
CITY OF KELOWNA
MEMORANDUM



Date: December 20, 2022
File No.: Z22-0072
To: Urban Planning Manager (LK)
From: Development Engineering Manager (NC)
Subject: 569 Radant Rd Rezoning RU1 → MF1

The Development Engineering Branch has the following comments for this rezoning application for the 549 Radant Rd project. The Development Engineering Technician for this project is Chris Pedersen (cpedersen@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. The following requirements assume that this rezoning application will proceed independently of Subdivision application S21-0056 and that the subdivision application will be withdrawn.
- d. The proposed development is subject to flood exposure from both Okanagan Lake and Mission Creek. Non-basement buildings and/or restrictive covenants may be required. This should be considered in the design of the onsite system, lot grading, and minimum basement elevations. The Applicant's Consulting Engineer shall review all applicable City policies and best engineering practices to reduce flood exposure at this site. The City recommends a minimum building elevation of 344.35m CGVD28. Please contact the Development Engineering Technician for more information.

2. DOMESTIC WATER AND FIRE PROTECTION

- a. The subject lot is located within the City of Kelowna water supply area.
- b. Our records indicate that this property is currently serviced with a 19-mm diameter water service off Radant Road. The Applicant, at their cost, will arrange for the removal of the existing services and the installation of one new larger metered water service per legal lot.

- 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 townhouse residential is 150 L/s. If it is determined that upgrades to any existing water distribution system must be made to achieve the required fire flows, the applicant must upgrade the existing system at their cost. The City estimates that 150L/s fire flow is not available from the 100mm diameter watermain fronting the subject property and this watermain will need to be upgraded to 200mm between Lakeshore Road and the hydrant.
- d. An approved backflow protection device must also be installed on site as required by the City Plumbing Regulation and Water Regulation bylaws.
- 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 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 their cost.

3. **SANITARY SEWER SYSTEM**

- a. The subject property is located within the City of Kelowna sewer service area.
- b. Our records indicate that this property is currently serviced with a 100-mm diameter sanitary sewer service off Radant Road.
- c. The Applicant's Consulting Mechanical Engineer will determine the requirements of the proposed development and establish the service needs. If required, the applicant will arrange for the removal and disconnection of the existing service and the installation of one new larger service at the applicants cost complete with an inspection manhole and access easement for City crews if required.
- d. 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 proposed development is subject to flood exposure from both Okanagan Lake and Mission Creek. Non-basement buildings and/or restrictive covenants may be required. This should be considered in the design of the onsite system, lot grading, and minimum basement elevations. The Applicant's Consulting Engineer shall review all applicable City policies and best engineering practices to reduce flood exposure at this site. The City recommends a minimum building elevation of 344.35m CGVD28. Please contact the Development Engineering Technician for more information.

- b. 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.
- c. The developer must engage a consultant 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.
- d. On-site detention systems are to be compliant with Bylaw 7900, Schedule 4, Section 3.11.1 *Detention Storage*. If rock pits are recommended as stormwater storage by the geotechnical engineer, the rock pit sizing must be indicated.
- e. 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, and applied to the rainfall intensity curve stage (IDF) in Section 3.7.2.
- f. 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. 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. Radant Rd must be upgraded to an urban standard along the full frontage of the subject property. Required upgrades must include curb and gutter, sidewalk, storm drainage system, LED street lighting, landscaped and irrigated boulevard, 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 **\$55,153.76**, not including utility servicing 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 including within lanes. 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.
 - 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. 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. Any special requirements that the proposed development should undertake so that it will not impact the banks(s). The report must consider erosion and structural requirements.
 - ix. Recommendations for erosion and sedimentation controls for water and wind.
 - x. Any items required in other sections of this document.
 - xi. Recommendations for roof drains and perimeter drains on the site.

8. ROAD DEDICATION/SUBDIVISION REQUIREMENTS

- a. Between 2.0m and 4.5m dedication along the entire frontage of Radant Road is required to achieve a ROW width of 18.0m.

9. DEVELOPMENT PERMIT AND SITE-RELATED ISSUES

- a. Only one driveway will be permitted per legal lot with a maximum width of 6.0m.
- b. Indicate, on the site, the locations of the garbage and recycle bins. Provide vehicle turning movements to confirm waste collection activities can be completed without requiring a reverse movement from the site onto Radant Road.

10. 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.

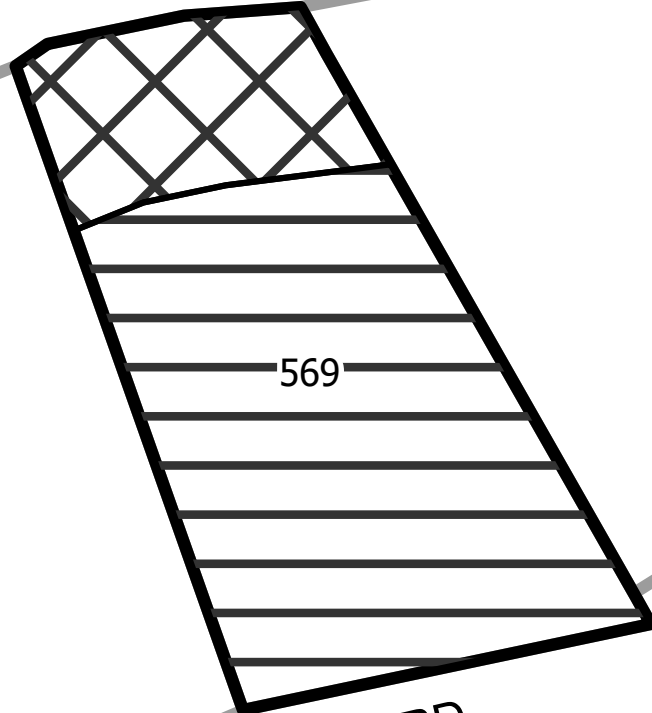
11. DESIGN AND CONSTRUCTION

- a. Designs 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 application commences, design drawings prepared by a professional engineer must be submitted to the City's Development Services department. The design drawings must first be "Issued for Construction" by the City Engineer. On examination of design drawings, it may be determined that right-of-ways are required for current or future needs.

12. 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.




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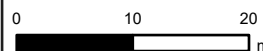
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RADANT RD

MAP "A" ZONING AMENDMENT Z22-0072

-  RU1 - Large Lot Housing to P3 - Parks and Open Space
-  RU1 - Large Lot Housing to MF1 - Infill Housing
-  Subject Property

This map is for general information only.
The City of Kelowna does not guarantee its
accuracy. All information should be verified.



Rev. Thursday, November 9, 2023

