

ENGINEERING DEPARTMENT REZONING & DEVELOPMENT COMMENTS

DATE: July 8, 2021

CIVIC ADDRESS: 32321, 32331 & 32335 Fletcher Avenue and 32305 Hurd Street

CURRENT ZONES: CH2, CNC1, R558 & R558s

PROPOSED ZONE: CD

Disclaimer

The following comments are listed as deficiencies for the sole purpose of identifying required works and services to enable the assembled properties to Rezone to a Comprehensive Development zone and develop a mixed-use, residential (105-units)/commercial building. The following works and services for this rezoning proposal are in accordance with the standards contained within the City of Mission's (COM) current Development and Subdivision Control Bylaw (DSCB) 5650-2017 as amended. Additional requirements as specified by other stakeholder authorities are considered to be above and beyond the scope of these comments.

The City received an initial application package in February 2020 which has undergone subsequent changes and revisions. These comments are based upon an updated DP package by Mara+Natha Architecture, Rev 13, dated: June 16th, 2021 and an engineered conceptual servicing package by HY Engineering, Rev 4, dated: July 6th, 2021.

DOMESTIC WATER REQUIREMENTS:

Municipal water service is available on Fletcher Avenue adjacent to the site however the existing watermain is only 150mmØ DI and is not a looped system. This condition has the potential to create a fire flow deficiency. The City does not guarantee fire-flow requirements.

Municipal water service (250mmØ DI) is available on Hurd Street adjacent to the site.

Connection to the municipal system will be required at the building permit stage.

According to the service record cards, multiple service connections may exist and will be required to be removed and capped at the main by the City at the developer's sole expense.

The developer shall prove out the limitations of the existing system by whatever means deemed appropriate and shall ensure the development is adequately serviced at the developer's sole expense.

At the time of writing these comments the developer's engineer has proposed to utilize the Hurd Street watermain for a service connection to the site.

The developer's engineer has completed hydraulic modeling of the fire flow demands for the proposed development with no identified system deficiencies noted (Section 3.2 – Pre-Design Requirements).

Engineered design is required. See DSCB, Schedule C, Section 3 as amended.

STORM SEWER REQUIREMENTS:

Municipal storm service is available (and to be extended) on Fletcher Avenue and Hurd Street.

Connection to the municipal system will be required at the building permit stage.

According to the service record cards, multiple service connections may exist and will be required to be removed and capped at the main by the City at the developer's sole expense.

The City does not guarantee depth at property line. The developer shall prove out the limitations of the existing system by whatever means deemed appropriate and shall ensure the Development is adequately serviced at the developer's sole expense.

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The developer is required to design and install storm water Best Management Practices (BMPs) for the site that reduces the site's 10-year post-development runoff rate to its 10-year pre-development rate.

Engineered design is required. See Development and Subdivision Control Bylaw 5650-2017, Schedule C, Sections 4 and 5 as amended.

Designs shall be accompanied by a report from a fully qualified professional engineer which clearly identifies the specific opportunities and constraints for implementing best management practices for the development, demonstrates that groundwater recharge and/or other appropriate best management practices are sustainable and have been maximized for the particular site, and provides examples of similar installations which demonstrate the sustainability, ability to construct, and ease of maintenance of the works to be constructed.

In particular, when implementing the City of Mission ground water recharge guidelines, the applicant shall be responsible to conduct a hydrological investigation to estimate infiltration rates and soil permeability, determine the location of the water table and its seasonal variations. This information is to be included in any engineering drawing submittals as it is critical to the design of BMPs, building envelopes, and minimum building elevations.

Proposed measures shall be subject to acceptance by the Municipal Engineer and/or the Senior Building Inspector.

SANITARY SEWER REQUIREMENTS:

Municipal sanitary service is available on Fletcher Avenue and Hurd Street.

Connection to the municipal system will be required at the building permit stage.

According to the service record cards, multiple service connections may exist and will be required to be removed and capped at the main by the City at the Developer's sole expense.

The developer shall prove out the limitations of the existing system by whatever means deemed appropriate and shall ensure the development is adequately serviced at the Developer's sole expense. The City does not guarantee depth at property line.

At the time of writing these comments the developer's engineer has proposed to utilize the Hurd Street sewer main for a service connection to the site.

The Developer's engineer has confirmed hydraulic modeling results and video inspection (by City Staff) of the existing system with no identified system deficiencies noted (Section 6.2 – Pre-Design Requirements).

Engineered design is required. See Development and Subdivision Control Bylaw 5650-2017, Schedule C, Sections 6 and 7 as amended.

ROAD WORK REQUIREMENTS:

Fletcher Avenue and Hurd Street provide paved access to the site.

Transportation network modeling for the proposed development is required by the City of Mission as per the DSCB Section 8.0 – Roadways, 8.19 Traffic Access and Impact Studies based on the following rationale:

8.19.1.1 The proposed Subdivision/Development will generate 100 or more two-way trips based on Institute of Transportation Engineers (ITE) recommended practices (i.e. inbound plus outbound) during the adjacent street's peak hour or the proposed Development's peak hour;

8.19.1.2 A change in use of an existing Parcel results in changes in the type of access

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operation, peak hour access volumes or the type of traffic;

8.19.1.3 The proposed Subdivision/Development is adjacent to a Roadway or intersection with localized safety or capacity deficiencies as identified by the Engineer (Capacity and level of service concerns by COM & MOTI regarding the intersection of Hurd Street & Fletcher Avenue and Hurd Street & Lougheed Highway; grades and sight lines);

8.19.1.4 Any other local traffic problems exist which may affect the ability of the existing or proposed Highway to accommodate the proposed Development (Close proximity of Fletcher Avenue to Lougheed Highway);

8.19.1.6 The proposed Subdivision/Development is located in an area exhibiting high roadway congestion and/or a high rate of anticipated growth (Peak hours/close proximity of Fletcher Avenue to Lougheed Highway);

8.19.1.7.2 Absence of a left or right turn lane(s) on a municipal road affected by the proposed development. (Combined left turn/right turn on Fletcher Avenue outbound).

At the time of writing these comments the Developer has engaged the services of a qualified professional traffic engineer to liaise with City and MOTI staff to generate an acceptable terms of reference and has completed the TIA to the satisfaction of the City and MOTI.

All upgrades and/or deficiencies identified by the Traffic Impact Assessment (TIA) shall be completed/corrected at the developer's sole expense and will be a condition of rezoning.

The Developer shall be responsible for the design and construction of offsite road improvements adjacent to the site as per COM and MOTI recommendations and in accordance with Schedule B-1 – Works Adjacent to Development. The Developer's engineer has submitted a satisfactory preliminary civil design that substantially meets the needs described above.

The developer has agreed to provide some additional road dedication in the southeast corner of the site whereby the cul-de-sac bulb geometry will be squared off relative to the east property line. Obtaining a suitable corner truncation that meets with the intent will be a condition of rezoning.

STREET LIGHTING:

The design and installation of municipal street lighting adjacent to the site complete with upgrades to the existing system as necessary will be required as a condition of Development. Existing lease lights on BC Hydro poles to be replaced with municipal lighting across the frontage of the site.

Street Lighting design shall compliment the roadway design and be in general conformance with the DSCB with a preference for LED lighting.

Engineered design is required. See the Development and Subdivision Control Bylaw, Schedule C, Section 9 – Street Lighting, as amended.

BOULEVARD TREE PLANTING:

The design and installation of boulevard trees adjacent to the site will be required as a condition of Development.

Street boulevard tree planting design shall compliment the Roadway Design and be in general conformance with the Development and Subdivision Control Bylaw with all proposed plant material requiring approval from the City of Mission Manager of Parks & Facilities.

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Engineered design is required. See the Development and Subdivision Control Bylaw, Schedule C, Section 11 – Boulevard Tree Planting, and 12 – Specifications and Standards for Landscaping, as amended.

ENGINEERING STANDARDS AND CONSTRUCTION DRAWING SPECIFICATIONS:

Engineered design shall be prepared and submitted in general conformance with the Development and Subdivision Control Bylaw.

See the Development and Subdivision Control Bylaw, Schedule C, Section 2 – Engineering Standards, 13 – Construction Drawing Submissions, and Form F-5 – Commitment by Owner and Consulting Engineer, as amended.

POWER & TELECOMMUNICATIONS:

Service connection(s) to the property line shall be underground. Any new distribution system adjacent to the development shall be underground.

The Developer's engineer and/or third-party utility company shall certify to the Municipal Engineer that the power and telecommunications has been designed and constructed/secured in accordance with good engineering practice prior to approval of the Development.

LOT GRADING:

Lot grading in accordance with Schedule E of the DSCB is applicable.

LATECOMER CHARGES:

Pursuant to the Local Government Act Section 507(2), the local government will not require that the owner of the land that is to be subdivided or developed provide excess or extended services and as such Latecomer Charges shall not apply.

ENVIRONMENTAL REQUIREMENTS:

As the site is located within the City's Natural Environment Development Permit Area, please follow Official Community Plan (OCP) guidelines (see OCP Section 9.7). This being a previously developed site, emphasis should be placed on a noxious weed assessment, specifically for the four knotweed species and giant hogweed, as per Section 9.16 of the [Development and Subdivision Control Bylaw 5650-2017](#).

Do not remove any trees during bird nesting season (March 1 to August 31), and **do not disturb any soil before providing the requested studies for City staff evaluation and comment.**

WASTE MANAGEMENT:

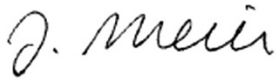
Please refer to both applicable bylaws for complete details on waste management requirements. The summary below is provided for convenience only.

As per the [Solid Waste Management Bylaw 5526-2015](#), by default, the District's contractor provides **On-site Collection** to multi-family complexes in 360-litre wheeled carts for compost and recyclables and 121-litre wheeled carts for container glass only. The strata/ownership makes its own arrangements for the collection of garbage. The storage requirements for garbage will depend on the collection frequency negotiated with a private contractor.

On-site Collection facilities must be fully enclosed buildings, structures or compounds that are adequate to prevent wildlife access but designed and located to provide easy access and egress for collection vehicles. **Please refer to Schedule L of the [Development and Subdivision Control](#)**

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[Bylaw 5650-2017](#) for details on enclosure size, locations and access requirements. Please provide Schedule L compliant details on the proposed waste management area that is shown in the underground parkade.



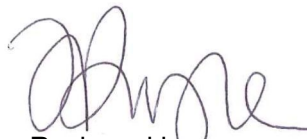
I have reviewed the Environmental Requirements
Jennifer Meier, Engineering Technologist III - Environmental Services

RECOMMENDATION:

From an engineering point of view, the application may proceed to adoption once the Rezoning/Development requirements have been clarified and met per the Development and Subdivision Control Bylaw, Introduction, Item 10 and/or 11.



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