



THURBER ENGINEERING LTD.

March 11, 2024

File No.: 49636

Ministry of Transportation and Infrastructure
4C – 940 Blanshard Street
PO Box 9850 Stn Prov Govt
Victoria, BC V8W 9T5

Attention: Paul Savinkoff

STEP A SCREENING SUMMARY HIGHWAY 7 AND HIGHWAY 11 INTERSECTION IMPROVEMENT PROJECT

Dear Paul,

The Ministry of Transportation and Infrastructure (MoTI) provided a framework for identifying and characterizing potentially contaminated soil in its technical circular document T-03/20 dated August 4, 2020. In accordance with MoTI's document, Thurber completed "Step A – Screening" for Highway 7 and Highway 11 Intersection Improvement Project, shown on Figure 1.

This summary was prepared for the exclusive use of MoTI and Authorized Users as defined by contract 860CS5299. Any use which a third party makes of this report, or any reliance on decisions based on it are the responsibility of such third parties. Thurber accepts no responsibility for damage incurred by third parties as a result of decisions made or actions taken based on this report. It is a condition of this report that Thurber's performance of its professional services is subject to the attached Statement of Limitations and Conditions.

1. BACKGROUND

The project area consists of the intersection of an approximately 740 m long section of roadway referred to as Highway 11 (Cedar Valley Connector) and an approximately 250 m long intersecting Highway referred to as Highway 7 (Lougheed Highway) (the Site), in the City of Mission, BC (Figure 2).

2. RECORDS REVIEWED

The Project area was based on drawings entitled *Ministry of Transportation & Infrastructure Highway 7 and Highway 11 Intersection Improvements* prepared by MoTI dated February 26, 2024 and provided by MoTI to Thurber via email on February 27, 2024.

3. SCOPE OF SERVICES

In accordance with our proposed scope, we completed the following:

#900 - 1281 West Georgia Street, Vancouver, British Columbia V6E 3J7 | Phone: (604) 684-4384

www.thurber.ca



- A desktop review of available current and historical information concerning the activities conducted in the project area and on nearby lands.
- Preparation of this summary report.

4. DESKTOP REVIEW

4.1 Site Registry

The Site Registry is a database maintained by the Ministry of Environment and Climate Change Strategy (ENV) that contains information on the contaminant status of listed properties. The Registry was searched using a 500 m radius area search procedure.

There were nine properties listed in the Site Registry. All of the properties are located at least 100 m from the Site and therefore present a low potential to impact the Site.

A copy of the search results is included in Appendix B.

4.2 Federal Contaminated Sites Inventory

The Federal Contaminated Sites Inventory is a database maintained by the Federal government that contains information on the contaminant status of Federal land across Canada. The inventory was searched using the Site co-ordinates on the Online Map Navigator to identify properties within a 500 m radius of the Site.

No properties were identified on the inventory within a 500 m radius of the Site. A copy of the search results is provided in Appendix B.

4.3 Air Photographs

Historical aerial photographs for the Site and the adjacent properties were obtained from the UBC Geographic Information Centre. Aerial photographs from 1930 to 1999 were reviewed. Additionally, aerial photographs from Google Earth from 2004 through 2023 were reviewed.

A summary of observations of the Site and surrounding area is provided below.

YEAR(S)	SITE
1930, 1938	The Site is occupied by Highway 7, running east to west. The remainder of the Site appears to be vegetated and undeveloped or agricultural.
1949, 1951, 1954, 1959, 1963, 1969, 1973, 1978	The Site is occupied by Highway 7, running east to west. Occupying the northern portion of the Site, Fraser Crescent or 1 st Avenue was developed, running north from Lougheed Highway and curving to the east.



YEAR(S)	SITE
1982	The Site is occupied by Highway 7, running east to west. The construction of Highway 11 south of Highway 7 (southern portion of the Site) commenced.
1986, 1990, 1994	The Site is occupied by Highway 7, running east to west. The southern portion of the Site is occupied by the Highway 11, running south from Highway 7 and curving east.
1999, 2004	The Site is occupied by Highway 7, running east to west. The southern portion of the Site is occupied by the Highway 11, running south from Highway 7 and curving east. The northern portion of the Site is occupied by a segment of the Highway 11 running north from Highway 7 and curving east.
2006, 2008, 2012, 2015, 2018, 2020, 2023	The Site is occupied by Highway 7, running east to west and Highway 11, running north to south.

YEAR(S)	NORTH	EAST	SOUTH	WEST
1930, 1938	Forested and undeveloped	Highway 7 continues east through a sparsely populated residential/agricultural area	Forested and undeveloped	Highway 7 continues west through a sparsely populated residential/agricultural area
1949	A portion of a roadway, likely Fraser Crescent or 1 st Avenue, followed by forested and undeveloped land			
1951, 1954, 1959, 1963, 1969				
1973		Highway 7 continues east through sparsely populated residential area with some commercial redevelopment	Vegetated and undeveloped	Highway 7 continues west through sparsely populated residential/commercial area
1982, 1986, 1990, 1994		Highway 7 continues east through a commercial area		
1999, 2004			Vegetated and undeveloped followed by a parking lot	
2006, 2008, 2012, 2015, 2018, 2020, 2023	A portion of the Highway 11 followed by forested and undeveloped land. Highway 11 continues to the northeast			



4.4 Street Level Imagery

Web-based images of the Site and surrounding areas were reviewed for the years 2007 to 2023 and were consistent with the aerial photographs reviewed.

YEARS	SITE
2007, 2009, 2012, 2015, 2018, 2021, 2022, 2023	The Site was occupied by the Highway 7 and Highway 11.

The surrounding properties were occupied by the continuation of Highway 7 to the east and west and the continuation of Highway 11 to the north and south. The Canadian Pacific Railway runs under the Highway 11, approximately 200 m south from Highway 7. Commercial plazas consisting of retail, restaurants and medical offices were present adjacent to the Site to the northwest since at least 2007. The properties northeast of the Site was previously vacant until 2012 when the current commercial plaza was under construction followed by an office building. An oil change service was present on the northeast corner of the property since at least 2015 and was located approximately 85 m east of the Site. The properties southeast and adjacent to the Site were occupied by vacant land followed by a commercial plaza. The properties southwest and adjacent to the Site was occupied by vacant land since at least 2009.

An oil change operation was present approximately 160 m west of the Site since 2017. Two service stations were present approximately 110 m and 120 m east of the Site, respectively.

5. DISCUSSION

The historical review indicated that the Site was either vegetated or a paved roadway since at least the late 1930s. Road alignments changed from 1940s to 2006. The Site has remained unchanged since it was last developed in 2006.

The surrounding area was historically residential until the 1970s when commercial development of the area began. Commercial operations with Schedule 2 activities in the nearby area are discussed below.

An oil change operation was located approximately 85 m east of the Site. Based on the down-gradient location relative to the Site, the oil change operation has a low potential to impact the Site.

Two service stations were located approximately 110 m and 120 m east of the Site, respectively. Based on the down-gradient location and significant distance from the Site, the operations have a low potential to impact the Site.

An oil change operation was located approximately 160 m west of the Site since 2017. Based on the significant distance and duration of the operation (seven years), the oil change operation presents a low risk to the Site.

5.1 Schedule 2 Activities

Schedule 2 of the CSR is a list of commercial and industrial activities that ENV considers a potential risk to the environment. Based on our historical review and our observations, no Schedule 2 activities were identified within or immediately adjacent to the Site.

5.2 High Risk Sites

Based on our historical review, no high-risk sites were identified immediately adjacent or at the Site.

6. RECOMMENDATIONS

As no Schedule 2 activities or high-risk sites were identified at or near the Project, a Step B Soil Characterization Report is not required for any cut soils to be relocated within the Project area or to a MOTI property as per the Technical Circular T- 03/20.

If any cut soils cannot be relocated within the Project or to a MOTI property, a Step B Soil Characterization Report is recommended prior to any soils being disposed of at a third-party receiving facility.

If soils suspected to be contaminated or hazardous are identified during project works, soil must be handled in accordance with SS165.14.03 and Appendix 165-A of MOTI's "2020 Standard Specifications for Highway Construction" dated November 1, 2020. Suspect soils require segregating, testing, handling, and disposal at an approved disposal site or licensed disposal facility.



THURBER ENGINEERING LTD.

7. CLOSURE

We trust this information meets your present needs. If you have any questions, please contact the undersigned at your convenience.

Yours truly,
Thurber Engineering Ltd.

Lora Paul, P.Eng., CSAP
Senior Environmental Engineer

Thurber Engineering Ltd.
Permit to Practice #1001319

Carol Fu, B.Sc., A.Ag.
Environmental Scientist

Attachments

Statement of Limitations and Conditions

Appendix A Figure 1 and 2

Appendix B Site Registry and Federal Contaminated Sites Inventory Findings



STATEMENT OF LIMITATIONS AND CONDITIONS

1. STANDARD OF CARE

This Report has been prepared in accordance with generally accepted engineering or environmental consulting practices in the applicable jurisdiction. No other warranty, expressed or implied, is intended or made.

2. COMPLETE REPORT

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment are a part of the Report, which is of a summary nature and is not intended to stand alone without reference to the instructions given to Thurber by the Client, communications between Thurber and the Client, and any other reports, proposals or documents prepared by Thurber for the Client relative to the specific site described herein, all of which together constitute the Report.

IN ORDER TO PROPERLY UNDERSTAND THE SUGGESTIONS, RECOMMENDATIONS AND OPINIONS EXPRESSED HEREIN, REFERENCE MUST BE MADE TO THE WHOLE OF THE REPORT. THURBER IS NOT RESPONSIBLE FOR USE BY ANY PARTY OF PORTIONS OF THE REPORT WITHOUT REFERENCE TO THE WHOLE REPORT.

3. BASIS OF REPORT

The Report has been prepared for the specific site, development, design objectives and purposes that were described to Thurber by the Client. The applicability and reliability of any of the findings, recommendations, suggestions, or opinions expressed in the Report, subject to the limitations provided herein, are only valid to the extent that the Report expressly addresses proposed development, design objectives and purposes, and then only to the extent that there has been no material alteration to or variation from any of the said descriptions provided to Thurber, unless Thurber is specifically requested by the Client to review and revise the Report in light of such alteration or variation.

4. USE OF THE REPORT

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client, the BC Ministry of Transportation and Infrastructure (MoTI) and Authorized Users as defined in the MoTI Special Conditions Form H0461d. NO OTHER PARTY MAY USE OR RELY UPON THE REPORT OR ANY PORTION THEREOF WITHOUT THURBER'S WRITTEN CONSENT AND SUCH USE SHALL BE ON SUCH TERMS AND CONDITIONS AS THURBER MAY EXPRESSLY APPROVE. Any use which an unauthorized third party makes of the Report, is the sole responsibility of such third party. Thurber accepts no responsibility whatsoever for damages suffered by any unauthorized third party resulting from use of the Report without Thurber's express written permission.

5. INTERPRETATION OF THE REPORT

- a) Nature and Exactness of Soil and Contaminant Description: Classification and identification of soils, rocks, geological units, contaminant materials and quantities have been based on investigations performed in accordance with the standards set out in Paragraph 1. Classification and identification of these factors are judgmental in nature. Comprehensive sampling and testing programs implemented with the appropriate equipment by experienced personnel may fail to locate some conditions. All investigations utilizing the standards of Paragraph 1 will involve an inherent risk that some conditions will not be detected and all documents or records summarizing such investigations will be based on assumptions of what exists between the actual points sampled. Actual conditions may vary significantly between the points investigated and the Client and all other persons making use of such documents or records with our express written consent should be aware of this risk and the Report is delivered subject to the express condition that such risk is accepted by the Client and such other persons. Some conditions are subject to change over time and those making use of the Report should be aware of this possibility and understand that the Report only presents the conditions at the sampled points at the time of sampling. If special concerns exist, or the Client has special considerations or requirements, the Client should disclose them so that additional or special investigations may be undertaken which would not otherwise be within the scope of investigations made for the purposes of the Report.
- b) Reliance on Provided Information: The evaluation and conclusions contained in the Report have been prepared on the basis of conditions in evidence at the time of site inspections and on the basis of information provided to Thurber. Thurber has relied in good faith upon representations, information and instructions provided by the Client and others concerning the site. Accordingly, Thurber does not accept responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of misstatements, omissions, misrepresentations, or fraudulent acts of the Client or other persons providing information relied on by Thurber. Thurber is entitled to rely on such representations, information and instructions and is not required to carry out investigations to determine the truth or accuracy of such representations, information and instructions.
- c) Design Services: The Report may form part of design and construction documents for information purposes even though it may have been issued prior to final design being completed. Thurber should be retained to review final design, project plans and related documents prior to construction to confirm that they are consistent with the intent of the Report. Any differences that may exist between the Report's recommendations and the final design detailed in the contract documents should be reported to Thurber immediately so that Thurber can address potential conflicts.
- d) Construction Services: During construction Thurber should be retained to provide field reviews. Field reviews consist of performing sufficient and timely observations of encountered conditions in order to confirm and document that the site conditions do not materially differ from those interpreted conditions considered in the preparation of the report. Adequate field reviews are necessary for Thurber to provide letters of assurance, in accordance with the requirements of many regulatory authorities.

6. RELEASE OF POLLUTANTS OR HAZARDOUS SUBSTANCES

Geotechnical engineering and environmental consulting projects often have the potential to encounter pollutants or hazardous substances and the potential to cause the escape, release or dispersal of those substances. Thurber shall have no liability to the Client under any circumstances, for the escape, release or dispersal of pollutants or hazardous substances, unless such pollutants or hazardous substances have been specifically and accurately identified to Thurber by the Client prior to the commencement of Thurber's professional services.

7. INDEPENDENT JUDGEMENTS OF CLIENT

The information, interpretations and conclusions in the Report are based on Thurber's interpretation of conditions revealed through limited investigation conducted within a defined scope of services. Thurber does not accept responsibility for independent conclusions, interpretations, interpolations and/or decisions of the Client, or others who may come into possession of the Report, or any part thereof, which may be based on information contained in the Report. This restriction of liability includes but is not limited to decisions made to develop, purchase or sell land.





NOTES:

- 1. AERIAL IMAGE TAKEN FROM GOOGLE EARTH.

LEGEND:

SITE BOUNDARY



MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE

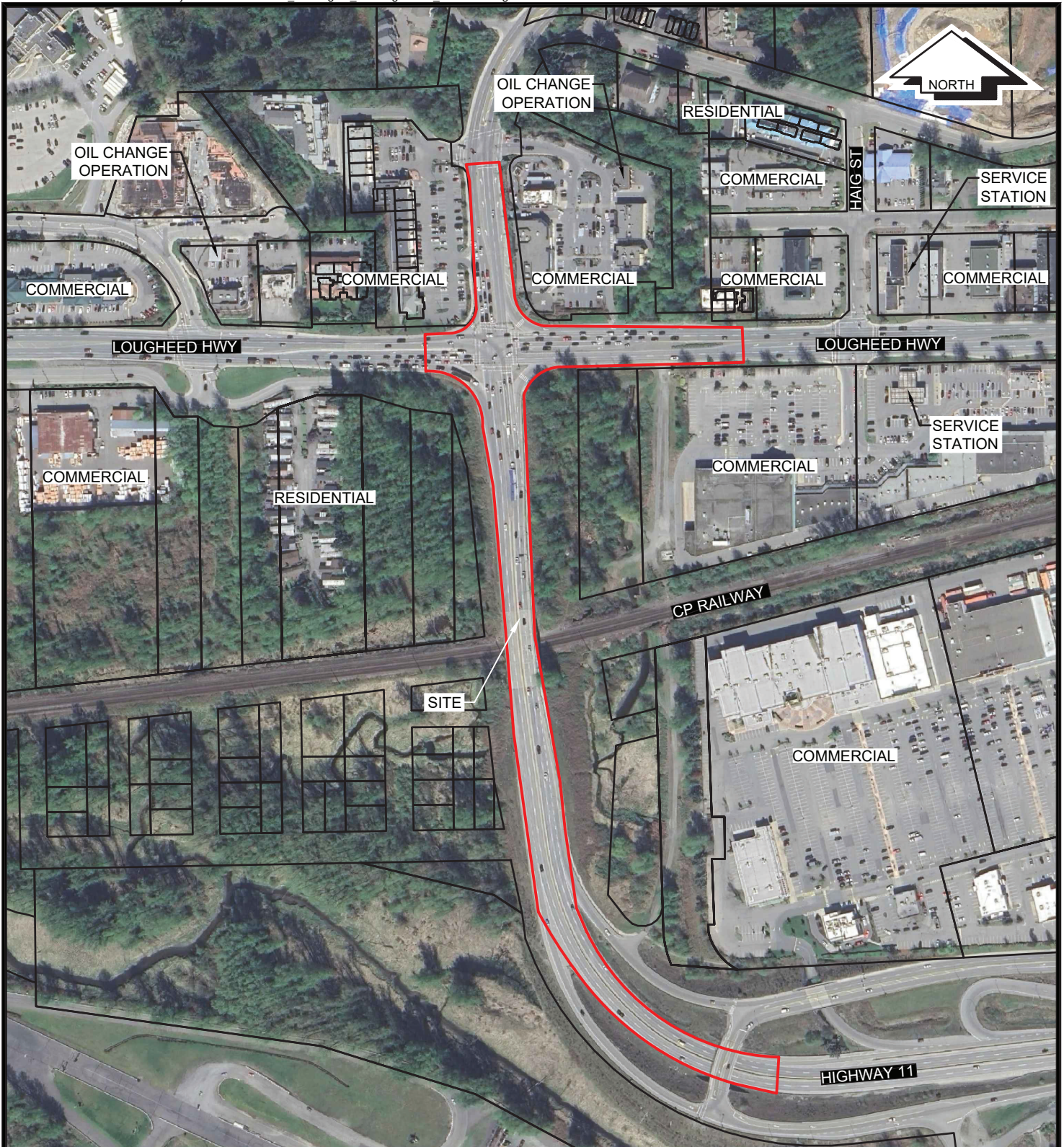
GENERAL SITE LOCATION

LOUGHEED HWY AND HIGHWAY 11

MISSION, BC



DESIGNED CF	DRAWN JL	APPROVED LP	DATE MARCH 6, 2024	SCALE 1:10,000	PROJECT No. 49636	FIGURE NO. 1	REV. 0
----------------	-------------	----------------	-----------------------	-------------------	----------------------	-----------------	-----------



NOTES:

1. AERIAL IMAGE TAKEN FROM GOOGLE EARTH.
2. LOT LINES TAKEN FROM THE CITY OF MISSION OPEN DATA CATALOGUE.

LEGEND:

SITE BOUNDARY



THURBER ENGINEERING LTD.

MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE

SITE AND SURROUNDING LAND USE

LOUGHEED HWY AND HIGHWAY 11

MISSION, BC

DESIGNED CF	DRAWN JL	APPROVED LP	DATE MARCH 6, 2024	SCALE 1:4000	PROJECT No. 49636	FIGURE NO. 2	REV. 0
----------------	-------------	----------------	-----------------------	-----------------	----------------------	-----------------	-----------



Carol Fu

From: BCOLHELP@gov.bc.ca
Sent: March 4, 2024 11:10 AM
To: Carol Fu
Subject: Site Registry Search Results

Site Registry - Area Search

BC Registries and Online Services

These are the records from the Site Registry that match the search criteria provided:

Folio: 49636

Latitude: 49deg 7min 58.5sec

Longitude: 122deg 19min 34.0sec

Radius: 0.5km

Site ID:	Address/City:	Last Updated:
0000004704	32545 LONDON AVENUE, MISSION	2020-01-04
0000005552	32352 LOUGHEED HWY, MISSION	2004-02-09
0000005997	32520 - 32670 LOUGHEED HIGHWAY, MISSION	2018-03-28
0000010713	32290, 32320,32336 LOUGHEED HIGHWAY, MISSION	2016-09-16
0000013370	7324 AND 7366 HURD STREET, MISSION	2012-05-29
0000015554	32588 LOGAN AVENUE, MISSION	2021-10-22
0000016118	RAILWAY ADJACENT 32530 LOUGHEED HIGHWAY, MISSION	2013-12-23
0000017341	LOUGHEED HIGHWAY ROW AT LOGAN AVENUE, MISSION	2018-05-22
0000020111	32270 LOUGHEED HIGHWAY, MISSION	2017-08-24

End of Search Results

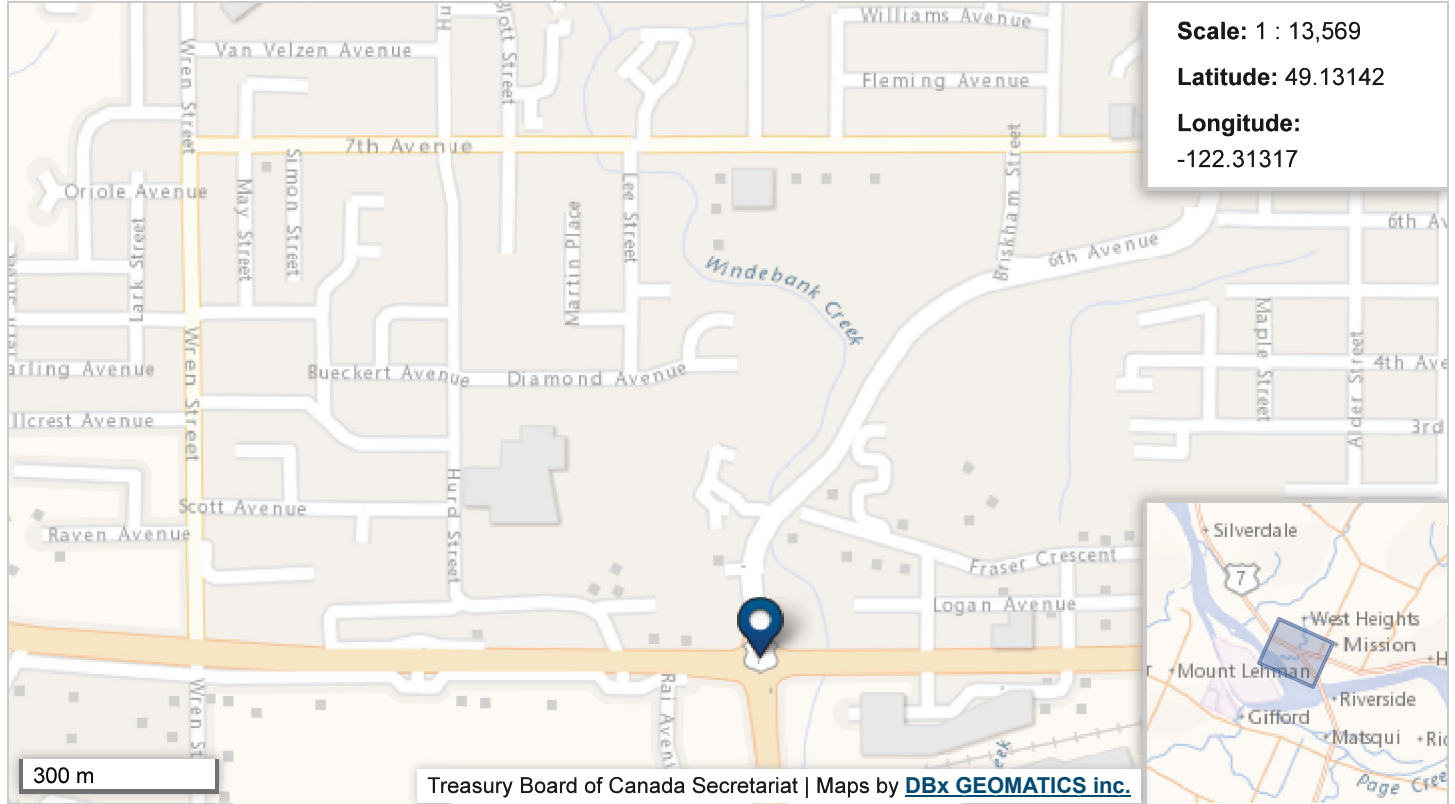
Disclaimer: Site Registry information has been filed in accordance with the provisions of the *Environmental Management Act*. While we believe the information to be reliable, BC Registries and Online Services and the Province of British Columbia make no representation or warranty as to its accuracy or completeness. Persons using this information do so at their own risk.

Treasury Board of Canada Secretariat

[Home](#) > [OCG](#) > [Real Property Management](#) > [FCSI](#) > DFRP/FCSI - Map Navigator

DFRP/FCSI - Map Navigator

Area: Mission **Content:** 0 Federal Property, 0 Federal Building, 0 Federal Contaminated Site



Layers

- ★ Federal Properties
- ★ Federal Buildings
- ● ● Federal Contaminated Sites
- Economic Region
- Census Divisions
- Census Subdivisions
- Metropolitan Areas
- Federal Electoral Districts
- Treaty Areas

¹ This layer is visible only when the map scale is smaller than 1:3,000,000.

² ● Suspected ● Active ● Closed

³ Google base maps are only available when the map scale is smaller than 1:60,000.

IMPORTANT NOTE: The tables below are currently not synchronized with the map content.
Please click on the following button if you want to update the tables content: [UPDATE TABLES](#)

Federal Properties (0) / Parcels (0)

Federal Buildings (0)

Federal Contaminated Sites (0)

No record found.