

MEMORANDUM

CITY OF KELOWNA

Date: August 8, 2019

File No.: Z19-0108

To: Urban Planning (SS)

From: Development Engineer Manager (JK)

Subject: (Wof) Hwy 97N, Lot 1, plan EPP76079, Sec. 2, Twp. 23, ODYD.

The Development Engineering comments and requirements regarding this Rezoning application to rezone the property from A1 – Agriculture to I1 Business Industrial for the subject property are:

1) <u>General</u>

- a) This proposed subdivision may require the installation of centralized mail delivery equipment. Please contact Arif Bhatia, Delivery Planning Officer, Canada Post Corporation, 530 Gaston Avenue, Kelowna, BC V1Y 2K0 to obtain further information and to determine suitable location(s) within the development.
- b) The Fire Department and Environment Division requirements and comments are addressed separately by them.

2) <u>Geotechnical Report</u>

- a) Provide a comprehensive geotechnical report, prepared by a Professional Engineer competent in the field of hydro-geotechnical engineering to address the items below:
 <u>NOTE</u>: 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.
 - i) 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.

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- (v) Suitability of on-site disposal of storm water and sanitary waste, including effects upon adjoining lands.
- (vi) Slope stability, rock fall hazard and slippage including the effects of drainage and septic tank effluent on the site.
- (vii)Identify slopes greater than 30%.
- ii) Top of bank assessment and location including recommendations for property line locations, septic field locations, building setbacks, and ground water disposal locations.
- iii) Recommendations for items that should be included in a Restrictive Covenant.
- iv) Any special requirements that the proposed subdivision should undertake so that it will not impact the bank(s). The report must consider erosion and structural requirements.
- v) Any items required in other sections of this document.
- vi) Recommendations for erosion and sedimentation controls for water and wind.
- vii) Recommendations for roof drains and perimeter drains.
- viii) Recommendations for construction of detention or infiltration ponds if applicable.

3) 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.

4) Water

- a) The property is located within the GEID service area.
- b) Provide an adequately sized domestic water and fire protection system complete with individual lot connections. The water system must be capable of supplying domestic and fire flow demands of the project in accordance with the Subdivision, Development & Servicing Bylaw. Provide water calculations for this subdivision to confirm this.
- c) Ensure every building site is located at an elevation that ensures water pressure is within the bylaw pressure limits. Note: Private pumps are not acceptable for addressing marginal pressure.
- d) Hydrants are to be spaced according to By-law 7900.
- e) Design drawings must be reviewed by GEID prior to the City issuing the drawings for construction. Confirmation of their review must be provided to the City.

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5) Drainage

a) Provide an adequately sized drainage system complete with individual lot connections. The Subdivision, Development and Servicing Bylaw requires that each lot be provided with an individual connection; however, the City Engineer may permit use of individual ground water disposal systems, where soils are suitable. For on-site disposal of drainage water, a hydrogeotechnical report will be required complete with a design for the disposal method (i.e. trench drain / rock pit). The Lot Grading Plan must show the design and location of these systems for each lot.

6) <u>Road Improvements</u>

- a) Lougheed Rd must be designed and built to SS-5 Collector Class 1 Urban section 20.0m A urban standard including curb, gutter, sidewalk, landscaped boulevard complete with underground irrigation system, street lights, storm drainage, and extension and/or relocation of existing utility mains if required to accommodate this Development.
- b) A Landscape Architect will be required for landscape and planting plan for I6 to A1 boundary
- c) The future COMMC corridor must be protected and dedicated.
- d) Only access to development will be allowed from Lougheed Road.
- e) All Offsite construction work must be approved by Development Engineering group at City of Kelowna.
- f) All terminal ending roads that will not be extended in the future over 100m must have a cul-de-sac.
- g) All terminal ending roads that will not be extended in the future can be no more than 200m and must end with a cul-de-sac (Schedule 4 section 4.4 By-Law 7900) and emergency access will be required.
- h) All terminal ending roads that will be extended in the future can be no more than 400m and must end with a cul-de-sac (Schedule 4 section 4.4 By-Law 7900) and emergency access will be required.
- Temporary asphalt cul-de-sacs or turn-a-round will be required at each terminal end of roads that will be extended in the future. Additional dedication or a Statutory Right-of-Way may be needed.
- j) Provide pavement marking and traffic signs where required. The City will install all signs and traffic control devices at the developer's expense.
- k) Provide a Street Sign, Markings and Traffic Control Devices Drawing.

- Verify that physical driveway access will satisfy City requirements for all lots. For steeper lots (15%), show driveways on the lot grading plan with grades or profiles. Where lots are serviced by onsite sewage disposal systems, show limits of cut and fill lines.
- m) Re-locate existing poles and utilities, where necessary.
- n) Private access roads must be constructed and paved to the City standard SS-R2.

7) Power and Telecommunication Services and Street Lights

- a) Overhead wiring is permitted for this subdivision although underground installation is recommended. Remove aerial trespass(es)
- b) Street lights must be installed on all roads.
- c) Before making application for approval of your subdivision plan, please make arrangements with Fortis BC for the pre-payment of applicable charges and tender a copy of their receipt with the subdivision application.
- d) Make servicing applications to the respective Power and Telecommunication utility companies. The utility companies are required to obtain the City's approval before commencing construction.

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 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.

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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) <u>Other Engineering Comments</u>

- a) Provide all necessary Statutory Rights-of-Way for any utility corridors required, including those on proposed or existing City Lands.
- b) If any road dedication affects lands encumbered by a Utility right-of-way (such as Fortis, 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.
- c) An MSU standard size vehicle must be able to manoeuvre onto and off the site without requiring a reverse movement onto public roadways.
- d) Indicate on the site, the locations of loading bays as well as the garbage and recycle bins.

11) <u>Charges and Fees</u>

- a) Development Cost Charges (DCC's) are payable
- b) None of the Works & Services required are items included in the DCC calculations and therefore not eligible for DCC credits.
- c) Fees per the "Development Application Fees Bylaw" include:
 - i) Street/Traffic Sign Fees: at cost if required (to be determined after design).
 - ií) Survey Monument Fee: \$50.00 per newly created lot (HST exempt).
 - iii) Survey Monument, Replacement Fee: \$1,200.00 (GST exempt) only if disturbed.
 - iv) Engineering and Inspection Fee: 3.5% of construction value (plus GST).

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James Kay, P.Eng. Development Engineering Manager RO





