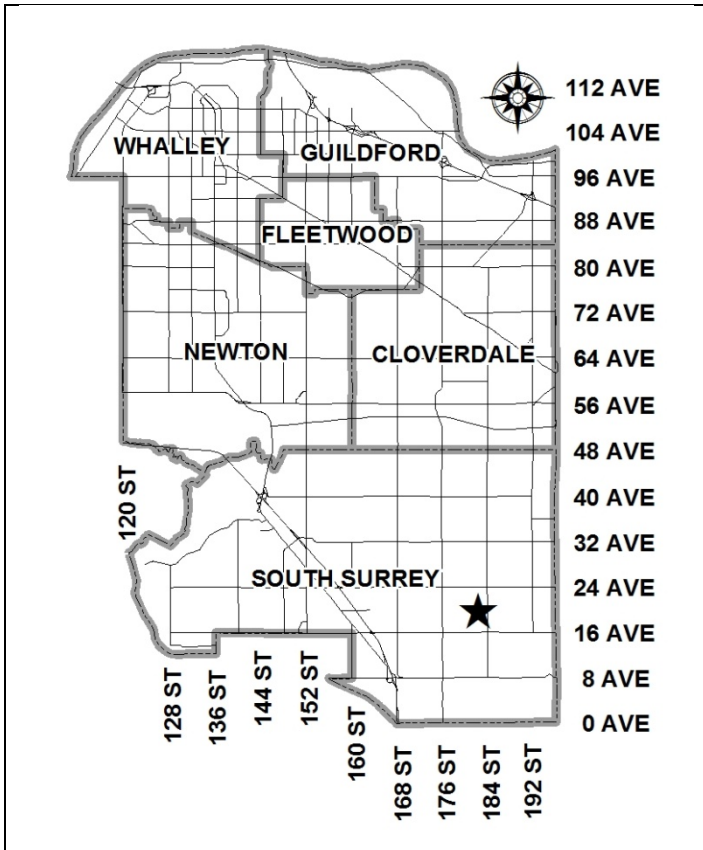


City of Surrey
PLANNING & DEVELOPMENT REPORT

File: 7912-0164-00

Planning Report Date: November 26, 2012



PROPOSAL:

- **Development Variance Permit**

to vary the Subdivision and Development Procedures By-law to allow septic field type sewage disposal systems on lots smaller than 0.8 ha. (2 acres) in order to allow subdivision into 5 single family lots.

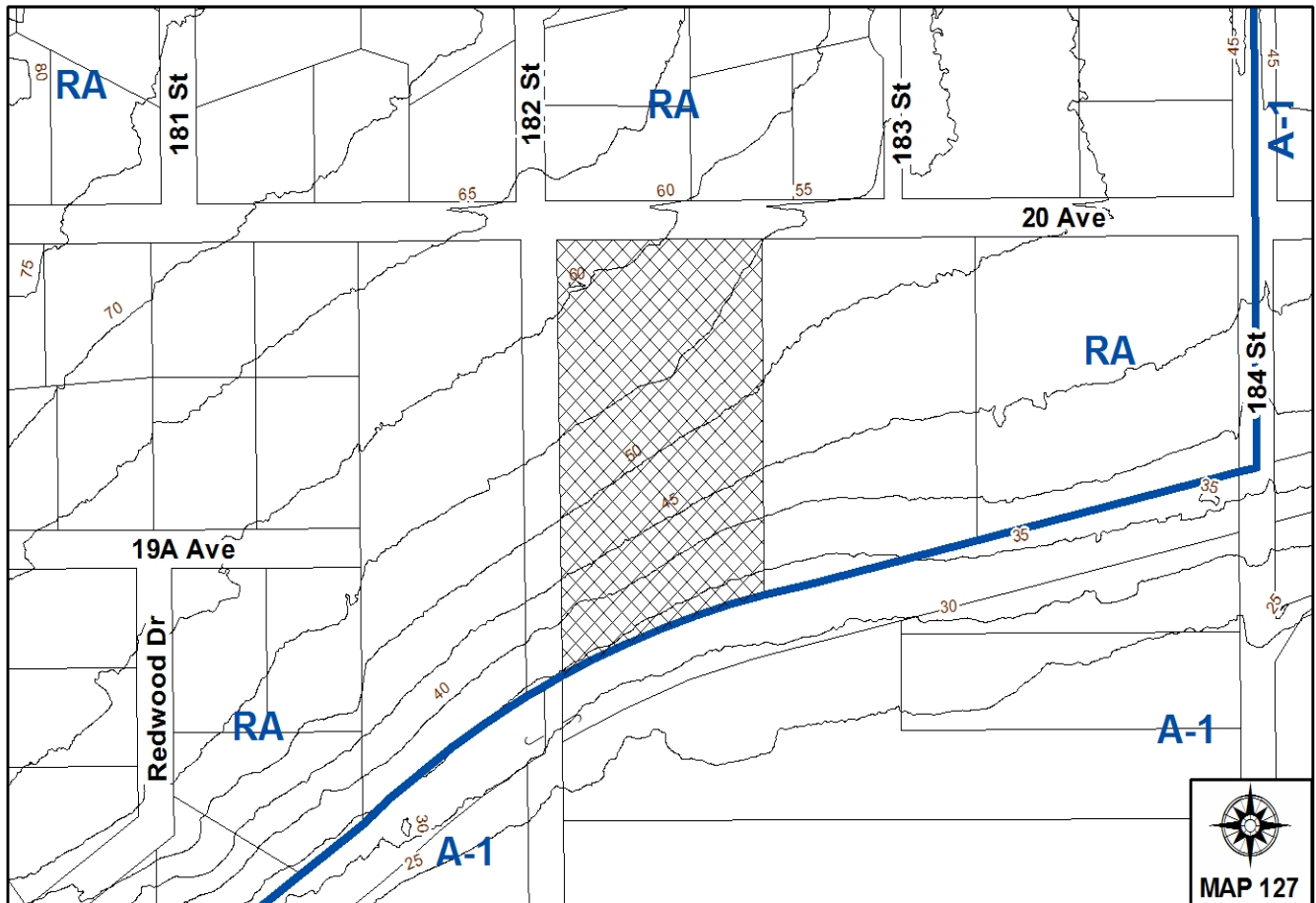
LOCATION: 18226 - 20 Avenue

OWNERS: Kelly Shannon
 Teresa Shannon

ZONING: RA

OCP DESIGNATION: Rural

LAP DESIGNATION: Suburban Residential (1986 Local Area Plan)



RECOMMENDATION SUMMARY

The Planning & Development department recommends that this application be denied.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

Requires a variance to the Subdivision and Development Procedures Bylaw (No. 8830) in order to allow 1 acre parcels without sanitary sewer servicing.

RATIONALE OF RECOMMENDATION

- The minimum 2 acre size for un-serviced lots is required to allow adequate and ample space for a backup system should the primary system fail and to minimize the concentration of septic fields in any given area.
- Septic disposal system failures on smaller lots can potentially force the City to extend sanitary services in an unplanned fashion.
- Staff have serious concerns over the cumulative impacts of septic disposal systems on the environment, particularly increased concentrations of nitrates and fecal coliforms in groundwater sources.

RECOMMENDATION

The Planning & Development Department recommends that this application be denied.

Should Council find merit in the proposal, Council may approve the Development Variance Permit to proceed to Public Notification and direct staff to resolve following issues prior to final approval:

- (a) submission of a preliminary lot grading plan to the satisfaction of the Planning & Development department;
- (b) submission of a subdivision layout to the satisfaction of the Approving Officer;
- (c) submission of an arborist report and finalized tree survey to the satisfaction of the City Landscape Architect;
- (d) 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;
- (e) the applicant resolve all issues with respect to tree preservation, site servicing, and construction to the satisfaction of the General Manager, Engineering; and
- (f) submission of a location certificate showing that buildings to be retained conform to all zoning requirements to the satisfaction of the Planning & Development Department.

REFERRALS

Engineering: The Engineering Department does not support the proposal to create un-serviced 0.4 hectare (1 acre) parcels. Should Council approve the Development Variance Permit, the application will be subject to the completion of Engineering servicing requirements.

SITE CHARACTERISTICS

Existing Land Use: One single family residential dwelling.

Adjacent Area:

Direction	Existing Use	OCP/LAP (1986)	Existing Zone
North (Across 20 th Avenue):	Single family residential.	Rural/Suburban Residential	RA
East:	Single family residential.	Rural/Suburban Residential	RA
West:	Vacant land, City owned (right-of-way for future 182 Street).	Rural/Suburban Residential	RA

Direction	Existing Use	OCP/LAP (1986)	Existing Zone
West (Across 182 nd ROW)	Single family residential.	Rural/Suburban Residential	RA
South:	Vacant land, City-owned (Douglas Greenway).	Rural/[none].	A-1
South (Across Greenway)	Agricultural.	Agricultural/Agricultural	A-1 (ALR)

DEVELOPMENT CONSIDERATIONS

Background

- The subject site is a 2 hectare (5 acre) parcel located on the south side of 20th Avenue, between Redwood Park and 184th Street, in the area known as "Redwood Estates". It is currently zoned RA (One-Acre Residential Zone) and designated as "Rural" in the Official Community Plan. There is no Neighbourhood Concept Plan (NCP) for this area.
- The subject property lies within an area of parcels ranging from 0.4 – 2 hectares (1 – 5 acres) in size. The subject property and the surrounding larger parcels (5 acres or greater) were created in 1916. The remaining 1 acre parcels within the vicinity of the subject property were created between approximately 1977 and 1988.
- To the immediate west of the property is City owned right-of-way. To the immediate south is City owned greenbelt, intended for a future multi-use-pathway.
- The Planning & Development Department is currently engaged in planning processes for the Grandview Heights Area #4 NCP. The subject property and surrounding areas have been specifically excluded from the study area for this NCP, as per the requests of a majority of area residents. Therefore, the long term land-use of this area is intended to remain as rural (Appendix IV)
- The properties in the Redwood Estates area are serviced with domestic city water, provided by a watermain extending down 20th Avenue. There are no sanitary services within the vicinity of the subject site. The closest sanitary services are at the cross-streets of 188 Street and 24th Avenue.

Proposal

- The applicant proposes to subdivide the subject property into five 0.4 hectare (one-acre) parcels (Appendix II). All five lots are proposed to utilize Type II [sand mound] septic fields.
- The applicant has retained a licensed sewerage engineer who has certified that the soils in this area can support the proposed Type II septic systems within the confines of a 1 acre parcel.
- The proposed parcels all meet the minimum width, depth and area requirements of the RA zone.

- The Planning & Development Department has deferred the typical application requirements for subdivision (Lot Grading and Arborist Report) until after Council provides direction on the Development Variance Permit on septic service.
- Building Design Guidelines are not required for subdivision of parcels greater than ½ acre in size.
- The applicant proposes to retain the existing house and will be required to submit a location certificated, prepared by a BC Land Surveyor, to confirm that the existing buildings meet all requirements of the RA zone.

BY-LAW VARIANCE

(a) Requested Variance:

- To vary Section 24.(a)(5) of the Subdivision and Development Procedures Bylaw (No. 8830) to allow lots smaller than 0.81 hectares (2 acres) to utilize septic field type sewage disposal systems .

Applicant's Reasons:

- It has been demonstrated that the soils on the subject site can support an on-site sewage disposal system (Type II sand mound).
- There are many other 0.4 hectare (one-acre) parcels within the vicinity of the subject site that utilize similar systems.
- The land use designations and zoning support the proposed layout.

Staff Comments:

- The Subdivision and Development Procedures Bylaw (No. 8830) limits the size of lots with onsite sewerage systems to a minimum of 0.8 hectares (2 acres).
- The intent of this regulation is twofold: Firstly, it is to ensure adequate and ample space on a lot for a replacement septic system should the primary system fail. Secondly, it is to prevent the concentration of septic fields in a given area, in order to reduce the impacts of septic waste on groundwater sources.
- Staff's concerns over this variance include the potential unplanned extension of City services as result of septic failure, the cumulative effects of concentrations of septic fields, and the impacts of failing and improperly maintained septic systems on the natural environment.

Environmental Concerns

- There are no regulatory bodies, whether Federal, Provincial, or local, that monitor the cumulative effect of nitrates on the groundwater system. Staff are specifically concerned that the loading of nitrates into groundwater systems may have negative

effects on the quality of groundwater in parts of the City and neighbouring jurisdictions.

- The human health hazards associated with increased levels of nitrates in drinking water sources are severe. Research has demonstrated that in order to maintain nitrates to levels within current drinking water standards, a lot size of two acres or larger is generally required.
- Staff have concerns over the maintenance of privately owned on-site septic disposal systems. Regardless of whether the soil on the subject site can support a septic field disposal system, or whether there is adequate room for a replacement system, there is no regulatory body that monitors or enforces regular maintenance of privately owned septic systems on private property.
- In addition to the issues with nitrates, failing and improperly maintained septic systems release fecal coliforms into groundwater and surface water sources, potentially further contaminating aquatic habitat and drinking water sources. Recent testing as part of the Boundary Bay Monitoring Program (BBAMP), a joint initiative between the City of Surrey, Metro Vancouver and the Washington State Department of Ecology, have identified human fecal matter in the Little Campbell River watershed and its tributaries. The exact sources of fecal matter have not been identified, however it is suspected that failing and poorly maintained septic fields are the source.

Potential Unplanned Extension of Services

- Small parcels (less than 2 acres) limit opportunities to replace onsite sewerage systems should they fail. In the event that a parcel cannot support a secondary septic disposal system (should the primary system fail), the City may be exposed to the liability of incurring the financial costs of extending sanitary services into the area. This was the case in the 1980's when septic fields failed in the Aloha Estates area of East Clayton, resulting in the need to obtain sanitary servicing for the area from the Township of Langley, at the City of Surrey's expense.
- On-site sewage disposal systems are prevalent in the surrounding area. However, all of the systems located in the Grandview Heights NCP Areas #3 and #4 will be removed as these areas are re-developed. Ultimate sanitary sewer servicing for the subject site could be extended from Areas #3 or #4 depending on detailed designs. This area was not included in the Grandview Heights General Land Use Plan endorsed by Council in 2005. Staff have already had inquiries as to the timing of sanitary sewer extension in the area from existing residents having to make investment decisions on current septic field maintenance and replacement.
- Allowing 0.4 hectare (1 acre) parcels with on-site septic systems on this subject site will set the precedence and potentially result in the City to receiving similar applications for other nearby parcels of land to subdivide, creating upwards of 20 or more new septic fields on small parcels within close vicinity of the subject site.
- In light of these concerns, and despite the upcoming removal of existing on-site septic disposal systems from lands within the City, any further construction of septic-field disposal systems should continue to be restricted to a minimum 2 acre size.

- Staff advised the applicant at the pre-application stage that this application would be unsupportable.
- Staff do not support the proposed variance.

INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	Lot Owners, Action Summary and Project Data Sheets
Appendix II.	Proposed Subdivision Layout
Appendix III.	Engineering Memo
Appendix IV	Grandview Heights NCP #4 Study Area
Appendix V	Development Variance Permit No. 7912-0164-00

original signed by Nicholas Lai

Jean Lamontagne
General Manager
Planning and Development

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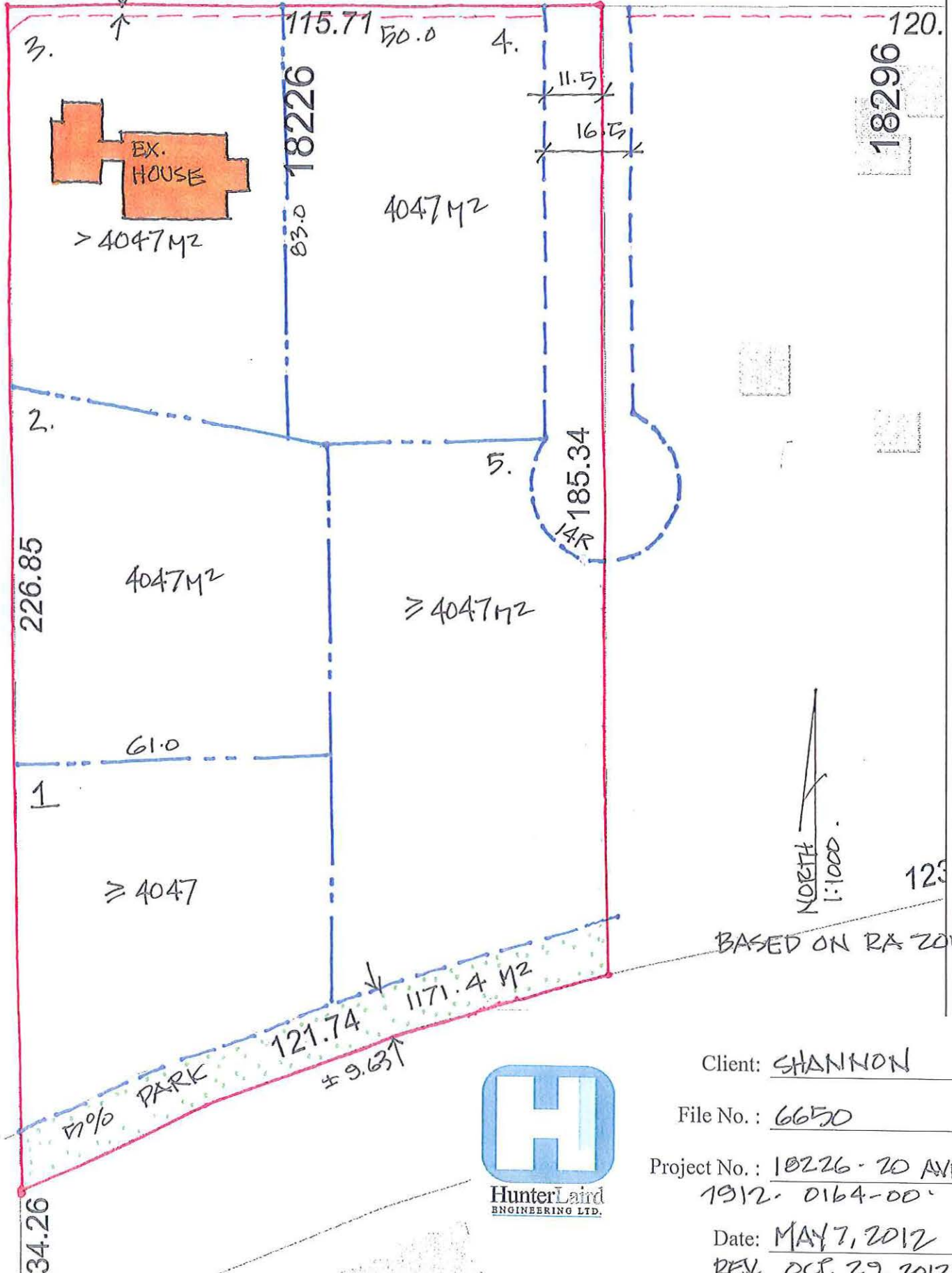
SUBDIVISION DATA SHEET

Proposed Zoning: RA

Requires Project Data	Proposed
GROSS SITE AREA	
Acres	5.88
Hectares	2.43
NUMBER OF LOTS	
Existing	1
Proposed	5
SIZE OF LOTS	
Range of lot widths (metres)	50 – 66.4
Range of lot areas (square metres)	4047
DENSITY	
Lots/Hectare & Lots/Acre (Gross)	2.0/0.85
Lots/Hectare & Lots/Acre (Net)	
SITE COVERAGE (in % of gross site area)	
Maximum Coverage of Principal & Accessory Building	20
Estimated Road, Lane & Driveway Coverage	7.6
Total Site Coverage	27.6
PARKLAND	
Area (square metres)	1171.4
% of Gross Site	5
	Required
PARKLAND	
5% money in lieu	NO
TREE SURVEY/ASSESSMENT	
	YES
MODEL BUILDING SCHEME	
	NO
HERITAGE SITE Retention	
	NO
BOUNDARY HEALTH Approval	
	YES
DEV. VARIANCE PERMIT required	
Road Length/Standards	NO
Works and Services	NO
Building Retention	
Others (Lot Size for Septic Disposal)	YES

PROTECT MAJOR COLLECTOR RD WIDENING. 20 Ave
1.94 M

182 STREET.



BASED ON RA ZONE

Client: SHANNON

File No. : 6650

Project No. : 10226-20 AVE.
1912-0164-00

Date: MAY 7, 2012

REV. OCT. 29, 2012.



HunterLaird
ENGINEERING LTD.

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

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

DATE: **November 21, 2012** PROJECT FILE: **7812-0164-00**

RE: **Engineering Requirements
Location: 18226 20 Ave**

SUBDIVISION

Detailed requirements associated with subdivision will be prepared under separate cover should Council endorse the Development Variance Permit noted below.

A Servicing Agreement will be required prior to Subdivision.

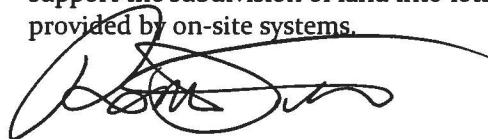
DEVELOPMENT VARIANCE PERMIT

The Subdivision and Development By-law No. 8830, as amended, requires minimum lot size of two acres (0.81 hectare) in order for the lot to be permitted to use an alternate on-site sewage disposal system. Therefore, the Engineering Department does not support this variance request to allow the creation of five one-acre lots without sanitary sewer servicing connected to a City system.

Staff's concerns are grouped into the following three categories:

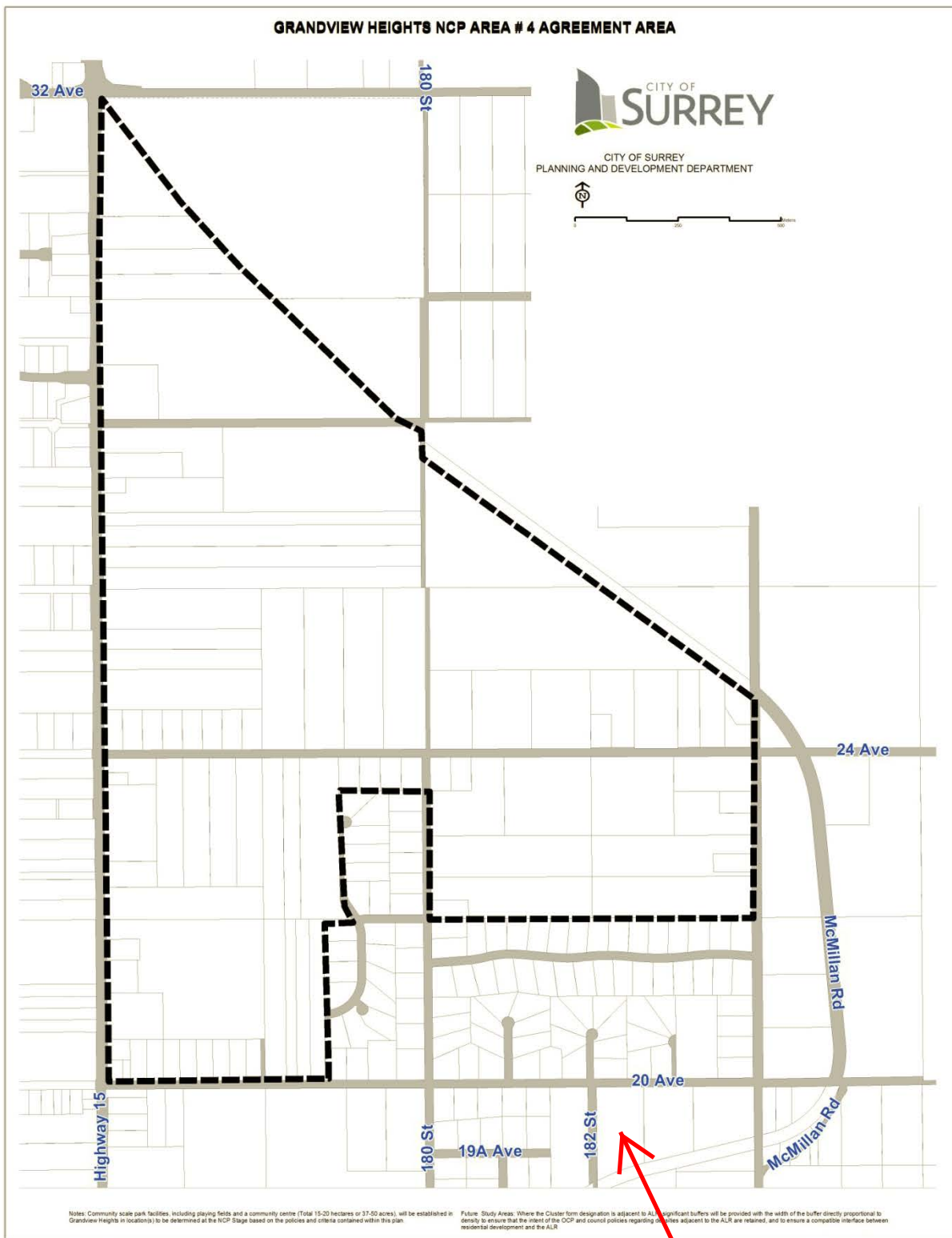
1. **Impact of on-site systems on natural environment:** Certified Practitioners only design and certify the systems but are not responsible to evaluate cumulative impacts these systems have on the natural environment. Recent monitoring indicates failing septic systems have led to high presence of coliforms in downstream water courses.
2. **Impact on groundwater sources:** Cumulative nitrate loading is an area of concern. The 2005 Brookwood Aquifer study validated this concern with approximately 6% of wells exceeding nitrate-nitrogen drinking water guidelines.
3. **Expectation of Servicing:** Septic system failures have, in the past, forced the City to extend sanitary sewer servicing in an unplanned fashion (e.g. Aloha estates in early 1980's) to avoid significant impacts to the natural environment. Existing residents surrounding the subject lands have already inquired as to the timing of sewer extensions to avoid the cost of septic system renewals. Grandview Heights Areas #3 and #4 will be serviced with sanitary sewers as the areas redevelop.

Given the concerns noted above, the Engineering Department recommends that, until minimum lot sizes are established by Federal or Provincial legislation or by the local health authority, the City continue to not support the subdivision of land into lots less than two acres (0.81 hectare) when sanitary sewer servicing is provided by on-site systems.



Rémi Dubé, P.Eng.
Development Services Manager

Map of Agreement Area



SUBJECT
PROPERTY

CITY OF SURREY

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7912-0164-00

Issued To: KELLY DAVID SHANNON
TERESA CATHERINE SHANNON

("the Owner")

Address of Owner: 18226 - 20 Avenue
Surrey, BC
V3S 9W1

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: 007-474-814
Lot 10 Section 17 Township 7 New Westminster District Plan 1719

18226 - 20 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 title(s) has/have been issued, as follows:

Parcel Identifier:

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

4. Surrey Subdivision and Development By-law, 1986, No. 8830, as amended is varied as follows:

- (a) Note 4 to "Table 1 Servicing Requirements" in Schedule "A" shall read as follows:
- i. A sewage disposal system designed and certified by an "Authorized Person" as defined, and in accordance with, the Sewerage System Regulation under the B.C. Health Act and Ministry of Health Sewerage System Standard Practice Manual.
 - ii. Minimum lot size shall be 0.405 hectare.
 - iii. Holding tanks are not allowed within the Fraser Sewerage Area as defined by the GVS&DD.
5. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this development variance permit.
 6. This development variance permit applies to proposed Lots 1 - 5 as shown on the preliminary subdivision plan shown on Schedule A which is attached hereto and forms part 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.

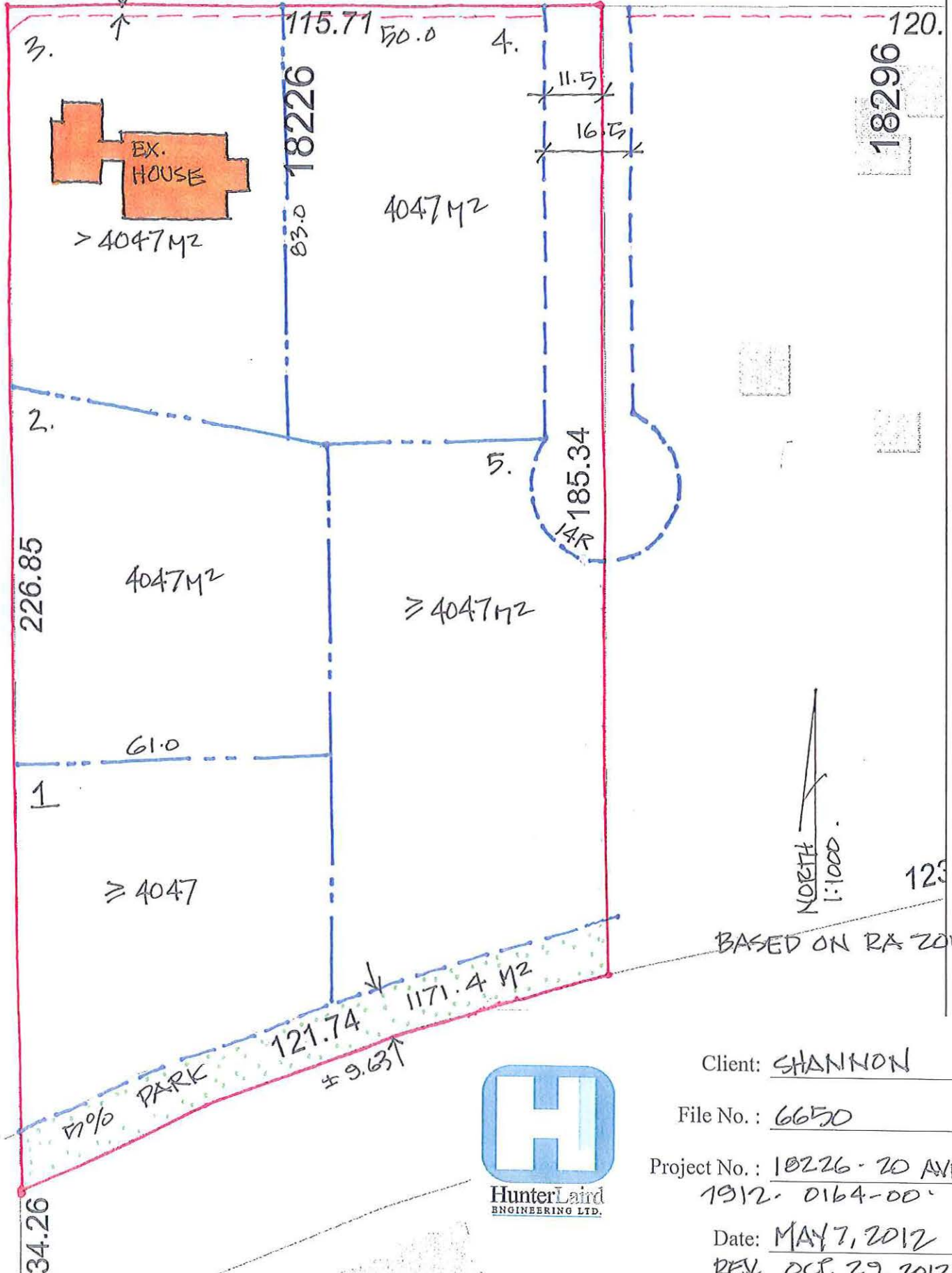
AUTHORIZING RESOLUTION PASSED BY THE COUNCIL, THE DAY OF , 20 .
ISSUED THIS DAY OF , 20 .

Mayor – Dianne L. Watts

City Clerk – Jane Sullivan

PROTECT MAJOR COLLECTOR RD WIDENING. 20 Ave
1.94 M

182 STREET.



Client: SHANNON

File No. : 6650

Project No. : 10226-20 AVE.
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