

City of Surrey
PLANNING & DEVELOPMENT REPORT

File: 7915-0352-00

Planning Report Date: March 12, 2018

PROPOSAL:

- **NCP Amendment** from Proposed One Acre Residential Gross Density (RA-G) and Proposed Open Space / Linear Open Space to Single Detached (2-4 upa) for the subject site and various amendments for lands to the west
- **Rezoning** from RA to CD (based on RQ)
- **Amendment** to Zoning By-law No. 12000 to place the subject site within the appropriate sub-area of the North Grandview Heights NCP
- **Development Permit**
- **Development Variance Permit**

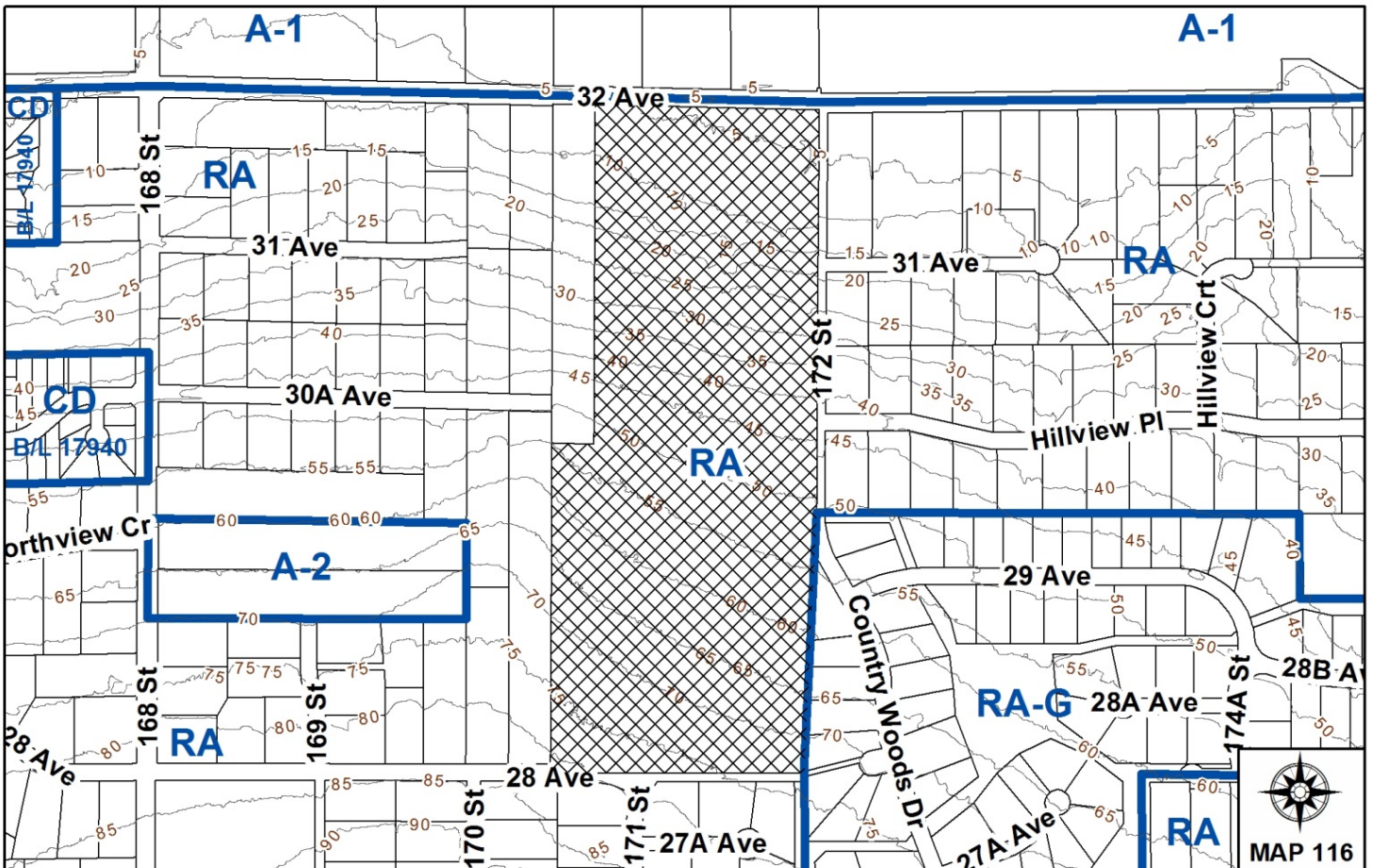
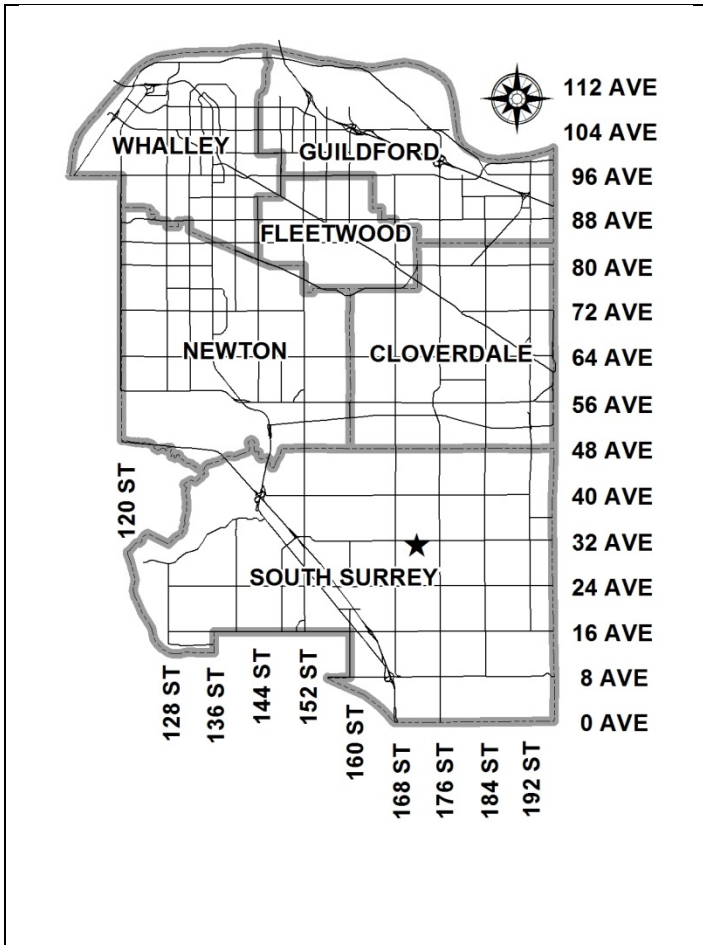
to allow subdivision into 126 suburban single family lots.

LOCATION: 17190 - 32 Avenue

ZONING: RA

OCP DESIGNATION: Suburban

NCP DESIGNATION: Proposed One Acre Residential Gross Density (RA-G)



RECOMMENDATION SUMMARY

- By-law Introduction and set date for Public Hearing for:
 - Rezoning; and
 - An amendment to Map 11, Area XI of Schedule F of Zoning By-law No. 12000 to identify the properties within the NCP amendment area, as shown on Appendix VIII, within Area XIb.
- Approval to draft Development Permit.
- Approval for Development Variance Permit to proceed to Public Notification.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- The applicant is proposing to amend the North Grandview Heights NCP to redesignate the subject site from "Proposed One Acre Residential Gross Density (RA-G)" to "Single Detached (2-4 upa)". The proposal also involves amendments to the road network, the locations of open space, and the location of a proposed detention pond.
- Additionally, amendments are proposed on lands to the west involving multiple parcels, by amending the land use designation from Proposed One Acre Residential (RA) and Existing One Acre & Half Acre Lots to Single Detached (2-4 upa). The proposal also includes amendments to the road network and the locations of open space on these parcels.
- Setback variances are sought on two (2) proposed lots with irregular geometry.

RATIONALE OF RECOMMENDATION

- The subject proposal complies with the Suburban land use designation of the Official Community Plan (OCP) for the site.
- The proposal will result in approximately 5 hectares (12.5 acres) of land, or approximately 21 percent of the gross site area, being conveyed to the City for conservation purposes, including the existing riparian areas, a portion of the Green Infrastructure Network (GIN) corridor of the City's Biodiversity Conservation Strategy (BCS), and tree preservation areas.
- The proposed density and lot size is in keeping with other recently approved development applications in the area. The proposed new Single Detached (2-4 upa) designation in the North Grandview Heights NCP will respond to the trend toward smaller suburban lot sizes, and will fit with the proposed new suburban "Quarter Acre Residential Zone (RQ)", which permits suburban residential developments with a density of up to 10 units per hectare (4 upa), consistent with the Suburban designation in the OCP.

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- The proposed subdivision plan (Appendix II) provides for a sensitive interface to the existing suburban lots to the east and south of the subject site ("Country Woods"), and to the agricultural land to the north of the subject site. Future development at similar densities is expected to the west of the subject site.
 - The proposed development will facilitate the construction of a significant portion of the Grandview Sanitary Interceptor system that, once complete, will provide sanitary service for a significant portion of east Grandview Heights including Grandview Heights NCP Area 4 (Redwood Heights) and additional areas to the south of the subject site. The applicant will be responsible for the design and construction of a portion of this infrastructure.
 - The proposed setback variances for two (2) irregularly shaped lots are minor and are requested in order to build functional homes on these lots.

RECOMMENDATION

The Planning & Development Department recommends that:

1. a By-law be introduced to rezone the subject site from "One Acre Residential Zone (RA)" to "Comprehensive Development Zone (CD)" (based on "Quarter Acre Residential Zone (RQ)") and a date be set for Public Hearing.
2. a By-law be introduced to amend Map 11, Area XI of Schedule F of Surrey Zoning By-law, 1993, No. 12000, to identify the properties within the NCP amendment area, as shown on Appendix VIII, within Area XIb.
3. Council authorize staff to draft Development Permit No. 7915-0352-00 for Hazard Lands (steep slopes), Farm Protection and Sensitive Ecosystems generally in accordance with the Ecosystem Development Plan prepared by Alex Sartori, RP Bio, and the Geotechnical Report prepared by Western Geotechnical Consultants.
4. Council approve Development Variance Permit No. 7915-0352-00 (Appendix XII) varying the following, to proceed to Public Notification:
 - (a) to reduce the minimum rear yard setback on proposed Lot 16 from 9.0 metres (30 ft.) to 6.5 metres (21 ft.) for up to 50 percent of the rear lot line;
 - (b) to reduce the minimum front yard setback on proposed Lot 80 from 6.0 metres (20 ft.) for the entire dwelling, to 6 metres (20 ft.) for the garage, and to 5 metres (16 ft.) for the dwelling; and
 - (c) to reduce the minimum rear yard setback on proposed Lot 80 from 9.0 metres (30 ft.) to 8 metres (26 ft.) for up to 50 percent of the width of the rear of the dwelling.
5. 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) final approval from the Ministry of Forests, Lands and Natural Resource Operations under the *Water Sustainability Act*, in accordance with their approval letter dated February 22, 2018 (Appendix XV);
 - (e) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;
 - (f) the applicant satisfy the deficiency in tree replacement on the site, to the satisfaction of the Planning and Development Department;

- (g) the applicant enter into a P-15 Agreement for monitoring and maintenance of replanting in the dedicated riparian areas;
- (h) registration of a Section 219 Restrictive Covenant on lots within 300 metres (984 ft.) of the ALR to advise of agricultural practices in the area;
- (i) registration of a Section 219 Restrictive Covenant for the installation and maintenance of proposed landscaping and tree preservation on the rear and side yards of lots adjacent to the north-south GIN corridor area;
- (j) registration of a Section 219 Restrictive Covenant for tree preservation and associated building envelopes on lots where tree preservation is proposed;
- (k) submission of a finalized lot grading plan including proposed retaining wall details to the satisfaction of the Planning & Development Department, Parks Recreation & Culture Department and Engineering Department;
- (l) registration of a Section 219 No-build Restrictive Covenant on the proposed lots which contain retaining walls to clarify construction, maintenance and access requirements;
- (m) registration of a Section 219 Restrictive Covenant on all lots to require engineered building foundations;
- (n) submission of a hydrological report, to the satisfaction of City staff, demonstrating how pre-development flows into the proposed City parkland will be maintained post-development;
- (o) the applicant provide bonding to the satisfaction of the Parks, Recreation & Culture Department for the post-construction hydrology and monitoring required for tree preservation within the proposed open space areas;
- (p) the applicant satisfy the requirement to commemorate the Northern Railway Line with a commemorative marker and storyboard, to the satisfaction of the Planning & Development Department and Parks, Recreation & Culture Department;
- (q) the applicant provide an independent peer review of the geotechnical investigation and assessment report dated March 9, 2017 and the comments regarding slope stability in regards to the proposed lot grading plan dated April 7, 2017;
- (r) registration of a Section 219 Restrictive Covenant to regulate the phasing of the proposed development in accordance with the phasing plan attached as Appendix XVI;
- (s) the applicant provide cash-in-lieu for the replanting of the entire north-south BCS corridor to natural area standards, and cash-in-lieu for a gravel path through proposed parkland, as determined by Parks, to Parks' standards. Cost estimates will be provided by Parks; and

- (t) the applicant provide a Forest Health Assessment, prepared by a Registered Professional Forester.
6. Council pass a resolution to amend the North Grandview Heights Neighbourhood Concept Plan to redesignate the land from "Proposed One Acre Residential Gross Density (RA-G)" and "Proposed Open Space / Linear Open Space" to "Single Detached (2-4 upa)" for the subject site and lands to the east, as well as amendments to the locations of open space, road network, and detention pond location, as shown in Appendix X, when the project is considered for final adoption.

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:**

43 Elementary students at Pacific Heights Elementary School
19 Secondary students at Earl Marriott Secondary School

(Appendix IV)

The applicant has advised that the dwelling units in this project are expected to be constructed in phases, with phase 1 completing in 2022, phase 2 completing in 2024, and phase 3 completing in 2026.

Parks, Recreation & Culture: Parks will accept the riparian area and other proposed open space areas as parkland. The detention pond should be conveyed as a separate lot. A P-15 is required for the monitoring and maintenance of all works within the conveyed riparian areas.

Parks does not support retaining walls or access to private retaining walls on parkland. If retaining walls are proposed on private lots, access to the back of the wall must be provided for on private property.

Full details of the detention pond are required for review and approval by Parks. The footprint of the pond must not encroach into parkland/riparian areas. No retaining walls are supported around the detention pond.

If unforeseen soil conditions or any other unforeseen conditions arise, no additional impact or allowance for works on future parkland will be supported.

Ministry of Transportation & Infrastructure (MOTI): Preliminary approval is granted for the rezoning for one year pursuant to section 52(3)(a) of the *Transportation Act*.

Agricultural and Food Security Advisory Committee (AFSAC):

At its July 6, 2017 meeting, the AFSAC recommended that the application be supported (Appendix V).

Ministry of Forests, Lands and Natural Resource Operations (MFLNRO):

Conditional *Water Sustainability Act* (WSA) approval has been granted. The conditions outlined in FLNRO's letter dated February 22, 2018 (Appendix XV) must be met and Final Approval granted prior to Final Adoption.

SITE CHARACTERISTICS

Existing Land Use: Heavily treed 22.3 hectare (55.2 acre) site.

Adjacent Area:

Direction	Existing Use	NCP Designation	Existing Zone
North (Across 32 Avenue):	Farmland within the ALR	OCP: Agricultural	A-1
East (Across 172 Street):	Single family homes on acreage lots	Existing One Acre and Half Acre Lots, Proposed One Acre Residential (RA), and Proposed Detention/Sedimentation Pond	RA and RA-G
South (Across 28 Avenue):	Single family homes on acreage lots	OCP: Suburban	RA
West:	Large lots under various development applications (Nos. 7916-0228-00, 7916-0370-00, 7916-0389-00)	Proposed One Acre Residential (RA) and Existing One Acre and Half Acre Lots	RA

JUSTIFICATION FOR PLAN AMENDMENT

Background

- The subject site is located in the North Grandview Heights Neighbourhood Concept Plan (NCP), which was approved by Council on January 11, 1999. The NCP includes approximately 339 hectares (838 acres) of land on the northern slope of Grandview Heights.
- The NCP was based on a traditional one-acre and half-acre subdivision model.

- In 2004, with an increasing demand for different housing types and development of the area to the south (Morgan Heights), an NCP amendment process was initiated for large portions of land within the North Grandview Heights NCP.
- On September 8, 2005, Council approved the recommendations in Corporate Report C013 to amend the North Grandview Heights NCP.
- At the time of the amendment, a number of property owners chose not to participate in the amendment process. As a result, their properties remained as designated in the original NCP. The subject site was one of the properties that were excluded from the amendment; therefore, the subject site's "Proposed One Acre Residential Gross Density (RA-G)" land use designation was maintained (Appendix IX).
- Since 2005, development has begun to extend into the area. Recent development applications approved by the City (Development Application Nos. 7911-0223-00, 7915-0183-00) and at Third Reading (7916-0115-00) to the west of the subject site have introduced smaller suburban lots into the area. The proposed density and lot sizes are in keeping with other recently approved development applications in the area.

Proposed NCP Amendment

- The applicant is proposing to amend the North Grandview Heights NCP to redesignate the subject site from "Proposed One Acre Residential Gross Density (RA-G)" and "Proposed Open Space / Linear Open Space" to "Single Detached (2-4 upa)". The proposal also involves amendments to the road network, the locations of open space, and the location of a proposed detention pond (Appendix X).
- The proposed NCP amendment also includes lands to the west involving multiple parcels, by amending the land use designation from "Proposed One Acre Residential (RA)" and "Existing One Acre & Half Acre Lots" to "Single Detached (2-4 upa)". The proposal also includes amendments to the road network and the locations of open space on these parcels (Appendix X).
- The study area for the proposed NCP amendments is the area bounded by 32 Avenue to the north, 172 Street to the east, 28 Avenue to the south, and 168 Street to the west. The lands being amended are all under development applications, including the subject application, and three (3) applications to the west of the subject site (Development Application Nos. 7916-0228-00, 7916-0370-00, and 7916-0389-00).
- The remaining properties within the study area will retain their existing land use designation in the NCP. The majority of these properties are existing established acreages properties.
- There are three (3) larger properties, at 2910, 2938, and 2970 - 168 Street, which are currently designated "Proposed One Acre Residential (RA)" in the NCP. These properties are not proposed to be included in the proposed NCP amendment proceeding through this application. The owner of the property at 2970 - 168 Street has made a development application (No. 7917-0230-00) involving an NCP amendment, rezoning and subdivision to create 13 single family lots. This application is at the initial review stage. The owner of the properties at 2910 and 2938 - 168 Street has indicated that, at this time, they do not wish to participate in the NCP amendment. Staff require additional information in order to review

the proposal under Development Application No. 7917-0230-00; at this time, it would be premature to include it in the subject proposed NCP amendment. Any NCP amendments on these lands will be processed through a separate development application(s).

- The Official Community Plan (OCP) permits residential developments with a density of up to 10 units per hectare (4 upa) in certain areas of the City designated Suburban, including North Grandview Heights. The proposed new land use designation, "Single Detached (2-4 upa)" will allow for suburban residential development up to 4 upa consistent with the OCP, with adjacent development applications approved by the City (Development Application Nos. 7911-0223-00, 7915-0183-00) and at Third Reading (7916-0115-00), and with the current market trend toward smaller suburban lot sizes.

Open Space

- The NCP showed the locations of open space very conceptually. The proposed amended locations of open space are reflective of streamside protection areas, biodiversity conservation strategy (BCS) corridors, and the location of significant tree stands on the subject site and the adjacent lands to the west which are part of the NCP amendment.
- The east-west open space area running through the middle-south portion of the site was chosen because this is the location of the most valued, viable trees on the site.
- The applicant is proposing to convey approximately 21 percent of the site to the City without compensation, excluding the areas within 5 percent of streamside top-of-bank and the detention pond area.
- Parks, Recreation & Culture staff have reviewed the proposed locations of open space and found them to be acceptable.

Transportation Network

- Changes to the 1999 NCP road network are required to both support the NCP amendment and provide consistency with the goals and objectives of the City's Transportation Strategic Plan. This Plan identifies improving road network connectivity for all road classifications throughout neighbourhoods in order to distribute traffic across, improve routing options, reduce circulation, and increase access for non-motorized transportation modes. The changes proposed in the NCP amendment area as follows:
 - The completion of 31 Avenue to connect 168 Street with 172 Street. 31 Avenue is currently an over-length dead-end road with a temporary turnaround. The current NCP shows the road completing with a cul-de-sac (Appendix IX). Completion of the cul-de-sac would result in an over-length cul-de-sac for emergency vehicle access, and would be inconsistent with the objectives described above; and
 - Northview Crescent is shown as ending in a cul-de-sac in the NCP (Appendix IX). It is now proposed to connect through to the new central north-south road (Preston Drive) on the subject site (Appendix X).
- The proposal retains the general east-west and north-south road connections envisioned by the NCP, but provides for increased connectivity.

Detention Pond

- The applicant proposes to relocate a proposed detention pond from adjacent lands to the east of the subject site, to the northeast corner of the subject site. The pond is proposed to be located between two (2) yellow-coded (Class B) watercourses, outside of their required Streamside Protection Areas.
- Through the application review process, the applicant considered a few locations for the pond, including the proposed pond location, the pond location as shown in the NCP, and a third location shared between the northwest corner of the subject site and the northern portion of the site to the west, under Development Application No. 7916-0228-00.
 - In the NCP, the pond is shown on the neighbouring properties at 17221 and 17261 - 31 Avenue. Staff had indicated a preference for this location because this site is much less vegetated and potentially would have much less environmental impact. The applicant conducted an analysis of the required volumes, topography, etc. for the pond at this location, and concluded that this location would not be viable due to conflicts with two (2) Class B (yellow-coded) watercourses at this location; and
 - The applicant concluded that the pond location shared between the subject site and the site to the west (7916-0228-00) was not feasible as it would result in a significant loss in lot yield, of between 8 and 11 lots depending on the allowable minimum lot size.
- The proposed location is the applicant's preferred location for the pond. The applicant has provided a technical memo to the Engineering Department to provide an overview of the analysis completed to determine the size of the proposed detention pond. The technical memo has been reviewed by Engineering staff and found to be acceptable for the purposes of proceeding to Council for consideration.
- The proposed subdivision layout is based on an assumed detention pond which has been sized based on preliminary design calculations assuming RH-G zoning, rather than RQ zoning which may occur on adjacent lands that will be utilizing the proposed pond. Through detailed design the applicant will be required to perform a stormwater analysis using the correct land zoning input parameters to confirm if the detention pond meets Engineering requirements. If the applicant is unable to demonstrate that the proposed detention pond size is acceptable to the City, the detention pond footprint must be enlarged. The proposed detention pond is bounded by streamside protection areas to the south and west, 32 Avenue to the north, and 172 Street to the east. Therefore there is no space to expand the footprint of the pond in its current location if it is determined through detailed design that additional space is necessary. In this scenario an alternative pond location would be required. This would have impacts on the proposed subdivision layout and could result in a reduction in lot yield.
- The applicant estimates that approximately 75 trees will need to be removed to accommodate the detention pond at this location.
- The adjacent lands to the east, across 172 Street, are designated "Proposed Detention Pond" and "Proposed One Acre Residential (RA)". If an application is made on these lands, an NCP amendment can be considered through that application process.

- The catchment area for the proposed detention pond includes all of the lands included in the proposed NCP amendment as illustrated in Appendix X. It does not include lands beyond the NCP amendment area.

Schools

- All of the lands included in the proposed NCP amendment area are within the catchment boundaries for Pacific Heights Elementary School and the Earl Marriott Secondary School. The School District has indicated that the projected number of students generated by the proposed NCP amendments would be 67 elementary students and 30 secondary students. This is the total number of students generated by all four (4) development applications and all lands included in the proposed NCP amendment (Development Application Nos. 7915-0352-00, 7916-0228-00, 7916-0389-00, and 7916-0370-00).
- Pacific Heights Elementary is currently over-capacity, and rapid enrolment growth is expected to continue into the foreseeable future. There are currently 6 portables used on the site. In December 2017, the Ministry of Education announced funding for the design and construction of a 12 classroom addition at Pacific Heights Elementary targeted to open in September 2019, as well as a new 25-classroom school on Edgewood Drive in the Sunnyside Heights NCP area, targeted to open in 2020.
- There is also a new 1,500 student capacity secondary school, Grandview Heights Secondary, currently in the design and construction stage, targeted to open in September, 2020.
- There are existing sidewalks on 171 Street which provides a direct road connection between the subject site and Pacific Heights Elementary School and the new Grandview Heights Secondary School.
- The proposed NCP amendments involve amending the land use densities within the North Grandview NCP from one-acre densities to allow densities at 2 to 4 units per acre. The proposed amendments will therefore place additional pressure on local schools. However, the proposed NCP amendment to the land use designation is consistent with adjacent applications approved to the west of the site which have introduced smaller suburban lots into the area.
- During the review process for the Sunnyside Heights NCP review, it was recognized that a more comprehensive review of school needs in the entire Grandview area is required. The School District continues to explore potential sites for a second elementary school in the Sunnyside Heights NCP area, and will also be undertaking a comprehensive review to establish a long range strategy to guide current and future site acquisition efforts in the Grandview area.
- To help offset the impact on schools, the development of the area will occur in phases. The subject site will develop in 3 phases; the applicant anticipates Phase 1 completing in 2022, Phase 2 completing in 2024, and Phase 3 completing in 2026 (Appendix XVI). Therefore, no dwelling construction will be completed prior to the completion of the expansion of Sunnyside Heights Elementary School or the opening of the new Grandview Secondary School. The other applications will proceed on their own timelines, which are yet to be determined. A Restrictive Covenant (RC) will be registered to regulate the proposed phasing.

DEVELOPMENT CONSIDERATIONS

Site

- The subject site is 22.3 hectare (55.2 acre) in area and located on the northern slopes of Grandview Heights, west of 172 Street between 28 Avenue and 32 Avenue. The site is heavily treed and is moderate to steeply sloping, and rises approximately 76 metres (250 ft.) from the northeast corner to the southwest corner. It is designated "Suburban" in the Official Community Plan (OCP) and "Proposed One Acre Gross Density (RA-G)" in the North Grandview Heights NCP. The site was designated One Acre Gross Density in the NCP so that a minimum of 15% of the site may be set aside for open space and tree preservation purposes.

Proposal

- The applicant is proposing:
 - to amend the North Grandview Heights NCP to redesignate the subject site from "Proposed One Acre Residential Gross Density (RA-G)" and "Proposed Open Space / Linear Open Space" to "Single Detached (2-4 upa)". The proposed NCP amendment also includes lands to the west involving multiple parcels, by amending the land use designation from "Proposed One Acre Residential (RA)" and "Existing One Acre & Half Acre Lots" to "Single Detached (2-4 upa)". In addition, the proposal involves amendments to the road network, the locations of open space, and the location of a proposed detention pond (Appendix X);
 - to rezone the site from "One-Acre Residential Zone (RA)" to "Comprehensive Development Zone (CD)"(based on "Quarter Acre Residential Zone (RQ)");
 - a Development Permit for Hazard Lands, Farm Protection and Sensitive Ecosystems;
 - subdivision to create 126 suburban single family residential lots and several park lots; and
 - a Development Variance Permit (DVP) to permit rear yard setback relaxations on two (2) irregularly shaped lots.
- Lastly, the proposal requires an amendment to Zoning By-law No. 12000 to place the subject site within the appropriate sub-area of the North Grandview Heights NCP, so that the appropriate NCP amenity fees can be collected.

Proposed CD Zone

- At the July 24, 2017 Regular Council – Land Use meeting, Council approved amendments to the Zoning By-law including a new "Quarter Acre Residential Zone (RQ)". The associated by-law received Third Reading on September 11, 2017. It will be finalized and included in the Zoning By-law once there is a site that has met all of the conditions required for Final Adoption of the Rezoning By-law to be rezoned to RQ.

- The RQ Zone was introduced because the OCP permits residential developments with a density of up to 10 units per hectare (4 upa) in some of the areas designated Suburban, including North Grandview Heights, but there was no zone in the Zoning By-law that regulates residential developments at these densities. As a result, a number of development applications involved rezoning to a customized Comprehensive Development Zone to "fill in the gap" in density. The intent of the new RQ Zone is to streamline and clarify the relationship between the OCP and the Zoning By-law, and reduce the number of "customized" CD Zones.
- While the RQ Zone was introduced on July 24, 2017, the subject development application has been in-stream since the Fall of 2015. Therefore, the layout was established assuming the site would be zoned to a Comprehensive Development zone. Once the RQ Zone was introduced, staff and the applicant contemplated rezoning to RQ instead of a CD Zone. After consideration, it was determined that the best course of action would be to proceed with a CD Zone, considering the number of variances that would be required if the site was rezoned to RQ, and the uniqueness of the site.
- The proposed CD Zone (Appendix XI) permits a maximum density of 5.6 units per hectare (2 upa). This is lower than the 10 units per hectare (4 upa) unit density permitted in the RQ Zone. In addition, the CD Zone requires a minimum of 21 percent of the site to be dedicated as open space. In contrast, the RQ Zone requires a minimum of 15 percent of the site to be dedicated as open space for similarly sized lots.
- The proposed Floor Area Ratio (FAR), lot coverage, building height, parking and landscaping restrictions are all consistent with the RQ Zone.
- The proposed setbacks are generally consistent with the RQ Zone. However, in order to ensure increased rear yard and side yard setbacks are achieved on lots interfacing with open space, the CD Zone requires increased rear or side yard setbacks where abutting open space, and allows reduced front or opposing side setbacks (Appendix XI).
- The required dimensions for subdivision are similar to those of the RQ Zone when a minimum of 15 percent of the lands within the subdivision are set aside as open space. However, in the CD Zone there are two (2) blocks.
 - The majority of the site is within Block A. In this Block, the regular standard lots have a minimum lot size of 820 square metres (8,826 sq. ft.). This is slightly larger than the RQ, which allows a minimum lot size of 775 square metres (8,300 sq. ft.). The width (20 metres / 66 ft.) and depth (30 metres / 100 ft.) for regular standard lots is the same as RQ;
 - The CD Zone allows a permissible reduction for width (18 metres / 60 ft.), depth (28 metres / 92 ft.), or area (800 square metres / 8,610 sq. ft.) for up to 15 percent of the lots within the subdivision in Block A. In addition, to deal with irregularly-shaped lots, the lot depth is determined by taking the average depth between the front and the furthest opposing lot line; and

- Block B is for larger interfacing lots at the south and southeast sides of the site. These lots interface with established acreage properties to the south and southeast. The minimum lot size in Block B is 1,180 square metres (12,700 sq. ft.), the minimum width is 19 metres (62 ft.) and the minimum depth is 30 metres (100 ft.).
- The minimum lot width for both Block A permissible reduction lots (18 metres / 60 ft.) and Block B lots (19 metres / 62 ft.) is slightly less than the minimum width permitted in the RQ Zone. The rationale for allowing this slightly reduced width is two-fold. Firstly, the applicant is proposing to provide 21 percent open space as opposed to the minimum 15 percent under the RQ Zone for similarly sized lots. Secondly, the application was submitted prior to the development of the RQ Zone. The subdivision parameters were set by precedent applications in the North Grandview Heights area, including Development Application Nos. 7911-0223-00 and 7915-0183-00, which both allowed lot widths less than 20 metres (66 ft.).

Transportation

- The applicant has provided a traffic impact study (TIS) that demonstrates the potential impact the proposed development would have to the surrounding area. The study indicates that the additional trips generated by this development over and above the original NCP designation are not significant in relation to the original NCP background traffic. The required improvements to the local road network as a condition of the subject development application will result in acceptable levels of service for local roads and intersections.
- Based on the recommendations of the TIS, the applicant will be required to install a traffic signal at the intersection of 32 Avenue and 172 Street. Further, a traffic circle at the intersection of Country Woods Drive and Hillview Place is being proposed by the applicant. While traffic circles are an intersection operation device, this feature does allow for some measure of speed reduction on 172 Street and Country Woods Drive which was identified as one of the pre-existing neighbourhood concerns.
- A series of pedestrian connections are planned, including multi-use pathways (MUP) on 30A Avenue (Oliver Greenway) and 172 Street. Pathways are also planned through proposed open space areas; more details on the trail network will be determined at the detailed design stage.

Building Design Guidelines

- The applicant has retained Michael Tynan of Tynan Consulting Ltd. as the Design Consultant. The Design Consultant has proposed a set of building design guidelines. A summary of the guidelines is attached as Appendix VI.
- New homes are to be constructed to a high architectural standard, meeting or exceeding standards found in most executive-estate quality subdivision throughout the City.
- New homes will be constructed in the Traditional, Classical Heritage, Neo-Heritage or Neo-Traditional style. Homes will have balanced distribution of mass within the front façade, and high trim and detailing standards.

- Permitted roof materials include shake profile asphalt shingles with a raised ridge cap and new environmentally sustainable roofing projects, in greys, browns or black only. Vinyl siding is not permitted on exterior walls.
- The building massing regulations in the proposed building design guidelines have been developed with consideration to minimizing the visual impact of the proposed hillside development, consistent with and enhanced from the guidelines for another recent hillside development to the west of the subject site at 32 Avenue and 168 Street (Development Application No. 7911-0223-00). The proposed design requirements to address viewscales on the proposed hillside include the following elements:
 - To ensure that the fronts of homes on lots that slope steeply up the hillside to the rear present an attractive mid-scale massing design, with stepped transitional massing, the upper floor must step back from the main floor, no vertical wall at the front shall exceed a height of one and a half storeys unless broken by a roof line, the basement walls must be substantially concealed by fill and landscaping, and stairs leading up to the front door must be embedded in landscaping or concealed by it;
 - To ensure that the rear side of homes on lots that slope down the hillside do not appear massive when viewed from the low side of the lot, no vertical wall face that is unbroken by a roof, deck, or other projection shall exceed a height of one and a half storeys, a rear facing projection is required to break the rear wall plane, and gabled projections which would increase the apparent rear wall will not be permitted on the rear side of the home;
 - To ensure that homes blend into the hillside rather than stand out in contrast to it, only earth tone and neutral colours in medium to dark tones, and navy blue, are permitted on wall cladding; and
 - To ensure a strong natural post-development presence, an unusually dense planting standard featuring a minimum of 60 shrubs on interior lots and 75 shrubs on corner lots is required.

Lot Grading

- A preliminary lot grading plan has been prepared by McElhanney Consulting Services Ltd. and has been reviewed by Planning, Parks and Engineering staff and is sufficient to proceed. The plan shows areas with fill greater than 0.5 metres (1.6 feet) on the proposed site.
- Retaining walls are necessary in certain locations, including locations adjacent to parkland and roads. In some cases, the proposed retaining wall is along a shared park and road interface; this therefore requires the City to maintain the wall in the future. Further review with Engineering and Parks staff at the detailed design stage is required to determine the best approach.
- Staff have some outstanding concerns regarding the design and maintenance of the retaining walls, and want to ensure that any future maintenance does not require encroachment into City parkland. Refinement to the retaining wall design may be required in order to ensure that wall maintenance can be carried out on private property. Resolution of this issue is required prior to Final Adoption.

- A Section 219 Restrictive Covenant is required to ensure retaining walls are constructed, repaired, maintained and replaced in accordance with the geotechnical report, retaining wall plans and the retaining maintenance report at the sole cost of the future land owners.

Northern Railway Line Historical Feature

- Grandview Heights was originally a logging region. In 1886, a logging railway was built through Grandview Heights. At the west of the line, logs were dumped into a ditch and floated into the Nicomekl River. The logging railway was used in Surrey until 1894.
- The Northern Railway Line traversed the subject site. Through the public consultation process, one member of the public advised the applicant and staff that a number of railway spikes and other artifacts can be found across the site, and requested some way of preserving this history.
- The applicant has agreed to provide a commemorative marker and storyboard to document the history of the logging railway running through the property. The details of this will be determined in coordination with Parks and Heritage Planning staff prior to Final Adoption.

SENSITIVE ECOSYSTEMS DEVELOPMENT PERMIT

- In July 2014, Council endorsed the Biodiversity Conservation Strategy (BCS). The BCS included implementation measures to protect Surrey's streamside areas, natural habitats and sensitive ecosystems. This document identifies the use of a Development Permit Area (DPA) as an effective means to protect Surrey's natural environmental assets.
- On September 12, 2016, Council approved amendments to the Official Community Plan (OCP) and the Zoning By-law (No. 12000) to implement a Sensitive Ecosystem DPA and Streamside Protection Measures, collectively known as Surrey's Ecosystem Protection Measures, for the protection of the natural environment, including riparian areas. These changes were detailed in Corporate Report No. R188, which was approved by Council on July 25, 2016. The amendment by-laws were given final adoption on September 12, 2016.
- The OCP is used to identify the specific types of ecosystems that are intended to be protected including Class A, A/O or B streams, and the Zoning Bylaw (Part 7A Streamside Protection) is used to identify the specific protection areas that are required to be established for Streamside Setback Areas.

Streamside Protection and Riparian Areas

- The applicant's Qualified Environmental Professional (QEP), Alex Sartori of Sartori Environmental, prepared an Ecosystem Development Plan (EDP) and Riparian Areas Regulation (RAR) Detailed Assessment Report for the site.
- There are three (3) Class B streams located on the northeast portion of the subject site. These streams are illustrated on Appendix XIII. One of these streams (Stream 3) is impacted by the required road widening on 172 Street. The applicant has received *Water Sustainability Act* (WSA) conditional approval from the Ministry of Forests, Lands and Resource Operations

(MFLNRO) to remove this stream and compensate for it by introducing a new stream (Stream 4) adjacent to 32 Avenue, within the 20 metre (66 ft.) buffer area. MFLNRO granted conditional WSA approval on February 22, 2018 (Appendix XV).

- In accordance with the Zoning By-law, a 15 metre (50 ft.) setback from top-of-bank is required for natural Class B streams. The By-law also notes, however, that where RAR exceeds the Zoning By-law setback, RAR applies. Appendix XIII illustrates the Zoning By-law setback and the RAR setback. In some locations, the RAR setback exceeds the By-law setback, and in others the By-law setback exceeds RAR.
- The Zoning By-law permits some flexing of the minimum By-law setback, provided there is no net loss in the total size of the streamside setback area. The applicant indicates that the proposed flexing would result in a riparian habitat gain of approximately 107 square metres (1,152 sq. ft.). With the use of the flexing provision in the Zoning By-law, no streamside setback variances are required.
- The applicant's proposal includes a detention pond located between Streams 1 and 2. The applicant has demonstrated that the pond can be constructed outside of the streamside and RAR protection areas, using the flexing provision in the Zoning By-law for streamside setbacks (Appendix VIII). The detention pond will require the removal of approximately 75 trees.
- The applicant completed a RAR detailed assessment report for the unnamed Class B streams on the property. The RAR assessment was peer reviewed by Ken Lambertson of Phoenix Environmental Services Ltd. on April 12, 2017. The project QEP then revised their report based on the recommendations of the peer review and submitted the report to the Province for an audit of methodology. The applicant has submitted RAR assessment report to the Province for auditing received notification on September 11, 2017 that the report meets the assessment and reporting criteria for RAR.
- The applicant has submitted an Ecosystem Development Plan, which has been reviewed by staff and found to be generally acceptable. A finalized Ecosystem Development Plan will be required prior to Final Adoption, which will be incorporated into the Sensitive Ecosystem Development Permit.

Biodiversity Conservation Strategy

- The City of Surrey Biodiversity Conservation Strategy (BCS) Green Infrastructure Network (GIN) map, adopted by Council on July 21, 2014 (Corporate Report No. R141; 2014), identifies a Local BCS Corridor within the subject site, in the Redwood BCS management area, with a Medium ecological value.
- The BCS further identifies the GIN area of the subject site as having a Moderate habitat suitability rating, derived from species at risk presence, species accounts and known ecosystem habitat inventories. The BCS recommends a target Corridor width of 30 meters (100 ft.) and target area of roughly 2.2 hectares (5.5 acres) which is 10 percent of the subject property.
- Protecting green infrastructure Hubs (large habitat areas) and Sites (smaller habitat areas) are critical to preserving natural habitat refuges and a diversity of habitat features while maintaining/enhancing Corridors ensures connectivity between fragmented hubs for genetic

variation throughout the City. The closest Biodiversity Hub connection in the GIN to the subject site is Hub H, and is located to the east of the subject site, on the east side of Highway 15, in the Redwood Heights NCP area.

- The BCS currently shows the GIN corridor running west along 32 Avenue from the northeast corner to approximately the middle of the site, then traversing south in the middle of the site, and then traversing west again, generally consistent with the linear open space areas shown in the current NCP (Appendix IX). The applicant proposes to shift the north-south portion of the GIN corridor east to 172 Street. The east-west portion of the GIN corridor will be generally consistent with where it is currently shown in the BCS.
- The north-south portion of the GIN corridor, along 172 Street, is proposed to range between 17 metres (56 ft.) and 20 metres (66 ft.). However, the functional width of the corridor is between 30 metres (100 ft.) and 33 metres (108 ft.) when you take into consideration the 172 Street MUP and boulevard area, and additional land within the side yards of adjacent proposed lots which will be protected with a Restrictive Covenant. The majority of the width of the east-west GIN corridor / open space is much wider than 30 metres (100 ft.).
- The total area of GIN habitat proposed as part of the development, inclusive of GIN corridors and sites, is 5.5 hectares (2.2 acres), which equals 25 percent of the total area of the site. This exceeds the targeted GIN area for this site. This method of GIN retention/enhancement will assist in the long term protection of the natural features and allows the City to better achieve biodiversity at this location consistent with the guidelines contained in the BCS.

HAZARD LANDS DEVELOPMENT PERMIT

- Most of the site is sloping at grades below 20 percent, which is below the threshold that requires a Hazard Lands Development Permit for steep slopes under the OCP.
- A Development Permit (DP) is required however, due to the presence of localized steep slopes in excess of 20 percent grade on the subject site. In order to address this requirement, the applicant has submitted a geotechnical report to confirm that the site can accommodate the proposed development.
- The geotechnical report, prepared by Western Geotechnical Consultants and dated March 9, 2017, with an addendum letter dated April 17, 2017, states that the development and construction of the residential development on the site is feasible from a geotechnical engineering standpoint, and that the proposed structures may be constructed safely for their intended purposes.
- Staff have reviewed the geotechnical report and do not have any concerns with the project moving forward to Council for consideration. Prior to Final Adoption, a geotechnical peer review is required.
- Upon approval of the documents associated with the Development Feasibility Study, they will be included in the finalized Hazard Land Development Permit.

- At Building Permit stage, the Building Division will require Letters of Assurance from a geotechnical engineer to ensure that building plans comply with the recommendations in the approved geotechnical report.
- In addition, engineered foundations are required for all of the lots. A Restrictive Covenant will be registered on the title of the lots to ensure that future owners are aware of this requirement.

FARM PROTECTION DEVELOPMENT PERMIT

- The Official Community Plan (OCP) requires that all development sites adjacent to land within the Agricultural Land Reserve (ALR) obtain a Development Permit for farming protection and conform to specific guidelines, prior to subdivision of the site. The Development Permit is required to reduce agricultural-urban conflicts through increased setbacks and vegetated buffering.
- The proposal meets or exceeds all of the requirements of the Farming Protection DP guidelines as specified in the OCP. The applicant proposes to register a Section 219 Restrictive Covenant on all properties within 300 metres (984 ft.) of the ALR lands on the north side of 32 Avenue to inform future owners of farm practices in the area. The proposal well exceeds the minimum building setback and landscape buffering requirements in the OCP. Triple-glazed windows on proposed Lots 111 to 114 inclusive (the lots closest to 32 Avenue) are also proposed (Appendix XVII).

TREES

- Norm Hol, 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
Alder and Cottonwood Trees			
Alder and Cottonwood	1325	1325	0
Broadleaf Trees (excluding Alder and Cottonwood Trees)			
Bigleaf maple	185	184	1
Paper birch	192	192	0
Cascara buckthorn	1	1	0
Coniferous Trees			
Grand fir	1	1	0
Sitka spruce	1	1	0
Douglas fir	480	403	77
Western redcedar	49	44	5
Western hemlock	9	7	2

Total (excluding Alder and Cottonwood Trees)	918	833	85
Additional Estimated Trees in the proposed Open Space Areas	513	200 (approx.)	313 (approx.)
Total Replacement Trees Proposed (excluding Boulevard Street Trees)	463		
Total Retained and Replacement Trees (Development Area Only)	548		
Contribution to the Green City Fund	\$1,011,200		

- The Arborist Assessment states that there are a total of 918 protected trees on the development area of the site, excluding Alder and Cottonwood trees. 1,325 existing trees, approximately 59% of the total trees on the site, are Alder and Cottonwood trees. It was determined that 85 trees in the development area of the site (excluding the proposed open space areas) 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.
- Table 1 includes an additional 513 protected trees that are located within the proposed open space areas. The Project Arborist estimates that approximately 200 of these trees will be removed to accommodate the proposed development. The removal of approximately 75 trees is required for the proposed detention pond. The removal of approximately 75 additional trees is anticipated in the northeastern open space / streamside protection area. The open spaces in the middle-south part of the site will be retained mostly intact; however, some removals will be required for edge management purposes. The Project Arborist anticipates the removal of approximately 50 trees from this portion of the site, but this number is more difficult to predict without a more detailed review of these trees in coordination with Parks staff.
- It should be noted that the estimates of trees to be removed from the open space areas does not account for "under-sized trees", which are trees that are less than 30 centimeters diameter at breast height (DBH). All City trees are protected regardless of size. Additional undersized trees may be required to be removed to accommodate the proposed development.
- A detailed planting plan prepared by a Qualified Environmental Professional (QEP) and an associated P-15 agreement are required for the monitoring and maintenance of the proposed trees to be planted in the conveyed riparian areas.
- Post-construction hydrology monitoring and maintenance will be an integral component in ensuring the long-term survival of the trees that are proposed to be retained. Prior to Final Adoption, the applicant is required to submit a hydrological report, to the satisfaction of City staff, demonstrating how pre-development flows into the proposed parkland will be maintained post-development. Further, the applicant will be required to provide bonding for the post-construction hydrology and monitoring required for tree preservation within the proposed open space areas.

- If additional tree removals of any size on future parkland are required post-clearing or in conjunction with any proposed works (e.g. new channel construction, drainage works, detention pond works, etc.), the applicant has agreed to provide cash-in-lieu at a 2:1 basis for the tree removal, and cash-in-lieu at a square metre rate for any impact to the understory.
- 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 2,991 replacement trees on the site. Since only 463 replacement trees can be accommodated on the site, the deficit of 2,528 replacement trees will require a cash-in-lieu payment of \$1,011,200 to the Green City Fund, in accordance with the City's Tree Protection By-law (\$400 per replacement tree in lieu).
- In summary, a total of 548 trees are proposed to be retained or replaced on the development area of the site (excluding the open space areas) with a contribution of \$1,011,200 to the Green City Fund.
- The applicant proposes to construct the development in phases. The proposed Phasing Plan is included as Appendix XVI. With this, the tree removal would also be done in phases over a multi-year timeframe.

PRE-NOTIFICATION

- The applicant has undertaken a comprehensive public engagement process from the early stages of the project conception, even prior to making a development application. This consultation has included a pre-application open house in June 2015, numerous meetings with different stakeholder groups including the Grandview Heights Stewardship Association and the Country Woods Residents Association, meetings with affected neighbours, trail walks with different stakeholder groups, and Public Information Meetings. The applicant's Public Engagement Summary is attached as Appendix XIV.
- Pre-notification letters were mailed out on November 21, 2016 and the development proposal signs were erected in early December 2016.
- The following provides a summary of the concerns that have been identified by area residents with staff comments provided in italics following the comments.
- Six (6) neighbouring residents on 31 Avenue expressed concern and opposition to 31 Avenue becoming a connecting road. It is currently a dead-end street. Respondents cited concerns regarding the rural character of 31 Avenue, a depreciation of their quality of life, concerns about pollution, traffic noise, safety and increased crime, and a loss in wildlife.

(Staff responded via email to neighbourhood respondents explaining why a connection is warranted on 31 Avenue. The City's Engineering Design Criteria, which sets the standards for the design of infrastructure within the City, specifies a maximum length for dead-end roads. As such, any roads longer than 200 metres (722 ft.) would require a second outlet. 31 Avenue is currently approximately 364 metres (1,194 ft.) long. This is to ensure that, in the case of an emergency, there would be adequate access for our fire and emergency services so that they may be able to reach the destination in a timely manner. This connection also establishes a finer grid local road network in accordance with the City's Transportation

Strategic Plan which identifies improving local road network connectivity for all road classifications throughout neighbourhoods in order to distribute traffic across, improve routing options, reduce circulation, and increase access for non-motorized modes.

31 Avenue is currently designated as a local road and is planned to remain as such. In the context of the planned network in the area, it is anticipated that 31 Avenue would function primarily to serve local residents in the neighbourhood, as compared to the other roads designated as collectors and arterials, which are intended to allow traffic flow and carry larger volumes of traffic.

Safety issues are reported on both dead-end roads and through-roads, and therefore safety issues depend less on whether or not a road is connected. Rather, more effective measures to address safety concerns may include other means such as visibility, personal and community awareness, and prevention strategies set forth by the RCMP.)

- Staff met with residents on 31 Avenue who had concerns regarding the future of the road in September, 2016 and January, 2017. The residents suggested that if the road must connect to allow for emergency vehicle access, a connection be installed that would allow for emergency vehicles to pass but not standard passenger vehicles. Residents also expressed concern regarding the safety of the intersection at 31 Avenue and 168 Street, due to grades.

(The intersection of 31 Avenue and 168 Street is currently a two-way stop controlled intersection. Based on the applicant's TIS, no additional enhancements are required at this intersection as a result of the proposed development. While 168 Street is on a slope of approximately 12 percent, adequate sightlines are available for drivers exiting 31 Avenue to conduct westbound right and left turn movements.)

- In January 2017 staff met with a group of four (4) residents who expressed concern regarding the loss of wildlife and biodiversity on this large 22 hectare (55 acre) site. They expressed concern regarding the proposed detention pond location requiring more tree removal than where it is currently shown in the NCP, the GIN corridor width of less than 30 metres (100 ft.) as prescribed in the BCS, the potential future inability of deer and other wildlife to continue to live in the area, and the destruction of provincially rare trilliums native to the area. The residents also felt that the existing designation of one-acre gross density in the NCP should be maintained and that this would allow for more greenspace.

(The applicant has demonstrated that the proposed detention pond can be located in the location proposed, between the two (2) yellow-coded watercourses at the northeast corner of the site. This will result in more tree removal than would have resulted if the pond was located where it is currently shown in the NCP, on the east side of 172 Street at 32 Avenue. However, the applicant undertook an analysis of the pond feasibility at that location and concluded that it was not feasible due to the existing environmental constraints of two (2) yellow-coded watercourses on that site.

With regard to the GIN corridor width, the north-south portion of the corridor, while the conveyed parkland area along this edge is between 17 metres (56 ft.) and 20 metres (66 ft.), the functional width of the corridor is between 30 metres (100 ft.) and 33 metres (108 ft.) when you take into consideration the 172 Street MUP and boulevard area, and additional land within the side yards of adjacent proposed lots which will be landscaped and protected

with a Restrictive Covenant. The majority of the east-west open space is much wider than 30 metres (100 ft.).

The applicant is proposing to convey approximately 21 percent of the site (excluding the detention pond and land within 5 metres (16 ft.) of top-of-bank) to the City without compensation, for protection of the highest value areas in terms of tree value and viability, and the protection of streamside areas.

The project Qualified Environmental Professional (QEP) confirmed that the trilliums on the site are Western Trillium (Trillium Ovatum var. ovatum), which is common and widespread, and not protected given its abundance.

While a lower density proposal would have more overall greenspace (including private greenspace), there is little appetite for one-acre subdivision proposals given the present housing trends and economic conditions. While the applicant is proposing density above one-acre gross density, the proposal includes the conveyance of 21 percent of the site as open space, which is well above the standard gross density requirement of dedicating 15 percent open space, or the legislated requirement in the BC Local Government Act of providing 5 percent open space within the subdivision.)

- One (1) respondent expressed concerns regarding road safety at the intersection of 168 Street and 30A Avenue, and the intersection of McNair Drive and 168 Street, which is a slightly misaligned intersection. The respondent suggested removing the road connection at 30A Avenue and 168 Street, and using 31 Avenue as a safer alternative, since the visibility is better at this intersection.

(The development is proposing to establish road connections to both 30A Avenue and 31 Avenue to the west. The multiple access and egress options are to efficiently distribute the traffic generated by the proposed development. Again, this is consistent with the City's Transportation Strategic Plan to establish a finer grid local road network. Furthermore, 30A Avenue is also identified in the North Grandview Heights NCP to connect from 164 Street to 172 Street as an east-west local road connection within the NCP area.)

- A number of respondents contacted the City to request a copy of the proposed subdivision layout.
- City staff corresponded with the Country Wood Residents Association regarding their preference to have the site rezoned to a Comprehensive Development Zone as opposed to the RQ Zone.

(After review and consideration, staff determined that due to the uniqueness of the site a CD Zone would be more appropriate than the RQ Zone.)

Public Information Meetings

- The applicant held two (2) Public Information Meetings (PIM) to consult with the neighbourhood on the proposal.

December 6, 2016 PIM:

- The first meeting was held on the evening of December 6, 2016 at the Morgan Elementary School Gymnasium. The purpose of the meeting was to introduce the project, present the development plans, and gain feedback from the community. A presentation and question / answer session was held at 7:30 pm.
- A total of 78 attendees signed the sign-in sheet, with an unofficial count of 82 attendees.
- The applicant summarized the questions and comments directed to the project team after the presentation as follows:
 - 1-acre lots are preferred over half-acre lots;
 - Concern with increased traffic caused by the development, especially around the Pacific Heights Elementary School which already experiences high traffic and parking issues;
 - Preference to not develop the area at all;
 - Preference for smaller lot sizes (half-acre) to make housing within the neighbourhood more attainable;
 - Support for clustered, small-lot development with large areas of open space to protect tree stands;
 - Question regarding whether the developer will sell serviced lots;
 - Question regarding the timing of road connections to the west of the plan area; and
 - Questions regarding the use of restrictive covenants regarding the appearance / design guidelines within the subdivision.
- A questionnaire was also distributed at the meeting. A total of 37 questionnaires were returned to the project team. In the responses, 60 percent indicated that they support the proposal, 24 percent do not support the proposal, and 16 percent were undecided. Respondents answered questions regarding the proposed open space, tree preservation, and traffic management. 73 percent of respondents supported the open space locations, 81 percent supported the tree retention plan, and respondents indicated that the most important traffic management measure was the signalization of the intersection at 32 Avenue and 172 Street.
- The questionnaire also left space for additional comments. Of these, seven (7) respondents gave comments in support of the application, seven (7) respondents indicated concerns, and six (6) respondents were neither critical nor supportive of the proposal.
 - The supportive respondents indicated that they liked the design, that the demand for housing is high, that there has been good cooperation with the community; and
 - The critical respondents indicated that the lots should be larger, some concerns about grading and drainage, and concerns regarding lack of school space.

- One respondent explained the history of the site as a forest that has been relatively untouched since it was logged in the 1890s. This respondent indicated that a logging railway traversed the site from east to west, and that a number of railway spikes and other artifacts can be found across the forest. This respondent requested some way of preserving this history.

(The applicant has agreed to provide a commemorative marker and storyboard to document the history of the logging railway running through the property. The details of this will be determined prior to Final Adoption.)

April 19, 2017 PIM:

- There was a concern expressed from some neighbourhood residents that the notification for the first PIM was not wide enough to include all affected residents. Therefore, the applicant held a "repeat" PIM on the evening of April 19, 2017 at the Kensington Prairie Community Centre, to present identical information as presented at the first PIM to ensure all affected community members receive the same notification and consultation. A presentation was held at 7:10 pm followed by a question / answer period.
- A total of 26 attendees signed the sign-in sheet, with an unofficial count of 31 attendees.
- During the question / answer period after the presentation, one (1) question was raised about displacing woodland animals such as deer and coyotes.
- Three (3) questionnaires were completed. 67 percent of the respondents indicated support and 33 percent indicated opposition to the proposal.

SUSTAINABLE DEVELOPMENT CHECKLIST

The applicant prepared and submitted a sustainable development checklist for the subject site on July 13, 2017. 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"> • The subject site is within the North Grandview Heights NCP area. NCP amendments are required to amend the land use designation, the locations of open space, road network, and the location of a stormwater detention pond.
2. Density & Diversity (B1-B7)	<ul style="list-style-type: none"> • The proposed unit density is 5.6 uph (2 upa). • A mix of residential and open space uses are proposed. • The proposed lots will allow for rear yard garden space.
3. Ecology & Stewardship (C1-C4)	<ul style="list-style-type: none"> • The proposal incorporates Low Impact Development (LIDS) in its design, including rain water wetlands / detention pond, tree retention, trail system, water well safety, preservation of streams, and downward rain spouts that the end user can apply rain barrels and other stormwater management systems to their house. • The development proposal includes open space areas where the most sensitive environmental conditions and most viable tree stands exist. • The site contains a portion of the Green Infrastructure Network

Sustainability Criteria	Sustainable Development Features Summary
	(GIN). Approximately 2.2 hectares (5.49 acres) of the GIN runs through the site. <ul style="list-style-type: none"> The proposal includes provisions for recycling and organic waste pick-up.
4. Sustainable Transport & Mobility (D1-D2)	<ul style="list-style-type: none"> Multi-use pathway (MUP) for cyclists and pedestrians will be provided. The proposed development will have the appropriate trail linkages throughout the site. The trail linkages will create an environmental / pedestrian network connectivity throughout the area. Way-finding signage will also be implemented into the pedestrian trail network.
5. Accessibility & Safety (E1-E3)	<ul style="list-style-type: none"> The design of the site will incorporate CPTED design principles such as natural surveillance and natural access control.
6. Green Certification (F1)	<ul style="list-style-type: none"> N/A
7. Education & Awareness (G1-G4)	<ul style="list-style-type: none"> Residents, community stakeholders and end user groups have been involved throughout the planning process. There have been two (2) PIMs. A sustainable features document will be provided to new occupants at the time of sale.

BY-LAW VARIANCE AND JUSTIFICATION

(a) Requested Variance:

- to reduce the minimum rear yard setback on proposed Lot 16 from 9.0 metres (30 ft.) to 6.5 metres (21 ft.) for up to 50 percent of the rear lot line; and
- to reduce the minimum front yard setback on proposed Lot 80 from 6.0 metres (20 ft.) for the entire dwelling, to 6.0 metres (20 ft.) for the garage, and to 5.0 metres (16 ft.) for the dwelling; and
- to reduce the minimum rear yard setback on proposed Lot 80 from 9.0 metres (30 ft.) to 8.0 metres (26 ft.) for up to 50 percent of the width of the rear of the dwelling (Appendix XII).

Applicant's Reasons:

- Proposed Lot 16 is an irregularly shaped lot. The north-east lot line is considered to be the rear lot line. This lot line has a length of 51.5 metres (169 ft.). Because the lot is adjacent to open space, the minimum rear yard setback is 9 metres (30 ft.). The rear yard setback relaxation for up to 50 percent of the rear lot line is proposed in order to allow for a home to be built at the maximum size permitted in the Zoning Bylaw.
- Proposed Lot 80 has the shallowest building envelope in the subdivision. Setback relaxations on this lot are proposed in order to allow for a more functional and appealing floorplan.

Staff Comments:

- The proposed variances are reasonable given the shape of the lots. They will not have a negative impact on parkland and will allow for usable rear yard space for these lots.
- Staff support the proposed variances.

INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	Lot Owners and Action Summary (Confidential) and Project Data Sheets
Appendix II.	Proposed Subdivision Layout
Appendix III.	Engineering Summary
Appendix IV.	School District Comments
Appendix V.	Excerpt from the July 6, 2017 AFSAC Meeting Minutes
Appendix VI.	Building Design Guidelines Summary
Appendix VII.	Summary of Tree Survey and Tree Preservation and Tree Plans
Appendix VIII.	Proposed Amendment to Schedule F of the Zoning By-law
Appendix IX.	Current North Grandview Heights NCP Plan
Appendix X.	Proposed NCP Amendment Plan
Appendix XI.	Proposed CD By-law
Appendix XII.	Development Variance Permit No. 7915-0352-00
Appendix XIII.	Streamside Protection Areas
Appendix XIV.	Chia Public Engagement Summary
Appendix XV.	Water Act Conditional Approval – FLNRO Approval File No. 2005354
Appendix XVI.	Phasing Plan
Appendix XVII.	Farming Protection DP Guidelines Table

original signed by Ron Hintsche

Jean Lamontagne
General Manager
Planning and Development

HK/da

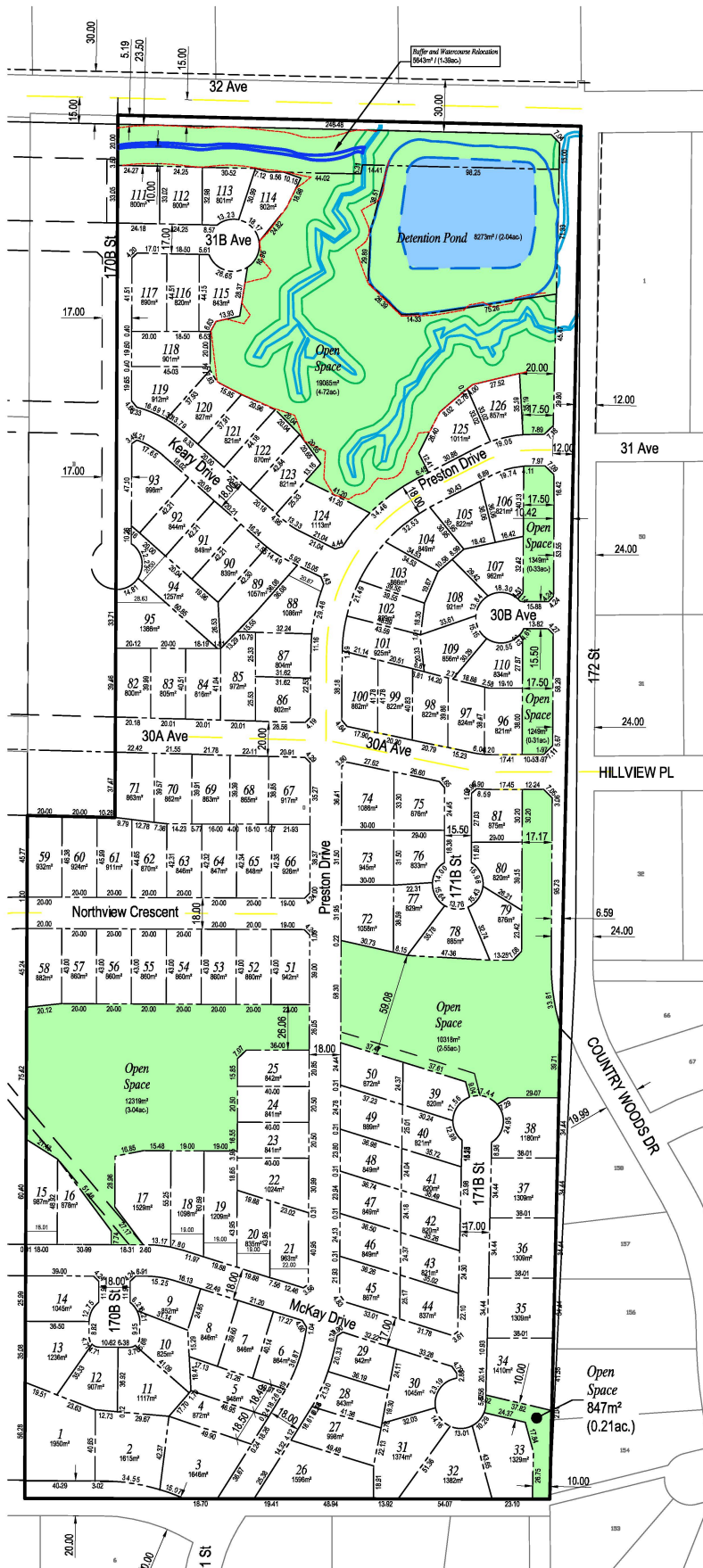
APPENDIX I HAS BEEN
REMOVED AS IT CONTAINS
CONFIDENTIAL INFORMATION

SUBDIVISION DATA SHEET

Proposed Zoning: RQ

Requires Project Data	Proposed
GROSS SITE AREA	
Acres	55.21
Hectares	22.34
NUMBER OF LOTS	
Existing	1
Proposed	126
SIZE OF LOTS	
Range of lot widths (metres)	18.0 m – 40.29 m
Range of lot areas (square metres)	800 m ² – 1,950 m ²
DENSITY	
Lots/Hectare & Lots/Acre (Gross)	5.64 uph / 2.28 upa
Lots/Hectare & Lots/Acre (Net)	
SITE COVERAGE (in % of gross site area)	
Maximum Coverage of Principal & Accessory Building	10.68% (est.)
Estimated Road, Lane & Driveway Coverage	20% (est.)
Total Site Coverage	30.68 (est.)
PARKLAND	
Area (square metres)	46,789 m ²
% of Gross Site	21.74%
	Required
PARKLAND	
5% money in lieu	NO
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	YES

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LEGEND

- SPEA / WINDFIRM BOUNDARY
- WATERCOURSE
- TOP OF BANK

GROSS SITE AREA: 223,415 m² (55.21 ac.)
 DETENTION POND AREA: 8,273 m² (2.04 ac.)
 NET SITE AREA (less POND): 215,142 m² (53.16 ac.)

Open Space required (Gross area less Detention Pond Area x 15%)
 223,415 - 8,273 = 215,142 m² (53.16 ac.)
 x 15% = 32,271 m² (7.97 ac.)

OPEN SPACE DEDICATION:
 Open Space: = 50,810m² (12.56 ac.) 22.75%
 DISCOUNT WITHIN 5m FROM T.O.B.
 (50% * 5105 m²): 2552 m²
 BELOW T.O.B.: 1469 m²
NET OPEN SPACE: 46,789 m² (11.56 ac.)
 = 21.74% of NET SITE AREA

* EXCLUDES 8,273m² POND SITE

TOTAL OPEN SPACE INCLUDING POND
 = 59,083m² (14.60ac.) 26.45%

LAYOUT ASSUMES CD ZONE
 MIN LOT AREA: 1180m² / 800m²
 MIN WIDTH 20m / 18m
 AVERAGE LOT AREA: 954m²

YIELD: 126 SINGLE FAMILY LOTS

DENSITY:
 126 / 22.34 ha. = 5.64 units per hectare
 126 / 55.21 ac. = 2.28 units per acre

Sketch 48

Chia Properties, 17190 32 Ave, Surrey, BC

Scale: 1:2500 @ 11"X17"
 Date: February 27, 2018
 Job No.: 2111-03219-0
 Mun. Proj.: 7915-0352-00

NOTES:

- THIS DRAWING IS FOR PRELIMINARY LAYOUT ONLY, AND SUBJECT TO MUNICIPAL APPROVAL.
- THE AREAS AND DIMENSIONS SHOWN ON THE DRAWINGS ARE SUBJECT TO DETAILED SURVEY AND CALCULATIONS, AND MAY VARY.
- THIS DRAWING IS NOT TO BE USED FOR LEGAL TRANSACTIONS.

DATE: 2018-02-27, 10:58 AM FILE: 2018-02-27-10-58-AM-11-17.DWG PLOT: 17190 32 AVE SURREY BC 2300 CENTRAL CITY TOWER SHEET: 48 OF 48

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

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

DATE: **Mar 05, 2018** PROJECT FILE: **7815-0352-00**

RE: **Engineering Requirements
Location: 17190 32 Ave**

NCP AMENDMENT

There are no engineering requirements relative to the NCP Amendment.

REZONE/SUBDIVISION

Property and Right-of-Way Requirements

- dedicate 4.942 m along 32 Avenue to secure 15.0 m road allowance from centerline (ultimate 30 m road allowance);
- dedicate as road (without compensation), gazetted road for the south 10.058 meters of 32nd Avenue;
- dedicate necessary lands along 172 Street to secure ultimate 24.0 m road allowance, offset of existing east property line of 172 Street;
- dedicate necessary lands along 28 Avenue to secure ultimate 20.0 m road allowance, offset of existing south property line of 28 Avenue;
- dedicate 17.0 m along 31B Avenue road allowance, and cul-de-sac bulb (R=14.0 m)
- dedicate 11.5 m half road along 170B Street (north of 30A Avenue) for ultimate 15.5 m road allowance, and cul-de-sac bulb (R=14.0 m);
- dedicate 17.0 m along 170B Street (south of McKay Drive) for ultimate road allowance, and cul-de-sac bulb (R=14.0 m);
- dedicate ultimate 18.0 m road allowance along Preston Drive;
- dedicate ultimate 18.0 m road allowance along Keary Drive;
- dedicate ultimate 17 m road allowance along 30B Avenue, and cul-de-sac bulb (R=14.0 m);
- dedicate ultimate 20.0 m road allowance along 30A Avenue;
- dedicate ultimate 17 m road allowance along 171B Street(south of 30A Avenue), and cul-de-sac bulb (R=14.0 m);
- dedicate ultimate 17 m road allowance along 171B Street(north and south of McKay Drive);
- dedicate ultimate 18.0 m road allowance along Northview Crescent;
- dedicate ultimate 18.0 m road allowance along McKay Drive;
- register required corner cuts at all road intersections
- register 0.5 m statutory right-of-ways (SRW) for inspection chambers and sidewalk maintenance.

NOTE: Detailed Land Development Engineering Review available on file

Works and Services

- construct signal at 172 Street and 32 Avenue, and widen pavement of 32 Avenue if necessary to accommodate left turn bays;
- construct west side of 172 Street with ultimate 8.5 m pavement, 4.0 m MUP, street trees, and street lighting; Pavement will need to be minimum 11.0 m at the intersection to accommodate left turn bay; Applicant proposed to install roundabout/traffic circle at 30A Avenue as traffic calming measure to mitigate residents' concerns. This proposal is acceptable, but is fully funded by the applicant;
- construct north side of 28 Avenue to City Standards;
- construct all internal roads (31B Avenue, 170B Street, Preston Drive, Keary Drive, 30B Avenue, 30A Avenue, 171B Street, Northview Crescent; and McKay Drive) to current City Standards;
- construct primary service connections for storm, sanitary and water for each lot at the lot frontage. Rear or side yard connections will not be accepted;
- construct a detention pond to provide detention requirements to the site;
- construct any main lines (storm, sanitary, and water) required to service the site along all road frontages.
- construct the North Grandview pump station – this includes construction of the force main from the pump station to the Grandview Interceptor.

A Servicing Agreement is required prior to Rezone/Subdivision.

DEVELOPMENT PERMIT/DEVELOPMENT VARIANCE PERMIT

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



Tommy Buchmann, P.Eng.
Development Engineer

M51



Planning February-07-18

THE IMPACT ON SCHOOLS

APPLICATION #: 15 0352 00

SUMMARY

The proposed 128 single family lots are estimated to have the following impact on the following schools:

Projected # of students for this development:

Elementary Students:	44
Secondary Students:	19

September 2017 Enrolment/School Capacity

Pacific Heights Elementary	
Enrolment (K/1-7):	51 K + 337
Operating Capacity (K/1-7)	76 K + 232
Addition Operating Capacity (K/1-7) 2020	76 K + 512
Earl Marriot Secondary	
Enrolment (8-12):	1857
Capacity (8-12):	1500

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.

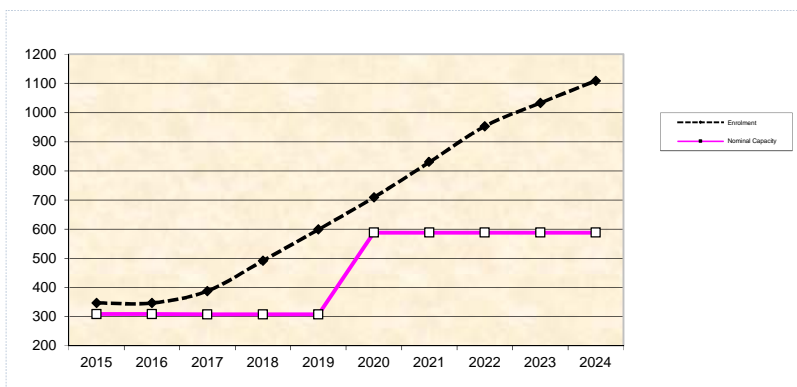
Pacific Heights Elementary is currently over capacity. Rapid enrolment growth is expected to continue into the foreseeable future. As of September 2017, there are 6 portables on site used as enrolling spaces.

In December 2017, the Ministry of Education announced funding for design and construction of the following, in the Pacific Heights catchment:

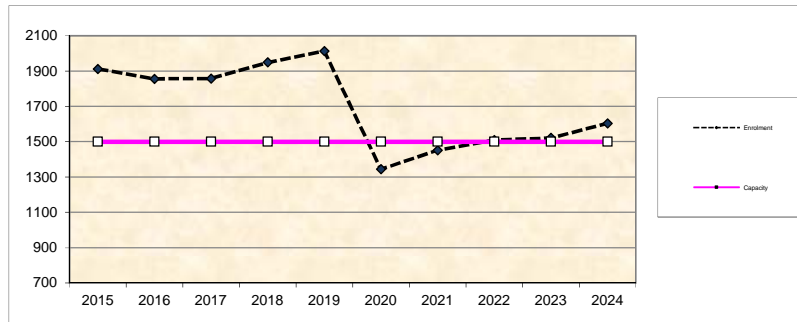
- A 12 classroom addition at Pacific Heights elementary targeted to open September 2019 and
- A new 25 classroom school on Edgewood drive targeted to open September 2020

To relieve the pressure at Earl Marriot, a new 1500 capacity high school located on 26th Ave next to the existing Pacific Heights Elementary is currently in design and construction; and is also targeted to open for September 2020. This new high school has been officially named Grandview Heights Secondary.

Pacific Heights Elementary



Earl Marriot Secondary



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

It was Moved by M Bose
Seconded by S. VanKeulen
That the Agriculture and Food Security
Advisory Committee recommend to the General Manager of Planning and
Development to support Development Permit Application 7915-0020-00.
Carried

The Chair left the meeting at 11:05 a.m. and M. Bose assumed the role of the Vice-Chair.

6. Development Permit for Farm Protection

Heather Kamitakahara, Planner

File: 6880-75; 7915-0352-00

The following comments were made:

- The subject property is 22.6 hectares (55.8 acres) in size, designated Suburban in the Official Community Plan (OCP) and Proposed One Acre Residential Gross Density (RA-G) in the North Grandview Heights Neighbourhood Concept Plan (NCP).
- The applicant is proposing to amend the North Grandview Heights NCP to amend the land use designation from Proposed One Acre Residential Gross Density (RA-G) to Single Detached (2 upa).

The Committee expressed concerns for the proposed densities and if they meet with the NCP designation. The Committee suggested triple glazing to the four lots on the northern portion. The Committee asked staff if the buffer along 32 Avenue is taken into account for the four lane expansion. Staff clarified a tree line is proposed to be constructed along 32 Avenue and the applicant is exceeding buffering requirements for single family dwellings.

It was Moved by S. VanKeulen
Seconded by P. Harrison
That the Agriculture and Food Security
Advisory Committee recommend to the General Manager of Planning and
Development to support Development Application 7915-0352-00.
Carried

R. Brar left the meeting at 11:20 a.m.

BUILDING GUIDELINES SUMMARY

Surrey Project no: 7915-0352-00
Project Location: 17190 - 32 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 in the 17100 block, extending from 28 Avenue at the south to 32 Avenue at the north. North of the site (north side of 32 Avenue) are numerous 20,000 square metre "General Agricultural Zone (A-1)" properties developed in the 1960's. These lots have old homes and a variety of outbuildings that are substantially concealed from street view by a large mature, dense coniferous hedge extending across several properties. Properties not concealed by hedges are open farmland with three board agricultural fencing along their 32 Avenue front lot lines. These properties do not provide suitable architectural context for a year 2017 suburban estate development.

Adjacent to the west side of the subject site on 32 Avenue is a proposed new 25 lot "CD based on RH-G" development identified as Surrey project 16-0228-00. South of this, also adjacent to the west side of the subject site is a proposed new 13 lot "CD based on RH-G" development identified as Surrey project 16-0389-00. South of this, also adjacent to the west side of the subject site is a proposed new 30 lot "CD based on RH-G" development identified as Surrey project 16-0370-00. All three of these developments are at an application stage only, and so no as-built context can be derived from the lands adjacent to the west side of the subject site.

South of the subject site, on the south side of 28 Avenue are thirty year old homes constructed on "One Acre Zone (RA)" lots. Homes include a modestly sized "West Coast Traditional" Bungalow, an estate quality "Traditional English Tudor" Two-Storey, and an estate sized "Neo-Traditional" 1 ½ Storey home.

The eastern border of the subject site is 172 Avenue which becomes Country Woods Drive as it extends south. Homes fall into one of two general categories; either the homes are large (4000+) sq.ft. estate quality "Traditional" or "Heritage" style Two-Storey type, or they are 1200 - 2500 sq.ft. Bungalows. Only the estate sized homes provide suitable context for a post year 2016 "CD based on RH zone" development. Homes providing the most suitable context for the subject site include 2835, 2855, and 2876 Country Woods Drive, and 17221 - 31 Avenue. The Country Woods neighbourhood has an active association (the "Country Woods Residents Association") that promotes community neighbourhood maintenance and regular additions to the neighbourhood's stock of trees. This association will want continuity of building forms and landscapes extending west into the subject site.

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

- 1) **Context Homes:** There are a few homes in this area that could be considered to provide acceptable architectural context, including 2835, 2855, and 2876 Country Woods Drive, and 17221 - 31 Avenue. These homes are style authentic within a Traditional and Heritage style range, have well balanced, correctly proportioned massing designs, have architecturally interesting roof designs, and an internally consistent presentation to the street. Massing design, construction materials, trim and detailing standards, and landscape design standards for new homes constructed at the subject site should meet or exceed standards found in the aforesaid context homes.
- 2) **Style Character :** Surrounding context home described above exhibit a suburban-estate style character, and architecturally interesting massing design. Styles suited for this objective include "Traditional" (including English Country, English Tudor, English Manor, Cape Cod and other sub-styles that impart a formal, stately character), Classical Heritage, Neo-Heritage, estate quality manifestations of the Neo-Traditional style, and other compatible styles meeting a high architectural standard as determined by the consultant. Note that style range is not restricted in the building scheme. However, the consultant refers to the character study style recommendations when reviewing plans for meeting style-character intent.
- 3) **Home Types :** Home types include Bungalow and Two-Storey, 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 (post year 2015) for RH zoned subdivisions, and meet or exceed standards found on context homes. 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 are all one storey in height. The recommendation however 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, but also to ensure a front entrance can be construction that is proportional to home size.
- 6) **Exterior Wall Cladding :** This is an estate home area in which high value homes have been constructed with high quality cladding materials. Although vinyl has been used (including on context homes), vinyl is a low cost utility cladding material that more suited to areas where affordability is an objective. This is not the case here, as all lots and new homes will be of high value and estate quality. Vinyl therefore, is not recommended.
- 7) **Roof surface :** This is area in which homes have either cedar shake or 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 concrete tile roof would stand out as inconsistent due the large difference in textures (thickness) between asphalt shingles and concrete tiles, and so these products are not recommended. Cedar shakes, although consistent with some of the existing homes are not recommended because there would likely be only a few homeowners choosing cedar shingles, which would cause an inconsistent result. Where opportunities arise to introduce new environmentally sustainable products, they should be embraced. Generally, these materials have thicknesses between asphalt shingles and cedar shingles and will not appear out of place texturally. Therefore, to ensure consistency of character, only shake profile asphalt shingles and shake profile sustainable products are recommended. Where required by the BC Building Code for lower slope applications membrane roofing products can be permitted subject to consultant approval. Small decorative metal roofs should also be permitted.

- 8) **Roof Slope :** The recommendation is to set the minimum roof slope at 7:12. Steeper slopes will be encouraged, especially on street facing roof projections. However, a relatively low 7:12 slope may be required to meet maximum height as specified in the CD-based-on-RH bylaw. A provision is also recommended to allow slopes less than 7:12 where it is determined by the consultant that the design is of such high architectural integrity that the roof slope reduction can be justified, or that lower slopes are needed on feature projections or at the front entrance veranda to ensure adequate depth upper floor windows can be installed without interference with the roof structure below.

Streetscape: North of the site are A-1 zoned agricultural lands either concealed by dense mature hedges, or are open fields with 3 board agricultural fencing. West are large RA zoned parcels with 40 year old homes on large lots, which are the subject of numerous rezoning. South of the site are homes on large RA zone parcels, most of which were constructed in the 1980's. East of the site is the Country Woods development comprised of a mix of moderate to large Bungalows and estate quality Two-Storey homes.

2. Proposed Design Guidelines

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

- The new homes are constructed to a high architectural standard, meeting or exceeding standards found in most executive-estate quality subdivisions in the City of Surrey. New homes are readily identifiable as one of the following styles: "Traditional" (including English Country, English Tudor, English Manor, Cape Cod and other sub-styles that impart a formal, stately character), Classical Heritage, Neo-Heritage, and estate quality manifestations of the Neo-Traditional style, and styles which are internally consistent, are compatible with other homes, and which exhibit a high level of architectural integrity as determined by the consultant.
- 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)

There are a few homes in this area that could be considered to provide acceptable architectural context, including 2835, 2855, and 2876 Country Woods Drive, and 17221 - 31 Avenue. These homes are style authentic within a Traditional and Heritage style range, have well balanced, correctly proportioned massing designs, have architecturally interesting roof designs, and an internally consistent presentation to the street. However, massing design, construction materials, and trim and detailing standards for new homes constructed in post year 2015 RH

zone subdivisions now exceed standards evident on the context homes. The recommendation therefore is to adopt standards commonly found in post year 2015 RH zoned subdivisions, providing the standards meet or exceed those of the aforesaid context homes.

Exterior Materials/Colours: Stucco, Cedar, Fibre-Cement Board, Brick, and Stone. Vinyl siding not permitted on exterior walls.

“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 possibly on trim, subject to consultant approval. “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 7:12, with exceptions to prevent roof ridges from becoming too high (overshadowing of neighbouring lots), to allow for veranda roofs that do not cover upper floor windows, to allow for artistic expression in feature roofs, and to provide a path for exceptional designs with lower slope roofs to be approved subject to consultant approval.

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

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

Treatment of Corner Lots: Significant, readily identifiable architectural features are provided on both the front and flanking street sides of the dwelling, resulting in a home that architecturally addresses both streets. One-storey elements on the new home shall comprise a minimum of 50 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 suburban standard:* Tree planting as specified on Tree Replacement Plan plus minimum 40 shrubs of a minimum 3 gallon pot size. Corner lots shall have an additional 20 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. Driveways shall be *constructed* with a 0.4m [16 inch] wide border of a contrasting material, conforming with these

materials. Additional landscaping including a three rail transparent fence and an additional 20 shrubs shall be installed along lot lines adjacent to public spaces.

Other (massing design):

The building scheme contains numerous provisions to ensure vertical massing of the structure is limited by requirements that vertical spaces without intermediary rooflines cannot exceed a height of 1 ½ storeys. Also, the walls of any homes adjacent to a public space require interesting architectural projections, reduced massing of walls through offsets and skirt roofs, and enhanced articulation of the park facing façade.

CPTED

on the north side of *lots* 15, 16, 17, 18, 19, 25, 33, 38, 39, 50, 111, 112, 113, 114, and 120 - 126 inclusive, and on the south side of *lots* 26, 31, 32, 33, 34, 51 - 58 inclusive, 72, 77, 78, 79, and on the east side of *lots* 16, 33, 79, 80, 81, 96, 106, 107, 110, 114, 115, 118, 119 and 126, and in the west side of *lots* 23, 24, 25, and 125, which are adjacent to publically accessible open space, an “eyes on the park” approach shall be used to design the structure in a manner that provides adequate window areas (not less than 4.65 square metres [50 square feet]) on said walls of high traffic floor areas, to ensure unobstructed views of the public park

Compliance Deposit: \$5,000.00

Summary prepared and submitted by: Tynan Consulting Ltd. Date: March 5, 2018

Reviewed and Approved by:  Date: March 5, 2018

TREE PRESERVATION SUMMARY

Surrey Project No.: 7915-0352-00
Project Address: 17190 32 Avenue Surrey, BC
Consulting Arborist: Norman Hol

ON-SITE TREES:	QUANTITY OF TREES
Total Bylaw Protected Trees Identified (on-site and shared trees, including trees within boulevards and proposed streets and lanes, excluding Park and ESA dedications)	2243
Bylaw Protected Trees to be Removed	2158
Bylaw Protected Trees to be Retained (excludes trees in Park dedication areas and ESA's)	85
Replacement Trees Required: Alder and Cottonwood at 1:1 ratio: 1325 times 1 = 1325 All Other Bylaw Protected Trees at 2:1 ratio: 833 times 2 = 1666 TOTAL:	2991
Replacement Trees Proposed	463
Replacement Trees in Deficit	2528
Protected Trees Retained in Proposed Open Space/ Riparian Areas	313 (approx)

OFF-SITE TREES:	QUANTITY OF TREES
Bylaw Protected Off-Site Trees to be Removed	7
Replacement Trees Required: Alder and Cottonwood at 1:1 ratio: 0 times 1 = 0 All Other Bylaw Protected Trees at 2:1 ratio: 7 times 2 = 14 TOTAL:	14
Replacement Trees Proposed	0
Replacement Trees in Deficit	14

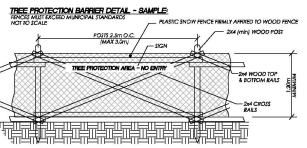
This summary and the referenced documents are prepared and submitted by:



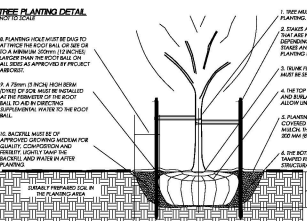
Norman Hol, Consulting Arborist

Dated: Feb 28, 2018

Direct: 604 813 9194
Email: norm@aclgroup.ca



- TREE PROTECTIVE ZONE RESTRICTIONS**
- RESTRICTIONS TO BE:**
- No parking of vehicles, trailers or any other equipment within a 20m buffer zone
 - No construction equipment or other equipment within a 20m buffer zone
 - No materials, debris or any other material within a 20m buffer zone
 - No excavation or other earthworks within a 20m buffer zone
 - No trenching or other earthworks within a 20m buffer zone
 - No storage of materials, equipment or other items within a 20m buffer zone
 - No placement of materials or equipment within a 20m buffer zone
 - No drilling or other activities within a 20m buffer zone
 - No use of heavy machinery or equipment within a 20m buffer zone

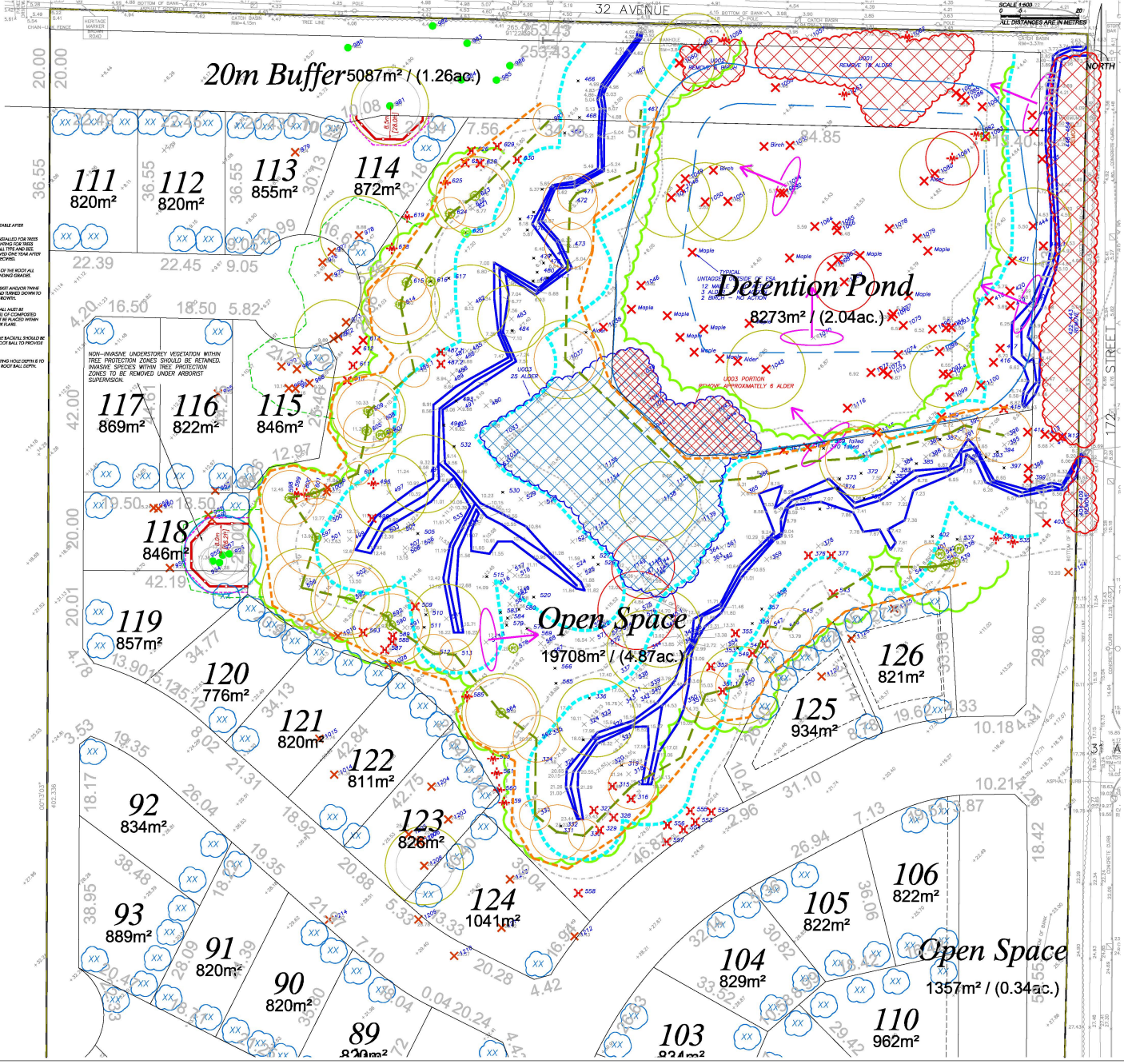


- TREE PLANTING DETAIL**
- FLANKING HOLES MUST BE SET TO MATCH ROOF BALL DETAIL.
 - THE TREE MUST BE VERTICAL AND STABLE AFTER PLANTING.
 - SOILS AND THE SHALL BE PROVIDED FOR THE TREE TO GROW AND DEVELOP PROPERLY.
 - THE TREE MUST BE PROTECTED BY A PROTECTIVE BARRIER AND THE BARRIER MUST BE SET TO MATCH ROOF BALL DETAIL.
 - THE TREE MUST BE PROTECTED BY A PROTECTIVE BARRIER AND THE BARRIER MUST BE SET TO MATCH ROOF BALL DETAIL.
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 - THE TREE MUST BE PROTECTED BY A PROTECTIVE BARRIER AND THE BARRIER MUST BE SET TO MATCH ROOF BALL DETAIL.



CONTEXT PLAN NOT TO SCALE

SHEET 1



- TREE MANAGEMENT SEGREGATION BY REPARATION LINE**
- XX - TREE MANAGEMENT SEGREGATION BY REPARATION LINE
 - Blue dashed line - Boundary between the 20m Buffer and the Detention Pond
 - Green dashed line - Boundary between the 20m Buffer and the Open Space
 - Orange dashed line - Boundary between the Detention Pond and the Open Space
 - Red dashed line - Boundary between the Open Space and the Detention Pond
 - Yellow dashed line - Boundary between the Open Space and the 20m Buffer
- TREE MANAGEMENT IN PROJECT**
- Green circle - Remove trees with a diameter less than 150mm
 - Red 'X' - Remove trees with a diameter between 150mm and 250mm
 - Orange 'X' - Remove trees with a diameter between 250mm and 400mm
 - Yellow 'X' - Remove trees with a diameter between 400mm and 600mm
 - Blue 'X' - Remove trees with a diameter greater than 600mm
 - Green circle with 'X' - Remove trees with a diameter less than 150mm
 - Red 'X' with circle - Remove trees with a diameter between 150mm and 250mm
 - Orange 'X' with circle - Remove trees with a diameter between 250mm and 400mm
 - Yellow 'X' with circle - Remove trees with a diameter between 400mm and 600mm
 - Blue 'X' with circle - Remove trees with a diameter greater than 600mm
- TREE REPLACEMENT**
- Green circle - New tree planting (specify species and size)
 - Red circle - New tree planting (specify species and size)
 - Orange circle - New tree planting (specify species and size)
 - Yellow circle - New tree planting (specify species and size)
 - Blue circle - New tree planting (specify species and size)

TITLE BLOCK

DATE: 14-05-2017
 PROJECT: 17170 32 AVE, SURREY BC
 CLIENT: CHA PROPERTIES
 A/C/L: 12141

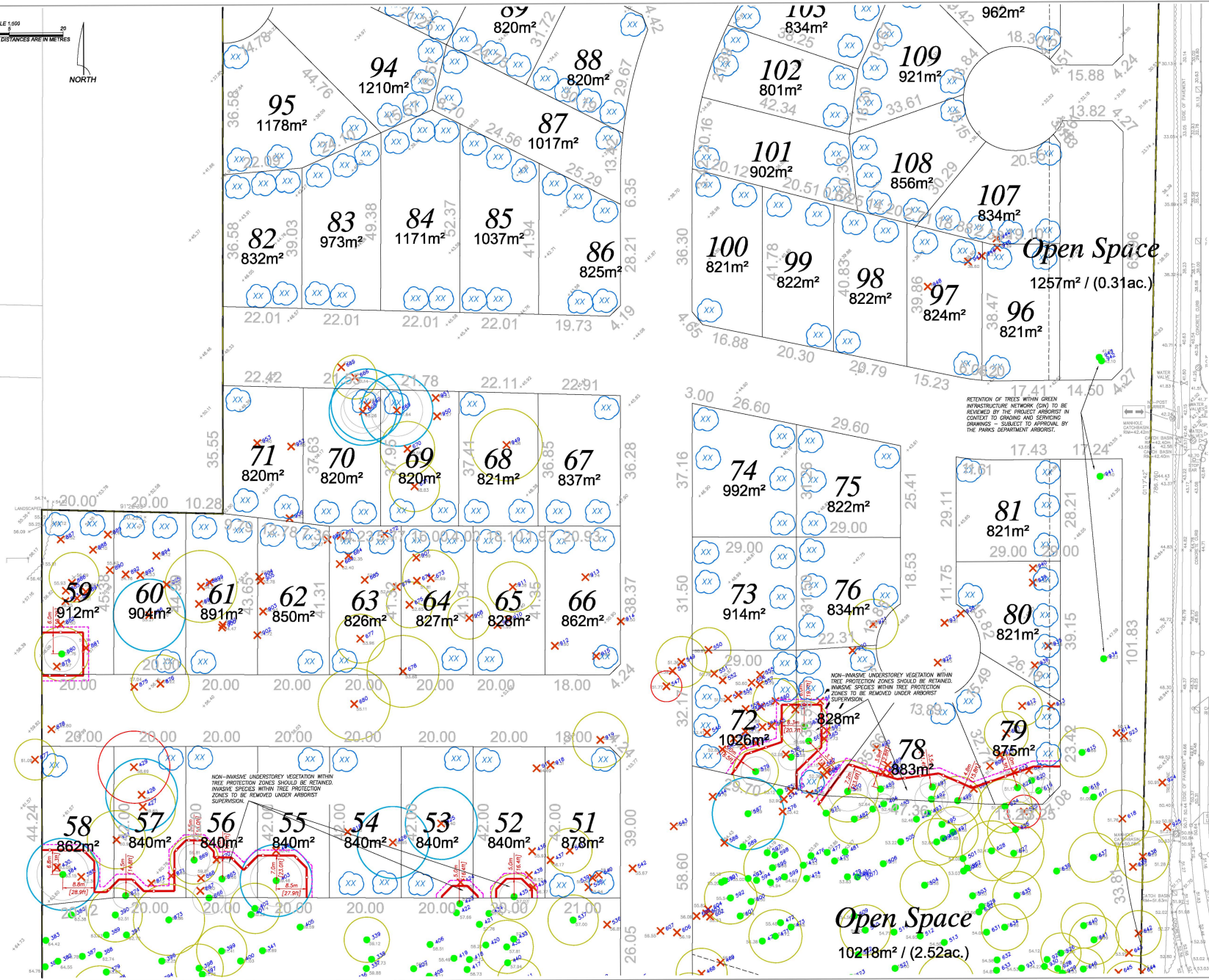
TREE MANAGEMENT DRAWING
 PROJECT: SINGLE-FAMILY SUBDIVISION
 ADDRESS: 17170 32 AVE, SURREY BC
 CLIENT: CHA PROPERTIES
 A/C/L: 12141

SHEET: 1 OF 3

SCALE 1:500
ALL DISTANCES ARE IN METRES



SHEET 2

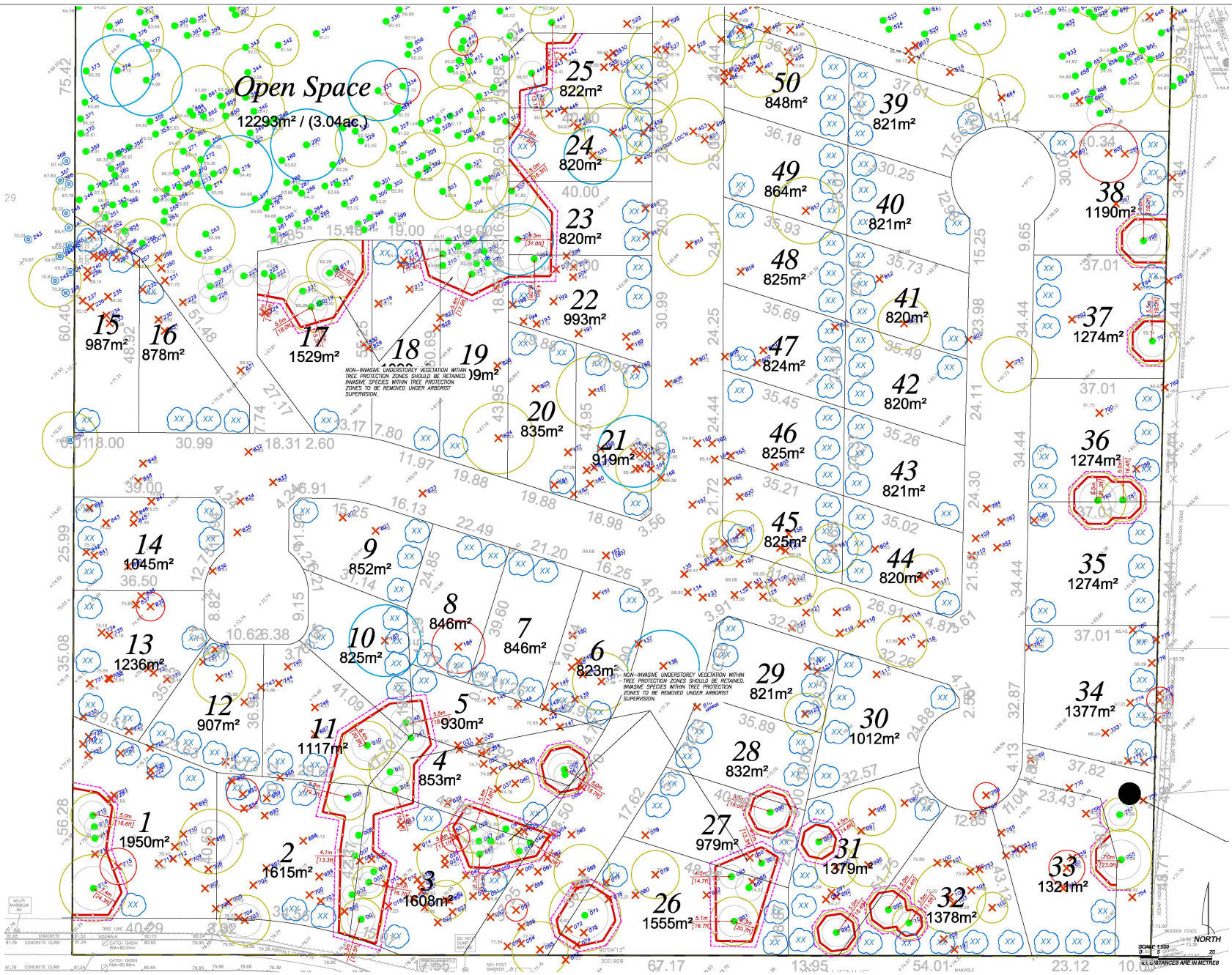


RETENTION OF TREES WITHIN GREEN INFRASTRUCTURE NETWORK (GAIN) TO BE REVIEWED BY THE PROJECT ARBORIST IN CONJUNCTION TO GRADING AND SERVING DRAWINGS - SUBJECT TO APPROVAL BY THE PLANNING DEPARTMENT ARBORIST.

NON-INVASIVE UNDERSTOREY VEGETATION WITHIN TREE PROTECTION ZONES SHOULD BE RETAINED. INVASIVE SPECIES WITHIN TREE PROTECTION ZONES TO BE REMOVED UNDER ARBORIST SUPERVISION.

1	JUL 15, 2017	UPDATED LANDSCAPE AND TREE RETENTION
2	OCT 17, 2016	FINAL DIMENSION
3	NOV 1, 2016	ISSUED FOR PERMIT
TREE MANAGEMENT DRAWING		
PROJECT: SINGLE-FAMILY SUBDIVISION		
ADDRESS: 17190 32 AVE, SURREY BC		
CLIENT: CHSA PROPERTIES		
ACLI FILE: 11241		
		SHEET: 2 OF 3

ARBORTECH CONSULTING
 12051 HORSHEKE WAY, RICHMOND, BC V7A 4V4
 TEL: 604 275 3454



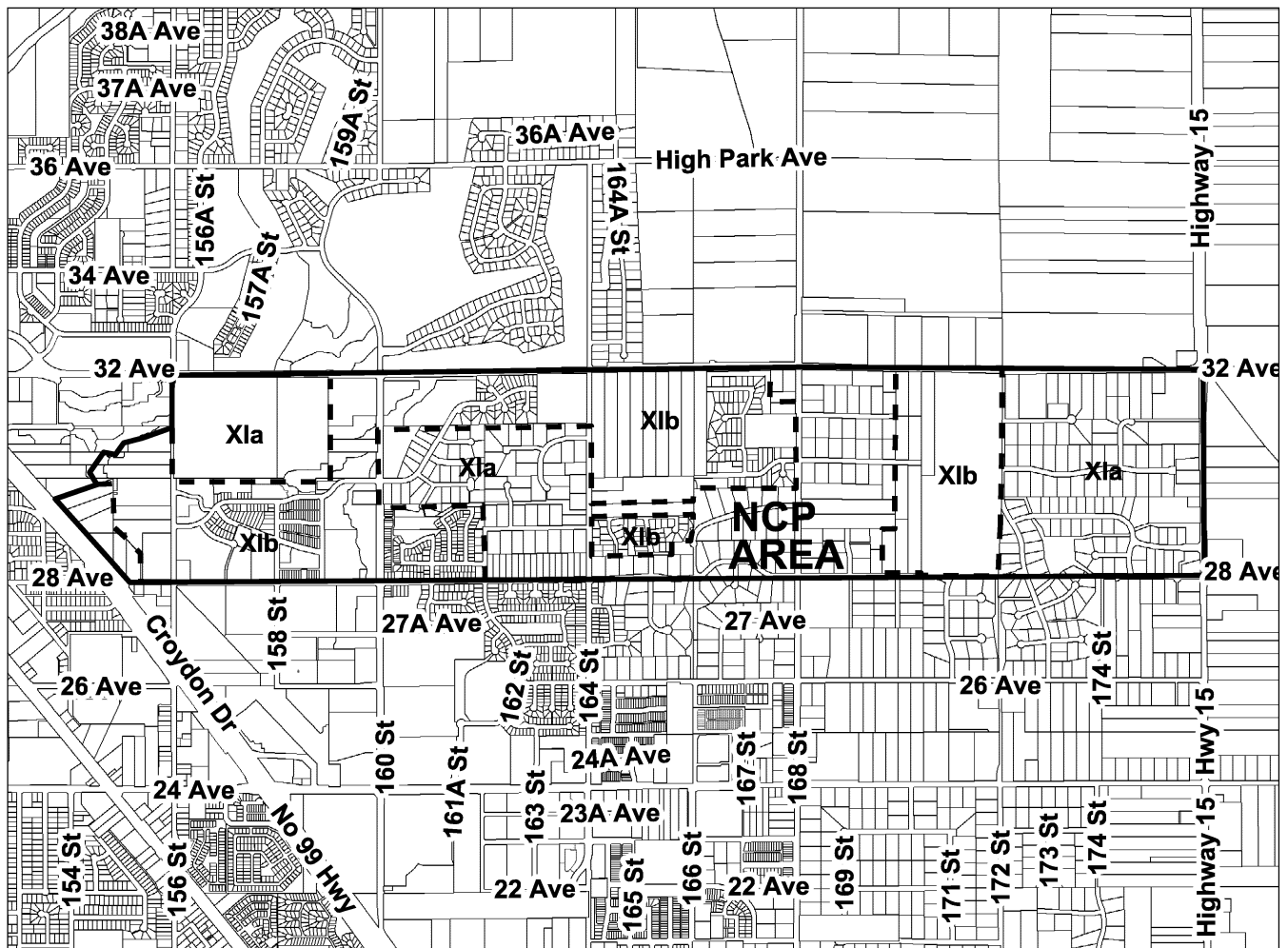
SHEET 3

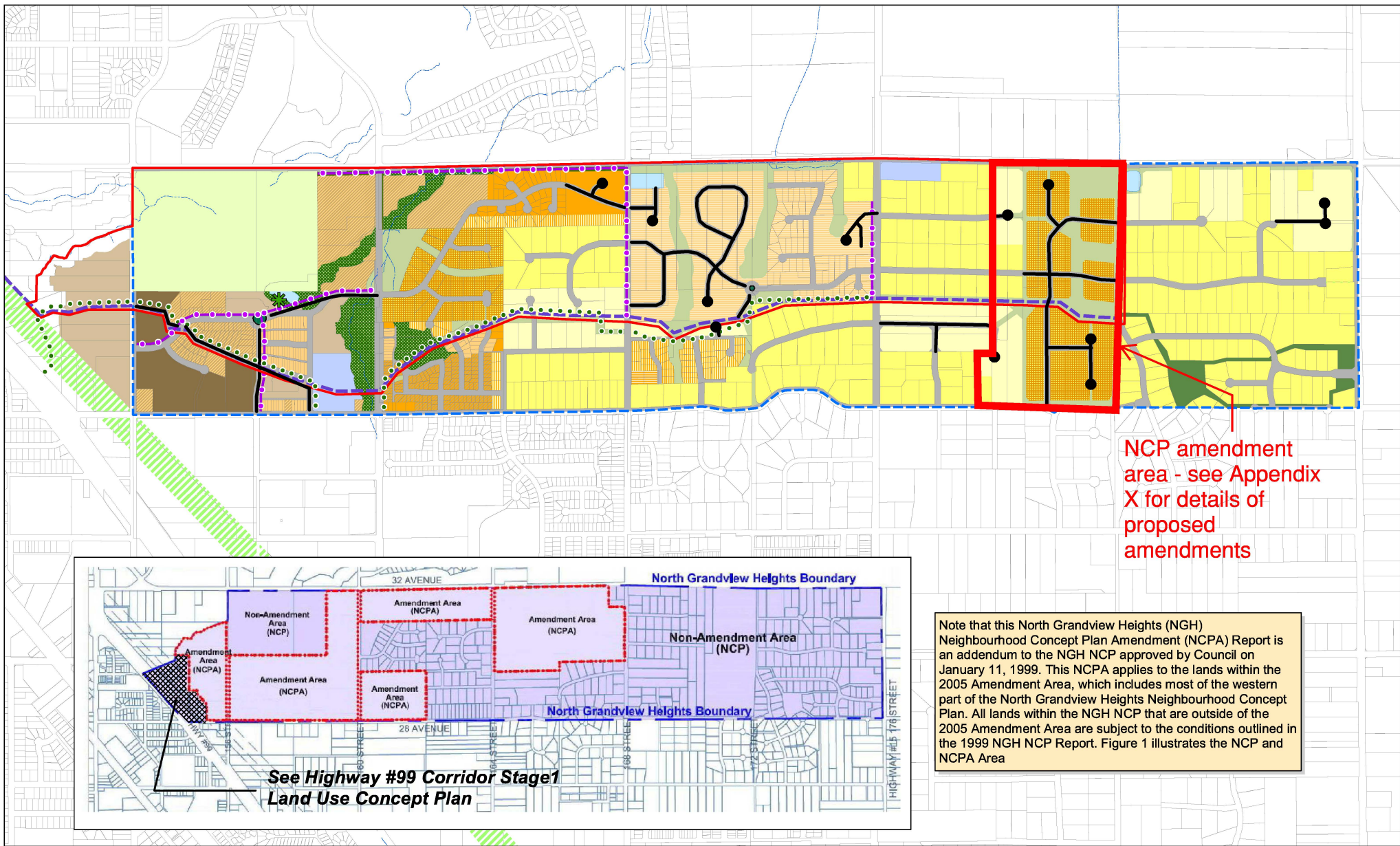
1	DATE: 16/10/2017	DESCRIPTION: LAYOUT AND TREE PROTECTION
2	DATE: 20/10/2017	DESCRIPTION: FINAL DRAWING
3	DATE: 11/01/2018	DESCRIPTION: SITE PLAN
TREE MANAGEMENT DRAWING		
PROJECT: SINGLE-FAMILY SUBDIVISION		
ADDRESS: 17170 32 AVE, SURREY BC		
CLIENT: CHA PROPERTIES		
DATE: 16/10/2017	SCALE: 1:1241	SHEET: 3 OF 3

ARBORTech CONSULTING
 145 - 12051 HORSBUSH WAY, RICHMOND, BC V7A 4V4
 P 604 275 3484

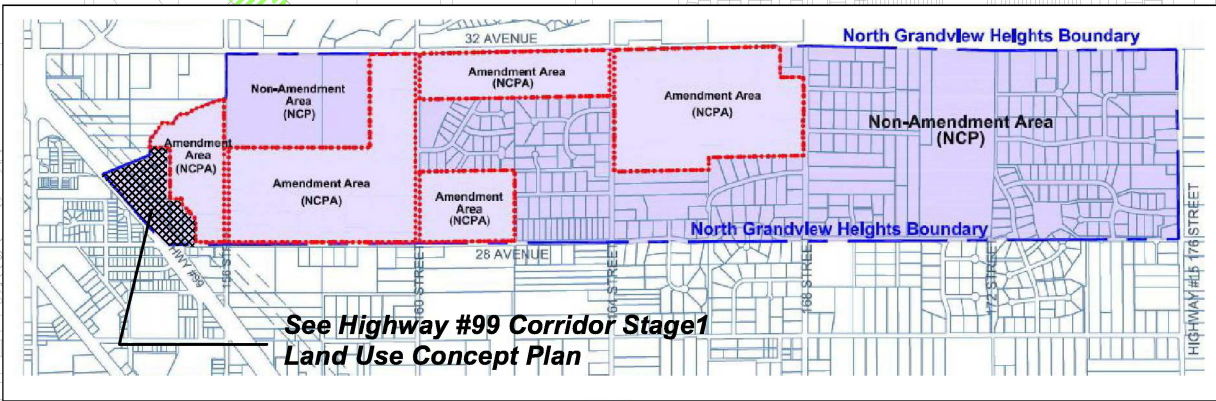
**Proposed Amendment to Schedule F of the Surrey Zoning By-law, 1993, No. 12000.
as amended**

Schedule F - Map of Neighbourhood Concept Plan and Infill Areas is amended by deleting Map 11, Area XI and replacing it with new Map 11, Area XI as follows



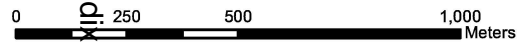


NCP amendment area - see Appendix X for details of proposed amendments



Note that this North Grandview Heights (NGH) Neighbourhood Concept Plan Amendment (NCPA) Report is an addendum to the NGH NCP approved by Council on January 11, 1999. This NCPA applies to the lands within the 2005 Amendment Area, which includes most of the western part of the North Grandview Heights Neighbourhood Concept Plan. All lands within the NGH NCP that are outside of the 2005 Amendment Area are subject to the conditions outlined in the 1999 NGH NCP Report. Figure 1 illustrates the NCP and NCPA Area

- | | | | |
|---|--|---|--|
| <ul style="list-style-type: none"> Proposed One Acre Residential (RA) Proposed One Acre Residential Gross Density (RA-G) Single Detached (2 upa) Single Detached (3-4 u.p.a.) Larger Transition Lots (2-3 upa) Single Detached (4-6 upa) Cluster Housing (6-8 upa) Single Detached (7 u.p.a.) Single Family Small Lots Multiple Residential (15-25 upa) | <ul style="list-style-type: none"> Townhouse 15 upa max Existing One Acre & Half Acre Lots Environmental Area Proposed Open Space / Linear Open Space Existing Elementary School Existing Cemetery Proposed Detention / Sedimentation Ponds (size/location to be confirmed at detailed subdivision/rezoning stage) | <ul style="list-style-type: none"> Study Area Boundary Plan Area-NCP Area Boundary Hydro Right of Way / Greenway Proposed North Grandview Interceptor Creeks Proposed Roads | <ul style="list-style-type: none"> Enhanced Sidewalk/Walkway Linear Park / Multi-use Trail Round-About Neighbourhood Park (size/location to be confirmed at detailed subdivision/rezoning stage) |
|---|--|---|--|



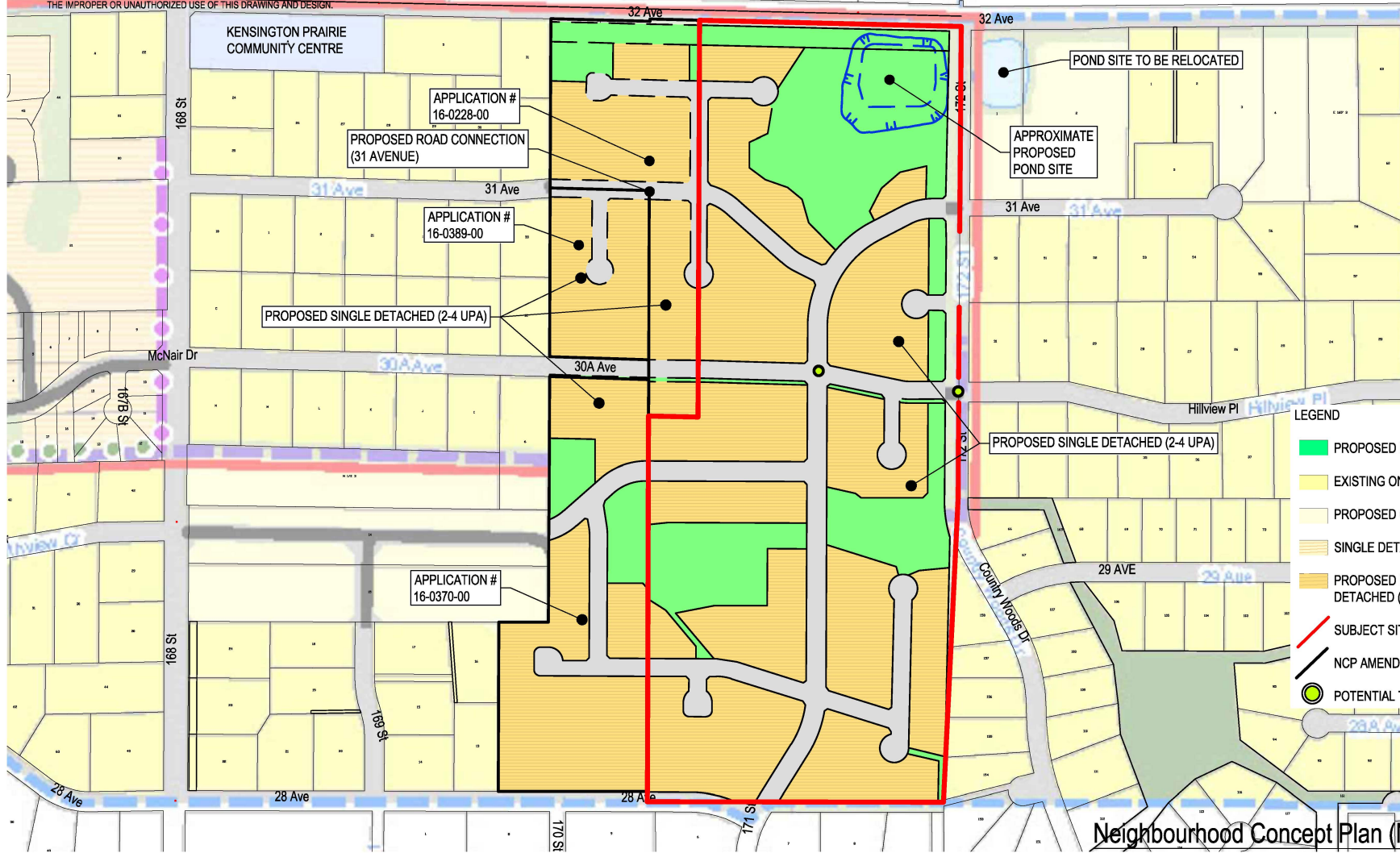
NORTH GRANDVIEW HEIGHTS LAND USE PLAN

CITY OF SURREY - PLANNING & DEVELOPMENT DEPARTMENT

Approved by Council: January 11, 1999 Amended 12 December 2017

This map is provided as general reference only. The City of Surrey makes no warranties, express or implied, as to the fitness of the information for any purpose, or to the results obtained by individuals using the information and is not responsible for any action taken in reliance on the information contained herein.

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- LEGEND**
- PROPOSED PUBLIC OPEN SPACE
 - EXISTING ONE ACRE AND HALF ACRE LOTS
 - PROPOSED ONE ACRE RESIDENTIAL (RA)
 - SINGLE DETACHED (2.0 UNITS PER ACRE)
 - PROPOSED NEW DESIGNATION "SINGLE FAMILY DETACHED (2-4 upa)"
 - SUBJECT SITE (7915-0352-00)
 - NCP AMENDMENT BOUNDARY
 - POTENTIAL TRAFFIC MANAGEMENT FEATURE

Neighbourhood Concept Plan (NCP) - Sketch 47

Chia Properties - 17190 32 Ave, Surrey, BC

McElhanney
 McElhanney Consulting Services Ltd.
 SUITE 2300 - CENTRAL CITY TOWER
 13450 102 AVENUE, SURREY, BC
 V3T 5X3
 P: 604-596-0391
 F: 604-584-5050

NOTES:

- THIS DRAWING IS FOR PRELIMINARY LAYOUT ONLY, AND SUBJECT TO MUNICIPAL APPROVAL.
- THE AREAS AND DIMENSIONS SHOWN ON THE DRAWINGS ARE SUBJECT TO DETAILED SURVEY AND CALCULATIONS, AND MAY VARY.
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Scale: 1:4000
 Date: February 27, 2018
 Job No.: 2111-03219-0
 Mun. Proj.: -

Appendix X

DATE: Tuesday, February 27, 2018 10:23:29 AM LOCAL TIME PROJECT: 17190 32 AVENUE STREET SURVEY (17190 32 AVENUE) DRAWING NO.: 17190 32 AVENUE (17190 32 AVENUE) SHEET NO.: 17190 32 AVENUE (17190 32 AVENUE)

CITY OF SURREY

BYLAW NO. _____

A by-law to amend Surrey Zoning By-law, 1993, No. 12000, as amended
.....

THE CITY COUNCIL of the City of Surrey ENACTS AS FOLLOWS:

- 1. Surrey Zoning By-law, 1993, No. 12000, as amended, is hereby further amended, pursuant to the provisions of Section 479 of the Local Government Act, R.S.B.C. 2015 c. 1, as amended by changing the classification of the following parcels of land, presently shown upon the maps designated as the Zoning Maps and marked as Schedule "A" of Surrey Zoning By-law, 1993, No. 12000, as amended as follows:

FROM: ONE-ACRE RESIDENTIAL ZONE (RA)
 TO: COMPREHENSIVE DEVELOPMENT ZONE (CD)

Parcel Identifier: 013-239-392
 North West Quarter Section 19 Township 7 Except: Firstly: Parcel "A" (Reference Plan 2738) Secondly: Parcel "B" (Explanatory Plan 10067) Thirdly: Part Subdivided by Plan 4429 Fourthly: Part Subdivided by Plan 8961 New Westminster District

17190 - 32 Avenue

(hereinafter referred to as the "*Lands*")

- 2. The following regulations shall apply to the *Lands*:

A. Intent

This Comprehensive Development Zone is intended to accommodate and regulate the development of single family housing on small *suburban lots*, with substantial public *open space* set aside within the subdivision, where *density bonus* is provided.

The *Lands* are divided into Blocks A and B as shown on the Survey Plan attached hereto and forming part of this Bylaw as Schedule A, certified correct by Paul Bartlett, B.C.L.S. on the 9th day of February, 2018.

B. Permitted Uses

The *Lands* and *structures* shall be used for the following uses only, or for a combination of such uses:

1. One *single family dwelling* which may contain 1 *secondary suite*.
2. *Accessory uses* including the following:
 - (a) *Bed and breakfast* use in accordance with Section B.2, Part 4 General Provisions, of Surrey Zoning By-law, 1993, No. 12000, as amended; and
 - (b) The keeping of *boarders* or *lodgers* in accordance with Section B.2, Part 4 General Provisions, of Surrey Zoning By-law, 1993, No. 12000, as amended.

C. Lot Area

Not applicable to this Zone.

D. Density

1. The *unit density* shall not exceed 2.5 *dwelling units* per hectare [1 u.p.a.]. The maximum *density* may be increased to that prescribed in Section D.2 of this Zone if amenities are provided in accordance with Schedule G of Surrey Zoning By-law, 1993, No. 12000, as amended.
2. The maximum *density* may be increased from 2.5 *dwelling units* per hectare [1 u.p.a.] to 5.6 *dwelling units* per hectare [2 u.p.a.], both calculated on the basis of the entire *lot*, provided:
 - (a) *Open space* in an amount of not less than 21% of the *lot* area is preserved in its natural state or retained for park and recreational purposes;
 - (b) The said *open space* shall contain natural features such as a stream, ravine, stand of mature trees; and
 - (c) The said *open space* shall be accessible from a *highway*.
3. For *building* construction within a *lot*:
 - (a) the *floor area ratio* shall not exceed 0.32, provided that, of the resulting allowable floor area, 45 square metres [480 sq. ft.] shall be reserved for use only as a garage or carport, and 10 square metres [105 sq. ft.] shall be reserved for use only as *accessory buildings* and *structures*;
 - (b) For the purpose of this Section and notwithstanding the definition of *floor area ratio* in Part 1 Definitions of Surrey Zoning By-law, 1993, No. 12000, as amended, the following must be included in the calculation of *floor area ratio*:

- i. Covered area used for parking unless the covered parking is located within the *basement*;
 - ii. The area of an *accessory building* in excess of 10 square metres [108 sq. ft.];
 - iii. Covered outdoor space with a height of 1.8 metres [6 ft.] or greater, except for a maximum of 10% of the maximum allowable floor area of which 15 square metres [160 sq. ft.] must be reserved for a front porch or veranda; and
 - iv. Floor area including garages and covered parking with extended height exceeding 3.7 metres [12 feet] must be multiplied by 2, excluding:
 - a. Staircases;
 - b. 19 square metres [200 sq. ft.]; and
 - c. floor area directly below a sloped ceiling less than 4.6 metres [15 ft.] in height, provided the area has at least one wall 3.7 metres [12 ft.] or less in height; and
- (c) Notwithstanding Sub-section D.2(a), where the *lot* is 1,500 square metres [16,000 sq. ft.] in area or less, the requirements in Section D. Density of Part 16 Single Family Residential Zone RF of Surrey Zoning By-law, 1993, No. 12000, as amended shall apply.

E. Lot Coverage

The maximum *lot coverage* shall be 25%, except where the *lot* is 1,500 square metres [16,000 sq. ft.] in area or less, the requirements in Section E. Lot Coverage of Part 16 Single Family Residential Zone RF of Surrey Zoning By-law, 1993, No. 12000, as amended shall apply.

F. Yards and Setbacks

Buildings and structures shall be sited in accordance with the following minimum setbacks:

Use	Setback	Front Yard	Rear Yard	Side Yard	Side Yard on Flanking Street
<i>Principal Building</i>		7.5 m. ¹ [25 ft.]	7.5 m. ² [25 ft.]	2.4 m. ³ [8 ft.]	3.6 m. [12 ft.]
<i>Accessory Buildings and Structures Greater Than 10 square metres [108 sq. ft.] in Size</i>		18.0 m. [60 ft.]	1.8 m [6 ft.]	1.0 m [3 ft.]	7.5 m [25 ft.]
<i>Other Accessory Buildings and Structures</i>		18.0 m [60 ft.]	0.0 m	0.0 m.	7.5 m. [25 ft.]

Measurements to be determined as per Part 1 Definitions of Surrey Zoning By-law, 1993, No. 12000, as amended.

¹ Where the *rear yard* of any *lot* abuts public *open space*, the minimum *front yard setback* of the *principal building* may be reduced from 7.5 metres [25 ft.] to 6.0 metres [20 ft.].

² Where the *rear yard* of any *lot* abuts public *open space*, the minimum *rear yard setback* of the *principal building* is increased from 7.5 metres [25 ft.] to 9.0 metres [30 ft.].

³ Where the *side yard* of any *lot* abuts public *open space*, the minimum *side yard setback* of the *principal building* adjacent to public *open space* is increased from 2.4 metres [8 ft.] to 3.6 metres [12 ft.], and the opposing *side yard setback* may be reduced from 2.4 metres [8 ft.] to 1.8 metres [6 ft.].

G. Height of Buildings

Measurements to be determined as per Part 1 Definitions of Surrey Zoning By-law, 1993, No. 12000, as amended.

1. *Principal building*:

(a) The *building height* shall not exceed 9.0 metres [30 ft.]; and

(b) The *building height* of any portion of a *principal building* with a roof slope of less than 1:4 shall not exceed 7.3 metres [24 ft.].

2. *Accessory buildings and structures*: The *height* shall not exceed 4 metres [13 ft.] except that where the roof slope and construction materials of an *accessory building* are the same as that of the *principal building*, the *building height* of the *accessory building* may be increased to 5 metres [16.5 ft.]

H. Off-Street Parking

1. Resident and visitor *parking spaces* shall be provided as stated in Part 5 Off-Street Parking and Loading/Unloading of this By-law.
2. Outside parking or storage of *campers*, boats and *vehicles* including cars, trucks and *house trailers* ancillary to the residential use, shall be limited to:
 - (a) A maximum of 3 cars or trucks;
 - (b) *House trailer, camper* or boat provided that the combined total shall not exceed 1; and
 - (c) The total amount permitted under (a) and (b) shall not exceed 4.
3. No outside parking or storage of a *house trailer* or boat is permitted within the *front yard setback*, or within the required *side yards* adjacent the *dwelling*, or within 1 metre [3 ft.] of the *side lot line*, except as follows:
 - (a) On *lots* which have no vehicular access to the *rear yard* or where access is not feasible through modification of *landscaping* or fencing or both, either 1 *house trailer* or 1 boat may be parked in the front *driveway* or to the *side* of the front *driveway* or in the *side yard*, but no closer than 1 metre [3 ft.] to a *side lot line* nor within 1 metre [3 ft.] of the *front lot line* subject to the residential parking requirements stated in Table C.1 of Part 5 Off-Street Parking and Loading/Unloading of this By-law.

I. Landscaping

1. All developed portions of the *lot* not covered by *buildings, structures* or paved areas shall be landscaped including the retention of mature trees. This *landscaping* shall be maintained.

2. The parking or storage of *house trailers* or boats shall be adequately screened by compact evergreen trees or shrubs at least 1.8 metres [6 ft.] in height and located between the said *house trailer* or boat and any point on the *lot line* within 7.5 metres [25 ft.] of the said *house trailer* or boat, in order to obscure the view from the abutting *lot* or street, except:
 - (a) On a *corner lot*, this required landscape screening shall not be located in an area bounded by the intersecting *lot lines* at a street corner and a straight line joining points 9 metres [30 ft.] along the said *lot lines* from the point of intersection of the 2 *lot lines*;
 - (b) Where the *driveway* or the parking area is used for parking or storage of a *house trailer* or boat, the landscape screen is not required within the said *driveway*; and
 - (c) In the case of *rear yards*, this screening requirement may be provided by a 1.8 metre [6 ft.] high solid fence.
3. The *open space* set aside pursuant to Section K.2 of this Zone, shall be improved with a basic level of *landscaping* work including brushing and seeding of the ground, limbing of low branches on trees and providing and constructing paths for public passage, wherever appropriate.

J. Special Regulations

1. A *secondary suite* shall:
 - (a) Not exceed 90 square metres [968 sq.ft.] in floor area; and
 - (b) Occupy less than 40% of the habitable floor area of the *building*.
2. Basement access and basement wells are permitted only between the *principal building* and the *rear lot line* and must not exceed a maximum area of 28 square metres [300 sq. ft.], including stairs.

K. Subdivision

Lots created through subdivision in this Zone shall conform to the following minimum standards:

	<i>Lot Size</i>	<i>Lot Width</i>	<i>Lot Depth</i>
Block A:			
Regular Standard <i>Lots</i>	820 sq.m. [8,826 sq. ft.]	20 metres [66 ft.]	30 metres [100 ft.]
Permissible Reductions as set out below*	800 sq.m. [8,610 sq. ft.]	18 metres [60 ft.]	28 metres** [92 ft.]
Block B:			
	1,180 sq. m. [12,700 sq. ft.]	19 metres [62 ft.]	30 metres [100 ft.]

Dimensions shall be measured in accordance with Section E.21 of Part 4 General Provisions of Surrey Zoning By-law, 1993, No. 12000, as amended.

- * Permissible reductions of subdivision parameters for width, depth or area for up to 15% of the *lots* within Block A.
- ** Notwithstanding sub-section E.21(e) of Part 4 General Provisions of Surrey Zoning By-law, 1993, No 12000, as amended, the *lot* depth is determined by the average distance between the *front* and the furthest opposing *lot line*.

L. Other Regulations

In addition to all statutes, bylaws, orders, regulations or agreements, the following are applicable, however, in the event that there is a conflict with the provisions in this Comprehensive Development Zone and other provisions in Surrey Zoning By-law, 1993, No. 12000, as amended, the provisions in this Comprehensive Development Zone shall take precedence:

1. Definitions are as set out in Part 1 Definitions of Surrey Zoning By-law, 1993, No. 12000, as amended.
2. Prior to any use, the *Lands* must be serviced as set out in Part 2 Uses Limited, of Surrey Zoning By-law, 1993, No. 12000, as amended and in accordance with the servicing requirements for the RQ Zone as set forth in the Surrey Subdivision and Development By-law, 1986, No. 8830, as amended.
3. General provisions are as set out in Part 4 General Provisions of Surrey Zoning By-law, 1993, No. 12000, as amended.

4. Additional off-street parking requirements are as set out in Part 5 Off-Street Parking and Loading/Unloading of Surrey Zoning By-law, 1993, No. 12000, as amended.
5. Sign regulations are as set out in Surrey Sign By-law, 1999, No. 13656, as amended.
6. Special *building setbacks* are as set out in Part 7 Special Building Setbacks, of Surrey Zoning By-law, 1993, No. 12000, as amended.
7. *Building* permits shall be subject to the Surrey Building Bylaw, 2012, No. 17850, as amended.
8. Subdivisions shall be subject to the applicable Surrey Development Cost Charge Bylaw, 2016, No. 18664, as may be amended or replaced from time to time, and the development cost charges shall be based on the RQ Zone.
9. Tree regulations are set out in Surrey Tree Protection Bylaw, 2006, No. 16100, as amended.
10. Development permits may be required in accordance with the Surrey *Official Community Plan* By-law, 2013, No. 18020, as amended.
11. Provincial licensing of *child care centres* is regulated by the Community Care and Assisted Living Act S.B.C. 2002, c. 75, as amended, and the Regulations pursuant thereto including without limitation B.C. Reg 319/89/213.

3. This By-law shall be cited for all purposes as "Surrey Zoning By-law, 1993, No. 12000, Amendment By-law, _____, No. _____."

PASSED FIRST READING on the _____ th day of _____, 20__ .

PASSED SECOND READING on the _____ th day of _____, 20__ .

PUBLIC HEARING HELD thereon on the _____ th day of _____, 20__ .

PASSED THIRD READING on the _____ th day of _____, 20__ .

RECONSIDERED AND FINALLY ADOPTED, signed by the Mayor and Clerk, and sealed with the Corporate Seal on the _____ th day of _____, 20__ .

_____ MAYOR

_____ CLERK

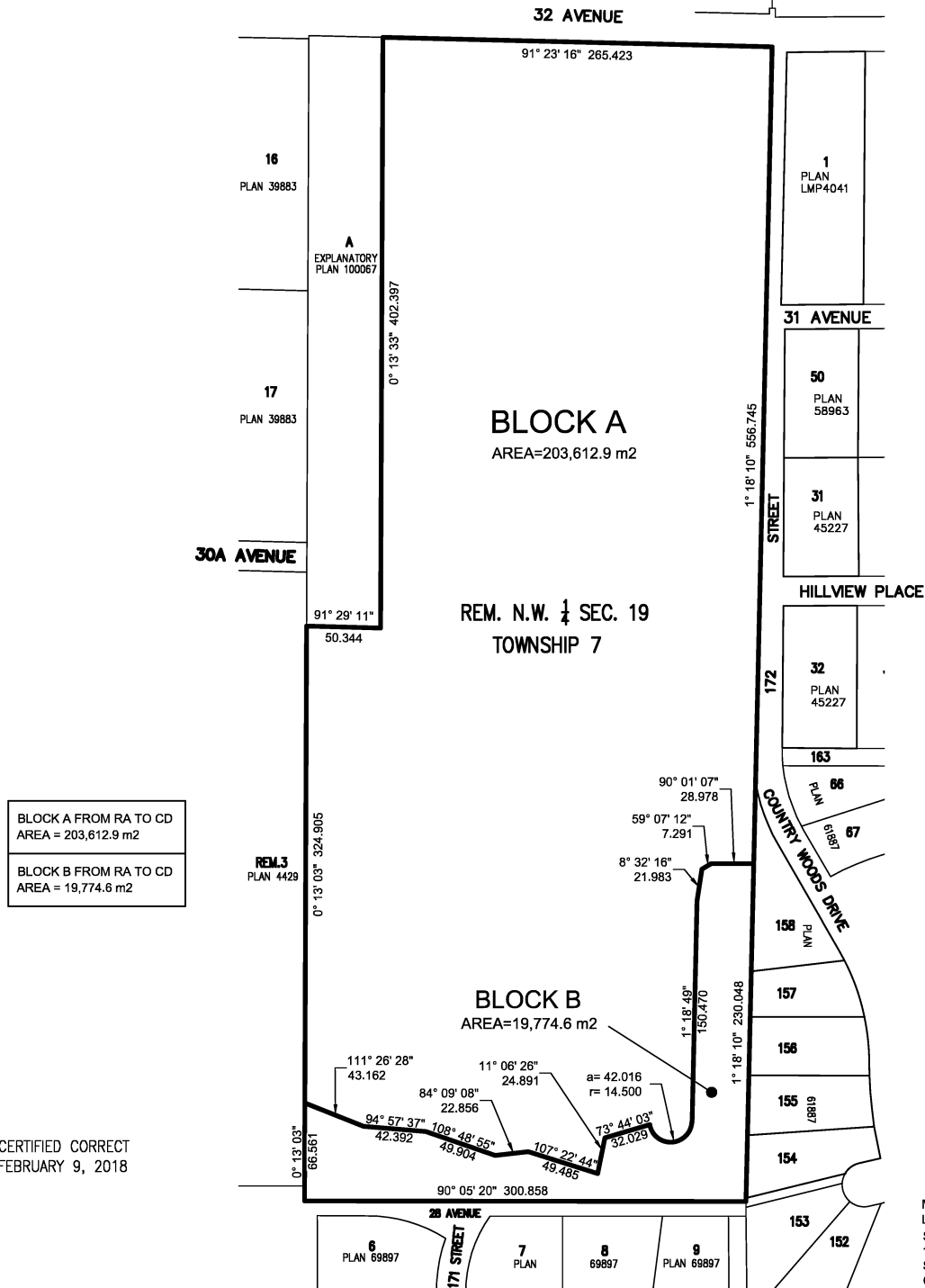
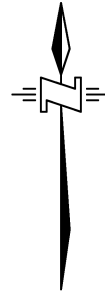
Schedule A

BLOCK SURVEY PLAN TO ACCOMPANY CITY OF SURREY
 REZONING BYLAW NO _____
 OF NORTH WEST QUARTER SECTION 19 TOWNSHIP 7 EXCEPT:
 FIRSTLY: PARCEL "A" (REFERENCE PLAN 2738)
 SECONDLY: PARCEL "B" (EXPLANATORY PLAN 10067)
 THIRDLY: PART SUBDIVIDED BY PLAN 4429
 FOURTHLY: PART SUBDIVIDED BY PLAN 8961
 NEW WESTMINSTER DISTRICT

SCALE 1 : 3000



ALL DISTANCES ARE IN METRES AND DECIMALS THEREOF
 THE INTENDED PLOT SIZE OF THIS PLAN IS 280 mm IN WIDTH BY
 432 mm IN HEIGHT (B-SIZE) WHEN PLOTTED AT A SCALE OF 1:3000



BLOCK A FROM RA TO CD
 AREA = 203,612.9 m²

BLOCK B FROM RA TO CD
 AREA = 19,774.6 m²

CERTIFIED CORRECT
 FEBRUARY 9, 2018

PAUL BARTLETT, B.C.L.S.

McELHANNEY ASSOCIATES
 LAND SURVEYING LTD.
 Suite 2300
 13450 - 102 Avenue
 Surrey BC
 Canada V3T 5X3
 Tel 604 596 0391
 FILE NO.: 2112-62830-04

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7915-0352-00

Issued To:

Address of Owner:

Issued To:

Address of Owner:

(collectively referred to as the "Owner")

1. This development variance permit is issued subject to compliance by the Owner with all statutes, by-laws, orders, regulations or agreements, except as specifically varied by this development variance permit.
2. This development variance permit applies to that real property including land with or without improvements located within the City of Surrey, with the legal description and civic address as follows:

Parcel Identifier: 013-239-392
North West Quarter Section 19 Township 7 Except: Firstly: Parcel "A" (Reference Plan 2738) Secondly: Parcel "B" (Explanatory Plan 10067) Thirdly: Part Subdivided by Plan 4429 Fourthly: Part Subdivided by Plan 8961 New Westminster District

17190 - 32 Avenue

(the "Land")

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

Parcel Identifier:

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

4. Section F. of Surrey Zoning By-law, 1993, No. 12000, Amendment By-law, _____, No. _____ is varied as follows:
- (a) the minimum rear yard setback on proposed Lot 16, as illustrated in Schedule B which is attached hereto and forms part of this development variance permit, is reduced from 9 metres (30 ft.) to 6.5 metres (21 ft.) for up to 50 percent of the length of the rear lot line;
 - (b) the minimum front yard setback on proposed Lot 80, as illustrated in Schedule C which is attached hereto and forms part of this development variance permit, is reduced from 6 metres (20 ft.) for the entire dwelling, to 6 metres (20 ft.) for the garage, and to 5 metres (16 ft.) for the remainder of the dwelling; and
 - (c) the minimum rear yard setback on proposed Lot 80, as illustrated in Schedule C which is attached hereto and forms part of this development variance permit, is reduced from 9 metres (30 ft.) to 8 metres (26 ft.) for up to 50 percent of the width of the rear of the dwelling.
5. This development variance permit applies to only the portion of the Land shown on Schedules A, B and C which are attached hereto and forms part of this development variance permit.
6. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this development variance permit.
7. This development variance permit shall lapse unless the subdivision, as conceptually shown on Schedule A which is attached hereto and forms part of this development variance permit, is registered in the New Westminster Land Title Office within three (3) years after the date this development variance permit is issued.
8. The terms of this development variance permit or any amendment to it, are binding on all persons who acquire an interest in the Land.

9. This development variance permit is not a building permit.

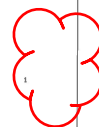
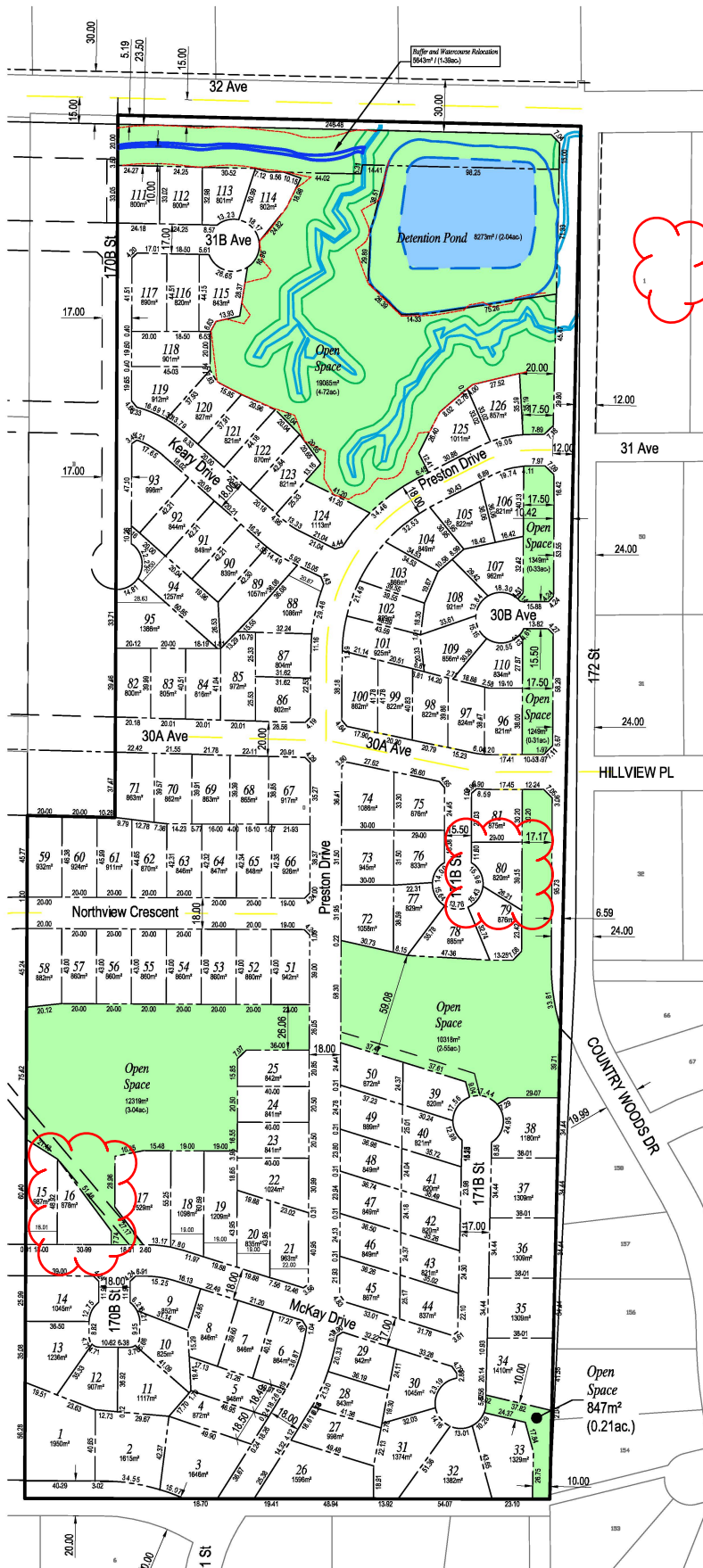
AUTHORIZING RESOLUTION PASSED BY THE COUNCIL, THE DAY OF , 20 .
ISSUED THIS DAY OF , 20 .

Mayor – Linda Hepner

City Clerk – Jane Sullivan

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Schedule A



See following pages for DVP details

LEGEND

- SPEA / WINDFIRM BOUNDARY
- WATERCOURSE
- TOP OF BANK

GROSS SITE AREA: 223,415 m² (55.21 ac.)
 DETENTION POND AREA: 8,273 m² (2.04 ac.)
 NET SITE AREA (less POND): 215,142 m² (53.16 ac.)

Open Space required (Gross area less Detention Pond Area x 15%)
 223,415 - 8,273 = 215,142 m² (53.16 ac.)
 x 15% = 32,271 m² (7.97 ac.)

OPEN SPACE DEDICATION:
 Open Space: = 50,810m² (12.56 ac.) 22.75%
 DISCOUNT WITHIN 5m FROM T.O.B.:
 (50% * 5105 m²): 2552 m²
 BELOW T.O.B.: 1469 m²
 NET* OPEN SPACE: 46,789 m² (11.56 ac.)
 = 21.74% of NET SITE AREA

* EXCLUDES 8,273m² POND SITE
 TOTAL OPEN SPACE INCLUDING POND
 = 59,083m² (14.60ac.) 26.45%

LAYOUT ASSUMES CD ZONE
 MIN LOT AREA: 1189m² / 800m²
 MIN WIDTH 20m / 18m
 AVERAGE LOT AREA: 954m²

YIELD: 126 SINGLE FAMILY LOTS

DENSITY:
 126 / 22.34 ha. = 5.64 units per hectare
 126 / 55.21 ac. = 2.28 units per acre

Sketch 48

Chia Properties, 17190 32 Ave, Surrey, BC

Scale: 1:2500 @ 11"X17"

Date: February 27, 2018

Job No.: 2111-03219-0

Mun. Proj.: 7915-0352-00



McElhanny Consulting Services Ltd.
 SUITE 2300 - CENTRAL CITY TOWER
 13450 102 AVENUE, SURREY, BC
 V3T 5X3

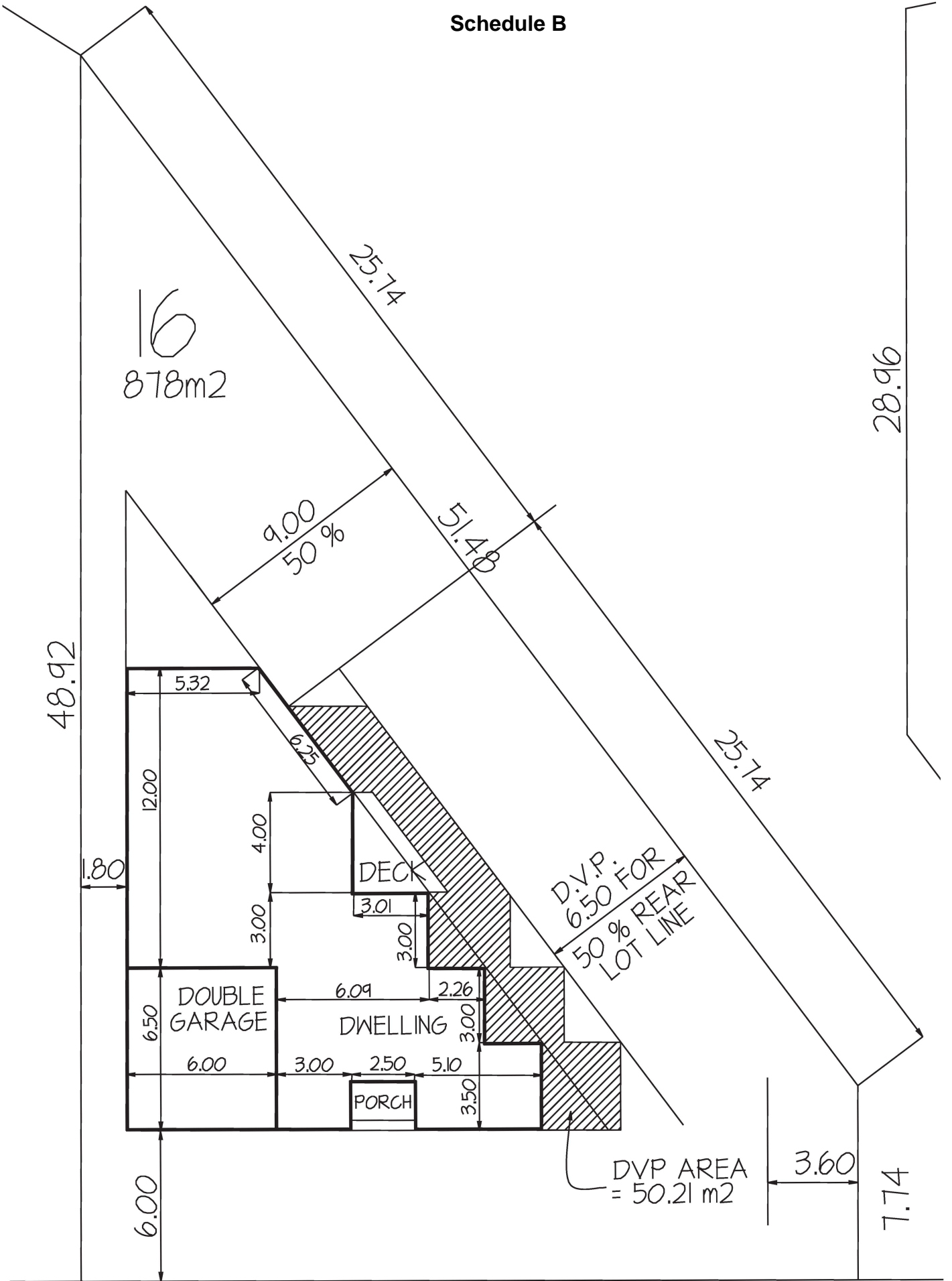
P: 604-596-0391
 F: 604-584-5050

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DATE: January 27, 2018 12:28:57 PM FILE: S:\2018\13450\102 AVENUE\13450-03219-0\234 SKETCH048.DWG PLOT: 17190 32 AVENUE, SURREY, BC (11")

Schedule B



16
878m²

48.92

25.74

28.96

9.00
50%

51.48

25.74

1.80

5.32

12.00

4.00

DECK

3.01

3.00

3.00

D.V.P.
6.50 FOR
50% REAR
LOT LINE

6.50

DOUBLE
GARAGE

DWELLING

PORCH

6.09

2.26

6.00

3.00

2.50

5.10

3.00

3.50

DVP AREA
= 50.21 m²

3.60

7.74

30.99

29.00 Schedule C

2.40

6.00

DOUBLE GARAGE

BUILDING FOOTPRINT
236.79 m²

80
821m²

7.91

9.00 m FOR 50%

23.81

6.00

3.50 (11'-6")

5.00 DVP
(NOT GARAGE)

2.8m (9'-3")

1.08
3'-6"

2.8m (9'-3")

DVP AREA =
11.90 m²

DVP AREA =
17.91 m²

6.90 (22'-8")

1.20 m (23'-1.1/2")

8.00 DVP
FOR 50%

39.15

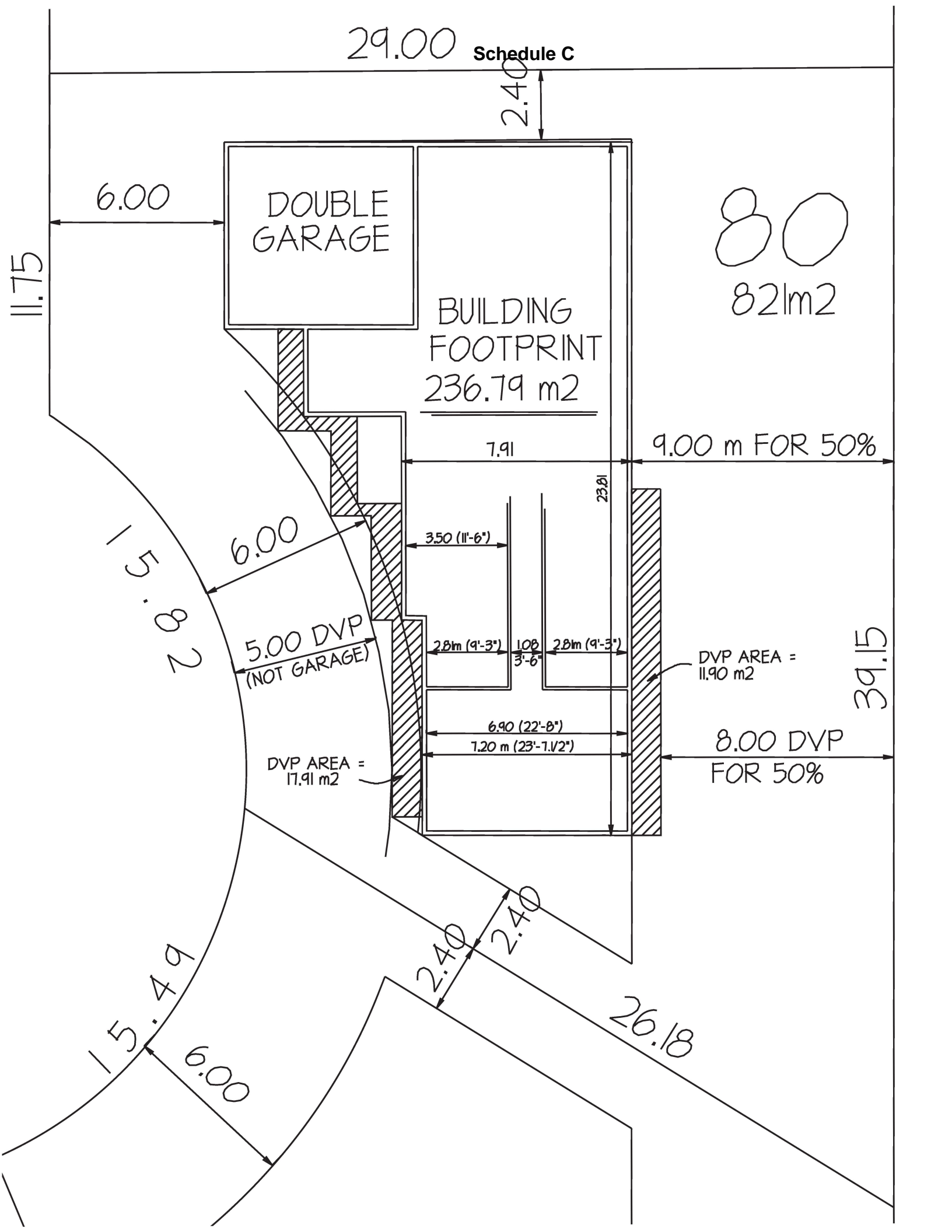
28.5

15.49

6.00

2.40
2.40

26.18











Riparian Habitat Balance Within 15m Top of Bank with Flex Allowances

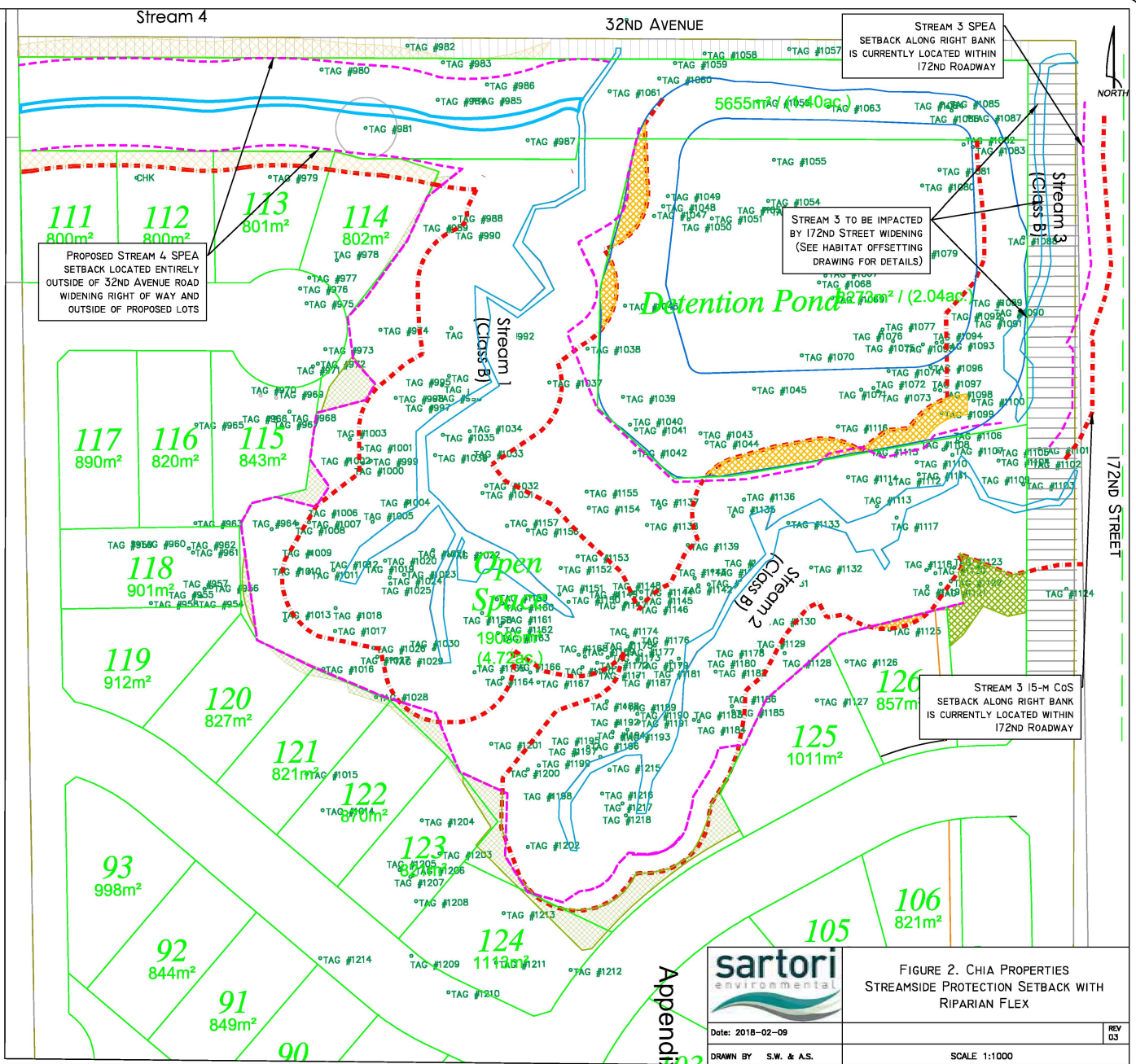
Riparian Habitat Reduction (up to 5 m from setback)	-901m ²
Riparian Habitat Additions (up to 10 m beyond setback)	+1,008m ²
Net Riparian Habitat Gain Above 15m Setback	+107 m²


Surrey's Ecosystem Protection Measures (Sensitive Ecosystem Development Permit Area and Zoning By-law Streamside Protection Setbacks) Corporate Report (July, 2016) allows for provisions to their streamside setback area. The Zoning Streamside Protection establishes the ability to flex the "no disturbance area" under certain circumstances and reduce setback requirements for existing lots so as to not make the new regulation too onerous or difficult to meet. Provided there is no loss in the size of the streamside setback area, the minimum distance from the top of bank may be reduced by no more than 5 metres and increased by no more than 10 metres for natural class B streams.

Riparian Area Flex Allowances

-  Riparian Habitat Addition (max. 10 m increase to streamside protection setback area and outside of RAR SPEA setback)
-  Riparian Habitat Reduction (max. 5 m reduction to streamside protection setback area)
-  Area to be impacted by 172nd Street and 32nd Avenue Widening

-  RAR SPEA Protection setback
-  Surrey 15m Streamside Protection Setback
-  Proposed Detention Pond
-  Watercourse Top of Bank
-  New Channel (Stream 4)



	FIGURE 2. CHIA PROPERTIES STREAMSIDE PROTECTION SETBACK WITH RIPARIAN FLEX	
	Date: 2018-02-09 DRAWN BY: S.W. & A.S.	SCALE 1:1000

CHIA PUBLIC ENGAGEMENT SUMMARY

With an understanding and respect of the historical significance of this unique site to the community, involving the community in any process to plan its future has been a key priority for Chia Properties Ltd.

Since the outset, the Chia Planning Team has made an effort to maintain a clear and consistent channel of communication with the surrounding community on the evolution of the plan and the process to ensure neighbours had access to factual information. In addition to ongoing communication with executives of the local Country Woods and Grandview Heights Stewardship Associations, the Chia Planning Team provided comprehensive information packages to be shared with both membership groups including background on the site and Chia Properties, profiles on consultants involved, relevant policies, details of the proposal including maps, as well as frequently asked questions and contact information for further details. This package was updated following the official application submission.

In addition, a variety of engagement activities were hosted to involve interested members throughout the process and solicit local input.

The below is a brief summary of Chia’s community outreach and engagement.

Date	Stakeholder Group	Engagement	Applicant Involvement	Purpose
June 25, 2015	Surrounding Community	Pre-Application Stakeholder Open House	Chia Properties Project Manager Project Planner Community Relations Environmental Arborist Engineering	To present the proposal to area residents and community groups for input and feedback prior to submitting a formal application.
August 13, 2015	All Pre-App Open House comment card respondents	Individual responses to each comment card received	Chia Properties Project Manager Project Planner Community Relations	To provide a response to each community member who offered written comments at the Pre-App Open House recognizing their comments and noting how we may address their comments/ concerns.
September 3, 2015	Neighbours	Trail Walk with local users	Community Relations	To learn from local trail users the natural resources onsite of particular interest to the community for potential retention and enhancement.
October 5, 2015	Members of Grandview Heights Stewardship Association	Initial Meeting	Chia Properties Project Manager Community Relations	To update GHSA members on planning progress since Pre-App Open House and solicit their input.

October 5, 2015	Country Woods Residents Association (Board of Directors)	Initial Meeting	Chia Properties Project Manager Community Relations	To offer an update to the Board of Country Woods on the planning progress since the Pre-App Open House and solicit their input.
October 5, 2015	Neighbour	Initial Meeting	Chia Properties Project Manager Community Relations	To hear concerns and answer questions of an interested neighbour.
October 7, 2015	Formal Application Submission			
August 8, 2016	Grandview Heights Stewardship Association	Member Meeting	Traffic Engineering Community Relations	Invitational meeting with members of GHSA and project traffic consultants to better understand current challenges and areas of congestion to inform traffic impact study.
August 8, 2016	Country Woods Residents Association	Traffic Committee Meeting	Traffic Engineering Community Relations	Meeting with CW traffic committee and project traffic consultants to better understand current challenges and areas of congestion to inform traffic impact study.
August 18, 2016	Country Woods Trail Stewards	Trail Walk	Project Planner Community Relations Environmental Arborist	Site walk to understand trail system and tree composition onsite from the neighbours perspective to inform our trail and tree retention plan.
October 26, 2016	Western Neighbours	Trail Walk	Project Planner Community Relations Environmental Arborist	Site walk to understand trail system and tree composition onsite from the neighbours perspective to inform our trail and tree retention plan.
November 30, 2016	Country Woods Residents Association	Traffic Committee Meeting	Traffic Engineering Project Planner Community Relations	Meeting with CW traffic committee to reveal preliminary findings from traffic study and discuss draft recommendations for traffic mitigation strategies related to the project.
December 6, 2016	Surrounding Community	Public Information Meeting (Official)	Chia Properties Project Manager Project Planner Community Relations Environmental Arborist Engineering	Meeting with neighbourhood, as per City's consultation requirements, to present current site plan and NCP amendment, including powerpoint presentation and comment cards.
February 10, 2017	Surrey Environmental Partners	Meeting with SEP President	Chia Properties Project Manager Project Planner Community Relations Environmental	To present entire plan and process, with emphasis on environmental component (retention pond and tree retention plan) for input.

			Arborist	
March 31, 2017	Interested Neighbours	Neighbour trail walk	Project Planner Community Relations Environmental	To offer interested neighbours (from Dec. 6 th PIM) a site tour to better visualize the trail and tree retention plan, as well as general subdivision plan and answer any outstanding questions.
April 19, 2017	Surrounding Western Community (mail drop) with email invitation to neighbouring associations	Repeat Community Information Session	Chia Properties Project Manager Project Planner Community Relations Environmental Arborist Engineering	To ensure all neighbours to the west of the Chia property had a final opportunity to view the proposed plan, and have their questions answered by members of the planning team.
November 5, 2017	Country Woods Residents Association	Executive Member Meeting	Project Planner Community Relations	To update CWRA on the planning process and to discuss CWRA's preferred zoning for the Chia site (CD vs. RQ).

February 22, 2018

Approval File No.: 2005354

**Re: Application for approval to make changes in and about unnamed tributary
Approval 2005354**

An approval for the proposed changes in and about unnamed tributary has been granted, subject to the conditions noted on the attached Approval document 2005354.

A number of Species at Risk were highlighted by the Project's Qualified Environmental Professional as potentially occurring on the subject property. Best Management Practices for many of these species are outlined in the Provincial document Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia replaces the 2012 version of Develop with Care. Additional protection measures are also being considered for the Oregon Forest Snail. Please contact the Provincial Invertebrate Biologist, Jennifer Heron, if additional information is required on the Oregon Forest Snail or other invertebrate Species at Risk. Appropriate search and salvage measures, where applicable, should be undertaken prior to the start of construction for all fish, aquatic wildlife and species at risk. The holder of this Approval is responsible for obtaining all applicable permits.

The holder of this Approval must obtain, in writing from the Water Manager, a Leave to Commence Construction (LCC) prior to constructing the works listed in this Approval. It is recommended that the LCC Package is submitted a minimum of 90 days prior to the planned start of works to allow the Water Manager adequate time for review and consideration. It is recommended that the submission of the LCC package be in coordination with the City of Surrey permitting and review process.

No construction works associated with this proposed project shall be undertaken until the LCC is issued by the Water Manager.

As described in this Approval, the LCC should contain a minimum of the following information:

1. Scope of Work for Environmental Monitor and Delegates whereby the Draft of this document provided in the Feb 5, 2018 Development Plan is to be finalized and signed by the developer and Environmental Monitor.

2. Submission of irrevocable Letter of Credit (iLOC) for (1) construction monitoring and (2) compensation works. The deliverables of the iLOC are the successful completion of the (1) Construction Environmental Monitoring Program and (2) Long Term Monitoring and Maintenance Plan, both to the written satisfaction of the Water Manager.
3. Confirmation that Notice has been provided to downstream Licenced Water Users, provided by email, labelled with this Approval File number, to WaterActReferrals.LowerMainland@gov.bc.ca and cc' to Malissa.Smith@gov.bc.ca.
4. Detailed design drawings for the works listed in this Approval, including but not limited to:
 - a. Culverts 1, 2 and 3;
 - b. Flow control valves for Stream 4 and upstream of Stream 2 and 3 outfalls;
 - c. Storm drain outfalls at streams 2 and 3;
 - d. Stream 4 compensation channel, including specification of:
 - i. Variable channel widths that will achieve a minimum instream habitat area of 312m²,
 - ii. Riparian planting that will to achieve a minimum riparian area of 2,760m². The riparian area calculation should not double-count the existing Riparian Area at the North-most extent of Stream 1. Specifically, if the proposed offset channel is proposed at 145 lineal meters, then approximately 10 lineal meters of that compensation channel fall within existing riparian area of Stream 1 (i.e., at the confluence of Stream 4 & Stream 1). Thus, the proposed riparian compensation area of 2,760 m² should be distributed throughout the 135 lineal meters of Stream 4, prior to entering into Stream 1 Riparian habitat.
5. Construction Environmental Management Plan (CEMP) for the management and mitigation of construction-related impacts. This plan may include the schedule for the construction of works.
6. Stormwater management plan that, in addition to the City's standard requirements, also considers:
 - a. Hydrology Assessment, which may reference the before-after impact assessment that is recommended by the Project QEP as part of long-term monitoring plan. Intent of the Hydrology Assessment is to confirm environmental flow needs are maintained on existing watercourses on the Subject Property and drainage to Burrows Ditch is not adversely impacted by the Project development.
 - b. Description of how the flow-control valves above Streams 1, 2 and 4 will function over time and under different flow-scenarios.
 - c. Consideration of potential changes to water quality and temperature leaving the property to demonstrate no adverse impacts are expected to downstream Licenced Water Rights holders.
7. Long Term Monitoring and Maintenance Plan that aligns with the City of Surrey's environmental regulations and includes a minimum of the following:
 - a. Clear statement of monitoring program objectives.
 - b. Outline of the Flow monitoring components for:

- i. Stream 1 and 2, including a maintenance plan for how "Gate Valves" will be operated above the Stream 1 and 2 stormwater connection points.
 - ii. Stormwater detention pond outfall to demonstrate no adverse impacts to downstream Licenced Water Rights holders.
 - iii. Stream 4 to demonstrate that Stream 4 has equal or greater hydraulic capacity as the existing Stream 3 channel and to demonstrate effectiveness of input control valves, etc.
 - c. Outline of Aquatic habitat monitoring plans, specifically to Stream 4.
 - d. Outline of Riparian restoration plans for Stream 4 and other disturbed riparian areas.
 - e. Specify beaver monitoring and management activities.
 - f. Specify annual frequency of monitoring for above-mentioned flow, aquatic and riparian monitoring.
 - g. Commitment to a minimum of 5 years duration for the post-construction, effectiveness monitoring program.
 - h. Commitment to annual reporting (specify due dates)
 - i. Commitment to report annually on recommendations for additional maintenance works that may be identified during the monitoring program.
 - j. Commitment to provide a final report summarizing all five-years of the long-term monitoring, including any recommendations relevant to the maintenance of the compensation channel in perpetuity. Final report to verify compliance against all program objectives.
8. Submission of Water Licence Application for the compensation channel. You are strongly recommended to submit a water licence application for the compensation channel as soon as possible. Please be advised that applications for water licences may take longer than 140 days to process due to high application volume in the South Coast Region.
9. Submission verification is therefore to be made by sending email copy of Front Counter BC confirmation letter and tracking number to the Water Manager.
10. Application submission should include a Long Term Monitoring and Maintenance Plan for the channel. This plan may be the same as the above-mentioned Long Term Monitoring and Maintenance Plan. However,
11. A separate component should also be provided that describes the City operations crew's plans for general watercourse maintenance works and access routes. This may be called the Operational Parameters and Procedures Report (OPPR) for Licensing purposes. The OPPER may be finalized following the 5□year long term monitoring program.

If you have any questions or concerns please contact the Water Information Technician at 604-586-4400.

Yours truly,



Bryan Robinson, M.Sc., P.Geo.
Assistant Water Manager

Enclosure

pc: Sarah Wyness, Satori Environmental Services
Malissa Smith, Senior Licenced Authorizations Officer, Malissa.Smith@gov.bc.ca
Heather Kamitakahara, City of Surrey, Hkamitakahara@surrey.ca
Katzie First Nation
Kwantlen First Nation
People of the River Referral Office
Seabird Island
Semiahmoo
Tsawwassen First Nation
Tsleil-Waututh Nation

MS / klj



Water Sustainability Act

Approval File No.: 2005354

APPROVAL

WATER SUSTAINABILITY ACT - Subsection 11(1) and 11(2)
(Changes in and about a stream)

is hereby authorized to make changes in and about a stream as follows:

- (a) The name of the stream is unnamed tributary, herein referred to as "the stream".
- (b) The changes to be made in and about the stream are:

The changes to be made in and about the stream are separated in to three phases of instream work activities:

1. Road widening works along 172nd Street involving three culverts and one stream infill as described below. Each culvert will be riprap lined at the inlet and/or outlet of its pre-cast concrete headwall to protect the structure and stream channel against erosion.
 - i. Culvert 1 extension: enclosure/infilling of 19 lineal meters of Stream 2 as a result of culvert extension required for 172nd street widening. Culvert diameter: 375mm, constructed of PVC pipe.
 - ii. Culvert 2: 35m long new culvert installation approximately 80 meters south of 32nd Ave and 172nd Street intersection. Culvert 2 will discharge re-diverted stream 2 flows into the detention pond. Culvert diameter: 900mm, constructed of concrete.
 - iii. Culvert 3: 15 m extension to existing 15 m, 1050mm diameter culvert located at intersection of 32nd Ave and 172nd Street.
 - iv. Stream 3: complete infilling of approximately 273m².
2. Construction of a 145 meter-long compensation channel (henceforth, Stream 4) and its associated riparian habitat.
3. Construction of stormwater features and installation of monitoring stations, including:
 - i. Construction of 8,273m² detention pond;
 - ii. Flow meters in Streams 1, 2 and 4;
 - iii. Flow meter at the outlet of community detention pond;
 - iv. Five stormwater outfalls at the upstream extents of Streams 1 and 2; and
 - v. A gate valve located above the connection points.

All within the Northwest Quarter, Section 19, Township 7, New Westminster District.

- (c) This Approval does not authorize entry on privately held land or Crown land.

- (d) This Approval does not constitute authority of any other agency. The holder of this Approval shall have the necessary permits from other agencies concerned prior to the commencement of the works authorized herein.
- (e) The holder of this Approval must have permits or other written consent from any affected right-of-way holders before commencing work that could affect utilities or other structures within the right-of-ways.
- (f) This Approval does not authorize the alteration or removal of any works held under a water licence.
- (g) The holder of this Approval shall take reasonable care to avoid damaging any land, works, trees, or other property and shall make full compensation to the owners for any damage or loss resulting from the exercise of rights granted hereunder.
- (h) A copy of this Approval (and associated plans/drawings listed on this Approval) must be available for inspection, upon request, at any location where the authorized changes in and about a stream are being undertaken.
- (i) The work authorized shall be completed on or before December 31, 2020.
- (j) Work in the stream channel shall occur:
 - 1. During the period of August 1 to September 15, so that the fisheries interests are protected; or
 - 2. Outside of the reduced risk window (as stated above) in order to accommodate the project schedule, subject to the following:
 - i. The Environmental Monitor shall provide advice to the holder of this Approval on the timing of the work based on: the nature of the works, environmental values (including fish, amphibians, wildlife, any listed species present), water quality, channel stability, weather conditions, water levels, and any other relevant factors); and
 - ii. The Environmental Monitor shall also provide additional construction mitigation advice to the holder of this Approval, and daily or full-time supervision of all work in or near the stream; and
 - iii. Work must be timed and planned appropriately, the stream must be completely dry or have marginal flows for the duration of the construction activities; and
 - iv. The advice of the Environmental Monitor on construction timing (as per (i) above) and mitigation measures (as per (ii) above), as well as the timing of work and the presence of the Environmental Monitor, must be documented in writing. This documentation must be retained for at least 2 years following construction, and if requested by this office, provided for our review.
- (k) Before commencing construction of the works authorized under clause (b) of this Approval, the holder of this Approval must to the satisfaction of the Water Manager designated under the Water Sustainability Act:

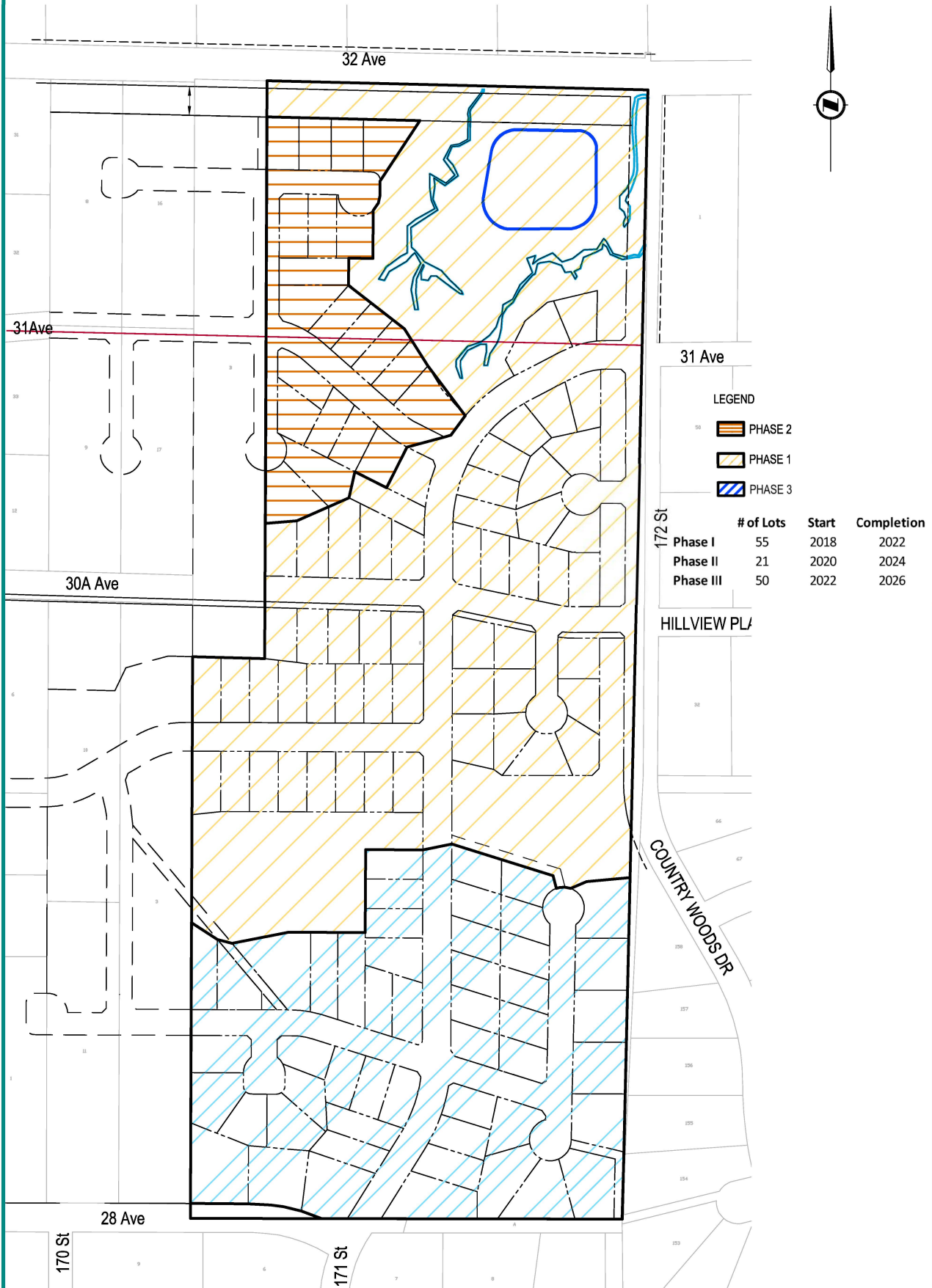
1. Retain an appropriately Qualified Environmental Professional (QEP) who is registered and in good standing with the College of Applied Biology to conduct Environmental Monitoring on all in-stream works authorized under this Approval. Henceforth the QEP will be referred to as the Environmental Monitor.
 2. Submit the following:
 - i. Scope of Work for Environmental Monitor and Delegates;
 - ii. Submission of Letter of credit for (1) construction monitoring and (2) compensation works;
 - iii. Confirmation that Notice has been provided to downstream Licenced Water Users;
 - iv. Detailed design drawings for the works listed in this Approval;
 - v. Schedule for the construction of works;
 - vi. Construction Environmental Management Plan (CEMP) for the management and mitigation of construction-related impacts;
 - vii. Stormwater Management Plan;
 - viii. Long Term Monitoring and Maintenance Plan that includes details of flow monitoring, aquatic habitat monitoring, and riparian restoration plan for Stream 4 and other disturbed riparian areas; and
 - ix. Confirmation of Water Licence Application submission for the compensation channel (Stream 4).
 3. Obtain Leave to Commence Construction (LCC) in writing from the Water Manager.
- (l) All work shall be carried out in accordance with:
1. The Ministry of Environment's "Standards and Best Practices for In-stream Works". The Ministry's guidance can be found at the following link:
http://www.env.gov.bc.ca/lower-mainland/electronic_documents/iswstdsbpsmarch2004.pdf.
 2. Chia Properties Ltd. Water Sustainability Act Development Plan (File # 2005354). Prepared for FLNR by Satori Environmental Services on February 5, 2018. (Henceforth Feb 5, 2018 Development Plan).
 3. Terms and Conditions specified in the LCC.
- (m) Prior to commencement of works, the Environmental Monitor will search for and where necessary, will conduct salvage of any fish, amphibians and or species at risk present in the project area. It is the responsibility of the holder of this Approval to obtain any permits needed prior to the salvage.
- (n) Upon commencement of the project, after receipt of LCC, the work shall be:
1. Conducted from above top-of-bank;
 2. Pursued to completion as quickly as possible; and
 3. Carried out during favourable weather and low flow, or where deemed necessary by the Environmental Monitor, in isolation of the stream flows.

- (o) All culverts shall be installed, removed or maintained in accordance with Section 39(1)(a) of the Water Sustainability Regulation.
- (p) The new constructed compensation channel, henceforth Stream 4, must:
 - 1. Be constructed in the dry.
 - 2. Avoid removal of large woody debris, large diameter trees, and native vegetation during channel construction. Where avoidance is not possible, retain native vegetation suitable for replanting following completion of works.
 - 3. Be tied-into Stream 1 during the above-mentioned works window (clause (j) of this Approval).
 - 4. Have greater or equal hydraulic capacity than the existing, Stream 3, channel.
 - 5. Provide a minimum of 312m² of instream habitat and 2760m² riparian habitat that is like-for-like, or like-for-better, in terms of structure, functionality, and target species. If the actual instream or riparian habitat impact area is larger than estimated in the Feb 5, 2018 Development Plan, the compensation works must be revised to offset the actual area lost using the above-mentioned like-for-like or like-for-better guidelines.
- (q) Equipment and machinery used in or near the stream channel must be in good operating condition and free of leaks, excess oil and grease. A spill containment kit must be readily accessible on-site. No equipment or machinery refueling shall take place within 30 meters of any watercourse.
- (r) Sediment and erosion control measures must be installed on the upland and must meet or surpass the standards outlined in the DFO/MELP "Land Development Guidelines for the Protection of Aquatic Habitat" (Canada and British Columbia, 1993).
- (s) All excavated material and debris shall be removed from the site or placed in a stable area above the high water mark of the stream and mitigative measures to protect the excavated material and debris from erosion and reintroduction into the watercourse shall be used, such as, but not limited to, covering the material with erosion blankets or seeding and planting with native vegetation.
- (t) Turbidity and suspended sediment levels must be maintained within standards outlined in the Canadian Water Quality Guidelines for the Protection of Aquatic Life (2007) and the BC Approved Water Quality Guidelines for Freshwater Aquatic Life (e.g. maximum induced suspended sediment and turbidity levels of 25 mg/L and 8 NTU in 24 hours, respectively in addition to monthly and instantaneous criteria). Water quality monitoring must be conducted by the Environmental Monitor on every day in which instream works are being conducted. Measurements should be taken upstream of any works taking place and within the extent of the sedimentation downstream of where instream work is actively occurring. Measurements should be taken immediately prior to works beginning, and then at regular intervals until the works are completed. Daily reports must be prepared by the Environmental Monitor summarizing the current weather, the time and location of any measurements taken, the upstream activity being conducted at the time, and the respective turbidity levels. Daily monitoring reports must be made available upon request.

- (u) Vegetation along the banks of the stream shall be disturbed as little as possible. Where avoidance is not possible, all disturbed riparian surfaces shall, at a minimum, be:
 1. Replanted to achieve a native plant density of one plant/ m2.
 2. Restored with native riparian vegetation species appropriate to site conditions shall be selected from the Riparian Planting Criteria developed by the Ministry of Environment.
 3. Re-graded, where necessary, to achieve adequate surface stability to maintain riparian form and function along riparian corridors.
- (v) Archeological sites (both recorded and unrecorded) are protected under the Heritage Conservation Act and must not be altered or damaged without a permit from the Archeology Branch. The holder of this Approval must advise everyone who will be involved in ground-disturbance and construction that if archeological materials are encountered, activities must be halted and the Archeology Branch contacted at 250-953-3334 for direction. Additionally, the holder of this Approval must contact Kwantlen, drew.atkins@seyemqwantlen.ca, and Tsleil-Waututh, aking@twnation.ca should an arch site be discovered.
- (w) All temporary works (including a ford, stream crossing, and flow bypass) shall be removed on completion of the project, and the stream channel restored to its natural condition.
- (x) Post construction monitoring reports are to be submitted by December 31 of each year construction works listed in this Approval were undertaken.
- (y) Long Term Monitoring and Maintenance Plan Reports to be submitted by December 31, annually, for a minimum of 5 years following the completion of project construction. The scope of the monitoring and reporting program is to be specified by the Water Manager, in writing, as part of the LCC.



Bryan Robinson, M.Sc., P.Geo.
Assistant Water Manager



LEGEND

- PHASE 2
- PHASE 1
- PHASE 3

	# of Lots	Start	Completion
Phase I	55	2018	2022
Phase II	21	2020	2024
Phase III	50	2022	2026

DATE PLOTTED: 2017-04-13 11:52 AM FILE: M:\PROJECTS\132450 CHIA\1710 32ND STREET SURVEY\132450 PHASES OF DEVELOPMENT.DWG SHEET SIZE: A11" X 17"

Farming Protection Development Permit Guidelines

The Farming Protection DP guidelines are specified in the OCP. These guidelines are listed in the table below, together with an explanation on how the subject application complies with or exceeds the requirements:

Farming Protection DP Guidelines	DP Guideline Requirement	Current Proposal
Restrictive Covenant (RC):	An RC is required for any property that falls within 50 metres (164 ft.) of the ALR boundary to inform future owners of farm practices in the area that may produce noise, odour and dust.	Proposal exceeds the minimum requirement. The applicant proposes to register an RC on properties within 300 metres (984 ft.) from the ALR lands on the north side of 32 Avenue.
Building Setback:	Minimum 37.5-metre (123-ft.) setback from the ALR boundary, for properties with a road abutting the ALR.	Proposal exceeds the minimum requirement. The proposal would provide a minimum 58 metre (190 ft.) from the ALR lands on the north side of 32 Avenue to the nearest home. Included in this distance is 27 metres (88.5 ft.) for 32 Avenue, a 23.5 metre (77 ft.) wide dedicated open space / landscape buffer, and minimum 7.5 metre (25 ft.) rear yard to homes.
Landscape Buffer:	Minimum 7.5 metre (25 ft.) to 12 metre (40 ft.) vegetated buffer along the edge of single family lots, adjacent to the road that separates the lots from the ALR boundary.	The applicant is proposing to dedicate a 23.5 metre (77 ft.) wide corridor along 32 Avenue which will include a compensation channel and landscaping. This exceeds the minimum landscape buffer requirement for farming protection. A P-15 agreement will be required for the monitoring and maintenance of the proposed works within the dedicated buffer area.
Development and Building Design:	Ensure housing units constructed adjacent to agricultural land incorporate additional building upgrades in order to minimize noise conflicts with agricultural operations.	The building scheme will require acoustically-rated window glazing (triple-glazed windows) on proposed Lots 111 to 114 inclusive.