

## ATTACHMENT D

August 18, 2020

**CIVIC ADDRESS:** 31215 & 31380 Silverdale Avenue and 7646 Nelson Street

**CURRENT ZONE:** RU16 and CH2 **PROPOSED ZONE:** CGS, CVD & CH1 or 2 (not finalized)

### **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 (mixed-use, car dealership commercial). The following works and services for this rezoning proposal are in accordance with the standards contained within the District of Mission's (DOM) Development and Subdivision Control Bylaw (DSCB) 5650-2017 as amended and Schedule B-1 – Service Requirements – Works on Adjacent Highway, Within The Urban Area.

It should be noted that this site is immediately adjacent to a signalized intersection at Nelson Street and Lougheed Highway. The District's Master Infrastructure Study (MIS) has identified this intersection as one of only two vehicular access points (from the highway) to the Southwest Mission development lands.

It is further noted that the site is also located within a geographic area identified as [the] Gap Study which is a geographic area of land between the boundary of the MIS in the west and the extent of municipal servicing in the east. As such, these properties do not have any municipal services adjacent to the site but for Silverdale Avenue and Nelson Street as publicly-owned roadways.

At the time of updating these comments the Gap Study is well under way. The intention will be to provide an acceptable level of comfort that the area can accommodate the future demand of Southwest Mission and the Study area from a servicing perspective (water, storm, sanitary, roads, and environment). Extensive work has been completed exploring options for the future intersection improvements. The issue of Water, Storm, and Sanitary servicing is still a work in progress.

### **DOMESTIC WATER REQUIREMENTS:**

A municipal water system complete with appurtenances is needed to service the site and is a requirement of rezoning adoption.

Municipal water is available to be extended to the site from either approx. 600m north on Nelson Street, 700m east on Silverdale Avenue or 1000m south on Gill Avenue.

At the time of updating these comments the developer has commissioned a professional engineer to pursue a system extension on Nelson Street.

### **SANITARY SEWER REQUIREMENTS:**

A sanitary sewerage system complete with appurtenances is needed to service the site and is a requirement of rezoning adoption.

Municipal gravity sanitary sewer is not available adjacent to the site and is not available to be extended to the site at all due to topography and lack of infrastructure.

Municipal forcemain sanitary sewer may be available to be extended to the site from either approx. 1000m south on Gill Avenue or 1100m east on Silverdale Avenue.

At the time of updating these comments the developer has commissioned a professional engineer to investigate options for satisfying this need. The engineer's recommendation is to construct a

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temporary onsite wastewater treatment system to service the entire site until such time as the District has provided an extension of the municipal system into the near vicinity of the site. This private onsite system would take the form of gravity pipes, a pump or series of pumps pushing sewer through a low-pressure force main or series of low-pressure force mains into the onsite system. The engineer has proposed to design the onsite system in such a way that a future re-connection to a new, municipal sanitary main could be done with relative ease in the future.

Any proposed onsite sewerage system will require a Development Variance Permit and the support of the Approving Officer, the Director of Engineering and Public Works, and be designed to the satisfaction of the Senior Building Official and Provincial Ministry of Health.

### **STORM SEWER REQUIREMENTS:**

A municipal storm sewer system complete with appurtenances is needed to service the site and is a requirement of rezoning adoption.

The existing conditions are such that municipal and MOTI ditches, culverts and watercourses about the site on all sides.

In accordance with the DSCB Schedule B and B-1, a piped storm sewer system will be a requirement of subdivision/development on all streets and new lots.

At the time of updating these comments the Gap Study underway and trunk main sewer alignments may be identified that could affect this development. However, the local topography also suggests that a piped storm sewer system on Silverdale Avenue and Nelson Street may be able to be designed and constructed in isolation of accommodating a larger municipal improvement project.

### **ROAD WORK REQUIREMENTS:**

Municipal road network improvements to a mix of collector, commercial and MOTI highway standards is needed to service the site and is a requirement of rezoning adoption.

Silverdale Avenue (Arterial roadway, DOM Transportation Master Plan 2016) provides access to the northern frontage of the site to an old rural residential road standard.

Nelson Street (Collector roadway, DOM Transportation Master Plan 2016) provides access to the western frontage of the site to a mix of old rural residential road standard and MOTI improvements at the adjacent signalized intersection.

Lougheed Highway provides direct ingress/egress to the southeast corner of the site via a historical vehicular access point (not currently in use). An existing roadside drainage ditch otherwise effectively separates the highway from the site along the south frontage.

The MIS has identified the Nelson & Lougheed intersection as one of just two contemplated accesses to the future Southwest Mission development lands for up to 40,000 new residents. District Staff and MOTI have identified this intersection as critical infrastructure required to support the anticipated growth in the corridor.

There is a need to understand the immediate and future impacts that the proposed AutoMall-style development will have on the surrounding area including the adjacent signalized intersection. As per DSCB Section 8.19 – Traffic Access and Impact Studies the developer will be required to prepare and conduct a Traffic Impact Assessment to the satisfaction of the District of Mission and MOTI as a condition of rezoning adoption. All requirements and recommendations for improvements are to be completed at the developer's sole expense.

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At the time of updating these comments the developer has commissioned a traffic engineering consulting firm to liaise with the District and MOTI traffic engineering dept on the terms and conditions of a traffic study. The traffic consultant has prepared a final report that has been acceptance by both DOM & MOTI. The following summarizes the Findings and Recommendations of the Final Report:

**Table 1.2: Findings & Recommendations**

SECTION	FINDINGS & RECOMMENDATIONS
Opening Day (2020) Background	-All study intersections operate acceptably.
15-Year (2035) Background	-The intersection of Wren Street & Lougheed Highway is expected to reach capacity in the eastbound left-turn movement in the PM Peak Hour. Providing 2 eastbound left lanes will allow the intersection to operate acceptably. -The intersection of Wren Street & Silverdale Avenue is expected to reach capacity but is recommended to remain stop-controlled to keep the delay on the lower volume roadway (Silverdale Avenue). -The intersection of Nelson Street & Silverdale Avenue will reach capacity. Implementing the proposed offset Tee intersections will allow the intersection to continue to operate acceptably.
Opening Day (2020) Total	-All study intersections continue to operate acceptably with the site development traffic factored in. -No improvements are warranted at this horizon.
15-Year (2035) Total	-The intersection of Wren Street & Lougheed Highway is expected to reach capacity in the PM Peak Hour with the site development traffic added, similar to that predicted for the 2035 Background Scenario. -The intersection of Nelson Street & Silverdale Avenue (South) is expected to reach capacity and should be signalized to maintain acceptable intersection configurations. The North Tee intersection will operate acceptably as a westbound stop-controlled intersection. -All other study intersections continue to operate acceptably.
Daily Volumes	-All roadways will remain within their respective guidelines and no changes to classifications are needed.

The civil consultant has prepared a series of conceptual design improvement plans based on the data output from the TIA, however staff felt that the 15-year horizon did not adequately address the long-term planning needs of South West Mission as described in the MIS Report. As such, the District commissioned a study of the intersection of Nelson Street and Lougheed Highway by Urban Systems. Urban Systems, with the assistance of District Staff, produced a concept plan for the area that looked beyond the 15-year horizon and illustrated what an “Ultimate Road Network Configuration” would look like. This ultimate configuration impacts the subject site adjacent to Nelson Street and Silverdale Avenue. The cost of both land acquisition and road improvements required to realize the ultimate road network configuration should form a new Development Cost Charge Project within the Development Cost Charge (DCC) Bylaw. However, currently this application is ahead of the DCC Bylaw updates and as such there is no DCC Project to fund the land acquisition or the road improvements adjacent to the subject property.

It is recommended that, as a condition of Rezoning, the developer shall dedicate additional property adjacent to Nelson Street and Silverdale Avenue to provide a total road dedication width complete with corner truncation sufficient to construct an Arterial Road Standard complete with road drainage, underground hydro and telephone, street lighting, and boulevard tree planting. Dedication shall be in general conformance with Nelson Street/Hwy 7 Intersection Design prepared by Urban Systems, Project No. 00995.0047.02 Option 6C dated 2021-03-07.

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Reviewed by:

Paul Butterfield, Engineering Technologist III, Traffic & Transportation

### **ENVIRONMENTAL:**

The site is located within the District's Natural Environment Development Permit Area, please follow Official Community Plan (OCP) guidelines (see OCP Section 9.7). A QEP shall conduct a preliminary bio-inventory of terrestrial site features, including tree inventory, habitat assessment (including species at risk) and 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. Both knotweed and giant hogweed have been found in the vicinity of the site in the past.

No trees are to be removed during bird nesting season (March 1 to August 31), unless the appropriate assessment, reports, and mitigation actions are undertaken by a Qualified Environmental Professional (QEP) to ensure compliance with the federal Migratory Birds Convention Act and the provincial Wildlife Act, as required meet the legislation and ensure best management practices are followed.

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

The site is located immediately adjacent to a thriving, purpose-built wetlands nature park that also contains a large salmon-bearing watercourse called Silverdale Creek. Environmental setbacks and additional land dedication will need to be considered.

District staff understands that the developer engaged a qualified engineering professional to examine the site as early as 2016. A RAR assessment was submitted to the provincial government in 2017, and was deemed as not meeting methodology. Provided that, and the fact that the development proposal has undergone changes since 2017, the new Riparian Area Protection Regulation requires that a new assessment be submitted to the provincial government for acceptance. District staff requests to be sent the draft RAPR assessment before it is submitted to the province.

Furthermore, the District is in receipt of a letter, dated January 7, 2020, by the Land Remediation Section of the Ministry of Environment and Climate Change Strategy which, while releasing the site for the purposes of rezoning and subdivision, identifies an outstanding requirement to conduct a detailed site investigation before future applications can be approved.



Reviewed by:

Jennifer Meier, Engineering Technologist III, Environmental Services

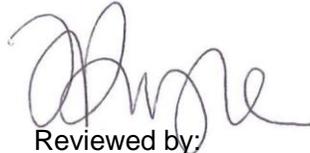
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**RECOMMENDATION:**

From an engineering point of view, the Rezoning may proceed to adoption once the required road dedication has been transferred to the District.



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