

**ENGINEERING DEPARTMENT  
REZONING AND DEVELOPMENT PERMIT COMMENTS**

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**DATE:** March 13, 2023

**CIVIC ADDRESS:** 32876 Tunbridge Avenue

**CURRENT ZONE:** S20

**PROPOSED ZONE:** MT1

**Disclaimer**

The following comments are listed as deficiencies for the sole purpose of identifying required works and services to enable the subject property to Rezone to a Multi-Unit Townhome Zone and develop a 24-unit townhouse development. The following works and services for this rezoning and development permit proposal are in accordance with the standards contained within the City of Mission's (CoM) Development and Subdivision Control Bylaw (DSCB) 5650-2017, Water Bylaw 2196-1990 (Water Bylaw), Sewer Bylaw 5033-2009 (Sewer Bylaw), Floodplain management Bylaw 4027-2007, Solid Waste Management Bylaw 5526-2015 (SWMB), the Soil Removal Bylaw 3088-1997, the Fire Sprinkler Bylaw 5679-2017, the Cedar Valley Local Area Plan (CVLAP), the Cedar Valley Engineering Plan (CVEP) 5807-2018-5670, and the Official Community Plan Bylaw 5670-2017 (OCP). Additional requirements as specified by other stakeholder authorities are above and beyond the scope of these comments.

**DOMESTIC WATER REQUIREMENTS:**

Municipal water is available on Tunbridge Avenue.

Connection to the municipal system is required. The CoM does not guarantee fire-flow requirements. 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.

City records indicate that the existing municipal watermain on Tunbridge Avenue is a 300mmØ ductile iron pipe.

As a condition of Development, the following will apply:

In accordance with the Water Bylaw, the developer is required to design a bulk meter system in a chamber with a single-point, service connection to property line, consistent with the DSCB and Water Bylaw. Installation of the onsite system shall occur at the building permit stage.

In accordance with the Water Bylaw, the existing 25mm water service to the parent lot shall be capped at the main by CoM at the developer's sole expense.

Engineered design is required. See DSCB, Section 3.

**STORM SEWER REQUIREMENTS:**

Municipal storm service is available on Tunbridge Avenue.

Connection to the municipal system is required. The CoM 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.

City records indicate an existing municipal storm main on Tunbridge Avenue is a 675mmØ concrete pipe.

Latecomers have been registered on this pipe and are payable as a condition of Development.

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The developer is required to design a storm water system utilizing Best Management Practices (BMPs) that will reduce the site's 10-year post-development runoff rate to its 10-year pre-development runoff rate. Installation of the system shall occur at the building permit stage.

Engineered design is required. See DSCB, Sections 4 and 5.

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 subdivision, 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 ground water recharge guidelines, the applicant shall be responsible to conduct a hydrological investigation to estimate infiltration rates, soil permeability, and 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. The Minimum Building Elevation (MBE) may also be influenced by the Floodplain Management Bylaw.

Proposed measures shall be subject to acceptance by the Director of Engineering and Public Works and/or the senior Building Inspector.

**SANITARY SEWER REQUIREMENTS:**

Municipal sanitary service is available on Tunbridge Avenue.

Connection to the municipal system is required.

City records indicate that the existing municipal sanitary main on Tunbridge Avenue is a 300mmØ PVC pipe.

The CoM 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.

In accordance with the Sewer Bylaw, the existing 100mm diameter sanitary service to the parent lot shall be capped at the main by CoM at the developer's sole expense.

Engineered design is required. See the DSCB, Section 6.

**ROAD WORK REQUIREMENTS:**

Tunbridge Avenue provides paved access to the site.

In accordance with the DSCB, Schedule B-1, road improvements are a requirement of Development.

Per the Transportation Master Plan - Mission Mobility 2050, Tunbridge Avenue is classified as a Collector Highway.

Additional dedication on Tunbridge Avenue will not be a requirement of rezoning adoption.

The developer is responsible for the construction of half-road improvements to a collector road standard, generally consistent with CoM Standard Drawing SS-R03. At a minimum, this shall include pavement widening, concrete curb & gutter, multi-use pathway, boulevard, plantings, underground power and communications, and ornamental street lighting.

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Certain half road improvements have already been completed for which latecomers have been registered and are payable as a condition of Development.

Engineered design is required. See the DSCB, Sections 8, 9, 10, and 11.

**STREET LIGHTING:**

In accordance with the DSCB, Schedule B-1, ornamental street lighting is a requirement of development. 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 approval.

Street Lighting design shall compliment the roadway design and be in general conformance with the DSCB.

Engineered design is required. See the DSCB, Section 9 – Street Lighting, as amended.

**BOULEVARD LANDSCAPING AND TREE PLANTING:**

In accordance with the DSCB, Schedule B-1, the design and installation of boulevard trees adjacent to the site shall compliment the roadway design and be in general conformance with the DSCB. All proposed plant material and tree species require approval from the CoM Manager of Parks & Facilities prior to selection at the nursery.

Engineered design is required. See the DSCB, 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 DSCB.

Engineered design and presentation shall be prepared by utilizing the City's AutoCAD Drafting Standard (download from City website).

See the DSCB, Section 2 – Engineering Standards, 13 – Construction Drawing Submissions, and Form F-5 – Commitment by Owner and Consulting Engineer.

**POWER, GAS & TELECOMMUNICATIONS:**

Underground electrical, natural gas distribution, and telephone systems in accordance with the DSCB, Schedule B-1 is applicable and shall be a condition of Development.

See the DSCB INTRODUCTION, Item 9.5 - Power and Telecommunications Distribution.

Engineered design is required.

**LOT GRADING:**

Lot grading in accordance with the DSCB, Schedule E – Standards for Designing and Preparing Lot Grading is applicable and shall be a condition of Development.

Engineered design is required.

**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 developed provide excess or extended services and as such, Latecomer Charges shall not apply.

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Latecomer charges have been registered against the subject property. As such, those charges with interest will be payable as a condition of Development.

**ENVIRONMENTAL REQUIREMENTS:**

The site is located within the City's Natural Environment Development Permit Area and the Cedar Valley Neighborhood. Please refer to the Official Community Plan (Section 9.7) and the Cedar Valley Local Area Plan (CVLAP) (Section 4), respectively.

**IMPORTANT: No trees, other vegetation, waterbody or soil is to be removed or disturbed before the City has issued the Natural Environment Development Permit.**

A Preliminary Bioinventory Report was prepared by Redcedar Environmental Consulting (REC, October 2022). This assessment indicated that the permanent fish bearing watercourse (relocated Gaudin C) located within the park would:

*. . . generally be subject to the RAPR as both the RAA and the SPEA lie on the subject property. However, it is understood that stream rehabilitation works were completed under an Authorization as part of the Cedar Valley Local Area Plan and it is understood that these works accounted for encroachments into the SPEA and that a RAPR report is not required.*

Section 4.8 of the CVLAP discusses this proposed relocation under the Gaudin Creek heading. The City acquired a 40 m wide strip of land for this relocation which was to allow for the 15 m designated PNA from the top of bank of this watercourse. West of the subject site, the relocated watercourse appears to meander through the middle of the park and likely accomplishes this objective; however, south of the subject site it crowds the southwest corner (ie. the SPEA would extend onto the subject property as stated). Unless written confirmation is provided by a RAPR Biologist, it is expected that a RAPR Assessment Report would be required.

The Preliminary Bioinventory Report also indicates that there was a wetted area along the southern property line (as observed in January) which could be considered a wetland but was not assessed further as it was outside the project scope. Please have a QEP review this feature to confirm whether a swamp, marsh, or fen is present as described in the [Wetlands of British Columbia: A Guide to Identification](#). Please note that this wetland assessment must be completed by a QEP who is able to demonstrate that this is within their professional area of expertise.

Japanese knotweed was identified at the site in January 2022 by REC and was observed by municipal staff in September 2022. Through email correspondence with REC and confirmation within the Preliminary Bioinventory Report it is understood that this occurrence was treated with glyphosate in September 2022. As noxious weeds have been identified, a noxious weed management plan is required as per section 4.5 of the CVLAP.

An Arborist Report was prepared by REC in October 2022. The Arborist Report indicates that seven trees will be removed (including one offsite tree which will require the consent of the City) and that seven trees will be replaced for a total security deposit of **\$1,750**. The report indicates that an additional 48 replacement trees will be planted. A Landscape Plan was prepared by C. Kavolinas & Associates Inc. dated July 2021 was included with the referral package. The Landscape Plan indicates that 28 trees (a mixture of group one and two trees as per LAN.32) will be planted. Please rectify the tree planting discrepancy between the Arborist Report and the Landscape Plan.

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**Multi-family Waste Management**

Two options are available to multi-family properties: 1) On-site Cart, or 2) Curbside. The minimum option that will be provided by the City is on-site cart collection. The alternative is curbside collection. The City will charge the cost for either on-site cart collection or for curbside collection as a per unit per year utility tax as provided in the City's Solid Waste Management Bylaw. There is not an option to opt out of City provided recycling, glass, and compostables collection. **The conditions listed on the architectural plans do not exist, please refer to the information included below as well as the Solid Waste Management Bylaw 5526-2015. and Schedule L of the Development and Subdivision Control Bylaw 5650-2017.**

**Default for Multi-family Developments: ON-SITE**

As per the Solid Waste Management Bylaw 5526-2015. by default, the City's contractor provides On-site Collection to multi-family complexes in 360-litre wheeled carts for organics and recyclables and 80-litre wheeled carts for container glass only. The strata 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 Bylaw 5650-2017. for details on enclosure size, locations and access requirements.

**Option for Suitable Multi-family Developments: CURBSIDE**

Curbside collection involves the weekly collection of organics and recyclables and the bi-weekly (= every two weeks) collection of up to two 80-litre bins of garbage, as well as a separate container glass bin. Curbside garbage collection is optional however organics and recycling is not. **Individual units must feature animal-resistant, enclosed storage space to prevent wildlife interaction. It does not appear that additional storage space has been provided in this complex therefore garages must be sufficient in size to store all waste materials.**

To allow for safe access/egress of collection vehicles a minimum, unobstructed turning radius of 12.0m and a minimum unobstructed width of **6.0 m** on access routes is required. Please refer to Schedule L of the Development and Subdivision Control Bylaw 5650-2017 for further details on waste collection design.

**It is noted that the plans do not show a designated waste management area for the townhouse complex. Curbside Collection may be provided as an alternative, if the layout is serviceable by the City's contractor. In order to include this complex in Curbside Collection Service, consensus by the owners/strata would be required. This can be done via e-mail and will need to state if curbside garbage collection is also desired.**

**COST OPTIONS (2023)**

**On-site Collection:** \$77.52 per unit per year for weekly collection of mixed recyclables, organics and container glass (bi-weekly). This is the default that cannot be waived from the tax notices, unless the Curbside Collection option is selected instead.

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**Curbside Collection:** \$186.96 per unit per year for weekly collection of mixed recyclables and organics, as well as bi-weekly collection of container glass. \$104.52 for bi-weekly collection of up to two 80-litre cans of garbage per unit (curbside garbage is optional). **If the design of the complex does not include a communal waste collection area designed as per Schedule L the curbside cost for mixed recycling and organics will be applied and cannot be waived.**

I have reviewed the Environmental and Waste Management Requirements.



Kyle D'Appolonia, Environmental Coordinator

**OTHER COMMENTS:**

A demolition permit shall be secured with the building dept for each applicable structure to be removed.

A plumbing inspection shall be secured with the building dept for the removal of any existing septic systems.

Should removal of soil from the site exceed 100 cubic metres in one year (approximately 10 tandem axle trucks), the following provisions apply:

- The applicant shall obtain a Soil Removal Permit, as outlined in Soil Removal Bylaw;
- The applicant will be responsible for the cost of the permit and the removal fee per cubic metre or per metric tonne, payable to the City;
- The applicant shall comply with all provisions of the Soil Removal Bylaw.
- The removal of any knotweed containing soils will have to be hauled to an authorized disposal facility set up for receiving and destroying knotweed.

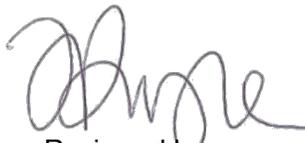
Please contact Alfred Knox, Engineering Technologist, at [aknox@mission.ca](mailto:aknox@mission.ca) or 604-814-1287 for more information, or to apply for a Soil Removal Permit.

**RECOMMENDATION:**

From an engineering point of view, the application may proceed to adoption once the servicing requirements have been met as per the DSCB, Introduction, Items 10 and/or 11.



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