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**CITY OF KELOWNA**  
**MEMORANDUM**

<b>ATTACHMENT</b> <b>A</b>	
This forms part of application # <b>Z19-0046</b>	
Planner Initials	<div style="border: 1px solid black; padding: 2px; display: inline-block;">AJ</div>
 <b>City of Kelowna</b> <small>COMMUNITY PLANNING</small>	

**Date:** January 31, 2019

**File No.:** Z19-0046

**To:** Community Planning (AJ)

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

**Subject:** 4119 Lakeshore Road

RU1 to RM3

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Development Engineering Department have the following comments and requirements associated with this application. The road and utility upgrading requirements outlined in this report will be a requirement of this development. The Development Engineering Technologist for this project is Jason Angus.

**1. General**

- a. Where there is a possibility of a high water table or surcharging of storm drains during major storm events, non-basement buildings may be required. This must be determined by the engineer and detailed on the Lot Grading Plan required in the drainage section.
- b. Provide easements as may be required.
- c. This proposed subdivision may require the installation of centralized mail delivery equipment. Please contact Canada Post Corporation, 530 Gaston Avenue, Kelowna, BC V1Y 2K0 to obtain further information and to determine suitable location(s) within the development.

**2. Geotechnical Study**

- (a) Provide a geotechnical report prepared by a Professional Engineer competent in the field of hydro-geotechnical engineering to address the items below: **NOTE: The City is relying on the Geotechnical Engineer's report to prevent any damage to property and/or injury to persons from occurring as a result of problems with soil slippage or soil instability related to this proposed subdivision.**

The Geotechnical report must be submitted prior to submission of Engineering drawings or application for subdivision approval.

- i. Area ground water characteristics, including any springs and overland surface drainage courses traversing the property. Identify any monitoring required.
- ii. Site suitability for development.

- iii. Site soil characteristics (i.e. fill areas, sulphate content, unsuitable soils such as organic material, etc.).
  - iv. Any special requirements for construction of roads, utilities and building structures.
  - v. Recommendations for items that should be included in a Restrictive Covenant.
  - vi. Recommendations for roof drains, perimeter drains and septic tank effluent on the site.
  - vii. Any items required in other sections of this document.
- a. Additional geotechnical survey may be necessary for building foundations, etc

### **3. Water**

- a. The developer's consulting engineer will determine the domestic and fire protection requirements of this proposed development and establish hydrant requirements and service needs. The bylaw requirement for residential density housing zone is 150l/s and is available at the site. If it is determined that upgrades to any other existing water distribution system must be made to achieve the required fire flows, additional bonding will be required.
- b. An approved backflow protection device must also be installed on site as required by the City Plumbing Regulation and Water Regulation bylaws.
- c. A water meter is mandatory for this development and must be installed inside a building on the water service inlet as required by the City Plumbing Regulation and Water Regulation bylaws. The developer or building contractor must purchase the meter from the City at the time of application for a building permit from the Inspection Services Department, and prepare the meter setter at his cost

### **4. Sanitary Sewer**

- a. The developer's consulting mechanical engineer will determine the development requirements of this proposed development and establish the service needs. Only one service will be permitted for this development. The applicant, at his cost, will arrange for the removal and disconnection of the existing services and the installation of one new larger service.

### **5. Drainage**

- a. The developer must engage a consulting civil engineer to provide a storm water management plan for the site, which meets the requirements of the City Storm Water Management Policy and Design Manual. The storm water management plan must also include provision of lot grading plan, minimum basement elevation (MBE), if applicable, and provision of a storm drainage service for the development and / or recommendations for onsite drainage containment and disposal systems.
- b. Provide a detailed Stormwater Management Plan for this development as per the Subdivision, Development and Servicing Bylaw #7900.
- c. There is a possibility of a high water table or surcharging of storm drains during major storm events. This should be considered in the design of the onsite system

## **6. Roads**

- a. Lakeshore Road must be upgraded to an full urban standard along the full frontage of this proposed development, including sidewalk, driveway let down, pavement removal and replacement, boulevard landscaping, underground irrigation system, street lighting and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction.
- b. The road cross section should match what is existing along Lakeshore Road to the North West including asphalt fillet and bike lane.

## **7. Power and Telecommunication Services and Street Lights**

- a. The electrical and telecommunication services to this building must be installed in an underground duct system, and the building must be connected by an underground service. It is the developer's responsibility to make a servicing application with the respective electric power, telephone and cable transmission companies to arrange for these services, which would be at the applicant's cost.
- b. The existing overhead electrical and telecommunication distribution wiring on Lakeshore fronting this development must be installed underground to an approved offset fronting this development.

## **8. Road Dedication and Subdivision Requirements**

- a. Provide 5.0m of road dedication along the frontage of this development.
- b. Grant Statutory rights of way if required for utility services

## **9. 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 Development Engineering 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.

## **10. Other Engineering Comments**

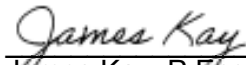
- a. If any road dedication affects lands encumbered by a Utility right-of-way (such as Terasen, etc.) please obtain the approval of the utility prior to application for final subdivision approval. Any works required by the utility as a consequence of the road dedication must be incorporated in the construction drawings submitted to the City's Development Manager.
- b. Street lighting including underground ducts must be installed on Lakeshore Road fronting on the proposed development. If the electrical source for the street lighting is on the lake side of Lakeshore Road, this source must be in underground ducts.
- c. Road and utility construction design, construction supervision, and quality control supervision of all off-site and site services including on-site ground recharge drainage collection and disposal systems, must be performed by an approved consulting civil engineer. Designs must be submitted to the City Engineering Department for review and marked "issued for construction" by the City Engineer before construction may begin.

## **11. 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

## **12. Charges and Fees**

- a. Development Cost Charges (DCC's) are payable
- b. Fees per the "Development Application Fees Bylaw" include:
  - i. Street/Traffic Sign Fees: at cost if required (to be determined after design).
  - ii. Survey Monument, Replacement Fee: \$1,200.00 (GST exempt) – only if disturbed.
- c. Engineering and Inspection Fee: 3.5% of construction value (plus GST)

  
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James Kay, P.Eng.  
Development Engineering Manager







