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**CITY OF KELOWNA**

**MEMORANDUM**

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**Date:** May 28, 2018

**File No.:** Z18-0061

**To:** Planning & Development Services Department (LK)

**From:** Development Engineer Manager (JK)

**Subject:** 2960 Sexsmith Rd., Lots 33, Plan KAP18861 A1 – I6

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Development Engineering has the following comments and requirements associated with this application rezone the subject property from A-1 to I6 are as follows:

**1. General**

- a) Access to the subject lots must ultimately be achieved off of Palomino Road or north half of Arab Rd. as Sexsmith Road is designated as a 4 lane arterial and access will be restricted. Until such time that Palomino Road is built, the subject property is granted access onto Sexsmith Road under the condition

**2. Sanitary Sewer System**

- a) The developer's consulting mechanical engineer will determine the development requirements of the proposed development and establish the service needs. Only one service per lot will be permitted for this development. There is an existing 100mm PVC sanitary service to lot.
- a) The Connection Area #35 charge is currently set by Bylaw at \$13,300 per Single Family Equivalent (SFE). This Bylaw was reviewed for and accepted by Council in 2018.

determined by the following formula: the first 0.36 acres of developed land or portion thereof equals 1 SFE. Thereafter 2.8 SFE's per acre of developed land.

The assessed value is 5.144 Acres is **\$68,415.20**

**3. Water Servicing Requirements**

This development is within the service area of the Glenmore Ellison Irrigation District (GEID). The developer is required to make satisfactory arrangements with the GEID for these items. All charges for service connection and upgrading costs are to be paid directly to the GEID. The developer is required to provide a confirmation that the district is capable of supplying fire flow in accordance with the City of Kelowna current Bylaws and Policies.

**4. Storm Drainage**

A comprehensive site drainage management plan and design to comply with the City's drainage design and policy manual By-Law 7900 is required.

**5. Road Improvements**

- a.) The frontage of Sexsmith Road will be upgraded to a full 4 lane arterial urban standard (SS-R9) in accordance with Bylaw 7900, complete with curb and gutter, storm works, sidewalk, fillet paving, landscaped and irrigated boulevard, lane markings, street lighting, removal and/or relocation existing utilities as may be required, etc. This construction will be deferred until Sexsmith Road is upgraded to a 4 lane standard and a cash in lieu of construction payment of **\$73,209.38** is required for the combined frontage of the subject property.
- b.) Palomino Road must be upgraded to an urban standard (SS-R5) along the full frontage of this proposed development, including curb and gutter, street lights, 1.5m sidewalk, drainage system including catch basins, manholes and pavement removal and replacement and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction.
- c.) Arab Road must be upgraded to an urban standard (SS-R5) along the full frontage of this proposed development, including curb and gutter, 1.5m sidewalk, drainage system including catch basins, manholes and pavement removal and replacement and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction.

**6. Road Dedication and Subdivision Requirements**

- (a) The developer is required dedicate 5m of roadway fronting Sexsmith Road to achieve the 4 lane arterial urban standard width in accordance with Bylaw 7900
- (b) Provide 6m corner rounding at intersection of Sexsmith Road and Arab Road.
- (c) Grant Statutory Rights Of Way if required for utility services.
- (d) If any road dedication or closure affects lands encumbered by a Utility right-of-way (such as Hydro, Telus, Gas, etc.) please obtain the approval of the utility. Any works required by the utility as a consequence of the road dedication or closure must be incorporated in the construction drawings submitted to the City's Development Manager.

**7. Power and Telecommunication Services**

The services to this development are to be installed underground. It is the developer's responsibility to make a servicing application to the respective utility companies. The utility companies are then required to obtain the city's approval before commencing their works.

**8. Design and Construction**

- a) Design, construction supervision and inspection of all off-site civil works and site servicing must be performed by a Consulting Civil Engineer and all such work is subject to the approval of the City Engineer. Drawings must conform to City standards and requirements.
- b) Engineering drawing submissions are to be in accordance with the City's "Engineering Drawing Submission Requirements" Policy. Please note the number of sets and drawings required for submissions.
- c) Quality Control and Assurance Plans must be provided in accordance with the Subdivision, Development & Servicing Bylaw No. 7900 (refer to Part 5 and Schedule 3).

- d) A "Consulting Engineering Confirmation Letter" (City document 'C') must be completed prior to submission of any designs.
- e) Before any construction related to the requirements of this subdivision application commences, design drawings prepared by a professional engineer must be submitted to the City's Works & Utilities Department. The design drawings must first be "Issued for Construction" by the City Engineer. On examination of design drawings, it may be determined that rights-of-way are required for current or future needs.

**9. Servicing Agreements for Works and Services**

- a) A Servicing Agreement is required for all works and services on City lands in accordance with the Subdivision, Development & Servicing Bylaw No. 7900. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings and estimates for the required works. The Servicing Agreement must be in the form as described in Schedule 2 of the bylaw.
- b) Part 3, "Security for Works and Services", of the Bylaw, describes the Bonding and Insurance requirements of the Owner. The liability limit is not to be less than \$5,000,000 and the City is to be named on the insurance policy as an additional insured.

**10. DCC Credits**

None of the required improvements qualify for DCC credit consideration,

**11. Bonding and Levies Summary**

Levies

Sexsmith Road upgrades	\$73,209.38
Connection Area #35 charge	\$68,415.20
Total levies	<u>\$141,624.58</u>

**12. Administration Charge**

- a. An administration charge will be assessed for processing of this application, review and approval of engineering designs and construction inspection. The administration charge is calculated as (3.5% of Total Off-Site Construction Cost plus GST).

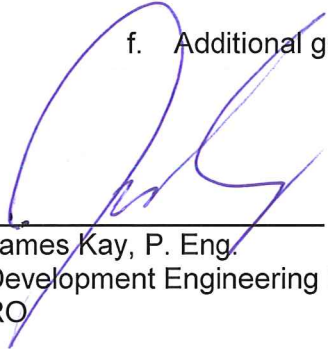
**13. Survey, Monument and Iron Pins**

If any legal survey monuments or property iron pins are removed or disturbed during construction, the developer will be invoiced a flat sum of \$1,200.00 per incident to cover the cost of replacement and legal registration. Security bonding will not be released until restitution is made.

**14. Geotechnical Report**

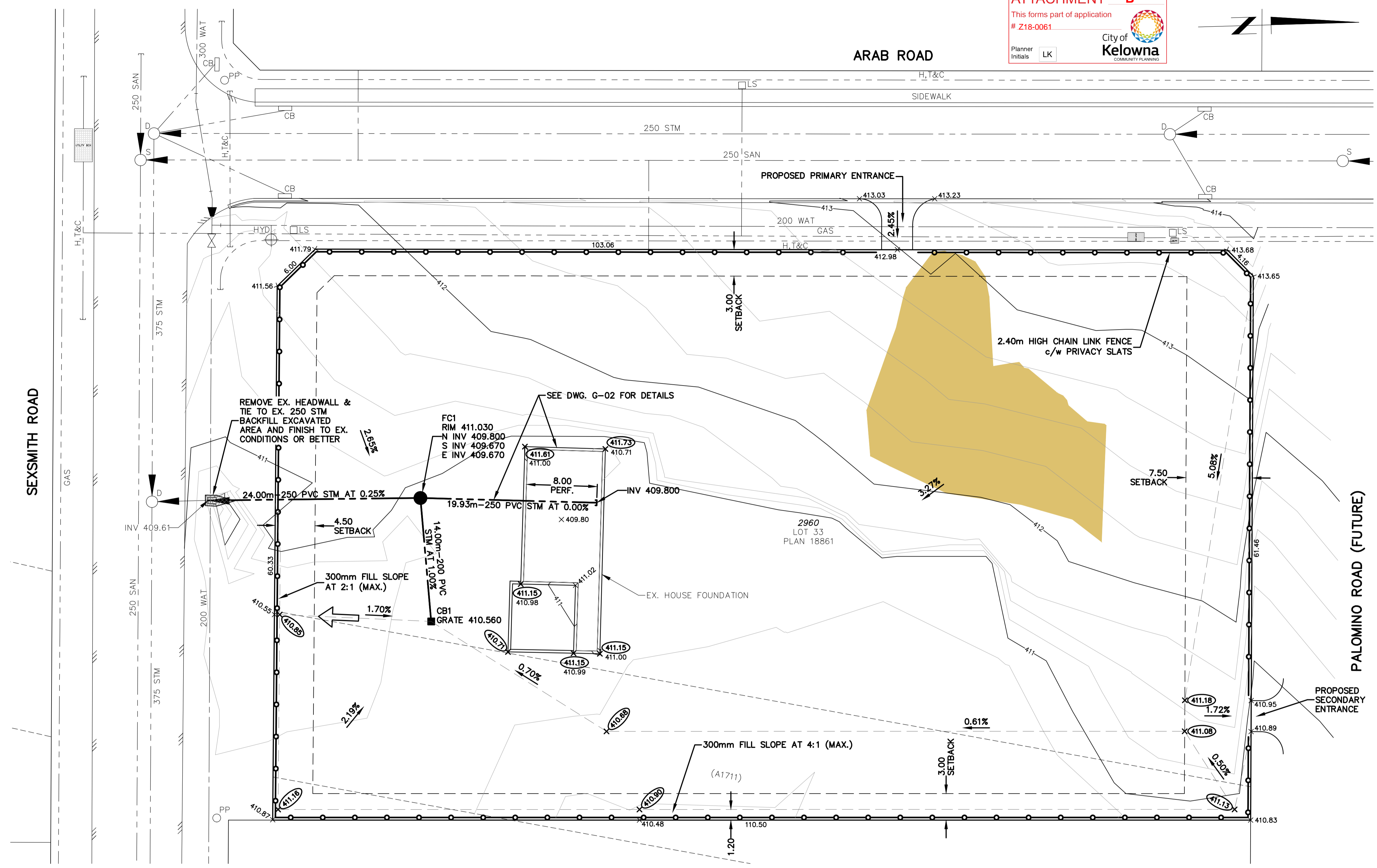
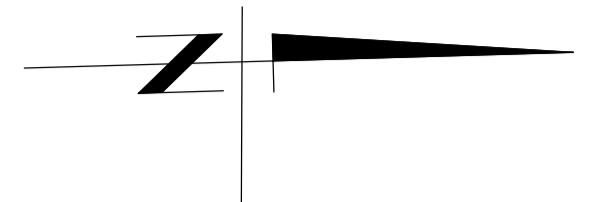
- a. As a requirement of this application the owner must provide a geotechnical report prepared by a Professional Engineer qualified in the field of hydro-geotechnical survey to address the following:
- b. Area ground water characteristics.
- c. Site suitability for development, unstable soils, etc.

- d. Drill and / or excavate test holes on the site and install piezometers if necessary. Log test hole data to identify soil characteristics, identify areas of fill if any. Identify unacceptable fill material, analyse soil sulphate content, identify unsuitable underlying soils such as peat, etc. and make recommendations for remediation if necessary.
- e. List extraordinary requirements that may be required to accommodate construction of roads and underground utilities as well as building foundation designs.
- f. Additional geotechnical survey may be necessary for building foundations, etc.



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James Kay, P. Eng.  
Development Engineering Manager  
RO



**GENERAL NOTES:**

- SEE DWG. G-02 FOR GENERAL, GRADING, AND SEDIMENT-EROSION CONTROL NOTES.
  - ALL PIPE ELEVATIONS SHOWN ARE AT INVERT.
- STORM WATER MANAGEMENT NOTES:**
- STORM SEWER FLOWS AND STORAGE VOLUME DETERMINED USING RATIONAL METHOD.
  - RAINFALL INTENSITIES DERIVED FROM THE KELOWNA AIRPORT IDF CURVES (2004)
  - PEAK FLOWS ARE BASED ON 1hr DURATION, 5yr AND 100yr RETURN PERIOD STORM EVENTS.
  - A SAFETY FACTOR OF 10% WAS APPLIED TO THE STORAGE REQUIREMENT.

**PIPE TYPE:**

CB LEAD - 200mm DR28 PVC  
 STORM - ULTRA RIB

**TABLE 1.0 - DESIGN STORM PARAMETERS**

DESIGN EVENT	"a" Value	"b" value	PRE-DEVELOPMENT		POST DEVELOPMENT	
			Time of Concentration (min)	Storm Intensity (mm/hr)	Time of Concentration (min)	Storm Intensity (mm/hr)
1 IN 5 YEAR (MINOR)	12.2	-0.723	10	44.6	10	44.6
1 IN 100 YEAR (MAJOR)	21.3	-0.767	8	99.9	8	99.9

\* Storm intensity values estimated using the IDF curves provided in the City of Kelowna Bylaw  
 \* Time of concentrated was estimated

**TABLE 2.0 - Associated Runoff Rates**

Development Condition	CATCHMENT AREA (ha)	WEIGHTED RUNOFF COEFFICIENT	1 in 5 year		1 in 100 year	
			RUNOFF RATE (L/s)	RUNOFF RATE (L/s)	RUNOFF RATE (L/s)	RUNOFF RATE (L/s)
PRE DEVELOPMENT	0.71	0.05	4	10		
POST DEVELOPMENT	0.71	0.60	53	97		

\*Weighted runoff coefficient is based on pervious and impervious areas

**TABLE 3.0 - STORAGE REQUIREMENTS**

DESIGN EVENT	RELEASE RATE (L/s)	STORAGE REQUIRED (m3)	STORAGE AVAILABLE (m3)
1 IN 5 YEAR (MINOR)	4	40	190
1 IN 100 YEAR (MAJOR)	4	74	190

L:\General Data\Projects\2018\18004 - 2960 Sexsmith Rd - Rezoning Application\1-CAD\DESIGN-SET\18004-C-01-G-02.dwg December 11, 2018 Roland Ruesigen

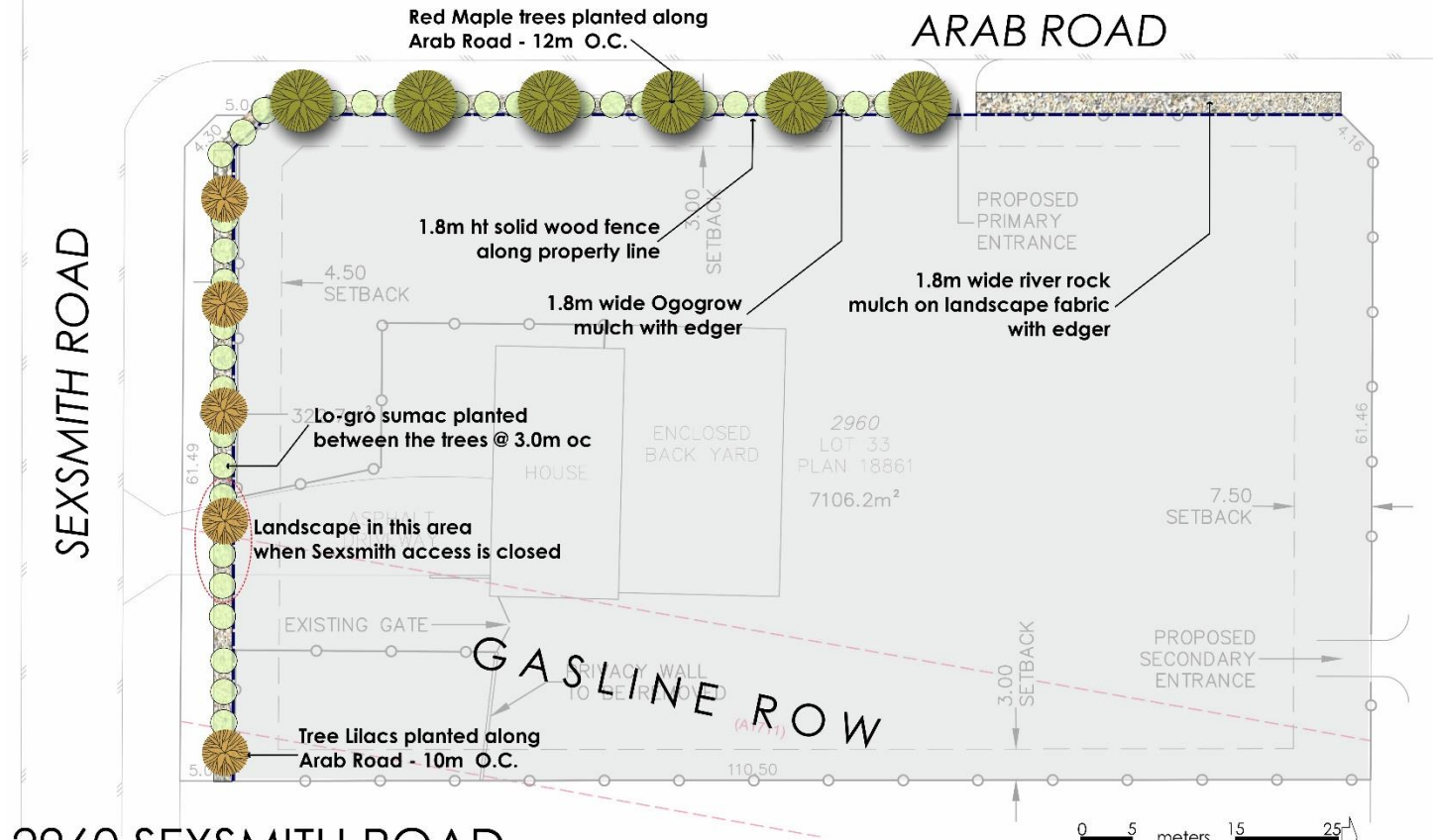
BUILDING PERMIT

**Legend**

existing	proposed	existing	proposed	existing	proposed
Water	San Manhole	San Manhole	Storm Manhole	Existing Elev.	Proposed Elev.
Sanitary Sewer	Storm Manhole	Storm Manhole	Storm Manhole	Overland Flow	Grade Break
Storm Sewer	Catch Basin	Catch Basin	Catch Basin	Area >1.0m Fill	
Gas	Hydrant	Hydrant	Hydrant		
Hydro, Tel, Cable	Water Valve	Water Valve	Water Valve		
	Power Pole	Power Pole	Power Pole		
	Lamp Standard	Lamp Standard	Lamp Standard		
	Edge of Asphalt	Edge of Asphalt	Edge of Asphalt		

No.	YY.MM.DD	By	Issued	Chkd	No.	YY.MM.DD	By	Revision	Chkd
1	18.11.21	ST	FOR BUILDING PERMIT	IT	1	18.12.11	RR	> 1.0m FILL AREA ADDED	ST

Drawn RR	<p>1334 ST. PAUL STREET                  KELOWNA BC V1Y 2E1                  TEL 250 979-1221                  FAX 250 979-1232</p>	Division MUNICIPAL
Design ST		<p><b>2960 SEXSMITH ROAD</b></p> <p><b>SITE GRADING AND COMPOSITE UTILITY PLAN</b></p> <p><b>STORM WATER MANAGEMENT PLAN</b></p>
Approved		
Date DECEMBER 2018		Scale 1:250



# 2960 SEXSMITH ROAD Conceptual Landscape Plan



Red Maple



Gro-low fragrant sumac



1.8m ht Solid wood fence



Tree Lilac



## Proposed Plant List - 2960 Sexsmith

Qty	Botanical Name	Common Name	Size	Spacing
6	Acer rubrum 'Red Sunset'	Red Sunset Maple	60mm cal	
5	Syringa reticulata 'Ivory Silk'	Ivory Silk Tree Lilac	50 mm cal	
33	Rhus aromatica Gro-Low	Gro-Low Fragrant Sumac	#2	3.0m OC

### ATTACHMENT B

This forms part of application  
# Z18-0061

Planner Initials **LK**

