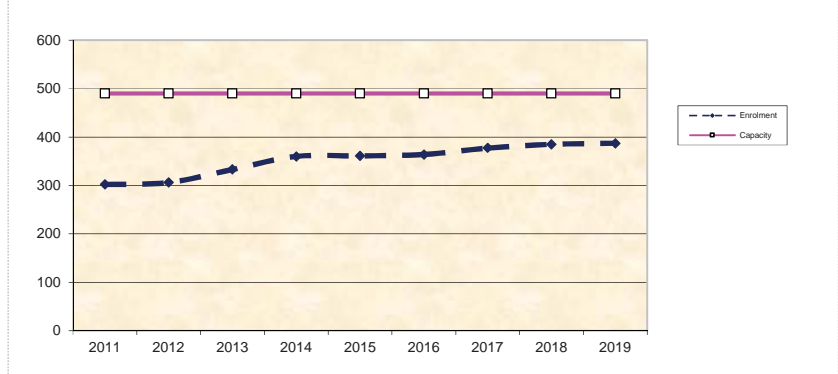
Dogwood Elementary	
Enrolment (K/1-7):	36 K + 325
Capacity (K/1-7):	40 K + 450
Fraser Heights Secondary	
Enrolment (8-12):	1382
Nominal Capacity (8-12):	1250
Functional Capacity*(8-12):	1350

**School Enrolment Projections and Planning Update:**

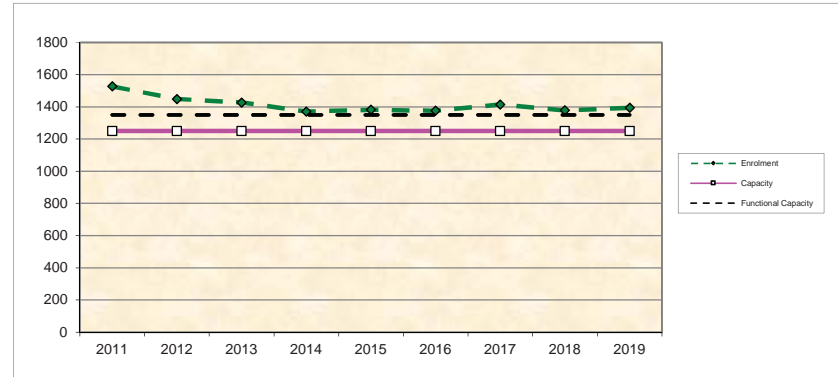
The following tables illustrate the enrolment projections (with current/approved ministry capacity) for the elementary and secondary schools serving the proposed development.

Dogwood Elementary is below capacity and has room for enrolment growth. The addition to Fraser Heights Secondary, completed in April 2014, increased the school capacity from 1000 to 1200 + Neighbourhood Learning Centre (which provides additional functional instructional space), to help reduce overcrowding at the school. The proposed residential development will not have a significant impact on projections.

**Dogwood Elementary**



**Fraser Heights Secondary**



\*Functional Capacity at secondary schools is based on space utilization estimate of 27 students per instructional space. The number of instructional spaces is estimated by dividing nominal facility capacity (Ministry capacity) by 25.

## BUILDING GUIDELINES SUMMARY

Surrey Project no: 7911-0097-00  
 Project Location: 10555 - 159B 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:

Of all lots surveyed in the study area, 63 percent are either vacant (undeveloped), or vacant (lots cleared and serviced but no homes constructed), or contain structures that are not suitable for use as architectural context for a residential development (Fraser Heights Recreation Centre). The remaining 37% of lots have homes currently under construction. There are no completed homes in the study area.

All homes under construction in this area have a floor area in the 2501 - 3000 sq.ft. size range. All homes are Two-Storey type, and all are considered "West Coast Contemporary" style. All homes have mid-scale massing characteristics, and a 1 ½ storey front entrance.

All homes have a main common gable roof, and all have feature shed roof projections ranging from flat to a 5:12 slope. All homes have a shake profile asphalt shingle roof surface the main roof.

Main wall cladding materials include: One third of homes are clad in stucco and two thirds do not yet have wall cladding installed as they are under construction. Those homes with wall cladding installed have only neutral and natural cladding colours.

All homes have a double garage.

Eighty three percent of lots are not yet landscaped. The remaining 17% of lots are landscaped to an above average standard. Driveways that are installed are all exposed aggregate concrete type.

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

- 1) **Context Homes:** All existing neighbouring homes provide suitable architectural context for use at the subject site. Context homes include: 10546 - 159B Street, 10532 - 159B Street, 10526 - 159B Street, 10512 - 159B Street, 10508 - 159B Street, and 10513 - 159B Street. These homes meet new massing design standards in which various projections on the front of the home are proportionally consistent with one another, are well balanced across the façade, are visually pleasing, and are architecturally

interesting. These new homes provide an appropriate standard for future development in this area, and emulating the standards found on these homes will reinforce the desirable emerging trend. Therefore, new homes should be consistent in theme, representation and character with homes identified as context homes within the photos section of the character study.

- 2) **Style Character** : All homes in the immediate area are "West Coast Contemporary" style. 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-12 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** : All front entrance porticos are 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** : So far, only stucco with a clear stain horizontal cedar accent has been used. However, the building scheme for the site containing the homes under construction allows 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 2010 developments.
- 7) **Roof surface** : This is area in which all homes 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.
- 8) **Roof Slope** : Roof slopes of 8:12 or higher have been used on context homes. This is a suitable minimum roof slope given the objectives of ensuring continuity with context homes and to ensure that homes appear style-authentic within the proposed style range. Roof slopes of less than 8:12 has been used on feature projections for consistency with the West Coast Contemporary styling.



**Streetscape:** The area surrounding the subject site is comprised of vacant lots with native trees, vacant lots that have been recently serviced but not yet constructed on, and lots with new homes under construction. The new homes are 2800 sq.ft. "West Coast Contemporary" style Two-Storey type. All exhibit mid-scale massing characteristics and all have 1 ½ storey front entrances. Main roof forms are common gable type at an 8:12 slope, and all have shed roof projections ranging from flat to 5:12. Roof surfaces are shake profile asphalt shingles. Homes with cladding installed, are surfaced with stucco and clear stained horizontal cedar. Landscapes are not complete.

## 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 "West Coast Contemporary". 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 2000'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)**

Strong relationship with neighbouring "context homes" including 10546 - 159B Street, 10532 - 159B Street, 10526 - 159B Street, 10512 - 159B Street, 10508 - 159B Street, and 10513 - 159B Street, and with building scheme regulations for the adjacent site identified as Surrey project 7905-0165-00. Homes will therefore be in a compatible style range, including "West Coast Contemporary", "Neo-Traditional" and "Neo-Heritage" styles (note however that style range is not specifically regulated in the building scheme). New homes will have similar or better massing designs (equal or lesser massing scale, consistent proportionality between various elements, and balance of volume across the façade). New homes will have similar roof types, roof slope and roofing materials. Wall cladding, feature veneers and trim treatments will meet or exceed standards found on the aforesaid context homes.

**Exterior Materials/Colours:** Stucco, Cedar, Vinyl, Hardiplank, 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 are not recommended for this development, except on trim. “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 8:12.

**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.

**In-ground basements:** Permitted, subject to determination that service invert locations are sufficiently below grade. 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 40 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 minimum 17 shrubs of a minimum 3 gallon pot size. Corner lots shall have 25 shrubs of a 3 gallon pot size of which not less than 10 shrubs are planted in the flanking street sideyard. Sod from street to face of home. Driveways: exposed aggregate, interlocking masonry pavers, or stamped concrete.

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

**Summary prepared and submitted by:** Tynan Consulting Ltd. Date: July 23, 2015

**Reviewed and Approved by:**  Date: July 23, 2015

## Tree Preservation Summary

**Surrey Project No:**

**Address:** 10511 160TH STREET Surrey

**Registered Arborist:** Glenn Murray

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>32</b>
<b>Protected Trees to be Removed</b>	<b>32</b>
<b>Protected Trees to be Retained</b> (excluding trees within proposed open space or riparian areas)	<b>0</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 17 \quad} \times \text{one (1)} = 17</math></li> <li>- All other Trees Requiring 2 to 1 Replacement Ratio  <math>\underline{\quad 15 \quad} \times \text{two (2)} = 30</math></li> </ul>	<b>47</b>
<b>Replacement Trees Proposed</b>	<b>15</b>
<b>Replacement Trees in Deficit</b>	<b>32</b>
<b>Protected Trees to be Retained in Proposed [Open Space / Riparian Areas]</b>	

Off-Site Trees	Number of Trees
<b>Protected Off-Site Trees to be Removed</b>	<b>0</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{\hspace{2cm}} \times \text{one (1)} = 0</math></li> <li>- All other Trees Requiring 2 to 1 Replacement Ratio  <math>\underline{\hspace{2cm}} \times \text{two (2)} = 0</math></li> </ul>	<b>0</b>
<b>Replacement Trees Proposed</b>	
<b>Replacement Trees in Deficit</b>	<b>0</b>

Summary, report and plan prepared and submitted by:

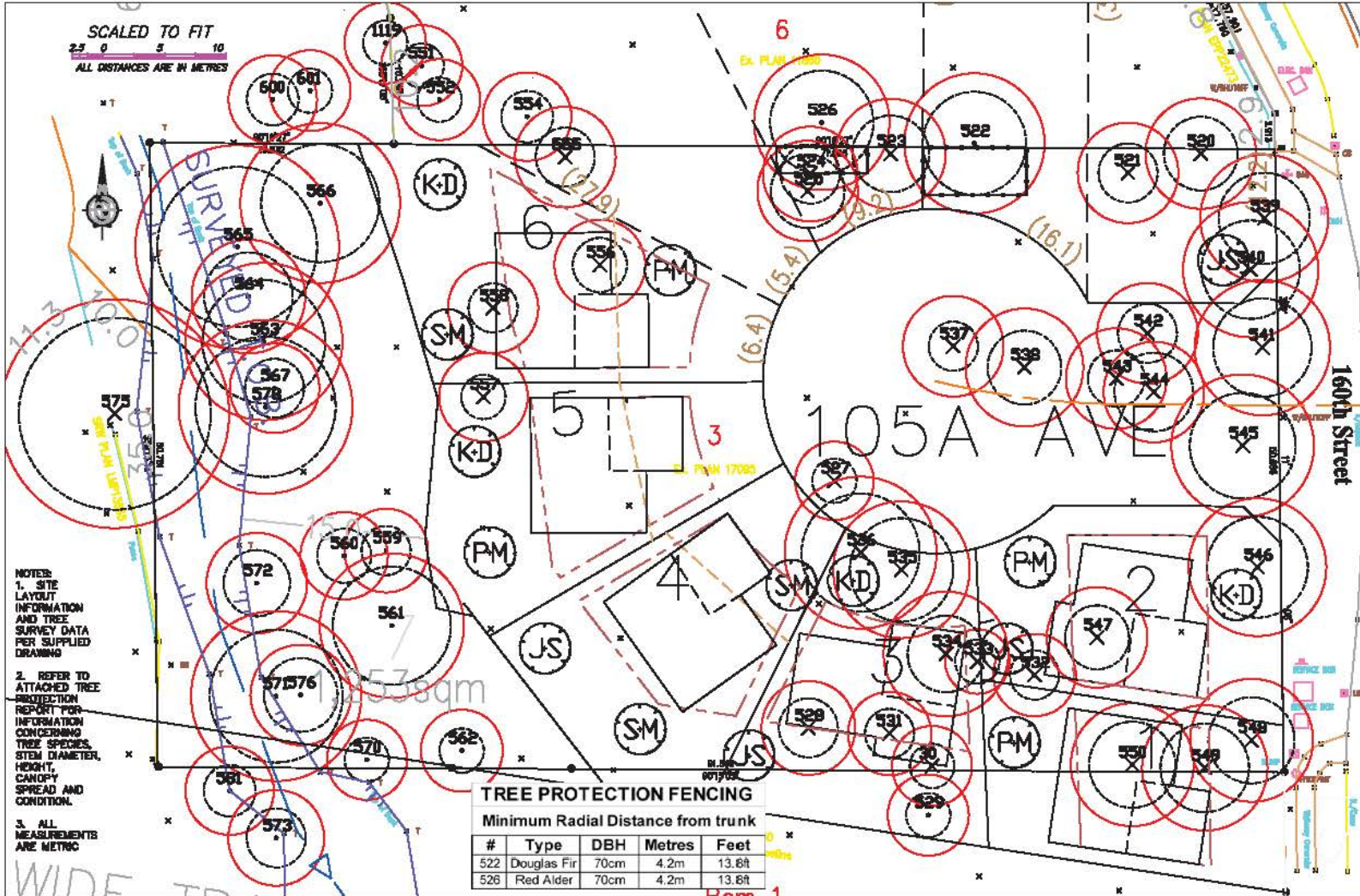


\_\_\_\_\_  
(Signature of Arborist)

25-Jun-15

\_\_\_\_\_  
Date

SCALED TO FIT  
2.5 0 5 10  
ALL DISTANCES ARE IN METRES



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

**TREE PROTECTION FENCING**

Minimum Radial Distance from trunk

#	Type	DBH	Metres	Feet
522	Douglas Fir	70cm	4.2m	13.8ft
526	Red Alder	70cm	4.2m	13.8ft

**LEGEND**

TREE PROPOSED FOR RETENTION



PROTECTION ZONE (MPZ)  
FENCING DIMENSIONS IN METRES  
PROTECTION FENCING  
NO FOUNDATION ZONE (NFZ)

TREE PROPOSED FOR REMOVAL



**Froggers Creek Tree Consultants Ltd**  
7783 McEwen Avenue Burnaby BC V5L 4M4  
Telephone: 604-781-8028 Fax: 604-437-0870  
18511 160th Street, Surrey

**TREE PROTECTION DRAWING**  
THE DRAWING PLOTS ALL TREES, PROPOSED FOR RETENTION, REMOVAL, THEIR CANOPIES, PROTECTION ZONES AND PROTECTION FENCING IN RELATION TO PROPOSED LAYOUT  
June 16, 2012

NOTES: PLANTS IN THE PLANT LIST ARE SPECIFIED ACCORDING TO THE LANDSCAPE CANADA GUIDE SPECIFICATIONS FOR NURSERY STOCK AND THE BCNA STANDARD FOR CONTAINER GROWN PLANTS.

ALL LANDSCAPING AND LANDSCAPE MATERIALS CONFORM TO THE LATEST EDITION OF THE BCNA/BCSLA "LANDSCAPE STANDARDS".

- (K-D)
- (PM)
- (JS)
- (SM)

**REPLACEMENT TREES**

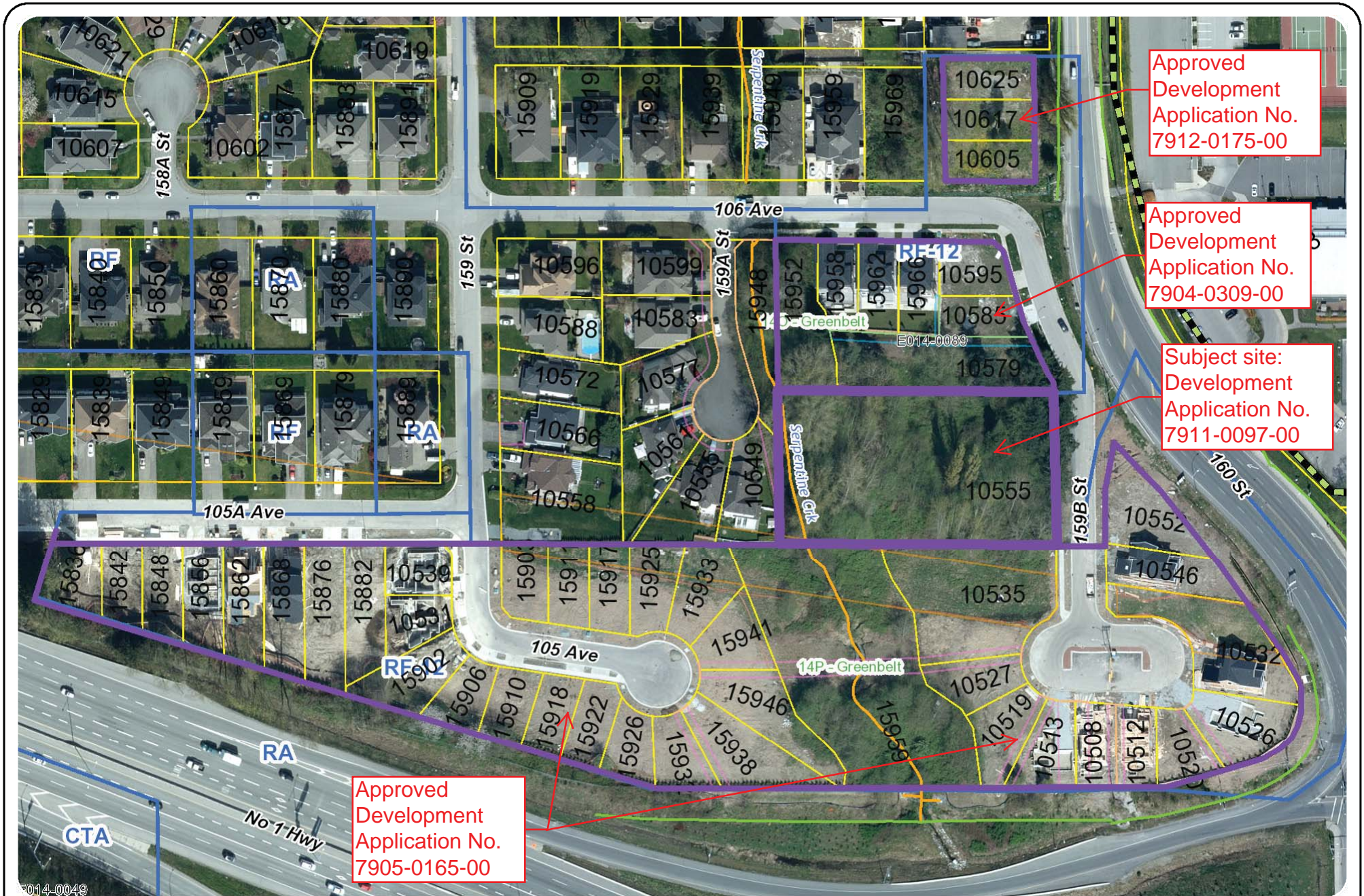
QTY	Type	Size
4	Kousa Dogwood	6cm
4	Paperbark Maple	6cm
4	Japanese Snowbell	6cm
3	Saucer Magnolia	6cm

**APPENDIX 3  
TREE PROTECTION PLAN**

**TREE INVENTORY**

#	Type	Action	DBH	MPZ	NBZ
30	Cottonwood	Remove	30cm	1.8m	3.3m
520	Douglas Fir	Remove	50cm	3.0m	4.5m
521	Red Alder	Remove	35/30cm	2.4m	3.9m
522	Douglas Fir	Retain	70cm	4.2m	5.7m
523	Red Alder	Remove	40cm	2.4m	3.9m
524	Red Alder	Remove	40cm	2.4m	3.9m
525	Red Alder	Remove	40/35cm	3.0m	4.5m
526	Red Alder	Retain	70cm	4.2m	5.7m
527	Paper Birch	Remove	30cm	1.8m	3.3m
528	Cottonwood	Remove	30/30cm	2.4m	3.9m
529	Cottonwood	Retain	30cm	1.8m	3.3m
531	Cottonwood	Remove	25/25cm	2.0m	3.5m
532	Red Alder	Remove	25/25cm	2.0m	3.5m
533	Cottonwood	Remove	30cm	1.8m	3.3m
534	Cottonwood	Remove	20/15/10	2.0m	3.5m
535	Lombardy Popl	Remove	70cm	4.2m	5.7m
536	Lombardy Popl	Remove	80cm	4.8m	6.3m
537	Apple	Remove	25/20cm	2.0m	3.5m
538	Western Redced	Remove	50cm	3.0m	4.5m
539	Douglas Fir	Remove	62cm	3.7m	5.2m
540	Douglas Fir	Remove	66cm	4.0m	5.5m
541	Douglas Fir	Remove	66cm	4.0m	5.5m
542	Red Alder	Remove	35/30cm	2.4m	3.9m
543	Douglas Fir	Remove	39cm	2.3m	3.8m
544	Douglas Fir	Remove	53cm	3.2m	4.7m
545	Douglas Fir	Remove	72cm	4.3m	5.8m
546	Douglas Fir	Remove	68cm	4.1m	5.6m
547	Cottonwood	Remove	44cm	2.8m	4.1m
548	Willow	Remove	59cm	3.5m	5.0m
549	Red Alder	Remove	60cm	3.6m	5.1m
550	Red Alder	Remove	45/45cm	3.5m	5.0m
551	Scot Pine	Retain	30cm	1.8m	3.3m
552	Scot Pine	Retain	30cm	1.8m	3.3m
553	Scot Pine	Retain	35cm	2.1m	3.6m
554	Bigleaf Maple	Retain	35cm	2.1m	3.6m
555	Bigleaf Maple	Remove	35/30cm	2.4m	3.9m
556	Red Alder	Remove	30/25/20	2.2m	3.7m
557	Cottonwood	Remove	30cm	1.8m	3.3m
558	Cottonwood	Remove	25/20/10	2.0m	3.5m
559	Red Alder	Retain	30/10cm	2.0m	3.5m
560	Red Alder	Retain	30/25cm	2.2m	3.7m
561	Cottonwood	Retain	80cm	4.8m	6.3m
562	Red Alder	Retain	30cm	1.8m	3.3m
563	Cottonwood	Retain	70/30cm	5.0m	6.5m
564	Cottonwood	Retain	60cm	3.6m	5.1m
565	Cottonwood	Retain	130/80cm	6.5m	8.0m
566	Bigleaf Maple	Retain	80cm	4.8m	6.3m
567	Cottonwood	Retain	40cm	2.4m	3.9m
570	Red Alder	Retain	30cm	1.8m	3.3m
571	Cottonwood	Retain	130cm	6.5m	8.0m
572	Willow	Retain	45cm	2.7m	4.2m
573	Red Alder	Retain	35/30cm	2.4m	3.9m
575	Cottonwood	Retain	130cm	7.8m	9.3m
576	Red Alder	Retain	50cm	3.0m	4.5m
578	Cottonwood	Retain	95cm	5.7m	7.2m
581	Red Alder	Retain	35cm	2.1m	3.6m
600	Scot Pine	Retain	35cm	2.1m	3.6m
601	Scot Pine	Retain	30cm	1.8m	3.3m
1119	Douglas Fir	Retain	30cm	1.8m	3.3m

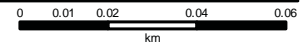
DBH- trunk diameter, MPZ- protection zone, NBZ- no build zone



Enter Map Description

Scale: 1:1,700

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Map created on: 07/12/2015