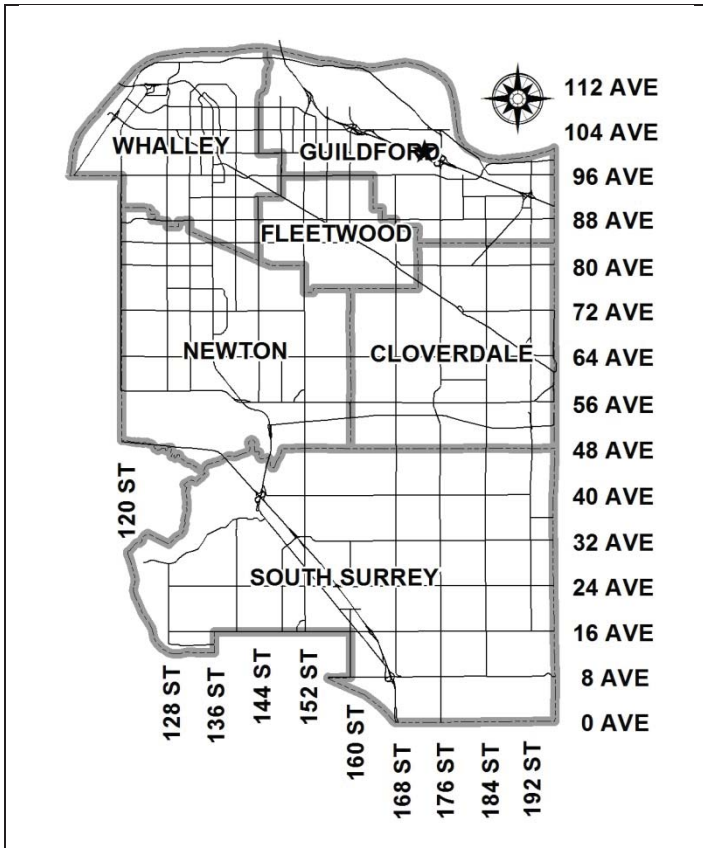


City of Surrey
PLANNING & DEVELOPMENT REPORT

File: 7916-0200-00

Planning Report Date: October 3, 2016

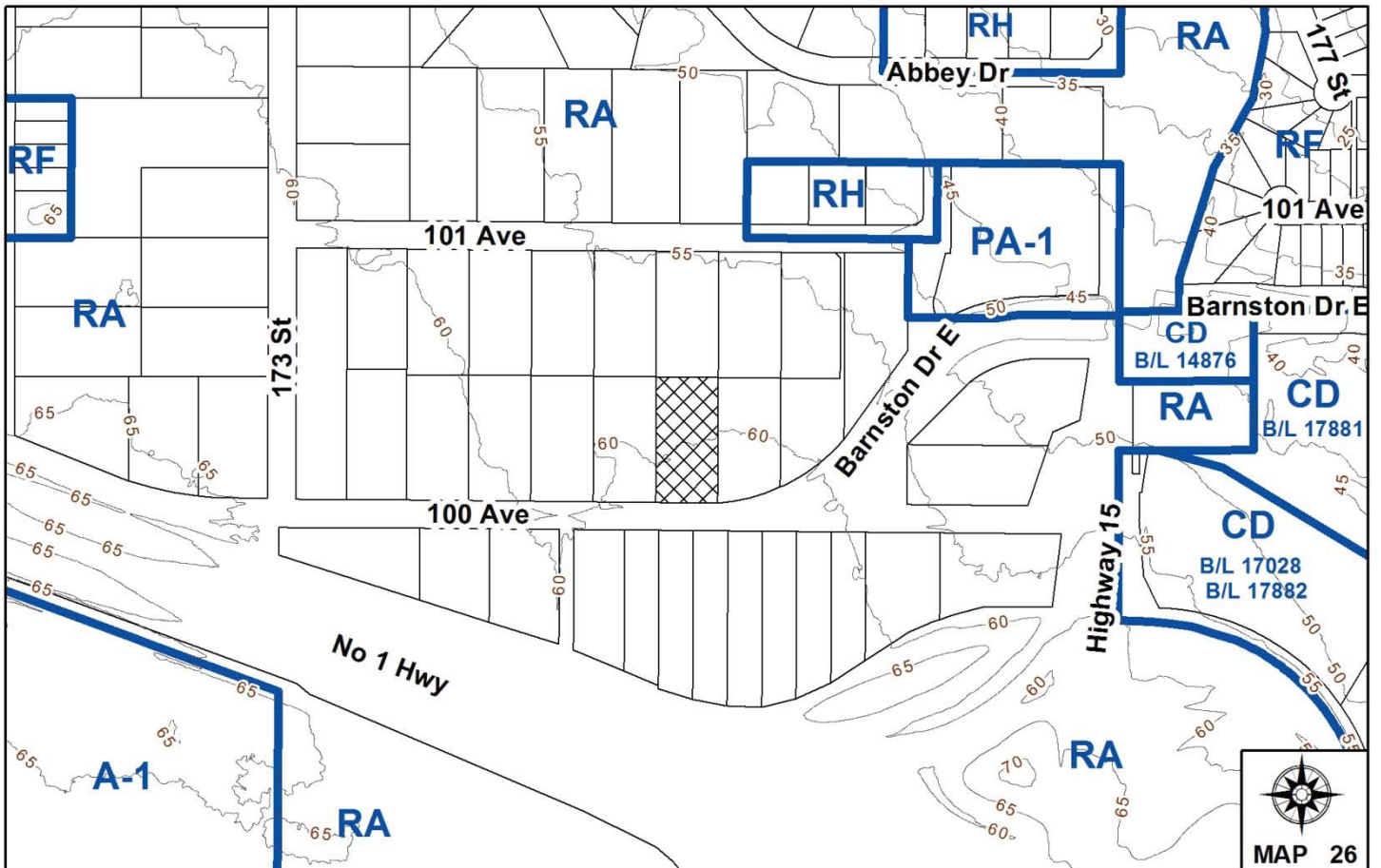


PROPOSAL:

- **OCP Amendment** from Suburban to Urban
- **Rezoning** from RA to RF

to allow subdivision into 5 single family lots.

LOCATION: 17443 - 100 Avenue
OWNER: Randy M Kulba
ZONING: RA
OCP DESIGNATION: Suburban
LAP DESIGNATION: Single Family Residential 4-6 upa
 (Stage 1 Abbey Ridge LAP)



RECOMMENDATION SUMMARY

- By-law Introduction and set date for Public Hearing for:
 - OCP Amendment; and
 - Rezoning.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- None.

RATIONALE OF RECOMMENDATION

- Complies with the Single Family Residential 4-6 upa Designation in the Abbey Ridge Local Area Plan (LAP), which received Stage 1 approval on December 14, 2015 (Corporate Report No. R243; 2015).

RECOMMENDATION

The Planning & Development Department recommends that:

1. a By-law be introduced to amend the Official Community Plan (OCP) by re-designating the subject site from Suburban to Urban and a date be set for Public Hearing.
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 subject site from "One-Acre Residential Zone (RA) " to "Single Family Residential Zone (RF)" and a date be set for Public Hearing.
4. Council instruct staff to resolve the following issues prior to final adoption:
 - (a) ensure that all engineering requirements and issues including restrictive covenants, dedications, and rights-of-way where necessary, are addressed to the satisfaction of the General Manager, Engineering;
 - (b) submission of a subdivision layout to the satisfaction of the Approving Officer;
 - (c) 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) demolition of existing buildings and structures to the satisfaction of the Planning and Development Department;
 - (f) the applicant satisfy the deficiency in tree replacement on the site, to the satisfaction of the Planning and Development Department; and
 - (g) Stage 2 approval of the Abbey Ridge Local Area Plan.

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 Bothwell Elementary School
 1 Secondary students at Fraser Heights Secondary School

(Appendix IV)

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

Ministry of Transportation & Infrastructure (MOTI): Preliminary approval of the rezoning is granted by MOTI for 1 year.

Kinder Morgan: Kinder Morgan has no objection to the project.

SITE CHARACTERISTICS

Existing Land Use: Residential acreage parcel with existing house, to be demolished, and Kinder Morgan gas right-of-way bisecting the most northerly portion.

Adjacent Area:

Direction	Existing Use	OCP/LAP Designation	Existing Zone
North:	Kinder Morgan ROW and Single family dwelling on 1-acre lot.	Suburban in OCP, Suburban Residential 2-4 UPA in LAP	RA
East:	Single family dwelling on 1-acre lot.	Suburban in OCP, Single Family Residential 4-6 UPA in LAP	RA
South (Across 100 Avenue):	Single family dwellings on 1-acre lots.	Suburban in OCP, Low Density Multiple Residential 10-15 UPA Gross in LAP	RA
West:	Single family dwelling on 1-acre lot.	Suburban in OCP, Single Family Residential 4-6 UPA in LAP	RA

DEVELOPMENT CONSIDERATIONS

Background

- The 0.41-hectare (1.0-acre) subject site is located on the north side of 100 Avenue in Fraser Heights within the area that comprises the Abbey Ridge Local Area Plan (LAP). The Abbey Ridge Plan area covers approximately 184 hectares (455 acres) of land north of Highway No. 1 and between the established Fraser Heights neighbourhood to the west and the Port Kells Industrial Area to the east.
- The Abbey Ridge Local Area Plan received Council's Stage 1 approval for the preferred land use concept on December 14, 2015 (Corporate Report No. R243; 2015).
- It is expected that the Stage 2 (Servicing) component of the Abbey Ridge LAP will be completed in the Fall of 2016, and that Council will have the opportunity to consider the Abbey Ridge LAP for final approval in Winter, 2016. In accordance with Council direction, development applications that conform to the approved Stage 1 plan will be received and processed but will not be finalized until the Stage 2 component is complete and the LAP is given final approval by Council.
- The subject site is designated "Suburban" in the Official Community Plan (OCP) and is zoned "One-Acre Residential Zone (RA)".
- The preferred land use designation for the subject site is Single Family Residential 4-6 UPA (units per acre) in the Abbey Ridge LAP.

Current Proposal

- The subject proposal includes an OCP amendment to redesignate the subject site from Suburban to Urban (see Appendix IX) and rezoning from "One-Acre Residential Zone (RA)" to "Single Family Residential Zone (RF)" to permit five (5) single family lots (see Appendix II).
- All of the proposed new lots conform to the minimum requirements of the RF Zone, with lot areas ranging from 560 square metres (6,028 sq. ft.) to 864 square metres (9,300 sq. ft.), lot widths ranging from 15 metres (50 ft.) to 17.9 metres (59 ft.), and lot depths ranging from 31 metres (102 ft.) to 40 metres (131 ft.).
- The rear portions of proposed Lots 4 and 5 are encumbered by a Trans Mountain right-of-way. The applicant's Design Consultant has provided an analysis of the lots and has confirmed that although the lots cannot accommodate houses with a maximum floor area ratio, the lots can accommodate reasonably-sized homes with functional floor plans without variances (Appendix VI).

Road Dedication Requirements

- The applicant proposes to provide access to all proposed lots via a new cul-de-sac (174 Place). The applicant will be required to dedicate and construct the 11.5 metres (38 ft.) required for the half road for the ultimate 17-metre (56-ft.) limited local standard. The remainder of the cul-de-sac will be delivered when the neighbouring property to the west redevelops.

- The applicant will also be required to construct 100 Avenue to the collector road standard and to register a 2.7-metre (9-ft.) wide statutory right-of-way for the multi-use pathway (MUP) along 100 Avenue.

Neighbourhood Character Study and Building Scheme

- The applicant for the subject site has retained Mike Tynan of Tynan Consulting Ltd. as the Design Consultant. The Design Consultant conducted a character study of the surrounding homes and based on the findings of the study, which suggest that the older housing stock in the area does not provide suitable architectural context, has proposed a set of building design guidelines that recommend an updated design standard (Appendix V).

Proposed Lot Grading

- Preliminary lot grading plans were prepared and submitted by Hub Engineering Inc. The plans have been reviewed by staff and are acceptable.
- Basements are proposed for all lots. Final confirmation on whether in-ground basements are achievable will be determined once final Engineering drawings have been reviewed and accepted by the City's Engineering Department.

PRE-NOTIFICATION

Pre-notification letters were sent out on July 26, 2016 to a total of 31 addresses and the development sign was installed on July 26, 2016. Staff received the following responses from two (2) respondents:

- One resident expressed concern that the applicant was proposing too much density for the area and they wish to see the neighbourhood remain larger suburban lots.

(The proposed density is consistent with the Single Family Residential 4-6 upa Designation in the Abbey Ridge Local Area Plan (LAP), which received Stage 1 approval on December 14, 2015 (Corporate Report No. R243; 2015).)

- One resident adjacent to the subject site wanted to ensure that the trees on their property would not be removed as part of the application.

(The applicant has submitted an Arborist Report and is not proposing to remove any shared trees.)

JUSTIFICATION FOR PLAN AMENDMENT

- The proposed Urban designation is consistent with the intended land uses in the Stage 1 Abbey Ridge LAP.
- It should be noted that once the Stage 2 LAP is approved for Abbey Ridge, Council will be requested to amend the OCP accordingly.

PUBLIC CONSULTATION PROCESS FOR 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.

TREES

- Nick McMahon, ISA Certified Arborist of Arbortech Consulting 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
Deciduous Trees			
Bigleaf Maple	3	3	0
Black Locust	3	2	1
English Walnut	1	1	0
Flowering Cherry	1	1	0
Pacific Dogwood	1	1	0
Coniferous Trees			
Austrian Pine	2	1	1
Douglas-Fir	7	7	0
Shore Pine	2	2	0
Western Red Cedar	4	4	0
Total	24	22	2
Total Replacement Trees Proposed (excluding Boulevard Street Trees)		11	
Total Retained and Replacement Trees		13	
Contribution to the Green City Fund		\$14,000	

- The Arborist Assessment states that there are a total of 24 mature trees on the site, none of which are Alder and Cottonwood trees. It was determined that 2 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.

- For those trees that cannot be retained, the applicant will be required to plant trees on a 2 to 1 replacement ratio. This will require a total of 44 replacement trees on the site. Since only 11 replacement trees can be accommodated on the site (based on an average of 3 trees per lot), the deficit of 33 replacement trees will require a cash-in-lieu payment of \$14,000 representing \$400 per tree, to the Green City Fund, in accordance with the City's Tree Protection By-law.
- In summary, a total of 13 trees are proposed to be retained or replaced on the site with a contribution of \$14,000 to the Green City Fund.

SUSTAINABLE DEVELOPMENT CHECKLIST

The applicant prepared and submitted a sustainable development checklist for the subject site on April 29, 2016. 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"> • Within the Abbey Ridge Stage 1 Plan area
2. Density & Diversity (B1-B7)	<ul style="list-style-type: none"> • N/A
3. Ecology & Stewardship (C1-C4)	<ul style="list-style-type: none"> • The development incorporates Low Impact Development Standards. • Some existing trees are proposed for retention.
4. Sustainable Transport & Mobility (D1-D2)	<ul style="list-style-type: none"> • N/A
5. Accessibility & Safety (E1-E3)	<ul style="list-style-type: none"> • The development incorporates CPTED principles, such as providing "eyes of the street".
6. Green Certification (F1)	<ul style="list-style-type: none"> • N/A
7. Education & Awareness (G1-G4)	<ul style="list-style-type: none"> • N/A

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.	Lots 4 & 5 Building Analysis
Appendix VII.	Summary of Tree Survey and Tree Preservation
Appendix VIII.	Abbey Ridge Stage 1 Plan
Appendix IX.	OCP Redesignation Map

original signed by Judith Robertson

Jean Lamontagne
General Manager
Planning and Development

LM/dk

SUBDIVISION DATA SHEET

Proposed Zoning: RF

Requires Project Data	Proposed
GROSS SITE AREA	
Acres	1 acre
Hectares	0.42 hectare
NUMBER OF LOTS	
Existing	1
Proposed	5
SIZE OF LOTS	
Range of lot widths (metres)	15 metres – 17.9 metres
Range of lot areas (square metres)	560 m ² – 864 m ²
DENSITY	
Lots/Hectare & Lots/Acre (Gross)	12.2 lots/hectare & 5 lots/acre
Lots/Hectare & Lots/Acre (Net)	14.7 lots/hectare & 5.9 lots/acre
SITE COVERAGE (in % of gross site area)	
Maximum Coverage of Principal & Accessory Building	38%
Estimated Road, Lane & Driveway Coverage	27%
Total Site Coverage	65%
PARKLAND	
Area (square metres)	N/A
% of Gross Site	N/A
Required	
PARKLAND	
5% money in lieu	YES
TREE SURVEY/ASSESSMENT	
	YES
MODEL BUILDING SCHEME	
	YES
HERITAGE SITE Retention	
	NO
FRASER HEALTH Approval	
	NO
DEV. VARIANCE PERMIT required	
Road Length/Standards	NO
Works and Services	NO
Building Retention	NO
Others	NO

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

FROM: **Development Project Engineer, Engineering Department**

DATE: **September 28, 2016** PROJECT FILE: **7816-0200-00**

RE: **Engineering Requirements
Location: 17443 100 Ave**

OCP AMENDMENT

There are no engineering requirements relative to the OCP Amendment.

REZONE/SUBDIVISION

Property and Right-of-Way Requirements

- Dedicate 1.942 m along 100 Avenue toward 24.0 m Collector Road allowance.
- Dedicate 11.5 m along 174 Place toward Half Road allowance for ultimate 17.0 m Limited Local Road allowance, including 14.0 m radius cul-de-sac.
- Dedicate 3.0 m x 3.0 m corner cut at 100 Avenue.
- Register a 2.7 m statutory right-of-way (SRW) along 100 Avenue.
- Register a 0.5 m SRW along 174 Place.

Works and Services

- Construct the north side of 100 Avenue to Collector Road standard with multi-use path.
- Construct 174 Place to Limited Local Road standard including 11.0 m cul-de-sac bulb.
- Construct drainage, sanitary and water main to service the proposed development.
- Provide on-site stormwater mitigation as per Bon Accord-North Slope Integrated Stormwater Management Plan.
- Provide water, storm, and sanitary service connections to each lot.

A Servicing Agreement is required prior to rezoning and subdivision.



Rémi Dubé, P.Eng.
Development Services Manager

MB



Wednesday, August 10, 2016
 Planning

THE IMPACT ON SCHOOLS

APPLICATION #: 16 0200 00

SUMMARY

The proposed **5 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:	1

September 2015 Enrolment/School Capacity

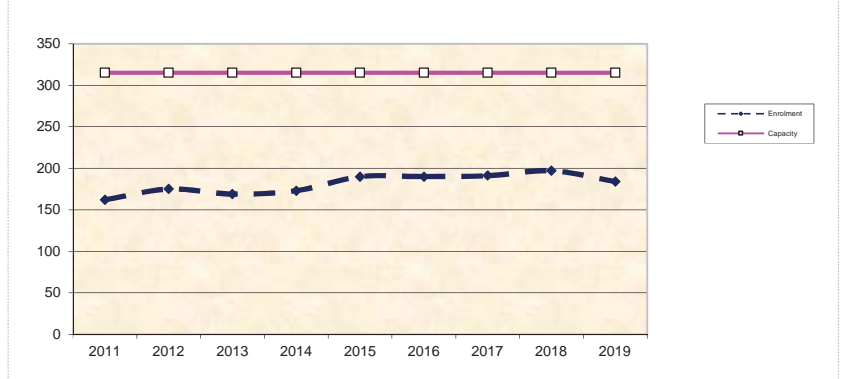
Bothwell Elementary	
Enrolment (K/1-7):	23 K + 167
Capacity (K/1-7):	40 K + 275
Fraser Heights Secondary	
Enrolment (8-12):	1382
Nominal Capacity (8-12):	1250
Functional Capacity*(8-12):	1350

School Enrolment Projections and Planning Update:

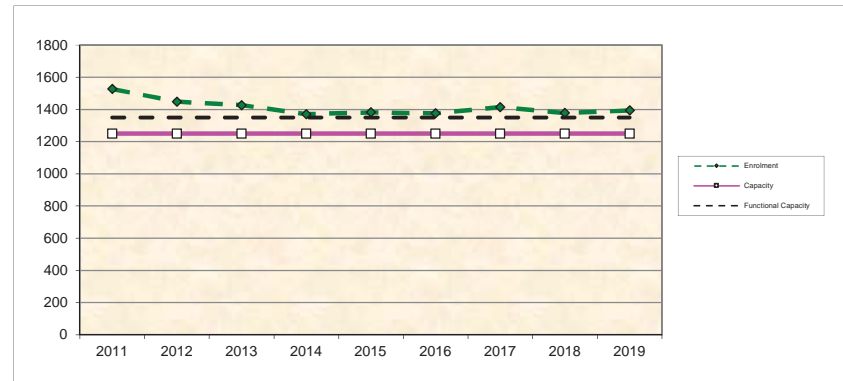
The following tables illustrate the enrolment projections (with current/approved ministry capacity) for the elementary and secondary schools serving the proposed development.

There is enough space at Bothwell Elementary to accommodate additional enrolment. An addition to Fraser Heights Secondary was completed in April 2014, increasing the school's nominal capacity from 1000 to 1200 + Neighbourhood Learning Centre. Fraser Heights Secondary still has some capacity constraints. With the potential increase in residential development associated with the Abbey Ridge Local Area Plan, the school district is currently evaluating future capital requests for this area.

Bothwell 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: 7916-0200-00
 Project Location: 17443 - 100 Avenue, 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:

This area was built out over a time period spanning from the 1950's to the 1970's. The age distribution from oldest to newest is: 1950's (21%), 1960's (21%), and 1970's (57%). All homes in this area have a floor area in the 1000 - 2500 sq.ft. size range. Home size distribution is: under 1000 sq.ft. (14%), 1000 - 1500 sq.ft. (36%), 1501 - 2000 sq.ft. (14%), and 2001 - 2500 sq.ft. (36%). Styles found in this area include: "Old Urban" (57%), "West Coast Traditional (Heritage emulation)" (7%), "West Coast Traditional" (21%), and "Rural Heritage" (14%). Home types include: Bungalow (50%), 1 ½ Storey (7%), Basement Entry (14%), and Cathedral Entry (29%).

Massing scale (front wall exposure) characteristics include: Low mass structure (50%), Mid-scale massing (14%), Mid to high scale massing (14%), Mid-to-high scale massing with proportionally consistent, well balanced massing design (7%), and high scale, box-like massing (14%). The scale (height) range for front entrance structures include: one storey front entrance (71%), one storey front entrance veranda in heritage tradition (14%), and 1½ storey front entrance (14%).

The range of roof slopes found in this area is: 2:12 (7%), 3:12 (7%), 4:12 (29%), 5:12 (36%), 6:12 (14%), and 7:12 (7%). Main roof forms (largest upper floor truss spans) include: main common hip roof (7%), main common gable roof (86%), and shed roof (7%). Feature roof projection types include: none (47%), Common Hip (7%), Common Gable (33%), and Shed roof (13%). Roof surfaces include: Tar and gravel (7%), Roll roofing (7%), Interlocking tab type asphalt shingles (14%), Rectangular profile type asphalt shingles (36%), Shake profile asphalt shingles (29%), and Cedar shingles (7%).

Main wall cladding materials include: horizontal cedar siding (29%), horizontal Waney edge cedar siding (14%), vertical channel cedar siding (7%), aluminum siding (21%), horizontal vinyl siding (14%), vertical vinyl siding (7%), and stucco cladding (7%). Feature wall trim materials used on the front facade include: No feature veneer (50%), Brick feature veneer (36%), Stone feature veneer (7%), and Horizontal cedar accent (7%). Wall cladding and trim colours include: Neutral (38%), Natural (52%), and Primary derivative (10%).

Covered parking configurations include: No covered parking (33%), Single carport (20%), Double carport (13%), Single vehicle garage (20%), and Double garage (13%). Driveway surfaces include: gravel (21%), and asphalt (79%).

A variety of landscaping standards are evident, ranging from "primarily natural state" to "average modern urban" (14%). Overall, landscapes are not considered contextually relevant to a post year 2015 RF zone development.

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

- 1) **Context Homes:** The housing stock in the area surrounding the subject site does not provide suitable architectural context for a post year 2015 RF zone development. Massing scale, massing designs, roof designs, construction materials, and trim and detailing elements have improved significantly since most homes in this area were constructed. It is more sensible therefore, to use updated standards that result in reasonable compatibility with the older homes and also result in standards that improve over time, than it is to specifically emulate the older homes by building to the older standards.
- 2) **Style Character :** Most neighbouring homes can be classified as old urban homes that have massing designs and exterior trim and detailing standards that do not meet modern standards. House style is not an easy recognizable trait suitable for emulation. Note that style range is not specifically restricted in the building scheme.
- 3) **Home Types :** There are a wide range of home types evident, and so some flexibility is justified. 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 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 1½ 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, aluminum, stucco, 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 2015 RF zone developments.
- 7) **Roof surface :** A wide range of roof surfacing materials have been used in this area including cedar shingles, asphalt shingles, tar and gravel, roll roofing, metal. The roof surface is not a uniquely recognizable characteristic of this area and so flexibility in roof surface materials is warranted. The recommendation is to permit cedar shingles, shake profile concrete roof tiles, shake profile asphalt shingles with a raised ridge cap, and new environmentally sustainable roof products that have a strong shake profile.
- 8) **Roof Slope :** A significant number of neighbouring homes have low slope roofs that are not well suited to the proposed style range. Emulation of the low slope roof characteristic is therefore not recommended. Given the prevalence of low slope roofs in this area, roofs slopes of 6:12 or higher are recommended, with standard exceptions to allow lower slopes at verandas (so front windows at the upper floor can be of sufficient depth) and to ensure that roofs are not overly high, resulting in over-shadowing of neighbouring lots, or resulting in view corridor blockage. However, due to emerging trends in which contemporary designs are being increasingly sought, lower slope roofs could be approved subject to confirmation of the architectural integrity of the contemporary design, as determined by the consultant.

Streetscape: The area surrounding the development site is typical of many 1950's - 1970's old growth areas. Housing forms are small simple Bungalows, many with single mass roofs, or are Basement Entry or Cathedral Entry forms which appear high mass due to the economical practice of positioning the upper floor directly above the floor below thus exposing most or all of the upper floor to street views. Roof slopes range from 1:12 to 7:12. Most roofs are surfaced with asphalt shingles, but roll roofing, tar and gravel, and cedar shakes have also been used. Walls are clad in vinyl, cedar, or stucco. Masonry accents have been used on less than half of the homes. Trim and detailing standards are modest. Landscape standards are also modest.

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”, “Contemporary”, or compatible style 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 2015'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)

Existing neighbouring homes do not provide suitable context for the proposed RF type homes at the subject site. Interfacing treatments are therefore not contemplated. Rather, massing design, construction materials, and trim element treatments will meet or exceed standards commonly found in RF developments constructed in Surrey subsequent to the year 2015.

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:** Cedar shingles, shake profile concrete roof tiles, shake profile asphalt shingles with a raised ridge cap, and new environmentally sustainable roofing products should be permitted, providing that the aesthetic properties of the new materials are equal to or better than that of the traditional roofing products. Greys, black, or browns only. Membrane roofs permitted where required by B.C. Building Code.
- 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 20 shrubs of a minimum 3 gallon pot size. Corner lots shall have an additional 10 shrubs of a minimum 3 gallon pot size, planted in the flanking street sideyard. 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.

Compliance Deposit: \$5,000.00

Summary prepared and submitted by: Tynan Consulting Ltd. **Date:** August 8, 2016

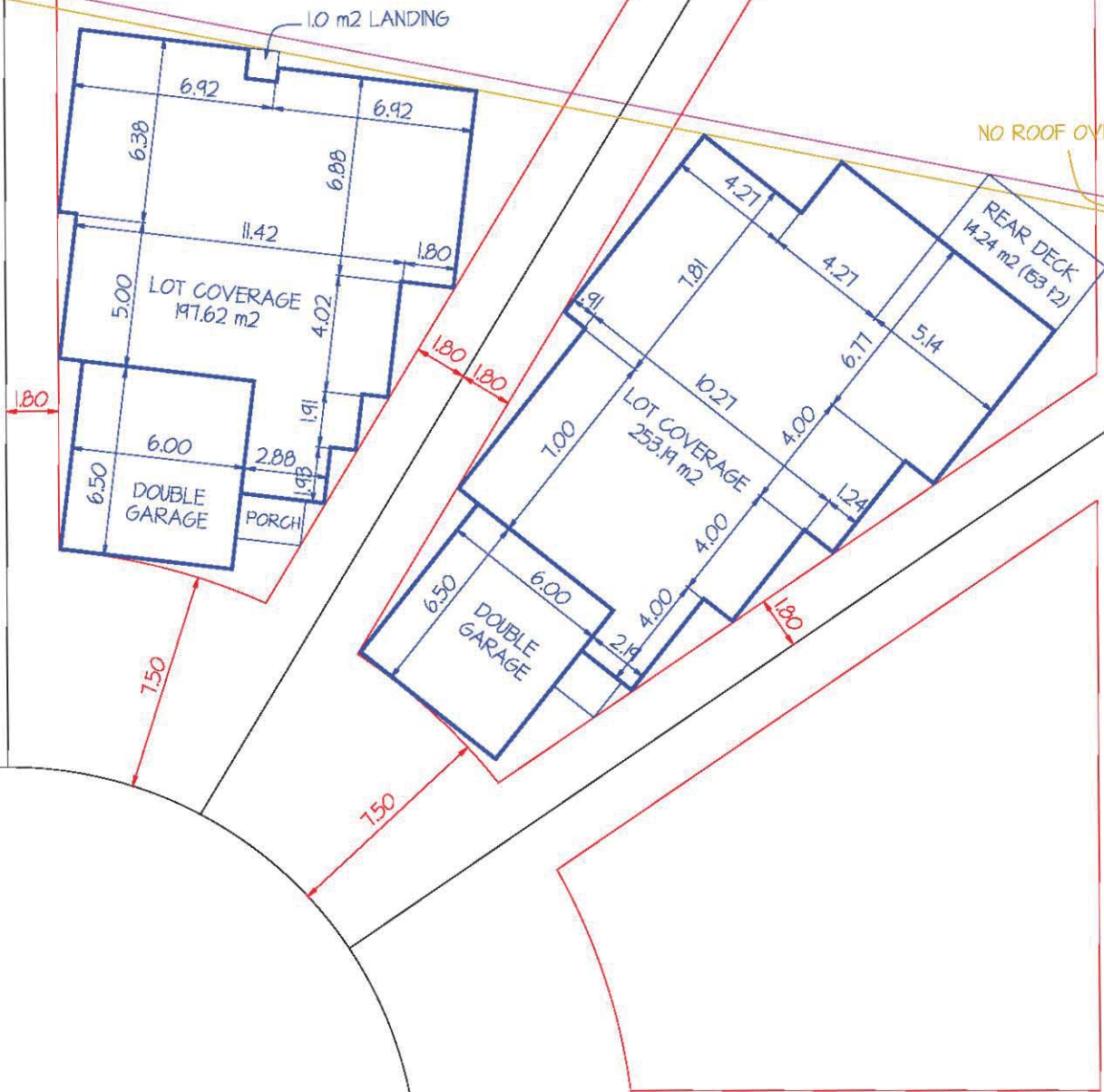
Reviewed and Approved by:  **Date:** August 8, 2016

5 807.4 m²

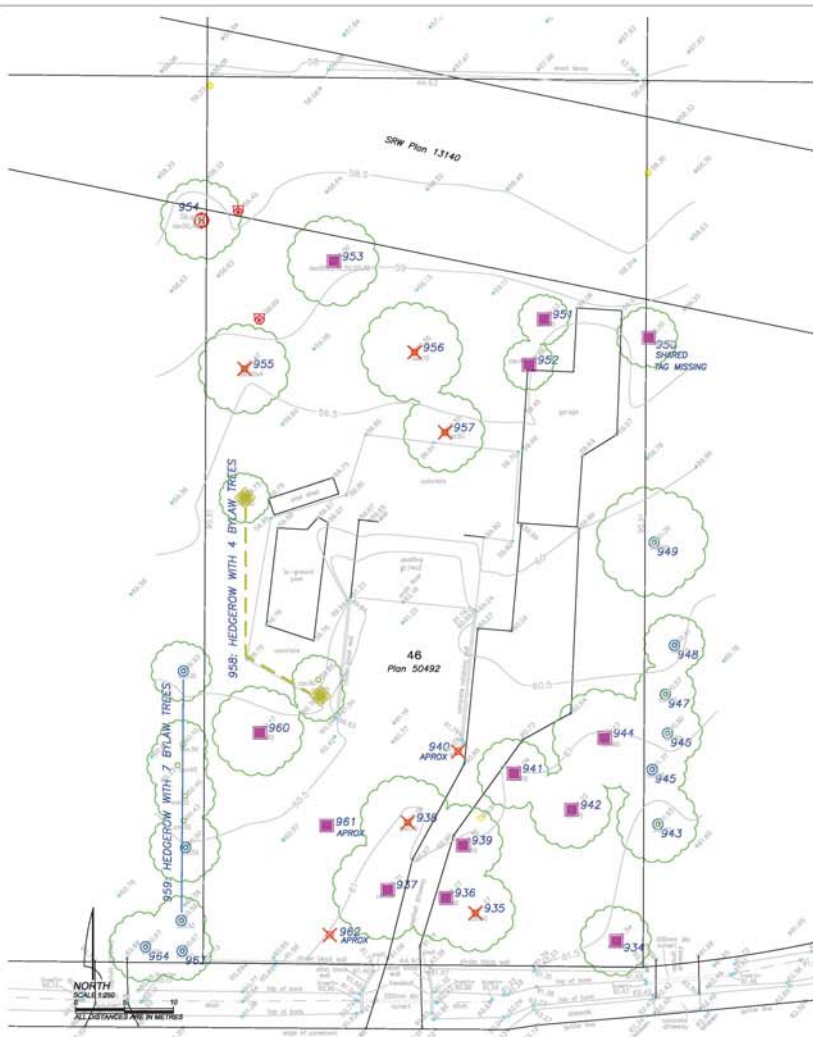
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864.5 m²

SRW PLAN 13140



3



TREE ASSESSMENT DETAIL - SURVEY BASE

TREE PLANTING GUIDELINES:

1. CONCEPT DESIGN
 The tree planting plan shall be based on a detailed site survey and assessment of the site conditions. The tree planting plan shall be based on the following principles:
 a. The tree planting plan shall be based on the site survey and assessment of the site conditions.
 b. The tree planting plan shall be based on the site survey and assessment of the site conditions.
 c. The tree planting plan shall be based on the site survey and assessment of the site conditions.

2. SITE PREPARATION
 The tree planting plan shall be based on the site survey and assessment of the site conditions. The tree planting plan shall be based on the following principles:
 a. The tree planting plan shall be based on the site survey and assessment of the site conditions.
 b. The tree planting plan shall be based on the site survey and assessment of the site conditions.
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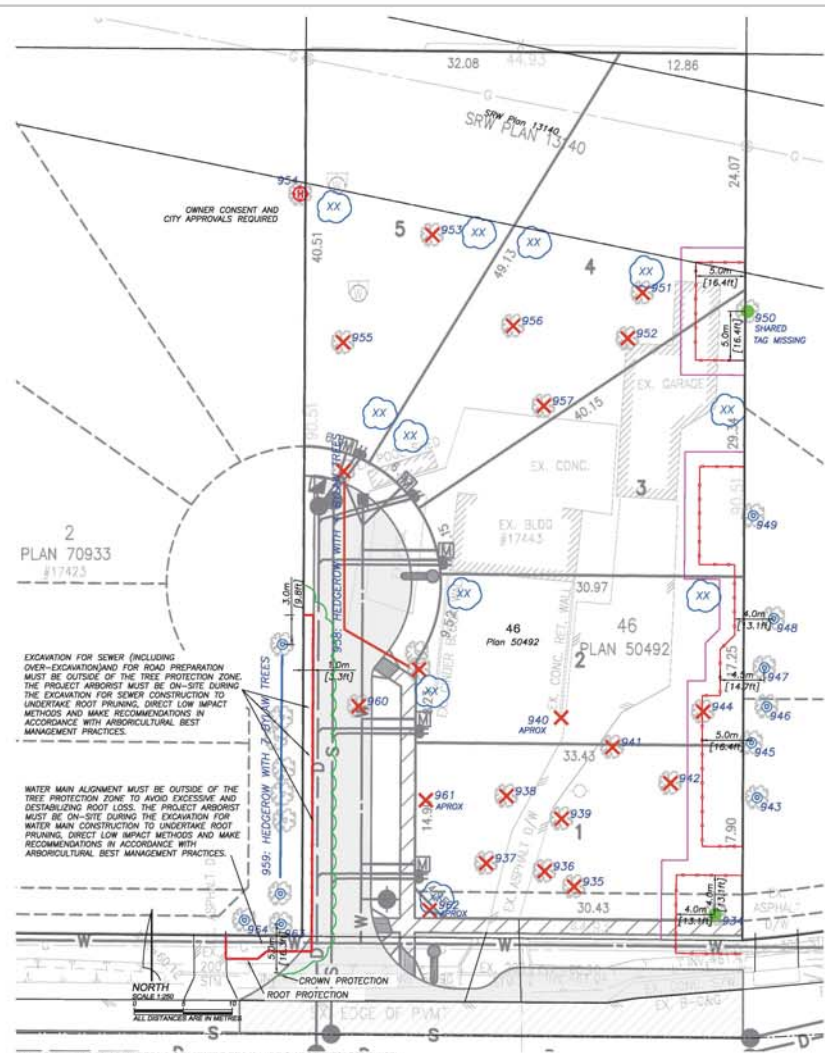
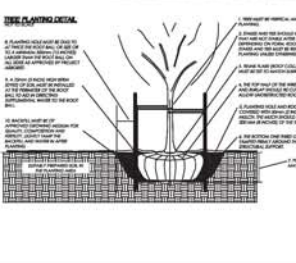
3. PLANTING
 The tree planting plan shall be based on the site survey and assessment of the site conditions. The tree planting plan shall be based on the following principles:
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 b. The tree planting plan shall be based on the site survey and assessment of the site conditions.
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4. MAINTENANCE
 The tree planting plan shall be based on the site survey and assessment of the site conditions. The tree planting plan shall be based on the following principles:
 a. The tree planting plan shall be based on the site survey and assessment of the site conditions.
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 c. The tree planting plan shall be based on the site survey and assessment of the site conditions.

5. MONITORING
 The tree planting plan shall be based on the site survey and assessment of the site conditions. The tree planting plan shall be based on the following principles:
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 b. The tree planting plan shall be based on the site survey and assessment of the site conditions.
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SUGGESTED PLANT LIST - RECOMMENDED TREES

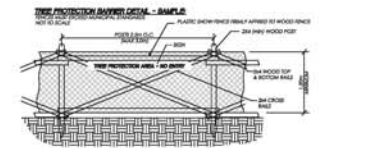
CODE	GENUS	SPECIES	RECOMMENDATION
T01	Quercus	Q. robur	Native tree
T02	Quercus	Q. petraea	Native tree
T03	Quercus	Q. agrifolia	Native tree
T04	Quercus	Q. ilex	Native tree
T05	Quercus	Q. pubescens	Native tree
T06	Quercus	Q. robur	Native tree
T07	Quercus	Q. petraea	Native tree
T08	Quercus	Q. agrifolia	Native tree
T09	Quercus	Q. ilex	Native tree
T10	Quercus	Q. pubescens	Native tree
T11	Quercus	Q. robur	Native tree
T12	Quercus	Q. petraea	Native tree
T13	Quercus	Q. agrifolia	Native tree
T14	Quercus	Q. ilex	Native tree
T15	Quercus	Q. pubescens	Native tree
T16	Quercus	Q. robur	Native tree
T17	Quercus	Q. petraea	Native tree
T18	Quercus	Q. agrifolia	Native tree
T19	Quercus	Q. ilex	Native tree
T20	Quercus	Q. pubescens	Native tree



TREE RETENTION AND REPLACEMENT DETAIL - PROJECT DESIGN BASE

TREE PROTECTION ZONE RESTRICTIONS:

RESTRICTIONS IN THE TREE PROTECTION ZONE:
 No excavation, drilling, or other work within the CPZ and/or within 1.0m of the RPZ requires permits or approval from the project arborist, and may include on-site direction or supervision from the project arborist. General restrictions in the RPZ are as follows:
 • No soil (fill, concrete, surface or to any depth) including trenching, stripping of overburden, excavation, or placement, etc.
 • No storage of soil, spoil, gravel, construction material, waste material, etc.
 • No use of machinery (excavator, digger, drill, etc.) or other potentially harmful machinery.
 • No storage or collection of vehicles or equipment.
 • No use of any other equipment or machinery.
 • No lighting signs, cables or any other device installed in the zone.
 • No unauthorised parking or cutting of overhead lines.



LEGEND:

--- denotes SITE or STUDY AREA BOUNDARY.

TREE DATA AND VIABILITY RATINGS (ON-SITE TREES ONLY):

/// denotes TAG NUMBER or ID REFERENCE.

● denotes tree in **SUITABLE CONDITION** (rehabilitate if design can accommodate it).

■ denotes tree in **MARGINAL CONDITION** (possible candidate subject to design and other conditions).

✗ denotes tree in **UNSATISFACTORY CONDITION** (not suitable for retention).

TREE MANAGEMENT IN PROJECT:

● denotes **RETENTION** tree (protection measures required).

✗ denotes **REMOVAL** tree (permit may be required).

✗ denotes **HIGH RISK REMOVALS** tree (permit may be required).

● denotes **OFF-SITE** tree (see report for treatment).

● denotes **NON-STILB** understore tree (as measured by arborist).

TREE PROTECTION SPECIFICATIONS:

--- denotes **CROWN PROTECTION ZONE - CPZ** (deline extends to edge of canopy).

--- denotes **TREE ROOT PROTECTION ZONE - RPZ** (alignment for BARRIERS. Direct tree protection to 0.6m from curb, 0.3m from sidewalk and to delineate extent).

--- denotes **WORKING SPACE SETBACK (WSS)** (1.5m offset from RPZ or as specified by project arborist for **MANAGED WORK ACTIVITIES** with Project Arborist coordination and supervision).

TREE REPLACEMENT:

● denotes **REPLACEMENT TREE** (proposed) (conceptual location - see plant list for details).

ARBORTECH CONSULTING

11445 100 AVE, SURREY, BC V4A 4V4

TEL: 604 271 5484

TREE MANAGEMENT DRAWING

PROJECT: PROPOSED SUBDIVISION

ADDRESS: 11445 100 AVE, SURREY

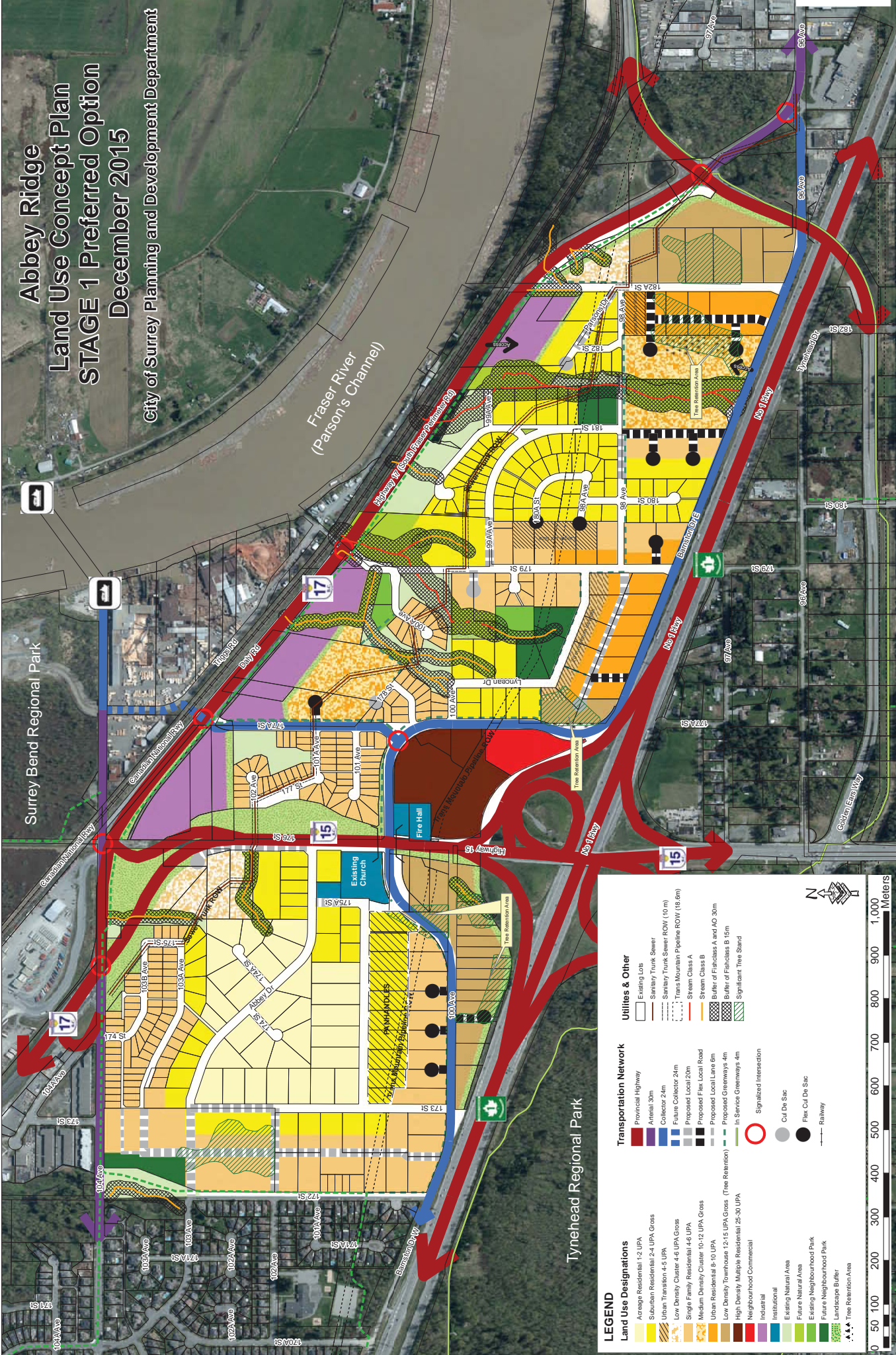
CLIENT: AP CAPITAL

ACR FILE: 12654

SHEET: 1 OF 1

Abbey Ridge Land Use Concept Plan STAGE 1 Preferred Option December 2015

City of Surrey Planning and Development Department



LEGEND

Land Use Designations

- Average 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
- Low Density Townhouse 12-15 UPA Gross (Tree Retention)
- High Density Residential 25-30 UPA
- Neighbourhood Commercial
- Industrial
- Existing Natural Area
- Future Natural Area
- Existing Neighbourhood Park
- Future Neighbourhood Park
- Landscaped Buffer
- Tree Retention Area

Transportation Network

- Provincial Highway
- Arterial 30m
- Collector 24m
- Future Collector 24m
- Proposed Local 20m
- Proposed Flex Local Road
- Proposed Local Lane 6m
- In Service Greenways 4m
- Neighbourhood Greenways 4m
- Signaled Intersection
- Cul De Sac
- Flow Ctl. Dr. S/C
- Railway

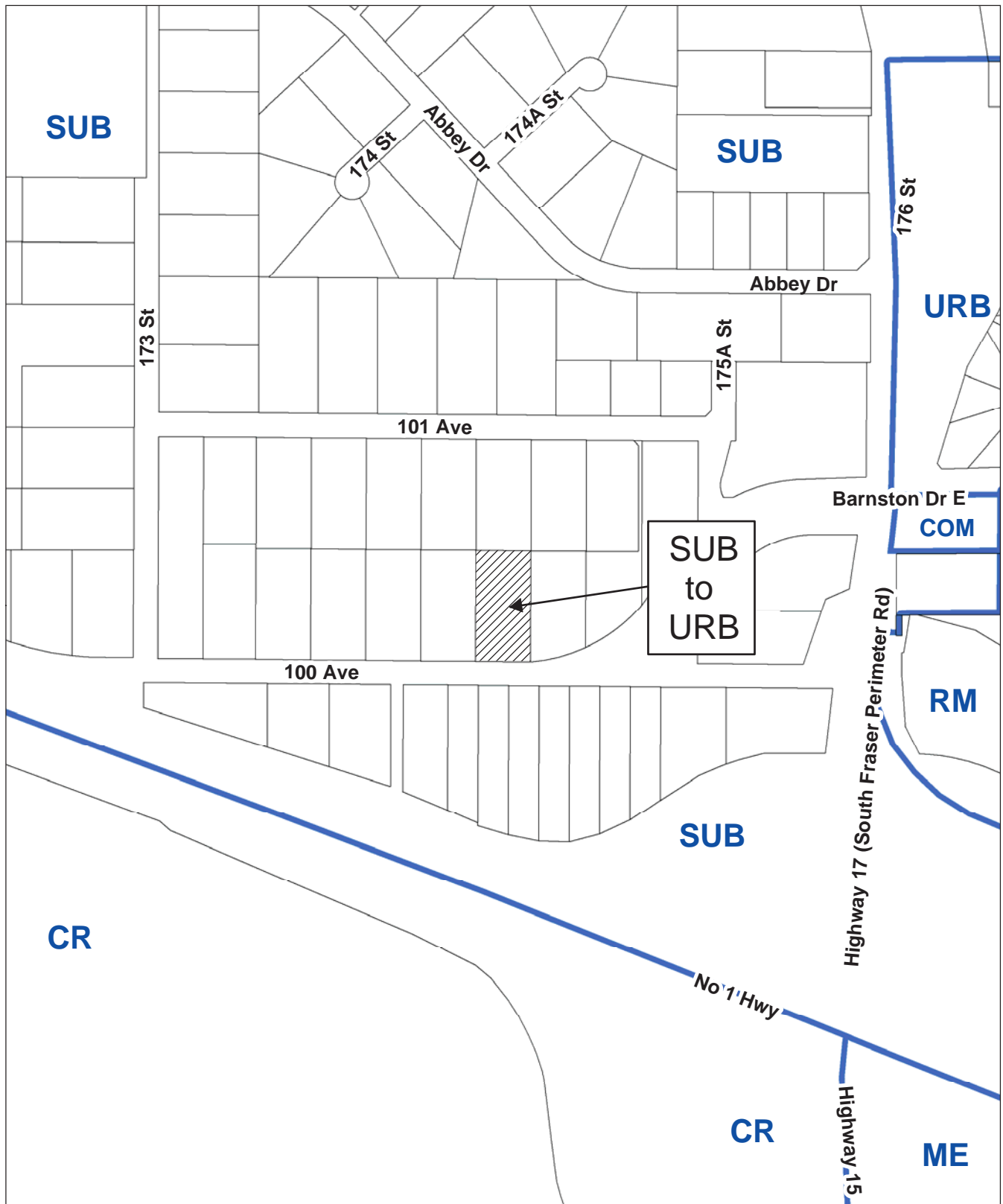
Utilities & Other

- Existing Lots
- Sanitary Trunk Sewer
- Sanitary Trunk Sewer ROW (10 m)
- Trans Mountain Pipeline ROW (18.6m)
- Stream Class A
- Stream Class B
- Buffer of Franchise A and AO 30m
- Buffer of Franchise B 15m
- Significant Tree Stand

Scale: 0 50 100 200 300 400 500 600 700 800 900 1,000 Meters

North Arrow

V:\Projects\2015\201505\201505_FRASER_HELDISE.ctb /Drawn: j.hughes, AAbbey, R.Bogdanov, USE_1244



OCP Amendment 7916-0200-00

Proposed amendment from Suburban to Urban

