

City of Surrey  
**PLANNING & DEVELOPMENT REPORT**

Application No.: 7920-0020-00

Planning Report Date: September 14, 2020

**PROPOSAL:**

- **Rezoning** from RF to CD

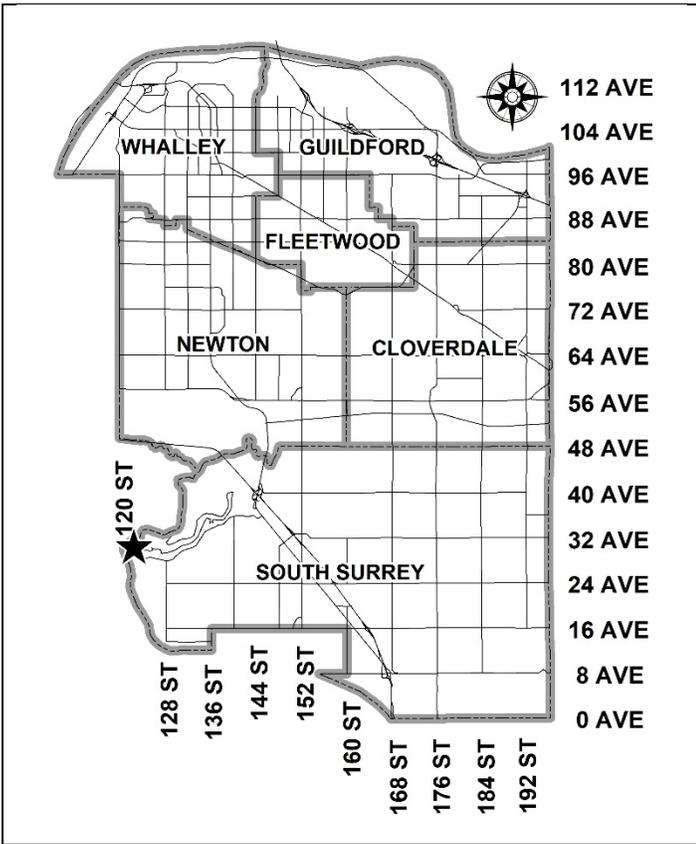
to permit the construction of a new single family dwelling.

**LOCATION:** 12183 - Agar Street

**ZONING:** RF

**OCP DESIGNATION:** Urban

**LAP DESIGNATION:** Urban Residential



**RECOMMENDATION SUMMARY**

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

**DEVIATION FROM PLANS, POLICIES OR REGULATIONS**

- None.

**RATIONALE OF RECOMMENDATION**

- The proposal complies with the 'Urban' designation in the Official Community Plan (OCP), the 'General Urban' designation in the Metro Vancouver Regional Growth Strategy (RGS) and the 'Urban Residential' designation in the Crescent Beach Local Area Plan (LAP)
- The proposed dwelling establishes the habitable floor level at 4.1 metres above sea-level.
- The proposal responds to rising sea levels and will help maintain the water volume carrying capacity of the Crescent Beach floodplain in a flood event while ensuring that the habitable area of the proposed dwelling is above the Flood Construction Level (FCL).
- With the proposed "Comprehensive Development Zone (CD)" the applicant is seeking to accommodate a more flood resilient dwelling with an appropriate built form compatible with the neighbourhood character.
- Staff support the proposed application as a progressive pilot project for the construction of flood tolerant buildings in the Crescent Beach floodplain.

## RECOMMENDATION

The Planning & Development Department recommends that:

1. A By-law be introduced to rezone the subject site from "Single Family Residential Zone (RF)" to "Comprehensive Development Zone (CD)" and a date be set for Public Hearing.
2. Council instruct staff to resolve the following issues prior to final adoption:
  - (a) registration of a Section 219 Restrictive Covenant that stipulates the ground floor level is not to be used as a habitable space or storage area, all mechanical and electrical systems are to be constructed above the flood construction level of Crescent Beach, and that the City is indemnified against any potential losses to the property owner as a result of having the uninhabitable space within a floodplain; and
  - (b) demolition of existing buildings and structures to the satisfaction of the Planning and Development Department.

## SITE CONTEXT & BACKGROUND

Direction	Existing Use	LAP Designation	Existing Zone
Subject Site	Single Family Residential	Urban Residential	RF
North:	Single Family Residential	Urban Residential	RF
East:	Single Family Residential	Urban Residential	RF
South (Across Agar Street):	Single Family Residential	Urban Residential	RF
West:	Single Family Residential	Urban Residential	RF

### Context & Background

- The subject property is located at 12183 – Agar Street in Crescent Beach and is designated 'Urban' in the Official Community Plan (OCP), and 'Urban Residential' in the Crescent Beach Local Area Plan (LAP).
- The subject property is currently zoned 'Single Family Residential Zone (RF)' and is approximately 464 square metres in size.
- The property is located within the flood plain area for Crescent Beach and contains a single family dwelling that is not built to modern flood construction requirements for the area.
- The current Flood Construction Level (FCL) for Crescent Beach is 3.3 metres above sea-level. This means that buildings within the Crescent Beach floodplain must have their habitable space located above this elevation.

- Based on the Provincial Sea Level Rise Curve for year 2100 and local wave effects, the future FCL requirement for Crescent Beach is expected to increase by more than a metre from the current level.
- A previous Development Application (No. 7917-0550-00) in Crescent Beach at 2954 – Ohara Lane was granted Final Adoption by Council to rezone from the RF Zone to a CD Zone (By-law No. 19705) in order to permit the construction of a flood tolerant single family dwelling with a non-habitable ground floor level.
- An additional Development Application (No. 7920-0012-00) at 2798 – McBride Avenue was granted First and Second Reading by Council on July 27, 2020 to rezone the property from the RF Zone to a CD Zone (By-law No. 19705) in order to permit the construction of a flood tolerant single family dwelling with a non-habitable ground floor level.
- On April 6, 2020, Council received Corporate Report No. Ro60 as information and instructed staff to consult with area residents on proposed new zoning provisions that take into account current and future flood construction level requirements for all new single family dwellings constructed in the Crescent Beach Neighbourhood. Staff have reached out to the Crescent Beach Property Owner’s Association to determine an appropriate public consultation strategy given current social distancing requirements and expect to be progressing with this in the Fall of 2020.

## DEVELOPMENT PROPOSAL

### Planning Considerations

- The property owners are proposing to build a flood resilient, three-storey single family dwelling on the subject lot. All storeys are proposed to be above grade. The ground level would be a 2.4 metre high, uninhabited, flood tolerant space used for parking only. The second and third levels of the building would be habitable living space constructed at an elevation that is above current and anticipated future FCL requirements.
- The purpose of the proposed house construction is to provide for increased flood mitigation with anticipated rising flood elevations in the future. The uninhabitable space at the ground floor level will also maintain the existing water volume carrying capacity of the floodplain in a flood event.
- To permit this construction, the applicant is proposing to rezone the subject property from "Single Family Residential Zone (RF)" to "Comprehensive Development Zone (CD)" in order to:
  - Have the ground floor level be built below the FCL at full height and excluded from Floor Area Ratio (FAR) (density) calculation requirements;
  - Increase lot coverage and reduce the front and rear setbacks to accommodate an increased number of stairs to reach the main floor; and
  - Increase building height to accommodate the raised main floor level.

- The property owners have proposed an RC indemnifying the City for the proposed construction in the floodplain which will include provisions that prohibit the ground floor level from being used as a living or storage space.
- Staff support the application as a pilot project reflecting flood adaptation strategies for new construction in the Crescent Beach floodplain while the planning process that is looking at the larger issue of flood resilient development in the Crescent Beach community is being explored. As such, the proposed regulatory changes (CD Bylaw) in this application are not intended to be implemented broadly in Crescent Beach at this time.

## **Crescent Beach Building Practices**

### Current Practices

- The Flood Construction Level (FCL) for Crescent Beach is based on the Geodetic Survey of Canada and is currently set at 3.3 metres above sea-level. This means that buildings within the Crescent Beach floodplain must have all habitable space located above this elevation.
- To comply with the FCL for the area, newly constructed homes either need to be built atop a fill pad that is 3.3 metres above sea-level or be constructed with a crawl space that is no more than 1.5 metres high and brings the main floor of the building out of the floodplain.

### Proposed Construction

- The property owners are proposing to build a flood-resilient house that raises the habitable areas of the dwelling above the anticipated future FCL. To achieve this, the proposal is to build the underside of the habitable floor space at 4.1 metres above sea-level. Rather than using fill to achieve this main floor elevation, the applicant is proposing a 2.4 metre high uninhabited open space on the ground floor level. The ground floor would be constructed with concrete walls and floor which could withstand a future flood event.
- By keeping the ground floor level as a single open and uninhabitable room, the property maintains the carrying capacity of the Crescent Beach floodplain. In contrast, when fill is used to reach the FCL, space for accommodating flood waters in the existing floodplain is displaced. Subsequently, as more properties use fill for their construction, the 200-year flood elevation increases above the natural level for the area due to the reduced overall water volume carrying capacity of the floodplain.
- The property owners would be permitted to use the ground floor level for parking only. No storage, electrical, plumbing, windows or internal access to the habitable levels will be permitted to be in the ground floor level. These no-build provisions will be included in the proposed indemnification Restrictive Covenant.

## **Restrictive Covenant**

- Under Section 219 of the *Land Title Act*, a local government and property owner may enter into a covenant to enact additional restrictions beyond the standard Zoning Bylaw regulations on how a building may be built or used on a given property. These covenants are registered on the property's title and run in perpetuity.



- D2.10 - Consider and prepare for the projected impacts of climate change on flood hazard areas due to sea level rise and flood risk. Take into account the effects of long-term climate change such as increased flooding events, increased runoff due to development and a reduced percentage of overall mature tree cover.

*(The proposed development includes a 2.4 metre high uninhabitable ground floor level that provides for increased flood mitigation with anticipated rising flood elevations in the future.)*

## Secondary Plans

### Land Use Designation

- The proposal complies with the Urban Residential designation in the Crescent Beach Local Area Plan (LAP).

### Themes/Objectives

- Preserve and enhance the semi-rural residential and seaside village character of the community, maintaining the dominant character of the residential buildings.
- Encourage the design of new homes to maintain the existing seaside residential character.

## CD By-law

- The applicant proposes to rezone the subject site from "Single Family Residential Zone (RF)" to "Comprehensive Development Zone (CD)".
- The applicant is proposing a "Comprehensive Development Zone (CD)" to accommodate a proposed single family dwelling on the subject site. The CD By-law will be based on the "Single Family Residential Zone (RF)". The CD By-law for the proposed development site identifies appropriate uses, densities, and setbacks.
- A comparison of the density, lot coverage, setbacks, building height and permitted uses in the RF Zone and the proposed CD By-law is illustrated in the following table:

Zoning	RF Zone (Part 16)	Proposed CD Zone
<b>Permitted Uses:</b>	One single family dwelling	One single family dwelling where the ground level is permitted to only be used for parking.
<b>Floor Area Ratio:</b>	All covered areas located above grade are calculated as floor area ratio	The uninhabitable ground floor level is excluded from the floor area ratio calculation.
<b>Lot Coverage:</b>	39.1% maximum	42% maximum
Front Yard (southwest):	7.5 m	4.5 m
Side Yard (northwest):	1.8 m	1.8 m
Side Yard (southeast):	1.8 m	1.8 m
Rear (northeast):	7.5 m	5.0 m
Lot Size:	560 m <sup>2</sup>	464 m <sup>2</sup>
Lot Width:	15 m	15 m
Lot Depth:	28 m	31 m
<b>Principal Building Height:</b>	9 m max. for roof slope greater than or equal to 1:4	9.8 m for roof slope greater than or equal to 1:4

- **Permitted Use**

- Under the existing RF Zone, the property owners are permitted to have a single family dwelling (with secondary suite) on their property. The RF Zone's permitted uses section does not stipulate what each storey of the single family dwelling is to be used for.
- The CD Zone has been proposed to permit a single family dwelling provided that the ground floor level, which is to be built below the 3.3 metre FCL, is to be used only for parking.

- **Floor Area Ratio (FAR)**

- Floor Area Ratio (FAR) is a form of density in the Zoning Bylaw which regulates the maximum amount of floor area permitted for buildings and structures based on the area of a given lot. All covered areas of a building or structure that are constructed above grade are counted towards the FAR maximum for a lot. Basement levels, which by definition, are building levels that are a minimum of 50% in-ground, are not applied against the maximum FAR of a lot.
- The FAR calculation for the subject property under the existing RF Zone is 0.6 and would permit the property owners to construct a new single family dwelling with a maximum habitable floor area of approximately 278 square metres.

- However, based on how floor area is defined in the Zoning Bylaw, the proposed three-storey single family dwelling results in a total floor area of 406 square metres; 144 square metres of uninhabitable space on the ground level and 262 square metres of habitable space on the second, and third levels. This total floor area exceeds the maximum FAR allowance if the property were to remain in the RF Zone.
- The proposed CD Zone excludes the uninhabitable, ground floor area from the overall FAR calculation and restricts the space to only be used for parking. Once the 144 square metre uninhabitable space is excluded from the FAR calculation, the proposed habitable area on the second and third levels totals 262 square metres, which is below what would normally be permitted under the RF Zone for the subject site. As such, the property owners are not receiving additional habitable floor area by way of the CD Zone when compared with the existing RF Zone.
- **Lot Coverage**
  - Lot coverage is a regulation that sets the maximum footprint for buildings and structures based on the area of a given lot. Covered spaces and those spaces that are uncovered but are located 0.6 metres above grade, are applied to the total lot coverage maximum for a given lot.
  - Under the existing RF Zone, the maximum lot coverage for the subject property is 186 square metres or 40%. All buildings, covered patios, and exterior stairs above 0.6 metres would need to be included in the 186 square metres site coverage maximum.
  - Due to the higher main floor elevation, more exterior stairs are required to access the habitable areas of the building. Based on the way the lot coverage is calculated, many of these stairs are applied against the lot coverage maximum for the lot. Therefore, the applicant has proposed that the CD Zone have a maximum lot coverage of 42% with additional lot coverage of 2% for uncovered staircases providing access to the habitable areas of the dwelling and 1% for planters to help reduce the visual impact of the stairs and elevated main floor level from the streets.
  - The proposed 39% lot coverage, which would be used specifically for the principal dwelling, is below the permitted 40% lot coverage under the existing RF Zone. As such, the property owners are not receiving additional habitable floor area or covered, outdoor patio space under the CD Zone when compared with the existing RF Zone.
  - The stairs have been designed in segments leading to a series of landings rather than having a straight staircase from the property grade to the entrances on the second level. While doing so increases the required lot coverage, it provides for a more gradual and low profile stair system, which minimizes the visual impact resulting from the required number of stairs to reach the main floor level.
- **Setbacks**
  - Under the RF Zone, the standard front yard and rear yard setbacks for a principal building are 7.5 metres.

- To accommodate the proposed stair system noted above, the applicant has proposed to reduce the front yard setback (southwest) from Agar Street from 7.5 metres to 4.5 metres and the rear yard setback (north east) from 7.5 metres to 5.0 metres for exterior staircases in the CD Zone.
  - The principal building envelope and patio spaces will retain the required 7.5 metre setback from Agar Street and the rear property line.
- **Building Height**
    - Under the existing RF Zone, the maximum building height for a principal dwelling is 9 metres where the roof pitch is 1:4 or greater, and 7.5 metres where the roof pitch is less than 1:4 (flat roof). The measurement for building height is taken from the existing average grade of the property to the mid-point between the ridge and the eaves of the highest building roof.
    - The applicant, under the CD Zone, is proposing to increase the maximum building height to 9.8 metres in order to accommodate the higher main floor elevation of the proposed dwelling.

## PUBLIC ENGAGEMENT

- Pre-notification letters were sent on February 12, 2020, and the Development Proposal Signs were installed on February 19, 2020. Staff received 1 response from a neighbour requesting information regarding tree impacts associated with the proposal.

## TREES

- Anne Kulla, ISA Certified Arborist of Huckleberry Landscape Design, prepared an Arborist Assessment for the subject property. The table below provides a summary of the tree retention and removal by tree species:

**Table 1: Summary of Tree Preservation by Tree Species:**

Tree Species	Existing	Remove	Retain
<b>Coniferous Trees</b>			
Grand Fir	3	1	2
Falsecypress	1	1	0
<b>Total (excluding Alder and Cottonwood Trees)</b>	<b>4</b>	<b>2</b>	<b>2</b>
<b>Total Replacement Trees Proposed (excluding Boulevard Street Trees)</b>		<b>2</b>	
<b>Total Retained and Replacement Trees</b>		<b>4</b>	
<b>Contribution to the Green City Program</b>		<b>\$800</b>	

- The Arborist Assessment states that there are a total of four (4) mature trees on the site, with no Alder and Cottonwood trees. It was determined that 2 trees can be retained as part of this development proposal. The proposed tree retention was assessed taking into consideration the location of services, building footprint, road dedication and proposed lot grading.
- For those trees that cannot be retained, the applicant will be required to plant trees on a 2 to 1 replacement ratio. This will require a total of four (4) replacement trees on the site. Since only two (2) replacement trees can be accommodated on the site, the deficit of two (2) replacement trees will require a cash-in-lieu payment of \$800, representing \$400 per tree, to the Green City Program, in accordance with the City's Tree Protection By-law.
- In summary, a total of four (4) trees are proposed to be retained or replaced on the site with a contribution of \$800 to the Green City Program.

### INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	Site Plan, Building Elevations, and Perspective
Appendix II.	Engineering Summary
Appendix III.	Summary of Tree Survey and Tree Preservation

*approved by Shawn Low*

Jean Lamontagne  
General Manager  
Planning and Development

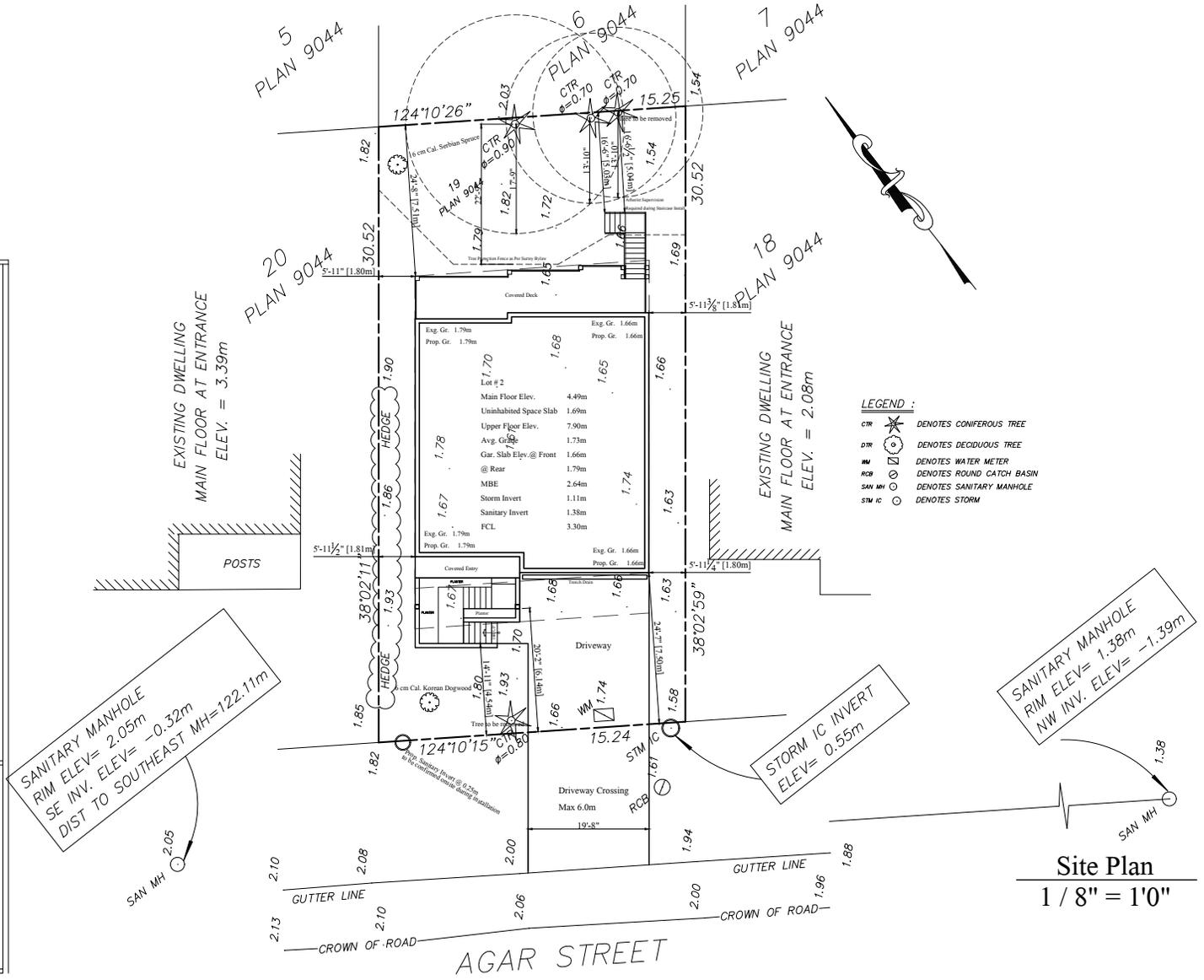
SR/cm

# Agar St. Residence

Residential Home Plans For:  
12183 Agar St.  
Surrey, BC

## Zoning

Address	12183 Agar St. Surrey, BC
Lot#	Lot 19
Legal Description	Lot 19, Blk 17, DL lots 52 and 491 Group 2 NWD 9044
Lot Size	463.77 m <sup>2</sup> (4992 sf)
Lot Coverage	Allowable 40% = 185.51m <sup>2</sup> (1996.8 sf) Proposed = 191.28m <sup>2</sup> (2059 sf)
Building	181.36m <sup>2</sup> (1952.3 sf)
Total Ext. Stairs	11.05m <sup>2</sup> (119 sf)
Planters	5.75m <sup>2</sup> (61.9 sf)
Building Size	Max. Allowable = 278.25m <sup>2</sup> (2995.2 sf) Proposed = 262.48m <sup>2</sup> (2825.5 sf)
Main Floor	143.66m <sup>2</sup> (1546.5 sf)
Upper Floor	118.81m <sup>2</sup> (1279 sf)
Foundation Floor	143.66m <sup>2</sup> (1546.5 sf)
Open to Stairs Area	7.71m <sup>2</sup> (83 sf)
Covered Entry (includes Verandah)	13.37m <sup>2</sup> (144 sf)
Covered Deck Main Rear	24.32m <sup>2</sup> (261.8 sf)
Covered Patio Ground Level	24.32m <sup>2</sup> (261.8 sf)
Open Decks Upper	28.42m <sup>2</sup> (306 sf)
Covered Deck Allowance	27.85m <sup>2</sup> (299.5 sf)
80 / 20	157.04m <sup>2</sup> (1690.5 sf) x .8 = 125.63m <sup>2</sup> (1352.4 SF) Prop. = 118.81m <sup>2</sup> (1279 SF) 157.04m <sup>2</sup> (1690.5) x .2 = 31.40m <sup>2</sup> (338 SF) Prop. = 37.67m <sup>2</sup> (405.5 SF)
Zone	CD Bylaw
Heating	Radiant In Floor w/ AC
<b>Drawing List</b>	
Page No.	Drawing
A1-0	Site Plan & Zoning Info
A2-0	Foundation & Main Floor Plan
A3-0	Upper Floor Plan & Roof Layout
A4-0	Elevations
A5-0	Cross Section & Energy Eff. Calculations
A6-0	Details
A7-0	Details



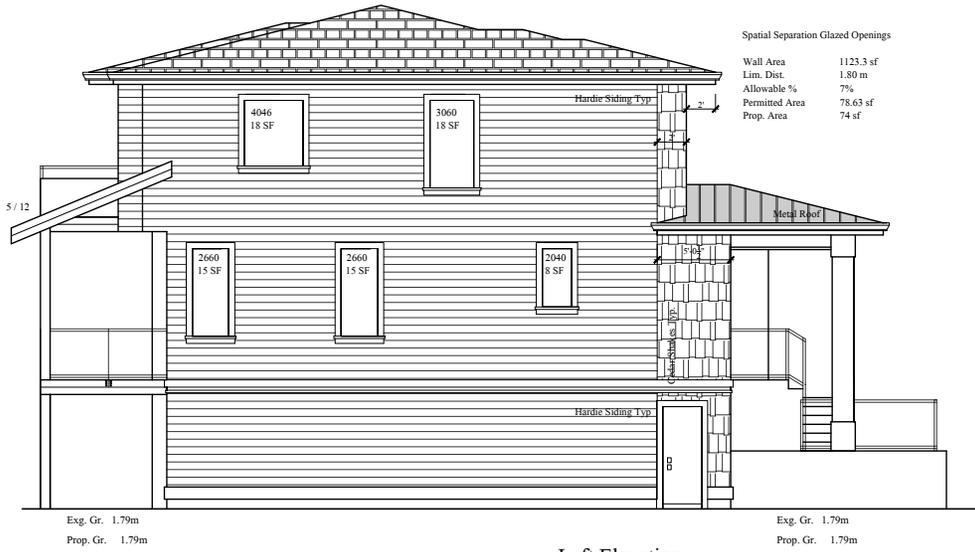
**Kapoor Home Design Ltd.**  
Suite 201 - 8660 201 St. Langley, BC  
778-995-1537  
kapoorhomes@gmail.com

**Bladder:** Brick House Building  
Ravi - 604-338-6664  
Kevin - 604-897-8900

**Site:** 12183 Agar St. Surrey, BC

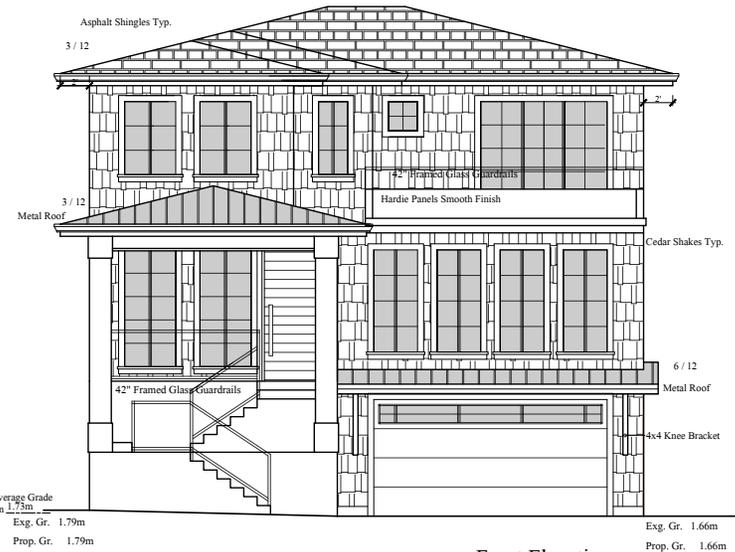
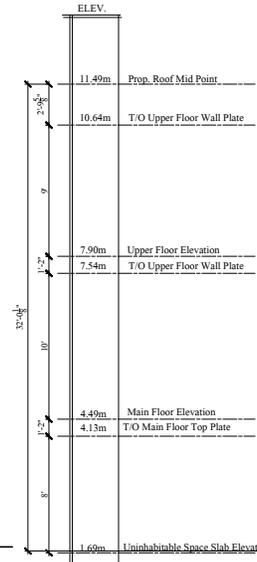
**Subject:** Zoning Info & Site Plan A1-0

**NOTES:**  
Kapoor Home Design Ltd. accepts no responsibility for errors and/or omissions in these drawings or any liability that may arise from their use. The contractor and/or owner must verify all drawings and information before construction. These drawings are prepared in accordance with the BC Building Code (2018).



**Left Elevation**

1/4" = 1"0"



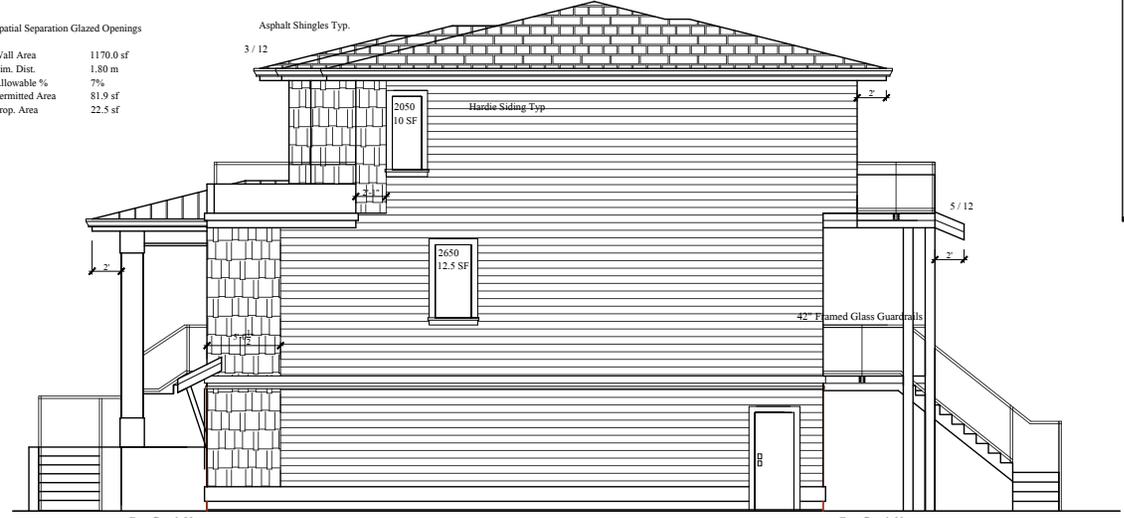
**Front Elevation**

1/4" = 1"0"



**Rear Elevation**

1/4" = 1"0"



**Right Elevation**

1/4" = 1"0"

Subject: Rear and Right Elevation A5-0  
 Site: 12183 Agar St. Surrey, BC  
 Bladder: Brick House Building  
 Ravi - 604-338-6664  
 Kevin - 604-897-8990  
 Kapor Home Design Ltd.  
 Suite 201 - 8661 201 St Langley BC  
 778-995-1337  
 kapoorhomes@gmail.com  
 NOTES:  
 Kapor Home Design Ltd. assumes no responsibility for structural dimensional errors or omissions or any other liability on its behalf or on any other construction. The contractor is advised that drawings shall have precedence over all other dimensions. These Plans conform to latest rules of the Building Code (2018).



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

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

DATE: **September 04, 2020**

PROJECT FILE: **7820-0020-00**

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RE: **Engineering Requirements  
Location: 12183 Agar Street**

**REZONE**

***Property and Right-of-Way Requirements/Works and Services***

- There are no dedication or works & services triggered through this application, therefore a Servicing Agreement is not required for the proposed rezone;
- No drainage concerns on the proposal for lowest floor to be non-habitable and be constructed below the Flood Construction Level (FCL). All habitable spaces to be constructed above the FCL; and
- Standard Building Permit Application processes is to be followed, including evaluation of adequacy of existing services (existing driveway, water, sanitary and storm service connections) and relocation/upgrade or construction as required through the Building Permit process. This will also include abandonment of existing service connections as required.



Tommy Buchmann, P.Eng.  
Development Services Manager

## Tree Preservation Summary

Surrey Project No: 20-0020

Address: 12183 Agar Street, Surrey

Registered Arborist: Anne Kulla

On-Site Trees	Number of Trees
<b>Protected Trees Identified</b> (on-site and shared trees, including trees within boulevards and proposed streets and lanes, but excluding trees in proposed open space or riparian areas)	4
<b>Protected Trees to be Removed</b>	2
<b>Protected Trees to be Retained</b> (excluding trees within proposed open space or riparian areas)	2
<b>Total Replacement Trees Required:</b>  <ul style="list-style-type: none"> <li>- Alder &amp; Cottonwood Trees Requiring 1 to 1 Replacement Ratio  <math>\underline{\hspace{1cm}}</math> X one (1) = 0</li> <li>- All other Trees Requiring 2 to 1 Replacement Ratio  <math>\underline{2}</math> X two (2) = <del>0</del> 4</li> </ul>	<del>0</del> 4
<b>Replacement Trees Proposed</b>	2
<b>Replacement Trees in Deficit</b>	<del>0</del> 2
<b>Protected Trees to be Retained in Proposed [Open Space / Riparian Areas]</b>	

Off-Site Trees	Number of Trees
<b>Protected Off-Site Trees to be Removed</b>	0
<b>Total Replacement Trees Required:</b>  <ul style="list-style-type: none"> <li>- Alder &amp; Cottonwood Trees Requiring 1 to 1 Replacement Ratio  <math>\underline{\hspace{1cm}}</math> X one (1) = 0</li> <li>- All other Trees Requiring 2 to 1 Replacement Ratio  <math>\underline{\hspace{1cm}}</math> X two (2) = 0</li> </ul>	<b>0</b>
<b>Replacement Trees Proposed</b>	0
<b>Replacement Trees in Deficit</b>	<b>0</b>

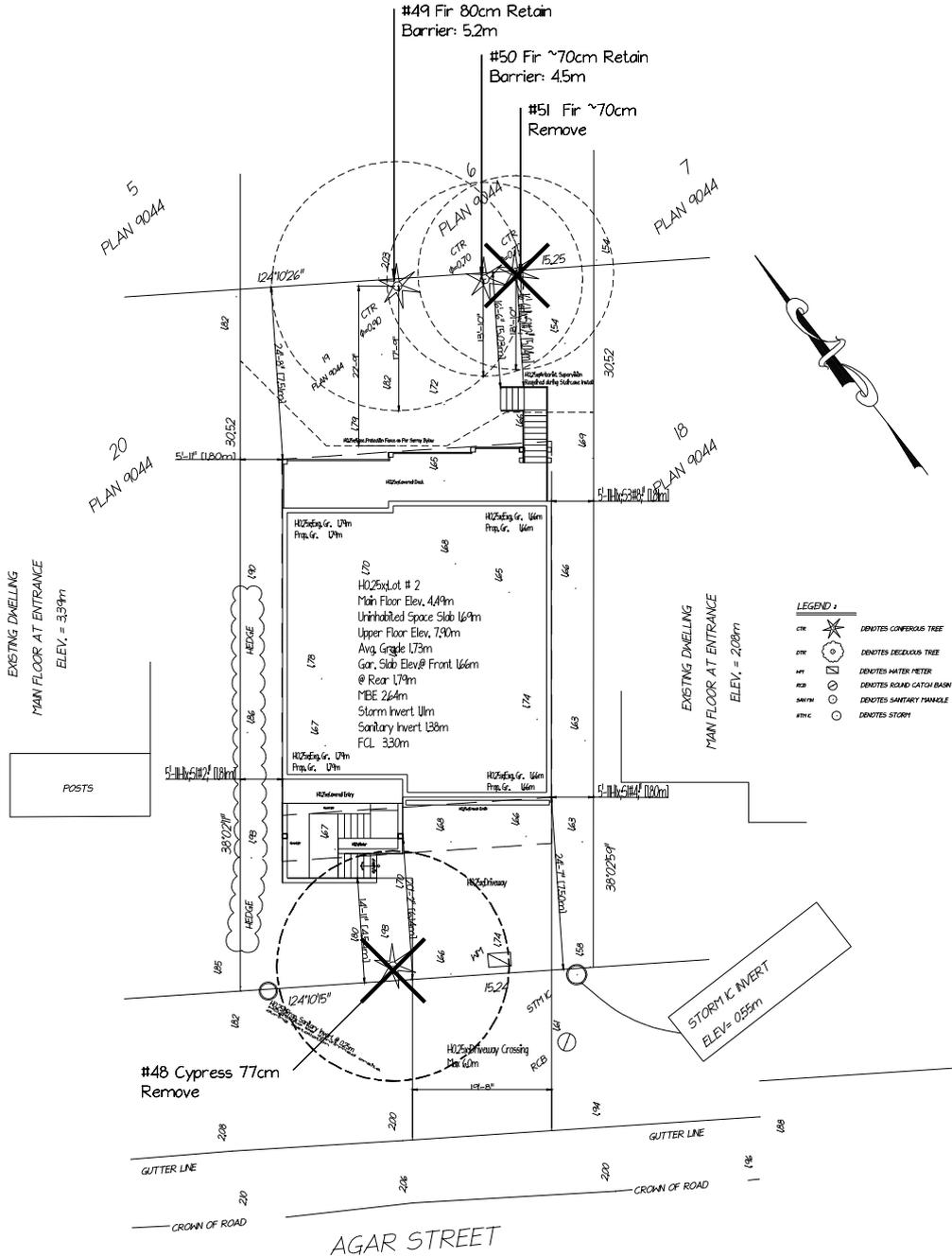
Summary, report and plan prepared and submitted by:

*Anne Kulla*  
(Signature of Arborist)

Sept. 8, 2020  
Date

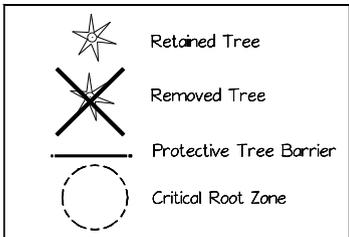
NOTES

1. All tree barriers must be built to the specifications in the City of Surrey's Bylaw No. 16100.
2. Any excavation or grade changes inside of a critical root zone must be approved by the Project Arborist.
3. Any work inside of a tree protection barrier must be done by hand, and must be supervised by the Project Arborist.
4. Sanitary, storm, and water locations have been provided by the Surveyor. The services notes have been adapted for this report.
5. Gas service location was not provided, the location provided is an estimation from field observations.



**LEGEND:**

CTR		DENOTES CONIFEROUS TREE
DEC		DENOTES DECIDUOUS TREE
MF		DENOTES WATER METER
REB		DENOTES ROAD CATCH BASIN
SMTH		DENOTES SANITARY MANHOLE
STVC		DENOTES STORY



**Huckleberry**  
Landscape Design  
604-724-3025  
www.huckleberrylandscape.ca

Address 1263 Agar Street

Client Name Toj Senghara	Project New Build
Drawing Tree Plan	Drawing no 1 of 1 Revision no
Scale 1:200 on 1x17	Date Sept 8, 2020 Drawn by