



Attachment 8
Engineering Servicing Memo

Memorandum

To: Wendee Lang, Development Planner

Date: August 29, 2023

From: Hardeep Maghera
Engineering Development Services Supervisor

File: PRJ-009786
Ref: DRF00251

Subject: SERVICING REQUIREMENTS FOR 808 ROYAL AVENUE-STUDENT HOUSING BUILDING - REZ00230, SDP00233.

We are responding to the application as referenced above for the Douglas College student housing development at 808 Royal Avenue.

Please be advised that staff have completed a review of the project and identified the following details that will need to be addressed as part of this application:

1. The applicant shall, at a minimum, be aware of, or familiarize themselves with the following documents and plans:
 - Subdivision and Development Control Bylaw
 - Tree Protection and Regulation Bylaw
 - Erosion and Sediment Control Bylaw
 - Zoning Bylaw
 - Street and Traffic Bylaw
 - Master Transportation Plan (MTP)
 - Official Community Plan (OCP)
2. The modeling results of the storm, sanitary and watermain systems has confirmed that the available capacity is sufficient for the proposed development.
3. Provision of any road dedications and statutory rights of way that may be required along all frontages to meet the capacity, functionality and design objectives for all modes of travel of the City including access to the proposed development. At a minimum, the City may be requiring, but not necessarily limited to the following:
 - Dedication of a minimum 3.0m x 3.0m corner truncation at Eighth Street and Royal Avenue
 - Dedication of a minimum 3.0m x 3.0m corner truncation at Eighth Street and Agnes Street
 - Dedication of a minimum 3.0m x 3.0m corner truncation at Royal Avenue and Blackie Street
4. Onsite storm sewer water management will be required to limit the post development flow to pre-development flow. The on-site works shall be designed to incorporate green infrastructure in accordance with the City's Integrated Storm Water Management Plan.

5. All site drainage works shall be designed and constructed in accordance with the City's Erosion and Sediment Control Bylaw 7754, 2016. The Developer shall retain a qualified professional to ensure that the design and implementation of the erosion and sediment controls meet the requirements outlined in the Bylaw.
6. All existing trees are to be protected in accordance with the City's Tree protection and Regulation Bylaw No. 7799, 2016 and any trees identified for removal will need to have a permit approved and in place prior to removal.
7. Payment of a flat fee in the amount of \$5,500.00 plus GST for capping at the main, by the City, of all existing sewer and water service connections not for reuse.

OFF-SITE WORKS AND SERVICES

8. Under the City of New Westminster Subdivision and Development Control Bylaw No. 7142, 2007 and amendments thereto, the Developer for the above noted property is required to enter into a Works and Services Agreement with the City addressing all off-site servicing requirements. The off-site services will be identified during the detailed development review and will be required prior to issuance of a Building Permit. These works could include but may not be limited to the following generally described servicing:

ROAD WORKS

The subject site is bounded by Royal Avenue to the north, Blackie Street to the west, Eighth Street to the east and Agnes Street to the south. According to the City's Master Transportation Plan (MTP), Agnes Street and Blackie Street are classified as a local roads, Eighth Street is a classified as a City Collector and Royal Avenue is classified as a MRN.

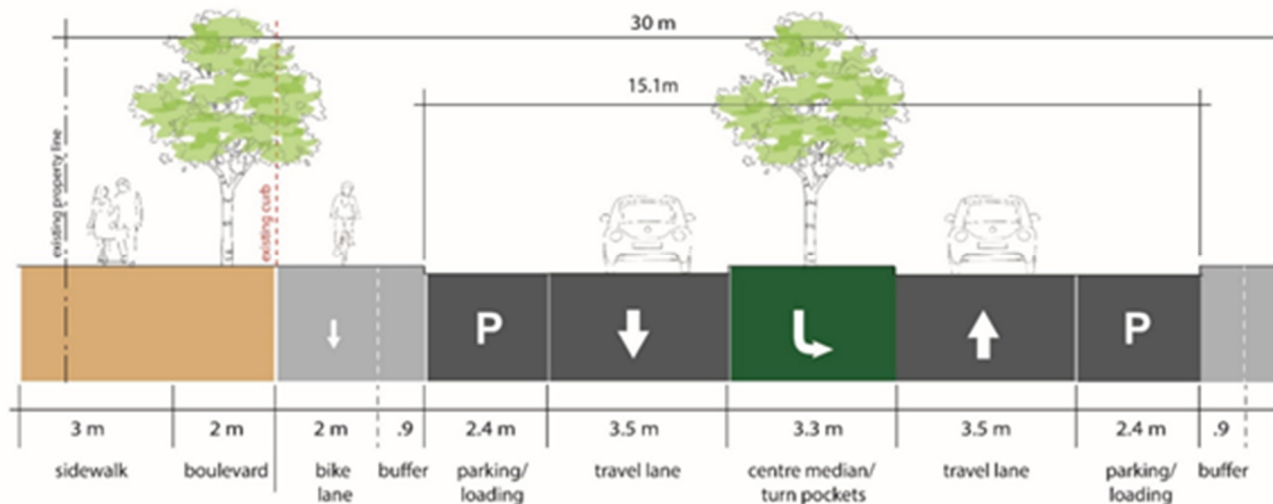
Royal Avenue

- 8.1. Reconstruction of the Royal Avenue in accordance with the Downtown Transportation Plan and the Downtown Building and Public Realm Design Guidelines and Master Plan complete with new unobstructed sidewalk, benches and seating opportunities, street lighting (including pedestrian scale lighting), weather protection, street trees (including irrigation), potential for bike facilities, curb and gutter. Royal Avenue shall be constructed up to road centerline based on the following minimums:
 - Reconstruction of the existing road structure shall be based on the analysis of a Benkelman Beam Test, or other approved method, carried out on the existing road, which is to be upgraded. If the test results are proven satisfactory, the minimum requirement shall be a full depth mill and pave.
 - Minimum 2.0m wide unobstructed sidewalk.
 - 2.0m wide landscaped back boulevard complete with trees and irrigation.
 - Provision of pedestrian letdowns at the intersections of Royal Avenue at Eighth Street and Blackie Street.

Eighth Street

8.2. Reconstruction of the Eighth Street frontage in accordance with the Downtown Transportation Plan and the Downtown Building and Public Realm Design Guidelines and Master Plan complete with new unobstructed sidewalk, benches and seating opportunities, street lighting (including pedestrian scale lighting), weather protection, street trees (including irrigation), potential for bike facilities, curb and gutter. Eighth Street shall be constructed up to road centerline based on the following minimums:

- Reconstruction of the existing road structure shall be based on the analysis of a Benkelman Beam Test, or other approved method, carried out on the existing road which is to be upgraded. If the test results are proven satisfactory, the minimum requirement shall be a full depth mill and pave.
- Minimum 3.0m unobstructed sidewalk, 2.0m boulevard complete with trees and irrigation, 2.0m bike lane, 0.9m buffer, 2.4m parking lane, and 3.5m travel lane along frontage. Turn pockets approaching intersections, otherwise centre medians (see Figure 19 of the Downtown Transportation Plan).
- Provision of pedestrian letdowns at the intersections of Eighth Street at Royal Avenue and Agnes Street. Intersection design will need to incorporate bike lane facilities.
- Wildflower meadow mix boulevard (preferred) or grass or sodded;
- Boulevard to be maintained by the College per requirements of the Street and Traffic Bylaw – maintenance equipment cannot obstruct bike lane or sidewalk;
- Tree pits (1.2m x 1.2m x 1.0m deep) of full growing medium towards soil volume, as well as, 600mm deep structural soil under the hardscaped surfaces that would account for 20% towards the overall soil volume; and
- Tree pits to have a square or rectangle area with mulch that creates a clean edge between tall meadow mix and tree pit. This will allow for ease of maintenance and protect the tree trunk from weed whacker or other landscape equipment.



Agnes Street

8.3. Reconstruction of the Agnes Street frontage in accordance with the Downtown Transportation Plan and the Downtown Building and Public Realm Design Guidelines and Master Plan complete with new unobstructed sidewalk, benches and seating opportunities, street lighting (including pedestrian scale lighting), weather protection, street trees (including irrigation), potential for bike facilities, curb and gutter. Agnes Street shall be constructed up to road centerline based on the following minimums:

- Reconstruction of the existing road structure shall be based on the analysis of a Benkelman Beam Test, or other approved method, carried out on the existing road which is to be upgraded. If the test results are proven satisfactory, the minimum requirement shall be a full depth mill and pave.
- Minimum 2.5m wide unobstructed sidewalk.
- 2.0m wide landscaped front boulevard complete with trees and irrigation.
- Provision of pedestrian letdowns at the intersections of Agnes Street at Eighth Street and Blackie Street.
- Agnes and Blackie Intersection will require a rapid flashing beacon and accompanying crosswalk on both sides of Blackie (crossing over Agnes North to South).

Blackie Street

8.4. Reconstruction of the Blackie Street frontage in accordance with the Downtown Transportation Plan and the Downtown Building and Public Realm Design Guidelines and Master Plan complete with street lighting (including pedestrian scale lighting), , street trees (including irrigation), curb and gutter. Blackie Street shall be constructed up to opposing gutter based on the following minimums:

- Reconstruction of the existing road structure shall be based on the analysis of a Benkelman Beam Test, or other approved method, carried out on the existing road which is to be upgraded. If the test results are proven satisfactory, the minimum requirement shall be a full depth mill and pave.

UNDERGROUND UTILITIES

Water

8.5. Provision of an adequate single water service connection for the development satisfying the fire and domestic demands complete with a suitable water meter with backflow protection. A hydrant test should be conducted at the development connection location to verify the pressure and the required fire flow should be validated using the FUS document Water Supply for Public Fire Protection (2020) when architectural plans for the development are finalized. Size and location to be determined by the Developer's consulting engineer and approved by the City.

Sanitary

- 8.6. Provision of an adequate single sanitary sewer service connection for the development complete with a manhole or inspection chamber at property line. Size and location to be determined by the Developer's consulting engineer and approved by the City.

Storm

- 8.7. Provision of an adequate single storm sewer service connection for the development complete with either a manhole or inspection chamber at property line. Size and location to be determined by the Developer's consulting engineer and approved by the City.

Electrical and Telecommunication

- 8.8. All costs associated with the design and replacement of the existing overhead electrical and telecommunication utilities on the roadways adjacent to the site with an underground system with servicing for the development. It is recommended that any kiosks be placed in an indented SROW to avoid conflicts with the proposed sidewalks. The development should plan the site to account for a vista on their site as a default if their transformer is 2500kVA or larger. For further information please contact Marc Rutishauser in the City Electrical Operations Department at (604) 527-4533 for electrical servicing details. Contact Telus or Shaw directly for telecommunication details.
- 8.9. City communication conduit shall be provided in accordance with the City's Intelligent City Design requirements as it pertains to the Fiber Optic Network and Street Lighting Design. For further information, please contact Phil Kotyk, Fiber Network Operations Manager at (604) 524-4641.
- 8.10. All costs associated with the design and construction of gas servicing for the development. Please contact Fortis BC directly for servicing details.
- 8.11. All third party utility construction drawings shall include the Civil Design Drawings base plan and must be submitted to the City's Engineering Services Division for review and approval. The Developer's consulting engineer shall ensure that the design of all third party utilities have been coordinated with the Civil Design Drawings. Coordination of the drawings must be completed prior to issuance of the Works and Services Agreement.

STREET LIGHTING

- 8.12. Roadway lighting for the frontages shall be provided and/or upgraded for safety and to produce accurate and comfortable night time visibility using energy efficient lighting such as LED. Design of roadway lighting shall be in accordance with the City of New Westminster Design Criteria Section 6 and the MMCD (Platinum Edition) Design Guidelines Section 6.0 Roadway Lighting (for LED).

BOULEVARD TREES

- 8.13. The boulevards shall be prepared for Boulevard Trees complete with a 900mm, New Westminster Planting Blend or approved equal, growing medium for the full width of the boulevard, including drainage and irrigation. Boulevard landscaping and irrigation shall be provided in suitable locations to the satisfaction of the Parks Department. If adequate soil volume is not achievable, provision shall be made for soil cell technology or any other approved method to achieve the specified soil volume. For further information, please contact Sylvain Martel, Senior Arborist at (604) 524-4625 or smartel@newwestcity.ca.
9. The preparation of detailed design drawings by a qualified Professional Engineer for the off-site works and services to the satisfaction of the City and in accordance with the City's Design Criteria, Supplemental Specification and Detail Drawings, and Master Municipal Construction Documents. The engineering design drawings for the proposed works may include the following plans:
- Road works
 - Storm drainage collection facilities
 - Sanitary sewer collection facilities
 - Water distribution facilities
 - Street lighting
 - Boulevard preparation for trees, irrigation and drainage
 - Topographical and lot grading plans
 - Erosion and sediment control plans
 - Electrical power supply and distribution facilities
 - Telecommunication servicing plans
 - Gas facilities

Under the Works and Services Agreement with the City, the Developer must address the following requirements:

- 9.1. Employment and retention of a Professional Engineer to prepare and seal the design drawings; to provide a Resident Engineer for inspection of all design and construction related problems; to prepare, certify and seal "As Constructed" drawings, including

landscape & irrigation drawings and to certify that all materials supplied and works performed conform to City standards as contained within the Subdivision and Development Control Bylaw and/or the Master Municipal Construction Documents.

- 9.2. The Developer will be required to post a security deposit for 120% of the estimated construction cost of the off-site servicing works including GST. The security deposit shall be in the form of an Irrevocable Letter of Credit or Cash Deposit. The security deposit will be reduced once the off-site works are completed to the satisfaction of the City less a 10% holdback. Upon issuance of a Certificate of Completion by the City, the 10% security deposit will be held for a two year maintenance period.

The following payments and deposits shall be paid at the time of execution of the Works and Services Agreement:

- 9.3. Payment to cover the cost of preparing the Works and Services Agreement, currently \$1,960.00 plus tax;
- 9.4. Payment of four percent (4%) of the estimated construction costs to cover engineering and administrative costs incurred by the City;
- 9.5. Under the Works and Services Agreement the Developer will be required to pay a \$5,000.00 deposit to cover any charges for emergency works and signage.
- 9.6. Payment of a deposit (\$650.00 plus Tax per Tree) towards the cost to the City for selecting, purchasing, installing, establishing and maintaining Boulevard Trees.

10. Signing of a latecomer waiver clause.

11. Submission of any easement or right of way documents required by the City in relation to the proposed development.

12. The following charges shall be paid at the time of Building Permit issuance:

- 12.1. Payment of applicable Greater Vancouver Sewerage & Drainage District (GVS&DD) Development Cost Charges in accordance with Bylaw 187, 1996 and amendments.
- 12.2. Payment of applicable New Westminster Development Cost Charges in accordance with Bylaw 7311, 2009 and amendments.
- 12.3. Payment of applicable School Site Acquisition charges in accordance with School District #40 Capital Bylaw No. 2008-1.
- 12.4. Payment of applicable Regional Transportation Development Cost Charges in accordance with Bylaw No. 124-2018.

Should you have any further questions or concerns please do not hesitate to contact me directly at (604) 527-4545.

Thank you,

Hardeep Maghera, A.Sc.T, BC-CESCL
Engineering Development Services Supervisor

cc L. Leblanc, Director of Engineering Services
M. Anderson, Manager, Transportation
K. Agyare-Manu, Senior Manager Engineering Services
C. Dobrescu, Utilities and Special Projects Engineer
G. Hermanson, Transportation Planner
E. Mashig, Manager, Horticulture, Parks, and Open Space Planning
N. Gasiewicz, Parks and Open Space Planner
M. Rutishauser, Manager, Elec. Engineering, Design & Planning, Electric Utility
P. Kotyk, Fiber Networks Operations Manager
S. Trachta, Manager, Inspections, Development Services – Building & Plumbing