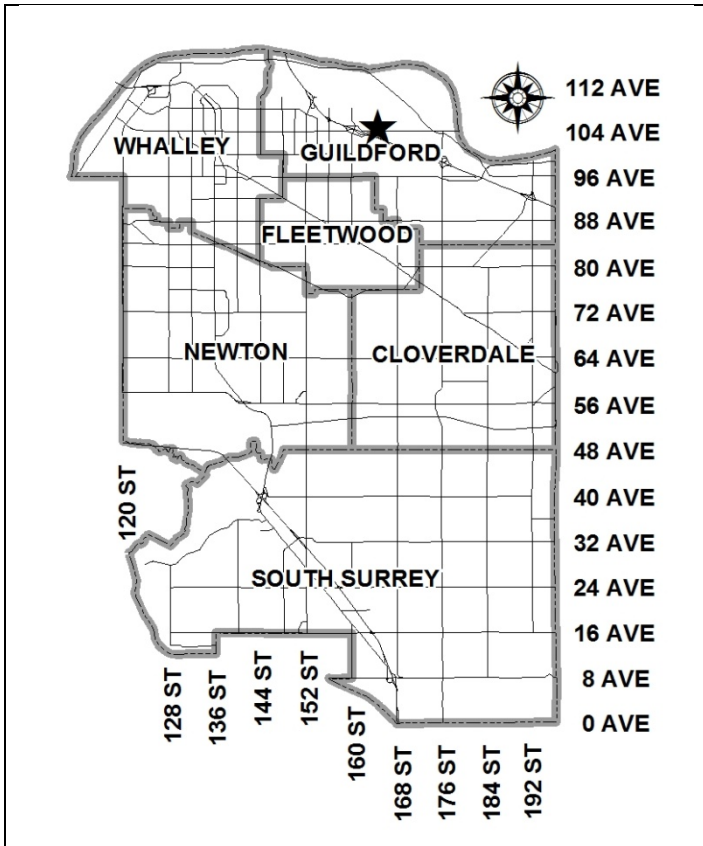


City of Surrey
PLANNING & DEVELOPMENT REPORT

File: 7912-0209-00

Planning Report Date: May 6, 2013



PROPOSAL:

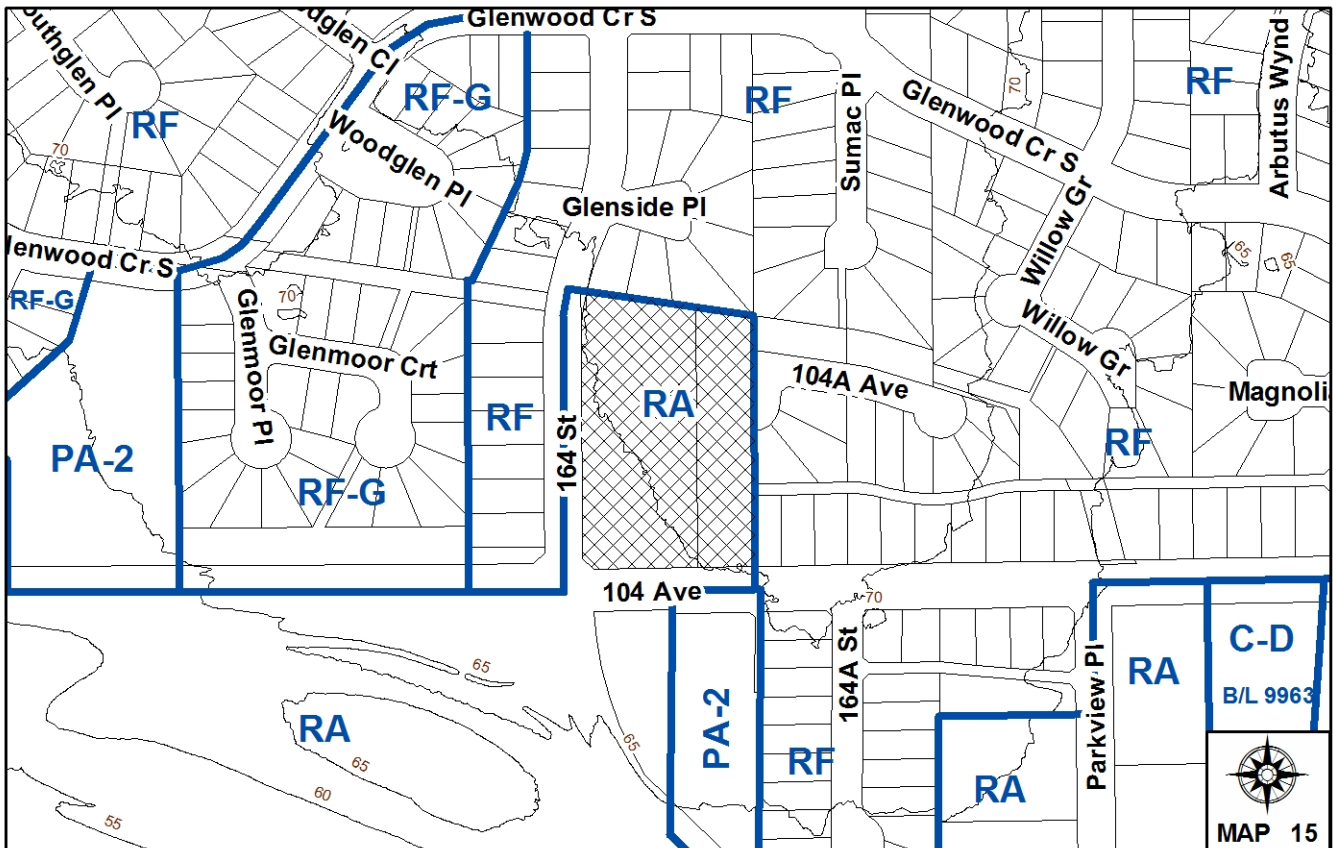
- **Rezoning** from RA to RF in order to permit a subdivision into fifteen (15) single family lots and one remainder lot.

LOCATION: 16443 - 104 Avenue
 16413 - 104 Avenue

OWNER: 0953759 B.C. Ltd.

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 OCP Designation.
- Completes the single family neighbourhood in this portion of Fraser Heights.
- Will provide the connection of 104A Avenue to 164 Street and will enable the closure of the existing temporary access from 104 Avenue along the east property line.
- Facilitates the completion of the Fraser Heights Greenway in this 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 Zone (RF)" (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 & Infrastructure;
 - (d) approval from Kinder Morgan;
 - (e) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;
 - (f) the applicant address the concern that the development will place additional pressure on existing park facilities to the satisfaction of the General Manager, Parks, Recreation and Culture;
 - (g) demolition of existing buildings and structures to the satisfaction of the Planning and Development Department;
 - (h) registration of a Section 219 Restrictive Covenant for "no build" on a portion of proposed Lot 1 until future consolidation with the adjacent property (16456 - 104A Avenue) and removal of the temporary access road; and
 - (i) the applicant address the deficiency in tree replacement, to the satisfaction of the City Landscape Architect.

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

5 Elementary students at Fraser Wood School
2 Secondary students at Fraser Heights School

(Appendix IV)

The applicant has advised that the dwelling units in this project are expected to be constructed and ready for occupancy by March 2014.

Parks, Recreation & Culture: Parks will require cash-in-lieu for the 5% parkland requirement and will subsequently purchase proposed Lot 16, encumbered by the Kinder Morgan oil pipeline, for the Fraser Heights Greenway.

Parks, Recreation and Culture has concerns with the pressure the project will place on existing parks and recreation facilities in the area.

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

Kinder Morgan: No concerns.

SITE CHARACTERISTICS

Existing Land Use: Distinctive Floral Wholesale Ltd. which will be removed. The northern portion of the subject lot is encumbered by the Kinder Morgan oil pipeline.

Adjacent Area:

Direction	Existing Use	OCP Designation	Existing Zone
North:	Single family dwellings.	Urban	RF
East:	Single family dwellings.	Urban	RF
South (Across 104 Avenue):	Vacant lands.	Urban	RA and PA-2
West (Across 164 Street):	Single family dwellings.	Urban	RF

DEVELOPMENT CONSIDERATIONS

- The subject site includes two properties at 16413 and 16443 – 104 Avenue, located on the north-east corner of 104 Avenue and 164 Street in Fraser Heights.
- The 1.28-hectacre (3.16-acre) subject site is designated Urban in the Official Community Plan (OCP) and is currently zoned "One-Acre Residential Zone (RA)".
- The applicant is proposing to rezone the subject site from "One-Acre Residential Zone (RA)" to "Single Family Residential Zone (RF)" to allow for the development of fifteen (15) single family lots and one remainder lot.
- All of the proposed lots conform to the minimum requirements of the RF Zone in terms of lot width (16.2 metres/53 ft.), depth (28 metres/92 ft.) and area with lot areas ranging from 560 square metres (6,028 sq. ft.) to 599 square metres (6,448 sq. ft.).
- The subject site is the last block of land along 164 Street, north of 104 Avenue in Fraser Heights to be redeveloped. The proposed development completes the existing road network in the area and continues the subdivision pattern already established on the lands to the east.

Fraser Heights Greenway

- The subject site is encumbered by a right-of-way for the Kinder Morgan oil pipeline, which runs along the northern edge of the subject site.
- The Fraser Heights Greenway is located within this right-of-way on properties to the east and west of the subject site. To facilitate the continuation of this established greenway, the applicant will provide 5% cash-in-lieu of parkland dedication, as part of this development, which will be used by the Parks, Recreation and Culture Department to acquire proposed Lot 16 from the developer in order to permit completion of this section of the greenway.

Vehicle Access

- Proposed Lots 1-5 lots will front 104 Avenue but, as 104 Avenue is an arterial road, no vehicle connection will be permitted from 104 Avenue to the proposed lots.
- As a result, the applicant is proposing to dedicate and construct an east-west lane parallel to 104 Avenue that will permit vehicle access to proposed Lots 1-10.
- Proposed Lots 11-15 will front onto, and gain access from, the proposed extension of 104A Avenue which currently terminates in a cul-de-sac bulb on the eastern edge of the subject site.
- Currently, the existing lots on the 104A Avenue cul-de-sac gain access to 104 Avenue from a temporary north-south access road that lies immediately adjacent to the eastern edge of the subject site.

- This temporary access road will remain open until such time as 104A Avenue is dedicated and constructed under the current application, which will provide a connection for both 104A Avenue and the existing rear lane to 164 Street.
- It is anticipated that once this temporary access road is removed, proposed Lot 1 will be able to consolidate with the adjoining lot at 16453 – 104 Avenue on which the temporary access road is located and will eventually subdivide into two new, RF lots at some time in the future.

Building Design Guidelines and Lot Grading

- 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, proposed a set of building design guidelines (Appendix V).
- Proposed Lots 4 and 5 will have approximately 0.5 metre (1.6 ft.) to 0.9 metre (3 ft.) of fill, proposed Lots 9 and 10 will have approximately 0.5 metre (1.6 ft.) to 0.7 metre (2.3 ft.) of fill and proposed Lot 11 will have approximately 0.5 metre (1.6 ft.) to 0.7 metre (2.3 ft.) of fill to achieve proper surface drainage and basements on all lots.
- A preliminary lot grading plan submitted by Hub Engineering Inc. has been reviewed by staff and found generally acceptable.

Tree Preservation and Replacement

- The applicant has submitted an arborist assessment prepared by Trevor Cox Arborist of Diamond Head Consulting Ltd. The report has identified 60 mature trees on the subject site.
- Forty of these trees will need to be removed to accommodate the construction of 104A Avenue, the new east-west lane, the widening of 104 Avenue and the construction of new houses.
- Thirty-four (34) mature trees are located, in a row, along the entire eastern edge of the subject site, adjacent to 164 Street.
- This row of mature trees, which forms an impressive wall of mature vegetation along 164 Street, includes a number of specimen trees such as western red cedar, horse chestnut, red oak and Douglas Fir.
- Although 14 of these trees will need to be removed to permit the connection of both 104A Avenue and the east-west lane with 164 Street, 20 of these trees will remain after these connections have been achieved.
- With the 1.942-metre (6 ft.) road dedication along 164 Street that is required to achieve a 24.0-metre (80 ft.) collector road, all of these 20 trees will be located within, or just along, the 164 Street road allowance.
- There is, currently, a curb, gutter and sidewalk within the existing road allowance along the 164 Street frontage of the subject site which were constructed a number of years ago in accordance with the City's road standards that were in effect at the time.

- However, current City standards require a 3.2-metre (10.5 ft.) wide boulevard and 1.8-metre (5.9 ft.) wide sidewalk along collector roads in order to enhance growing conditions for trees, as set out in the City's Urban Forest policy, and to create an improved pedestrian environment by separating the sidewalk from adjoining vehicle travel lanes by a treed and landscaped boulevard.
- In order to achieve the current City standards, the current sidewalk along 164 Street would need to be removed and relocated to the east side of the row of mature trees.
- The relocation of the sidewalk, however, would result in the loss of at least 12 of these trees as the removal of the existing sidewalk and the regrading for, and construction of, a new sidewalk would greatly impact the root systems of these trees.
- As the frontage of the subject site along 164 Street is relatively short, and as the subject site is the last block of land along 164 Street north of 104 Avenue that has redevelopment potential, in an effort to preserve this unique stand of mature trees the Engineering Department, on this occasion, is prepared to retain the existing curb and sidewalk along 164 Street, rather than require removing the existing sidewalk and constructing the ultimate boulevard and sidewalk.
- The following chart reflects the trees proposed for retention and removal by species:

Tree Species	Number of Trees	Number to be Retained	Number to be Removed
Apple	1	0	1
Bigleaf Maple	3	0	3
Black Locust	2	2	0
Black Pine	8	6	2
Deodar Cedar	3	1	2
Douglas-fir	23	2	21
Horsechestnut	2	0	2
Pear	1	0	1
Red Oak	7	6	1
Walnut	2	0	2
Western Red Cedar	7	2	5
Yew	1	1	0
Total	60	20	40

- The proposal indicates that 45 trees will be planted on-site. However, 80 replacement trees are required under the Tree Protection By-law. Therefore, the applicant will be required to provide \$300 per tree for a total of \$10,500 towards the Green City Fund for the shortfall of replacement trees.

PRE-NOTIFICATION

Pre-notification letters were sent on August 7, 2012 and staff received two phone calls from one property owner within the pre-notification area requesting information with respect to the development potential of a neighbouring property at 16456 – 104A Avenue and expressing concern with rodent abatement when the existing structures on the subject site are demolished.

(Staff explained that as part of the current application, a "no build" Restrictive Covenant will be required to be registered over a portion of proposed Lot 1 until permanent access to the existing 104A Avenue cul-de-sac is achieved and statutory right-of-way BCP6675 used to protect this temporary road connection can be released. Once the statutory right-of-way is released, the no-build portion of proposed Lot 1 can be consolidated with the southern portion of the statutory right-of-way area and the no-build area at 16463 – 104 Avenue to create one new lot. The northerly portion of the statutory right-of-way area is to be consolidated with the property at 16456 – 104 A Avenue to create a second new lot.

Staff also informed the caller that if a building inspector determines during the field review that there may be an issue with rodent, the applicant will be required to provide confirmation that appropriate rodent control measures have been taken.)

SUSTAINABLE DEVELOPMENT CHECKLIST

The applicant prepared and submitted a sustainable development checklist for the subject site on April 30, 2013. 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"> • Urban infill area and completes the single family neighbourhood in this portion of Fraser Heights.
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 <i>Low Impact Development Standards</i>, such as roof downspout disconnection, dry swales and sediment control devices.
4. Sustainable Transport & Mobility (D1-D2)	<ul style="list-style-type: none"> • Facilitates the completion of the Fraser Heights Greenway in this area.
5. Accessibility & Safety (E1-E3)	<ul style="list-style-type: none"> • The Building Design Guidelines incorporate CPTED principles through design elements that will provide “eyes on the park” for Lots 11-15 adjacent to the Fraser Heights Greenway.
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. Summary of Tree Survey and Tree Preservation

original signed by Judith Robertson

Jean Lamontagne
General Manager
Planning and Development

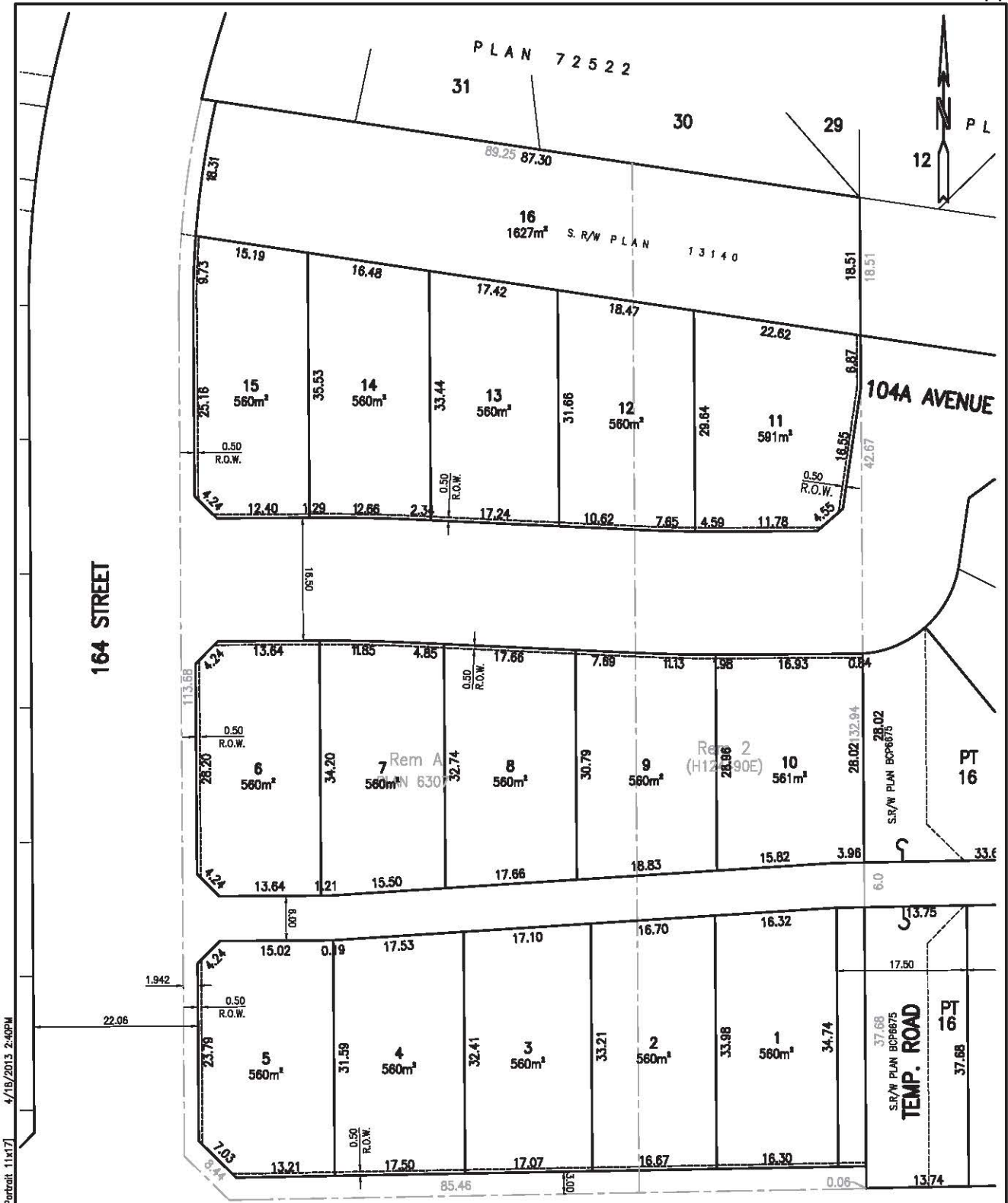
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SUBDIVISION DATA SHEET

Proposed Zoning: RF

Requires Project Data	Proposed
GROSS SITE AREA	
Acres	3.16
Hectares	1.28
NUMBER OF LOTS	
Existing	2
Proposed	15
SIZE OF LOTS	
Range of lot widths (metres)	16.2 m -19.5 m
Range of lot areas (square metres)	560 m ² - 561 m ²
DENSITY	
Lots/Hectare & Lots/Acre (Gross)	11.7 lots/ha & 4.7 lots/acre
Lots/Hectare & Lots/Acre (Net)	17.5 lots/ha & 7.1 lots/acre
SITE COVERAGE (in % of gross site area)	
Maximum Coverage of Principal & Accessory Building	40%
Estimated Road, Lane & Driveway Coverage	20%
Total Site Coverage	60%
PROPOSED LOT 16	
Area (square metres)	1,628 m ²
% of Gross Site	13%
Required	
PARKLAND	
5% money in lieu	YES
TREE SURVEY/ASSESSMENT	
	YES
MODEL BUILDING SCHEME	
	YES
HERITAGE SITE Retention	
	NO
BOUNDARY HEALTH Approval	
	NO
DEV. VARIANCE PERMIT required	
Road Length/Standards	NO
Works and Services	NO
Building Retention	NO
Others	NO



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Hub Engineering Inc.
 Engineering and Development Consultants

Member
PACIFIC LAND GROUP
Land Use, Development & Environmental Solutions

101 - 7485 - 130 Street, Surrey, B.C. V3W 1H8
 Tel: 604-572-4328 Fax: 604-501-1825 E-mail: mail@hub-inc.com

CUENR:		PROJECT: 16413 AND 16443 104 AVENUE			
DRAWING TITLE: RESIDENTIAL SUBDIVISION					
PROJECT No. 12044	DATE: APR 2013	LEGAL: LT A, & BLK LT A, SEC 24, RGE 1, PL 6307 NWD	SCALE: 1:500	MUNICIPAL PROJECT No:	
PRELIMINARY PLAN - SUBJECT TO APPROVAL(S) FROM FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES					

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

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

DATE: **May 1, 2013** PROJECT FILE: **7812-0209-00**

RE: **Engineering Requirements
Location: 16413 104 Ave**

REZONE/SUBDIVISION

Property and Right-of-Way Requirements

- Dedicate 3.0 metre width along 104 Avenue.
- Dedicate 1.942 metre width along 164 Street.
- Dedicate 5.0 metre x 5.0 metre corner cut at the intersection of 164 Street and 104 Avenue.
- Dedicate 16.5 metre width for 104A Avenue.
- Dedicate 3.0 metre x 3.0 metre corner cut at the intersection of 104 A Avenue and 164 Street.
- Dedicate 6.0 metre width for the east-west lane.
- Dedicate 3.0 metre x 3.0 metre corner cuts at the intersection of lane and 164 Street.
- Provide 0.5 metre wide Statutory Right of Way (SRW) on north side of 104 Avenue, east side of 164 Street, and 104A Avenue frontages.

Works and Services

- Construct the east side of 164 Street to the 24.0 metre wide Collector standard.
- Construct 104A Avenue to the 16.5 metre wide Urban Forest standard.
- Construct 6.0 metre east-west lane complete with concrete letdown at intersection of 164 Street.
- Extend sidewalk on south side of 104A Avenue along frontages of properties 16456, 16464, and 16472 104A Avenue (cash in lieu provided under project 7802-0370-00).
- Construct drainage main along 104A Avenue.
- Construct drainage main along east-west lane.
- Construct 200 mm water main along 104A Avenue.
- Construct sanitary main along proposed 104A Avenue.

A Servicing Agreement is required prior to Rezone/Subdivision.



Rémi Dubé, P.Eng.
Development Services Manager

CE



Friday, August 03, 2012
Planning

THE IMPACT ON SCHOOLS

APPLICATION #: 12 0209 00

SUMMARY

The proposed 15 Single family lots are estimated to have the following impact on the following schools:

Projected # of students for this development:

Elementary Students:	5
Secondary Students:	2

September 2011 Enrolment/School Capacity

Fraser Wood Elementary	
Enrolment (K/1-7):	50 K + 387
Capacity (K/1-7):	40 K + 475

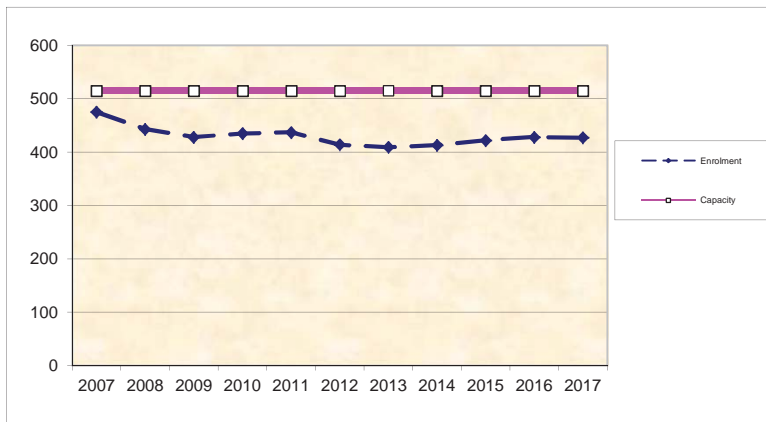
Fraser Heights Secondary	
Enrolment (8-12):	1527
Nominal Capacity (8-12):	1000
Functional Capacity*(8-12);	1080

School Enrolment Projections and Planning Update:

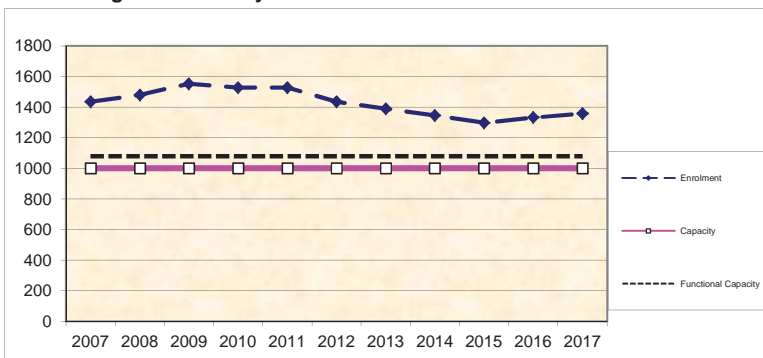
The following tables illustrate the enrolment projections (with current/approved ministry capacity) for the elementary and secondary schools serving the proposed development.

There are no new capital projects proposed at the elementary school. An addition to Fraser Heights Secondary is identified as a top priority in the Five Year Capital Plan. The proposed development will not have an impact on these projections.

Fraser Wood 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: 7912-0209-00
 Project Location: 16413 and 16443 – 104 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:

The subject site is located along the southern border of the large and highly successful Glenwood Heights development, comprising hundreds of homes constructed in the 1990's. The character for this area has been clearly established by the Glenwood homes, and due to the strong interface (shared road system) between the subject site and the Glenwood area, there is no opportunity to establish a new character area. Rather, the new homes constructed on the subject RF zone lots, should be consistent in theme, representation, and character with the existing Glenwood RF zone homes.

This area in the immediate vicinity of the subject site was built out over a time period spanning from the 1950's to the 1990's. The age distribution from oldest to newest is : 60 years old (11%), 20 years old (89%). Most homes are in the 2500-3000 sq.ft. size range. Home size distribution in this area is as follows : under 1000 sq.ft. (6%), 1000-1500 sq.ft. (6%), 1501-2000 sq.ft. (6%), 2001-2500 sq.ft. (6%), 2501-3000 sq.ft. (44%), 3001-3550 sq.ft. (33%). Styles found in this area include : "Old Urban" (11%), "West Coast Modern" (22%), "Neo-Heritage" (11%), and "Neo-Traditional" (56%). Home types include : Bungalow (11%), Bungalow with above-ground basement (6%), 1 ½ Storey (6%), and Two-Storey (78%).

The massing scale found on neighbouring homes ranges from simple, small, low mass structures to mid-to-high-scale structures. However, the majority of homes in this area are considered to be "low-to-mid-scale" (highly desirable), in which the upper floor is substantially concealed by the roof at the main floor extending up against the upper floor walls, thus concealing much of the upper floor walls from street view. The homes have proportionally consistent projections that are well balanced across the façade. The massing designs on homes in this area are the primary reason for the overall highly attractive aesthetics. The scale range for the front entrance element is : one storey (83%), and 1 ½ storey front entrance (17%).

Most homes have a steeply sloped roof. Roof slopes include : low slope (flat to 5:12) = (5)%, moderate slope (6:12 to 7:12) = (26)%, steeply sloped (8:12 and steeper) = (70)%. Main roof forms (largest truss spans) include: common hip (83%), and common gable (17%). Feature roof projection types include: none (4%), common hip (42%), common gable (33%), Dutch hip (8%), shed (8%), and carousel hip (4%). Roof surfaces include :

interlocking tab type asphalt shingles (17%), rectangular profile type asphalt shingles (6%), shake profile asphalt shingles (44%), and concrete tile (shake profile) (33%).

Main wall cladding materials include: horizontal cedar siding, vertical channel cedar siding, horizontal vinyl siding, and stucco cladding. Feature veneers on the front façade include : no feature veneer (24%), brick (24%), stone (24%), wood wall shingles (10%), horizontal cedar (5%), vertical board and batten cedar (5%), 1x4 vertical battens over Hardipanel (5%), and Tudor style battens over stucco (5%). Wall cladding and trim colours include : Neutral (white, cream, grey, black) (33%), Natural (earth tones) (58%), Primary derivative (red, blue, yellow) (8%).

Covered parking configurations include : No covered parking (11%), Double garage (67%), Triple garage (6%), Rear garage (17%).

A variety of landscaping standards are evident including : natural state' with substantial underbrush and native trees (6%), modest old suburban (6%), average modern urban (28%), above average modern urban (50%), and extraordinary modern urban (11%). Driveway surfaces include : asphalt (6%), exposed aggregate (71%), stamped concrete (6%), rear driveway (18%).

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

- 1) **Context Homes:** Eighty nine percent of homes can be considered 'context homes' (as identified in the residential character study), which provide abundant and suitable architectural context for the subject site. Context homes identified in the character study include: 10425 - 164 Street, 10433 - 164 Street, 10441 - 164 Street, 10449 - 164 Street, 10457 - 164 Street, 10465 - 164 Street, 10473 - 164 Street, 10481 - 164 Street, 10489 - 164 Street, 16478 - 104A Avenue, 16472 - 104A Avenue, 16464 - 104 Avenue, 16463 - 104 Avenue, 16471 - 104 Avenue, and 16448 - 104 Avenue. Only eleven percent of homes can be considered 'non-context', and are not recommended for emulation.
- 2) **Style Character :** "Neo-Traditional" and "Neo-Heritage" styles are characteristic of this area and are the recommended style range for this site.
- 3) **Home Types :** Two-Storey type homes are clearly dominant, and it is expected that all new homes at the subject site will be Two-Storey type. However, home types are no longer regulated in building schemes, and will therefore not be restricted at this site.
- 4) **Massing Designs :** Surrounding new homes provide unusually desirable massing context. The homes are well balanced and correctly proportioned.
- 5) **Front Entrance Design :** Front entrance porticos range from one to 1 ½ storeys in height. With 83% of homes having a single storey front entrance, "non-embellishment of the front is an obvious characteristic. On the other hand, the homes will be of a scale that a 1 ½ storey front entrance would not appear disproportionate providing the width of the entrance element is not excessive. The recommendation therefore, it to limit the height of the front entrance on lots 5, 6, 15 (lots fronting 164 Street with direct interface to Glenwood) to no more than one storey or 10'-0", and to permit a range of entrance heights from one to 1 ½ storeys on the other lots.
- 6) **Exterior Wall Cladding :** Vinyl is noticeably absent throughout most of Glenwood, and vinyl was permitted only on the southernmost lots of the adjacent development to the east, Surrey project 7904-0015-00. Vinyl is therefore not recommended as an exterior cladding material.

- 7) **Roof surface** : Roof surfaces on the context homes are either shake profile asphalt shingles, or shake profile concrete roof tiles. Both of these roof surfaces are recommended.
- 8) **Roof Slope** : Roof pitch 8:12 or higher on most new homes.

Streetscape: Throughout the Glenwood site to the north, there is obvious continuity of appearance. Most homes are 2700 - 3100 square foot Two-Storey type, or 2000 sq.ft Bungalow type of a "Neo-Traditional" or "Neo-Heritage" style. The homes have low-to-mid-scale massing designs with mass allocations distributed in a proportionally correct and balanced manner across the façade, resulting in an attractive appearance. Most homes have a single storey high front entrance. Main roof forms are common hip or common gable at an 8:12 slope. All homes have common gable projections articulated with either cedar shingles or with hardiboard and 1x4 vertical wood battens. All homes have either a shake profile asphalt shingle roof or a shake profile concrete tile roof. Most homes are clad in cedar. The colour range includes only natural and neutral hues. Landscaping meets an average to above average modern urban standard.

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", or "Neo-Heritage". 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 post year 2010's design standards commonly found in new RF zone subdivisions, 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" in the 10400 block on the west side of 164 Street, and with homes in the 16400 block of 104A Avenue. Homes will therefore be "Neo-Traditional" and "Neo-Heritage" styles only. Similar home types and sizes. Similar massing characteristics. Similar roof types, roof pitch, roofing materials. Similar siding materials.

- Exterior Materials/Colours:** Stucco, Cedar, Hardiplank, Brick, and Stone. No Vinyl.
- “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, forest green can be used on trim only. “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:** Shake profile concrete roof tiles, and shake profile asphalt shingles with a raised ridge cap. No other roofing materials except copper permitted above a feature projection. Minimum 30 year warranty on roofing materials. Grey, black, or brown 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:** *High modern urban standard:* Tree planting as specified on Tree Replacement Plan plus minimum 20 shrubs of a minimum 3 gallon pot size planted in the front yard. Corner lots shall have an additional 15 shrubs of a minimum 3 gallon pot size, planted in the flanking street sideyard. An additional 15 shrubs of a 3 gallon pot size are to be planted along the north side of lots 11-15 inclusive, which are adjacent to a linear park to the north. A transparent fence meeting CPTED principles is also required along this interface. 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: October 18, 2012

Reviewed and Approved by:  Date: October 18, 2012

TREE PRESERVATION SUMMARY

Project Location: 16413 & 16443 104th Avenue Surrey, BC
 Registered Arborist: Trevor Cox, MCIP
 ISA Certified Arborist (PN1920A)
 Certified Tree Risk Assessor (43)
 BC Parks Wildlife and Danger Tree Assessor

Detailed Assessment of the existing trees of an Arborist's Report is submitted on file. The following is a summary of the tree assessment report for quick reference.

1. General Tree Assessment of the Subject Site: 3.165 acre parcel with several buildings upon it.

2. Summary of Proposed Tree Removal and Placement:

The summary will be available before final adoption.

Number of Protected Trees Identified		60	(A)
Number of Protected Trees declared high risk due to natural causes		0	(B)
Number of Protected Trees to be removed		40	(C)
Number of Protected Trees to be Retained	(A-B-C)	20	(D)
Number of Replacement Trees Required	(C-B) x 2	80	(E)
Number of Replacement Trees Proposed		45	(F)
Number of Replacement Trees in Deficit	(E-F)	35	(G)
Total Number of Protected and Replacement Trees on Site	(D+F)	65	(H)
Number of Lots Proposed in the Project		15	(I)
Average Number of Trees per Lot	(H / I)	4.30	

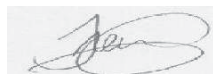
3. Tree Survey and Preservation / Replacement Plan

Tree Survey and Preservation / Replacement Plan is attached

This plan will be available before final adoption

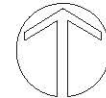
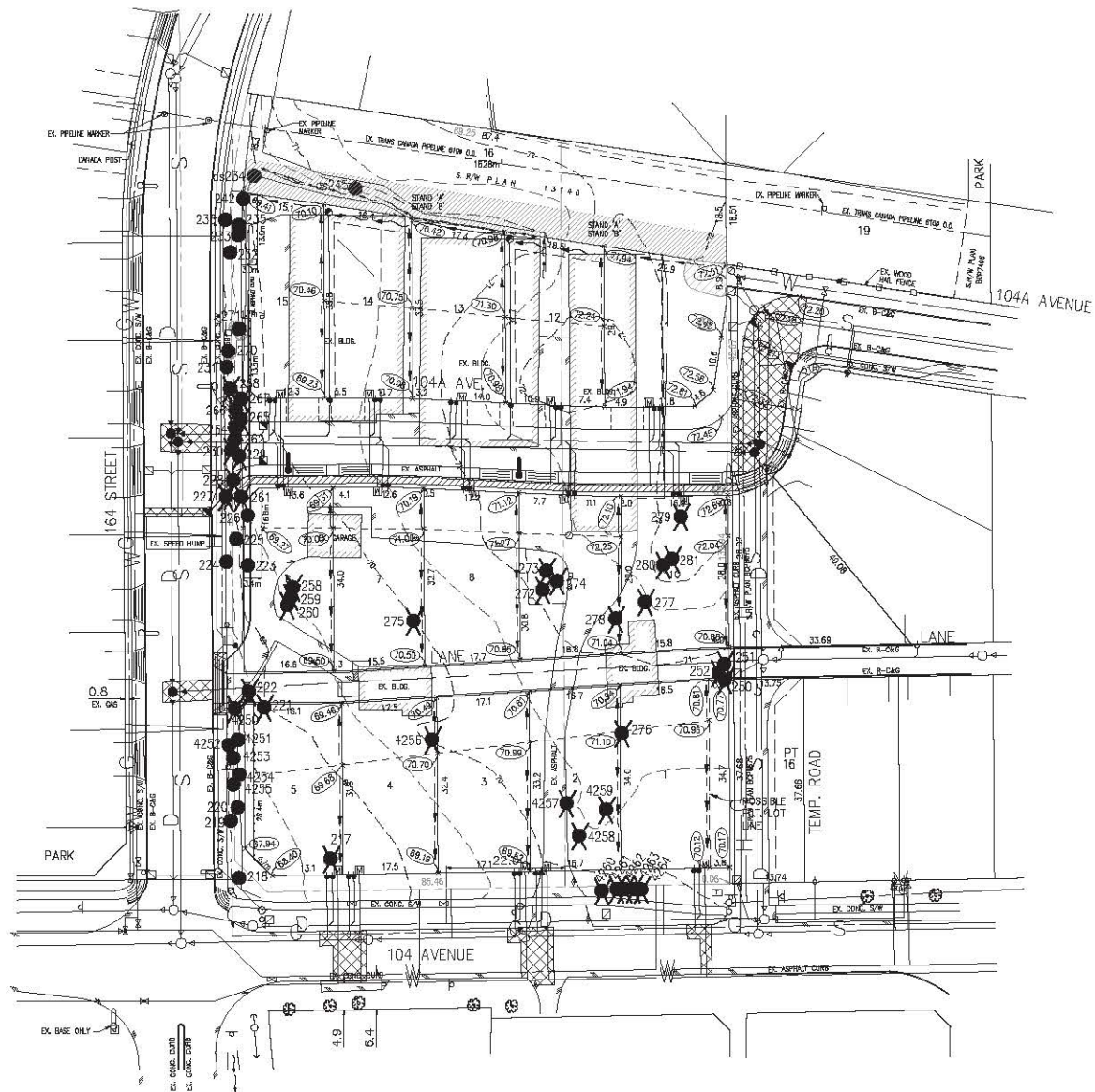
Summary prepared and submitted by:

Arborist



March 26, 2013

Date



LEGEND

- = TREES TO BE RETAINED
- ⊗ = TREES TO BE REMOVED
- ⊗ = PROTECTION BARRIER

DATE	CITY OF SURREY REQUEST	1
REVISED	REVISED	NO.

C.KAVOLINAS & ASSOCIATES INC.
 BCMA CSLA
 2145 JUDICIAL COURT
 ABERTSFORD, B.C.
 V3C 3E8
 PHONE (604) 897-2378

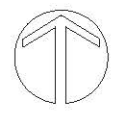
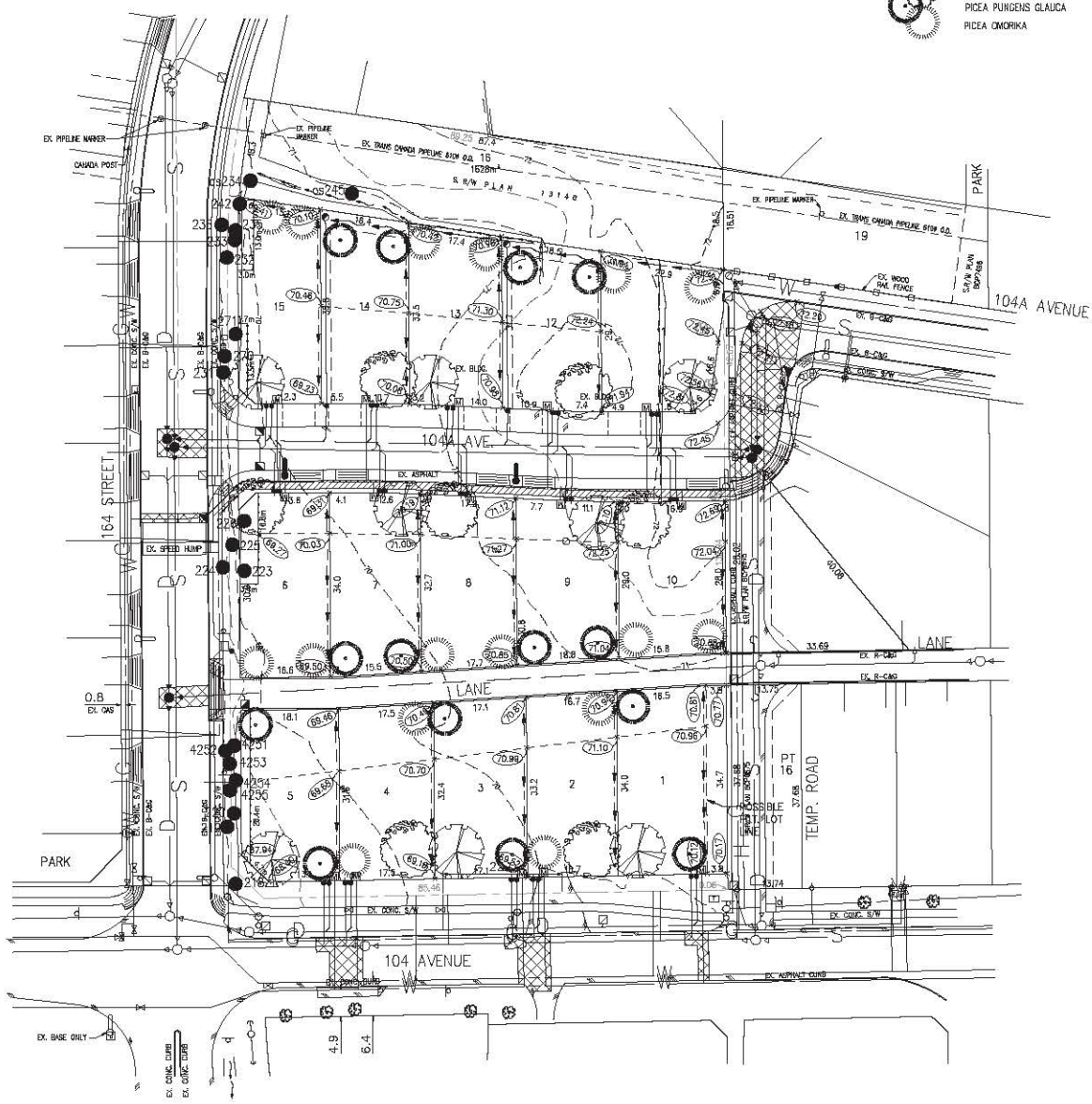
CLIENT
 MR. MIKE KOWITZ
 C/OWNER ENGINEERING INC.
 7485 - 130 STREET
 SUITE #101
 SURREY, B.C.
 V3W 1H8
 PHONE (604) 572-4328

TITLE
 PLAN VIEW
 TREE LOCATION PLAN
 TREE RETENTION PLAN
 15 LOT SUBDIVISION
 18413 & 18443 - 104 AVENUE
 SURREY, B.C.

SCALE	1:400	DATE	OCT/12
DRAWN	CHS		
ENGR.	CHS		
APPROV.	AS MENT		

PRINTED	JOB No.	▲
DRAWER No.	TR-1	

KEY	BOTANICAL NAME	PLANT LIST COMMON NAME	QTY.	SIZE	SPACING	REMARKS
	PRUNUS YEDDENSIIS 'AKEBONO'	DAYBREAK CHERRY	8	6 CM. CAL.	AS SHOWN	B. & B.
	CORNUS FLORIDA 'RUBRUM'	RED FLOWERING DOGWOOD	7	6 CM. CAL.	AS SHOWN	B. & B.
	PICEA PURGENS GLAUCA	BLUE SPRUCE	14	4.00 METERS	AS SHOWN	B. & B.
	PICEA OMORIKA	SERBIAN SPRUCE	16	4.00 METERS	AS SHOWN	B. & B.



LEGEND

- = TREES TO BE RETAINED
- = TREES TO BE REMOVED
- = PROTECTION BARRIER

DATE	CITY OF SURREY REQUEST	1
DATE	REVISION	NO.

C. KAVOLINAS & ASSOCIATES INC.
 BCSA CSA
 2462 JUDICIAL COURT
 ABBOTSFORD, B.C.
 V3C 3C8
 PHONE (604) 857-2376

CLIENT
 MR. MIKE KOWATZ
 C/ANAL. ENGINEERING INC.
 7485 - 130 STREET
 SUITE #101
 SURREY, B.C.
 V3W 1A8
 PHONE (604) 572-4328

TITLE
 PLAN VIEW
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 15 LOT SUBDIVISION
 18413 & 18443 - 104 AVENUE
 SURREY, B.C.

SCALE	1:400	DATE	OCT/12
DRAWN	DMG	CHECKED	
DATE	04/12	DATE	
APPROVED	AK/DMG	DATE	

PROJECT
 18413 & 18443 - 104 AVENUE
 TR-2