
CITY OF KELOWNA
MEMORANDUM

ATTACHMENT	A
This forms part of application # Z23-0005	
Planner Initials	JI
 City of Kelowna DEVELOPMENT PLANNING	

Date: February 6, 2023
File No.: Z23-0005
To: Community Planning and Development Manager (DS)
From: Development Engineering Manager (JI)
Subject: 2019 Polo Rd. RU1 to RU2

The Development Engineering Branch has the following comments for this Rezoning application for the subject property from RU1 - Large Lot Housing to RU2 - Medium Lot Housing to facilitate to 2 lot subdivision. The Development Engineering Technician for this project is Aaron Sangster (asangster@kelowna.ca). The following Works and Services will be a requirement of this development.

1. GENERAL

- a. The following requirements are valid for two (2) years from the reference date of this memo, or until the application has been closed, whichever occurs first. The City of Kelowna reserves the rights to update/change some or all items in this memo once these time limits have been reached.
- b. This proposed development 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, (250) 859-0198, arif.bhatia@canadapost.ca to obtain further information and to determine suitable location(s) within the development.
- c. 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 should be considered in the design of the onsite system, lot grading, and minimum basement elevations.

2. DOMESTIC WATER AND FIRE PROTECTION

- a. Our records indicate that this property is currently serviced with a 25-mm diameter water service off Polo Rd. Only one service will be permitted per legal lot and each lot must be serviced prior to Subdivision.
- b. The Applicant, at their cost, can choose to either engage an engineer and a contractor to design and construct the water services or can choose to have the services installed by City forces at the Applicant's expense. If the Applicant chooses to have the services installed by City forces, they will be required to sign a Third-Party Work Order and pre-pay for the cost of the water services. For estimate inquiries please contact the Development Engineering Technician assigned to the file.

- c. The Applicant's Consulting Engineer will determine the domestic water and fire protection requirements of this proposed development and establish hydrant requirements and service needs. The bylaw requirement for single detached residential is 60 L/s.

3. SANITARY SEWER SYSTEM

- a. Our records indicate that this property is currently serviced with a 100-mm diameter sanitary sewer service off Berk Ct. Only one service will be permitted for each legal lot and each lot must be serviced prior to Subdivision.
- b. The Applicant, at their cost, can choose to either engage an engineer and a contractor to design and construct the sanitary services or can choose to have the services installed by City forces at the Applicant's expense. If the Applicant chooses to have the services installed by City forces, they will be required to sign a Third-Party Work Order and pre-pay for the cost of the sanitary services.

4. STORM DRAINAGE

- a. The subject property is located within the City of Kelowna drainage service area. 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.
- b. Provide the following drawings:
- i. A detailed Lot Grading Plan (indicate on the Lot Grading Plan any slopes that are steeper than 30% and areas that have greater than 1.0 m of fill), grading directly to a natural drainage path must include adequate erosion control and water quality improvement measures;
 - ii. A detailed Stormwater Management Plan for this subdivision; and,
 - iii. An Erosion and Sediment Control Plan is to be prepared by a Professional Engineer proficient in the field of erosion and sediment control. The plan is to be prepared as per section 3.14 of Schedule 4 of Bylaw 7900. If a line item for ESC is not included in the Engineer's cost estimate for off-site work, then an additional 3% will be added to the performance security based on the total off-site construction estimate.
- c. On-site detention systems are to be compliant with Bylaw 7900, Schedule 4, Section 3.10.6 *Detention Storage*.
- d. As per Bylaw 7900, Schedule 4, Section 3.1.3 *Climate Change*, the capacity of storm works will include an additional 15 percent (15%) upward adjustment applied to the rainfall intensity curve stage (IDF) in Section 3.7.2.
- e. Show details of dedications, rights-of-way, setbacks and non-disturbance areas on the Lot Grading Plan.
- f. Register right of ways on private properties for all the storm water infrastructure carrying, conveying, detaining and/or retaining storm water that is generated from the public properties and public road right of ways.
- g. If individual lot connections are required, ensure that payment of connection fees has been completed (please provide receipt).

- h. Where structures are designed or constructed below the proven high groundwater table, permanent groundwater pumping will not be permitted to discharge to the storm system. Intermittent pumping of groundwater for structures within seasonal range of the groundwater table may be permitted with some conditions. The City will approve designs that include provisions for eliminating groundwater penetration into the structure, while addressing buoyancy concerns. These design aspects must be reviewed and approved by the City Engineer.

5. ROAD IMPROVEMENTS

- a. Polo Rd. must be upgraded to a SS-R3 urban standard along the full frontage of this proposed development including curb and gutter, sidewalk, road fillet paving, storm drainage system, LED streetlighting, landscaped boulevard c/w irrigation, pavement removal and replacement, and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction. A one-time cash payment in lieu of construction must be collected from the applicant for future construction by the City. The cash-in-lieu amount is determined to be **\$49,009.75** not including utility service cost.

6. POWER AND TELECOMMUNICATION SERVICES

- a. All proposed distribution and service connections are to be installed underground. 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. The utility companies are required to obtain the City's approval before commencing construction.
- b. Re-locate existing poles and utilities where necessary. Remove aerial trespass(es).
- c. Before making application for approval of your subdivision plan, please make arrangements with Fortis BC for the pre-payment of applicable charges.

7. 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.**
- b. The Geotechnical reports must be submitted to the Development Services Department (Subdivision Approving officer) for distribution to the Development Engineering Branch and Inspection Services Division prior to submission of Engineering drawings or application for subdivision approval.
- Area ground water characteristics, including any springs and overland surface drainage courses traversing the property. Identify any monitoring required.
 - Site suitability for development.
 - Site soil characteristics (i.e. fill areas, sulphate content, unsuitable soils such as organic material, etc.).
 - Any special requirements for construction of roads, utilities and building structures.
 - Slope stability, rock fall hazard and slippage including the effects of drainage on the site.

- vi. Top of bank assessment and location including recommendations for property line locations, building setbacks, and ground water disposal locations.
- vii. Recommendations for items that should be included in a Restrictive Covenant.
- viii. Recommendations for erosion and sedimentation controls for water and wind.
- ix. Any items required in other sections of this document.
- x. Recommendations for roof drains and perimeter drains on the site.

8. DEVELOPMENT PERMIT AND SITE-RELATED ISSUES

- a. Only one driveway is permitted per legal lot with a maximum width of 6.0m.

9. OTHER ENGINEERING COMMENTS

- 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, 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.

10. CHARGES, FEES, AND SECURITIES

- a. Fees per the “Development Application Fees Bylaw” include:
 - i. Survey Monument Fee: **\$50.00** per newly created lot (GST exempt).
 - ii. Hydrant Levy Fee: **\$250.00** per newly created lot (GST exempt).
 - iii. Survey Monument, Replacement Fee: \$1,200.00 (GST exempt) – only if disturbed.

- b. Engineering and Inspection Fee:

i. 3.5% of Construction	\$ 1,578.11
ii. GST	\$ 78.91

Total \$ 1,657.02

- c. Cash-in-Lieu of Construction Payments:

**Payment must be made with certified cheque or bank draft*

- i. Polo Rd. Frontage Upgrades **\$49,009.75**



 Nelson Chapman, P.Eng.
 Development Engineering Manager