
CITY OF KELOWNA

MEMORANDUM

Date: February 23, 2023
File No.: Z23-0006
To: Suburban & Rural Planning (AF)
From: Development Engineering Manager (NC)
Subject: 3010 Holland Rd. RU4 – MF2

The Development Engineering Department has the following comments associated with this Rezoning Permit Application from RU4 – Duplex Housing to MF2 – Townhouses to facilitate a townhouse development on the subject property.

The Development Engineering Technician for this file is Aaron Sangster (asangster@kelowna.ca).

1. GENERAL

- a. The following comments and requirements are valid for a period of 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 modify some or all items in this memo if zone amendment bylaw is not adopted within this time.
- b. This proposed development may require the installation or modification 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 determine requirements.
- c. There is a possibility of a high groundwater 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. DEVELOPMENT PERMIT COMMENTS AND SITE-SPECIFIC REQUIREMENTS

- a. Only one driveway, of maximum 6.0m width, will be permitted. Driveway must access from Holland Rd. Letdowns to be constructed to SS-C7.
- b. The proposed driveway configuration appears consistent with this requirement.
- c. Indicate, on the site, the locations of the garbage and recycle bins. Provide turning movements for a HSU vehicle to confirm maneuverability on site without requiring a reverse movement onto public roads.

3. **DOMESTIC WATER AND FIRE PROTECTION**

- a. The subject property is located within the City of Kelowna Water Supply Area. Our records indicate that this property is currently serviced with a 50 mm diameter water service off Holland Rd. Only one service connection will be permitted per lot.
- b. The Developer's Consulting Engineer will determine the domestic water servicing and fire protection requirements for this development. If upgrades are necessary to achieve adequate servicing or fire protection, the Developer must complete any such upgrades at their cost and any obsolete services must be fully decommissioned at the main.
- c. The City estimates that approximately 71 L/s is available for fire flow from the watermain fronting the subject property. The minimum available fire flow to support townhouse developments is 150 L/s. Please contact the development technician for this project to arrange for formal engineering modeling analysis for necessary upgrades to be completed.
- d. The Developer must demonstrate that both the calculated FUS fire flow demand and the internal building sprinkler demand of the proposed development does not exceed the lesser of the available fire flow from the City's network and the Bylaw 7900 requirement of 150 L/s for High-Density Residential, after upgrades to the City's network are completed.
- e. 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 Bylaw 5968-87.

4. **SANITARY SEWER SYSTEM**

- a. Our records indicate that this property is currently serviced with a 100 mm diameter sanitary service off Holland Rd. Only one service connection will be permitted per lot.
- b. The Developer's Consulting Engineer will determine the sanitary sewer servicing requirements for this development. If upgrades are determined to be necessary to achieve adequate servicing, the Developer must complete any such upgrades at their cost.
- c. Service connections are to be completed as per SS-S7 with an inspection chamber and Brooks Box, with consideration given to SS-S50 for connections to mains. Any obsolete services must be fully decommissioned at the main.

5. **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. The Developer must engage a Consulting Engineer to provide a combined Lot Grading Plan, Stormwater Management Plan, and Erosion and Sediment Control Plan to meet the requirements of Bylaw 7900. Indicate on the plan the building elevations, finished grade slopes and elevations throughout the site, perimeter grades to match existing grades, overland flow routes, onsite stormwater retention if required, and erosion and sediment control measures.

6. ROADWAY AND STREETScape

- c. The City wishes to defer the frontage upgrades on Holland Rd. Therefore, a cash payment in lieu of immediate construction is required and the City will complete the work at a later date. The previous rezoning Z18-0010 has paid the cash payment. No additional funds are required at this time.

7. POWER AND TELECOMMUNICATION SERVICES

- a. All proposed 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. Utility companies are required to obtain the City's approval before commencing construction.
- b. Provide all necessary Statutory Rights-of-Ways for any utility corridors as may be required.

8. GEOTECHNICAL STUDY

- a. Provide a Geotechnical Report prepared by a Professional Engineer competent in the field of geotechnical or hydrogeological engineering as applicable. The Geotechnical Report must be submitted to the Development Services Department as part of the Building Permit submission and prior to the City's review of Engineering drawings. Geotechnical Report to address, at a minimum, any of the applicable items below:
 - i. Site suitability for development;
 - ii. Area ground water characteristics, including any springs and overland surface drainage courses traversing the property, as well as any monitoring required;
 - iii. Site soil characteristics (i.e., fill areas, 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 erosion and sedimentation controls for water and wind;
 - vii. Any items required in other sections of this memo;
 - viii. Recommendations for roof drains, perimeter drains, and septic tank effluent on the site;



Nelson Chapman, P.Eng.
Development Engineering Manager

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